Appendix D
Biological Technical Report

Biological Technical Report

Renzulli Estates Project
City of San Diego, California
City of San Diego
Project Number 664017

AUGUST 2025

Prepared for:

GREEN PHAIR SCRIPPS PARTNERS LLC
945 East J Street
Chula Vista, California 91910
Contact: Austin Dias

Prepared by:

DUDEK

2280 Historic Decatur Road, Suite 200
San Diego, California 92106
Contact: Vipul Joshi

Table of Contents

SECTION **PAGE NO.**

Acronyms and Abbreviations v

Executive Summary vii

1 Introduction 1
- 1.1 Project Location 1
- 1.2 Project Description 1
- 1.3 Regulatory Setting 2
  - 1.3.1 Federal 2
  - 1.3.2 State 3
  - 1.3.3 Regional 4

2 Survey Methods and Limitations 7
- 2.1 Literature Review 7
- 2.2 Field Reconnaissance 7
  - 2.2.1 Resource Mapping 9
  - 2.2.2 Flora and Fauna 9
  - 2.2.3 Jurisdictional Resource Delineation 9
- 2.3 Focused Surveys for Sensitive Biological Resources 11
  - 2.3.1 Focused Surveys for Special-Status Plants 11
  - 2.3.2 Focused Coastal California Gnatcatcher Surveys 12
  - 2.3.3 Hermes Copper Butterfly Habitat Assessment 12
  - 2.3.4 Crotch's Bumble Bee Habitat Assessment 12
- 2.4 Survey Limitations 13

3 Results 15
- 3.1 Physical Characteristics 15
  - 3.1.1 Topography and Drainage 15
  - 3.1.2 Soils 15
- 3.2 Biological Resources 17
  - 3.2.1 Vegetation Communities and Land Cover Types 17
  - 3.2.2 Floral Diversity 22
  - 3.2.3 Wildlife Diversity 22
  - 3.2.4 Special-Status Plants 23
  - 3.2.5 Special-Status Wildlife 25
  - 3.2.6 Wildlife Corridors and Habitat Linkages 26
  - 3.2.7 Jurisdictional Resource Delineation 27

4 Consistency with the City of San Diego Multiple Species Conservation Program 31

4.1 Project Consistency with Multiple Species Conservation Program Land Use Adjacency Guidelines 32
4.1.1 Drainage 32
4.1.2 Toxics 33
4.1.3 Lighting 33
4.1.4 Noise 33
4.1.5 Barriers 34
4.1.6 Invasives 34
4.1.7 Brush Management 35
4.1.8 Grading/Land Development 35
4.1.9 Area Specific Management Directives 35
4.2 Multiple Species Conservation Program Preserve Boundary Line Adjustment and Habitat Equivalency Assessment 37
4.2.1 Boundary Line Adjustment and Habitat Equivalency Assessment 37
4.2.2 Summary 45
5 Impacts Analysis 47
5.1 Definition of Impacts 47
5.2 Direct Impacts 48
5.2.1 Vegetation Communities and Land Cover Types 48
5.2.2 Jurisdictional Resources 51
5.2.3 Direct Impacts to Special-Status Plants 51
5.2.4 Direct Impacts to Special-Status Wildlife 53
5.3 Indirect Impacts 54
5.3.1 Vegetation Communities and Land Covers 54
5.3.2 Jurisdictional Resources 55
5.3.3 Special-Status Plant Species 55
5.3.4 Special-Status Wildlife Species 55
5.4 Cumulative Impacts 56
6 Mitigation 57
6.1 Vegetation Communities and Jurisdictional Resources 57
6.2 Special-Status Plants 66
6.3 Special-Status Wildlife 73
6.4 Jurisdictional Resources 77
7 Acknowledgments 79
8 References Cited 81

TABLES

1 Schedule of Surveys 8

2 Vegetation Communities and Land Cover Types in the Project Parcel Boundary 17
3 Wetland Sampling Point Summary 27
4A Potential RWQCB-Jurisdictional Wetland Resources in the Project Study Area 28
4B Potential CDFW-Jurisdictional Riparian Habitat/Unvegetated Streambed Resources in the Project Study Area 28
5A MHPA Boundary Line Adjustment Summary 39
5B MHPA Impact Summary 40
6 Direct Impacts to Vegetation Communities and Land Cover Types 49
7 Direct Impacts to Potential Jurisdictional Resources 51
8 Direct Impacts to Special-Status Plants in the Project Study Area 51
9 Mitigation for Direct Impacts to Sensitive Vegetation Communities and Wetlands 59

FIGURES

1 Project Location 85
2 Vegetation Communities and Land Cover Types 87
3 Rare Plants 89
4 CNDDB Occurrences within 1 Mile of the Project Area 91
5 Potential Jurisdictional Resources 93
6A Existing MHPA Boundary 95
6B Areas Proposed for Removal from MHPA through BLA 97
6C Areas Proposed for Addition to MHPA through BLA 99
6D Revised MHPA Boundary Following BLA 101
6E Existing MHPA Boundary (MHPA BLA Only) 103
6F Areas Proposed for Removal from MHPA Through BLA (MHPA BLA Only) 105
6G Areas Proposed for Addition to MHPA Through BLA (MHPA BLA Only) 107
6H Revised MHPA Boundary Following Proposed BLA (MHPA BLA Only 109
7 Post-Project MHPA and Habitat Preservation 111
8 MHPA Biological Resources 113

APPENDICES

A Plant Compendium
B Wildlife Compendium
C Wetland Determination Data Forms and Arid West Ephemeral and Intermittent Stream OHWM Datasheets
D 2020 Focused California Gnatcatcher Survey Report for the Scripps Cypress Pointe Project, City of San Diego, California
E Special-Status Plant Species Potentially Occurring within the Biological Study Area
F Special-Status Wildlife Species Potentially Occurring within the Biological Study Area
G 2021 Focused California Gnatcatcher Survey Report for the BLA Off-site Location

H BLA Off-Site Location: Plant Compendium

I BLA Off-Site Location: Wildlife Compendium

J On-Site Upland Restoration Plan for the Renzulli Estates Project

K On-Site Wetland Restoration Plan for the Renzulli Estates Project

L Long Term Management Plan for the Renzulli Estates Project

M Historic Aerial Imagery

N Report to Hearing Officer – Scripps Ranch Reservoir Slope Repair (October 2013)

O US Fish and Wildlife Service and California Deparment of Fish and Wildlife Joint Letter Regarding Boundary Line Adjustment for the Renzulli Estates Project April 3, 2024

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
amsl	above mean sea level
BLA	boundary line adjustment
BMP	best management practice
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	federal Endangered Species Act
ESL	Environmentally Sensitive Lands
GIS	geographic information system
LUAG	Land Use Adjacency Guidelines
MBTA	Migratory Bird Treaty Act
MHPA	Multi-Habitat Planning Area
MSCP	Multiple Species Conservation Program
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
OHWM	ordinary high water mark
RWQCB	Regional Water Quality Control Board
SWPPP	stormwater pollution prevention plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

INTENTIONALLY LEFT BLANK

Executive Summary

The proposed Renzulli Estates Project (project) would involve developing a new 100-unit single-family subdivision and 12 multifamily units as affordable income rentals on a 40.56-acre parcel at 11495 Cypress Canyon Road (Assessor's Parcel Number 319-020-04-00) in the northeast section of the City of San Diego (City), California, south of Scripps Poway Parkway and north of Spring Canyon Road. The project is located within the Scripps Miramar Ranch Community Planning Area and is within the City's Multiple Species Conservation Program (MSCP) Subarea Plan. A substantial portion of the project currently overlaps with the City's Multi-Habitat Planning Area (MHPA). Therefore, a boundary line adjustment is proposed for all MHPA lands that intersect the project construction footprint (which includes expanded Brush Management Zone 1 area), and new MHPA lands of equal or higher value would be established at a suitable off-site MHPA boundary line adjustment location. Areas of the site currently within the MHPA boundary that would be graded to construct manufactured slopes that would provide structural support to the project construction footprint would be restored with native habitat-forming species suitable for the site and these areas would remain within the MHPA following project completion.

The project consists of the demolition of an existing residence (and all associated structures) on the parcel and subsequent clearing and grading to create suitable pads for the construction of 100 single-family homes and 12 multifamily units. The project also includes associated roads, sidewalks, vegetated stormwater basins, utilities, and landscaping. The construction would be focused on the most disturbed portions of the site, but would extend into native vegetation.

A proposed MHPA boundary line adjustment would ensure that the project would not permanently encroach into the MHPA. While no permanent development or infrastructure would occur within the MHPA, grading and fill activities would occur within the MHPA in order to construct manufactured slope that would remain within the MHPA following project completion. In addition, the majority of the project construction footprint would be directly adjacent to the MHPA boundary. Therefore, the project would be required to comply with the Multiple Species Conservation Program Land Use Adjacency Guidelines.

Dudek biologists conducted a formal wetland delineation, vegetation mapping, focused rare plant surveys, and focused protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*) within the project study area in 2020, 2021, and 2023. The project study area includes the project construction footprint and the remaining areas of the property parcel at 11495 Cypress Canyon Road. A 500-foot buffer around the project construction footprint was assessed via aerial imagery (Google Earth 2020) for adjacency and indirect impacts analysis, but focused surveys were limited to the boundaries of the parcel. As applicable, the project would be required to obtain wildlife agency permit authorization for any impacts to listed species.

Based on species composition and resources observed, six native vegetation communities, six non-native vegetation communities/land cover types, and two wetland communities were mapped within the study area. These included Tier II uplands: Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub; Tier IIIA uplands: southern mixed chaparral (including disturbed); Tier I uplands: scrub oak chaparral; and Tier IV uplands (including communities that do not meet the criteria of wetland due to artificial nature) disturbed habitat, eucalyptus woodland, urban/developed land, *Arundo*-dominated disturbed habitat, emergent wetland, herbaceous wetland (artificial), and natural flood channel.

Field surveys, including focused rare plant surveys, revealed that the study area supports five special-status plant species: Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), San Diego viguiera (*Viguiera [Bahiopsis] laciniata*), San Diego barrel cactus (*Ferocactus viridescens*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), and Nuttall's scrub oak (*Quercus dumosa*). Two special-status wildlife species were detected within the study area during field surveys: Cooper's hawk (*Accipiter cooperii*) and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*). The project would incorporate avoidance, resource protection, and mitigation measures to avoid and minimize project impacts to these species. No coastal California gnatcatcher individuals were detected within the study area during focused protocol surveys in 2020 or during any subsequent biological resource surveys in 2021 or 2023.

The results of a formal wetland delineation concluded that there are potential jurisdictional aquatic resources in the study area that would likely meet the definition of waters of the United States and state, including wetlands, subject to review and regulation by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and/or California Department of Fish and Wildlife. Some of these areas would also be considered wetlands by the City based on a predominance of hydrophytic plant species, in accordance with the City's Biology Guidelines. The project would impact wetland habitat located primarily in the southwest section of the study area as a result of manufactured slope installation.

Implementation of the project would consist of grading, manufactured slope installation, and development of residential housing units with associated infrastructure and would result in direct impacts to Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub, southern mixed chaparral (including disturbed), scrub oak chaparral, disturbed habitat, eucalyptus woodland, urban/developed land, herbaceous wetland (artificial), *Arundo*-dominated disturbed habitat, emergent wetland, and natural flood channel. Direct impacts to Del Mar manzanita, San Diego viguiera, San Diego barrel cactus, Coulter's goldfields, and Nuttall's scrub oak are also proposed. Project impacts would require mitigation, in accordance with the City's Biology Guidelines.

Mitigation measures would ensure all potential impacts to sensitive vegetation communities and special-status plant and wildlife species are reduced to less than significant. All impacted Tier I–IIIA vegetation communities and special-status plant and animal species would be mitigated through a combination of translocation and restoration and preservation of on-site habitats with fee dedication of MHPA lands as well as preservation of habitats at the off-site MHPA boundary line adjustment (BLA) area that would be added to the MHPA preserve. Additional conditions of project approval would be implemented to avoid impacts to sensitive biological resources including biological monitoring by qualified personnel and compliance with the MHPA Adjacency Guidelines. Cooper's hawk, coastal California gnatcatcher, and Crotch's bumble bee *(Bombus crotchii)* nesting avoidance measures would be included as mitigation measures to avoid direct and indirect take, where required. The project is also required, as mitigation, to obtain all required permits from the Regional Water Quality Control Board and California Department of Fish and Wildlife.

1 Introduction

This biological resources technical report (report) provides an analysis of potential biological resource impacts associated with the proposed Renzulli Estates Project (project) located in the Scripps Miramar Ranch Community Planning Area in the City of San Diego, California.

In accordance with the current City of San Diego (City) Biology Guidelines (City of San Diego 2018a), this report provides an introduction, a project description, a summary of the pertinent biological resource regulations, the project setting, survey methods, existing biological resources, special-status biological resources, analysis of the project's consistency with the Multiple Species Conservation Program (MSCP), boundary line adjustment and habitat equivalency assessment, project impacts (direct and indirect), and project mitigation. The project impacts and avoidance and mitigation measures are discussed in accordance with the California Environmental Quality Act (CEQA), Clean Water Act (CWA), Migratory Bird Treaty Act (MBTA), California Fish and Game Code, the City of San Diego Final Multiple Species Conservation Program (MSCP) Subarea Plan (City of San Diego 1997), and the City's Environmentally Sensitive Lands (ESL) Regulations.

1.1 Project Location

The project is located approximately 2.5 miles east of Interstate 15, 0.5 miles south of Scripps Poway Parkway, and 0.1 miles north of Spring Canyon Road in the northeast portion of the City. The project is located on an approximately 40.56-acre parcel located at 11495 Cypress Canyon Road (project parcel; Assessor's Parcel Number 319-020-0400). The project parcel is surrounded by existing residential development, small patches of undeveloped open space, and Cypress Canyon Park to the east (Figure 1, Project Location). An existing residence and associated sheds, storage areas, and dirt roads currently occupy a portion of the study area; with remaining areas undeveloped. The Multi-Habitat Planning Area (MHPA), the hardline preserve developed by the City per the MSCP, intersects a majority of the study area.

1.2 Project Description

The project construction footprint and study area total 40.56-acres, and currently contain an existing single-family residence and several outbuildings. The project would require a vesting tentative map and a site development permit to develop a new 100-unit single-family subdivision and 12 multifamily units as affordable income rentals. All existing buildings would be removed and either developed or restored with native habitat. In addition to the site development permit, the project would also require a community plan land use amendment to change the existing residential designation of 1.1 dwelling units per acre to 2.8 dwelling units per acre. A re-zone is also proposed to change the existing AR-1-1 zone to RX-1-2, OR-1-2, and RM-2-4. In addition, the project is located in the high fire severity overlay zone. Finally, the project would also require an MHPA BLA and vacation of a street easement on the proposed MHPA BLA addition site as part of this development proposal (i.e., Lakehurst Avenue – not yet built).

The project would include infrastructure improvements on the parcel, including installation of utilities, a private storm drain system, and internal sidewalks and roads. Impacts would occur from clearing, grading, and manufactured fill and slope creation for development of the residential pads, subdivision and associated features and infrastructure.

1.3 Regulatory Setting

1.3.1 Federal

National Environmental Policy Act

The National Environmental Policy Act (NEPA) established a national policy for protection of the environment. The objectives of NEPA are "to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality" (42 USC 4321). To assist federal agencies in fulfilling the goals and effectively implementing the requirements of NEPA, in 1978 the Council on Environmental Quality issued regulations for implementing the procedural aspects of NEPA (Title 40 Code of Federal Regulations Parts 1500–1508).

Sensitive Species Protection

Federal Endangered Species Act

The federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. Under provisions of Section 9 (16 USC 1538[a][1][B]) of the ESA, it is unlawful to take any listed species. "Take" is defined in Section 3 (16 USC 1532[19]) of the ESA as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The ESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. "Incidental take" is defined as "take that results from, but is not the purpose of, carrying out an otherwise lawful activity" (USFWS 2019a). Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

Migratory Bird Treaty Act

The MBTA (16 USC 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; the species are listed in Title 50 of the Code of Federal Regulations Part 10.13. The regulatory definition of "migratory bird" is broad and includes any mutation or hybrid of a listed species, and also includes any part, egg, or nest of such birds (Title 50 Code of Federal Regulations 10.12). Migratory birds are not necessarily federally listed endangered or threatened birds under the ESA.

The MBTA prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities (16 USC 703 et seq.). In December 2017, Department of Interior Principal Deputy Solicitor Jorjani issued a

memorandum (M-37050) that interprets the MBTA to only prohibit intentional take. Similarly, the Ninth Circuit Court of Appeals, like the Fifth Circuit and the Eighth Circuit, has held that the MBTA applies only to intended takes (see *Seattle Audubon Soc'y v. Evans*, 952 F.2d 297, 303 [9th Cir. 1991]). Unintentional or accidental take is not prohibited. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 Federal Register 3853–3856). The executive order requires federal agencies to work with USFWS to develop a memorandum of understanding to promote the conservation of migratory bird populations. USFWS reviews actions that might affect these species. Compliance with this federal regulation is assumed; therefore, it is not considered in the remaining sections of this report.

Federal Wetland Regulation

Federal wetland regulation applicable to the project is guided by the Clean Water Act. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the United States. Permitting for projects that propose dredge and fill activities in waters of the United States (including wetlands) is overseen by U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA. Projects are typically permitted on an individual basis or are covered under one of several approved general or nationwide permits. In addition, under Section 401 of the CWA, an applicant for a federal permit for an activity that may result in a discharge to a water body must obtain certification from the state that the proposed activity would comply with state water quality standards and water quality objectives. Section 401 provides the Regional Water Quality Control Board (RWQCB) with regulatory authority to certify or deny the proposed activity. A Section 401 Certification must be obtained from the RWQCB prior to issuance of a 404 Permit by USACE.

U.S. Army Corps of Engineers

Pursuant to Section 404 of the CWA, USACE regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters) is defined in Title 33 of the CFR Section 328.3(b) 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. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(e).

1.3.2 State

California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on sensitive biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or . . . [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used

in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

California Fish and Game Code

Under the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) provides protection from take for a variety of species, including fully protected species. "Fully protected" is a legal protective designation administered by CDFW intended to conserve wildlife species that risk extinction within California. Lists have been created for birds, mammals, fish, amphibians, and reptiles.

According to Sections 3511 and 4700 of the California Fish and Game Code, which regulate birds and mammals, respectively, a fully protected species may not be taken or possessed without a permit from the California Fish and Game Commission, and incidental takes of these species are not authorized.

According to Section 3503, 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. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Finally, Section 3513 states that is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

For the purposes of these state regulations, CDFW currently defines an active nest as one that is under construction or in use and includes existing nests that are being modified. For example, if a hawk is adding to or maintaining an existing stick nest in a transmission tower, then it would be considered to be active and covered under these California Fish and Game Code sections. Compliance with these state regulations is assumed; therefore, they are not considered in the remaining sections of this report.

1.3.3 Regional

City of San Diego Multiple Species Conservation Program Subarea Plan

Within the City of San Diego, the MSCP is implemented through the City of San Diego MSCP Subarea Plan (Subarea Plan) (City of San Diego 1997). The Subarea Plan encompasses 206,124 acres within the MSCP study area. The Subarea Plan area is characterized by urban land uses, with approximately three-quarters of the area either built out or retained as open space/park system. The project study area is located within the Urban Area of the Subarea Plan.

The MSCP established an MHPA preserve system designed to conserve large blocks of interconnected habitat having high biological value. The City MHPA is a hardline preserve developed by the City in cooperation with USFWS and CDFW, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). The MHPA is considered an urban preserve that is constrained by existing or approved development, and is composed of habitat linkages connecting several large core areas of habitat. The criteria used to define core and

linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside the MSCP, either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core areas are conserved in a functional manner, with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997). Urban habitat areas within the MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon Open Space Park, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek, and a variety of smaller canyon systems. The Eastern area includes East Elliott and Mission Trails Regional Park.

The MHPA overlaps with more than 75 percent of the total property parcel area and also extends to adjacent lands outside the parcel boundary. The adjacent MHPA habitat in the areas surrounding the parcel is composed of various non-linear patches that overlap with existing residential development in some sections.

City of San Diego Biology Guidelines

The City's Development Services Department developed the Biology Guidelines presented in the Land Development Manual "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations, San Diego Land Development Code (LDC), Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018a). The Biology Guidelines also provide standards for the determination of impact and mitigation under CEQA and the USFWS Candidate Conservation Agreement. Sensitive biological resources, as defined by the ESL Regulations, include lands within the MHPA, as previously discussed, as well as other lands outside the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA, or IIIB; habitat for rare, endangered, or threatened species; or narrow endemic species.

The City's definition of wetlands is broader than the definition applied by the U.S. Army Corps of Engineers (USACE. The City uses the criteria listed in Section 320.4(b)(2) of the USACE General Regulatory Policies (Title 33 Code of Federal Regulations Parts 320–330) to apply an appropriate buffer around wetlands that serves to protect the function and value of the wetland. Guidelines that supplement the development regulation requirements described in this section are provided in the City's Biology Guidelines (City of San Diego 2018a). The informal jurisdictional delineation surveyed the entire study area and included a survey of a 100-foot buffer surrounding existing potential wetland habitat. According to the City's Biology Guidelines, a wetland buffer is an area surrounding a wetland that helps protect the function and value of the adjacent wetland by reducing physical disturbance, provides a transition zone where one habitat phases into another, and acts to slow floodwaters for flood and erosion control, sediment filtration, water purification, and groundwater recharge. The width of the buffer is determined by factors such as type and size of development, sensitivity of the wetland resource to edge effects, topography, and the need for upland transition (City of San Diego 2018a).

The San Diego Municipal Code also ranks upland habitat values by rarity and sensitivity. The most sensitive habitats are Tier I, and the least sensitive are Tier IV. The varying mitigation ratios and requirements that mitigation be either in tier or in kind are based on the sensitivity of the habitat being affected. The project site includes Tier I through IIIA habitats as well as Tier IV.

INTENTIONALLY LEFT BLANK

2 Survey Methods and Limitations

Data regarding biological resources present were obtained through a review of pertinent literature and field reconnaissance, both of which are described in detail in this chapter. The study area is composed of all areas that fall within the project parcel and project construction footprint. In addition, a 500-foot buffer around the project construction footprint was determined appropriate to investigate in order to demonstrate the isolated nature of the project parcel and indirect impacts analysis. However, focused surveys were limited to the boundaries of the project parcel.

2.1 Literature Review

The following data sources were reviewed to assist with the biological resources analysis:

- U.S. Department of Agriculture Web Soil Survey (USDA 2020a)
- CDFW California Natural Diversity Database – Special Animals List (CDFW 2020a)
- CDFW California Natural Diversity Database – RareFind, Version 5 (CDFW 2020b)
- The Calflora Database (Calflora 2020)
- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2020)
- Bumble Bees of North American Occurrence Database (Richardson 2023)
- MSCP Subarea Plan (City of San Diego 1997)
- San Diego Municipal Code, Land Development Code—Biology Guidelines (City of San Diego 2018a)
- USFWS Species Occurrence Data (USFWS 2019b)
- San Diego County Plant Atlas (SDNHM 2012)
- SanGIS Parcel Lookup Tool and Geographic Boundary Viewer from the San Diego Association of Governments (SANDAG 2020)
- Aerial imagery (Google Earth 2020)

2.2 Field Reconnaissance

Biological field surveys for the project area were conducted in 2020, 2021, and 2023 by Dudek biologists. Surveys conducted included a jurisdictional delineation, vegetation mapping, focused rare plant surveys, a Hermes copper butterfly (*Lycaena hermes*) habitat assessment and protocol-level focused surveys for coastal California gnatcatcher (*Polioptila californica californica*). Table 1 lists the survey dates, times, surveying biologists, and weather conditions during the surveys. All biological surveys were conducted in accordance with the City's Guidelines for Conducting Biological Surveys (Appendix II of City of San Diego 2018a).

Table 1. Schedule of Surveys

Date	Time	Personnel	Survey Type	Conditions
04/02/2020	9:15 a.m.–4:45 p.m.	Cody Schaaf	Jurisdictional Delineation	57°F–69°F, 90%–0% cc, 0–3 mph winds
06/01/2020	9:20 a.m.–12:45 p.m.	Jeffrey Priest	Hermes Copper Habitat Assessment	75°F–82°F, 60%–50% cc, 1–4 mph winds
06/03/2020	7:00 a.m.–3:00 p.m.	Scott Mcmillan	Rare Plants– Pass 1	78°F–90°F, 50%–0% cc, 0–5 mph winds
06/05/2020	7:55 a.m.–12:55 p.m.	Laura Hernandez, Patricia Schuyler	Jurisdictional Delineation, Vegetation Mapping	61°F–70°F, 100%–90% cc, 0–3 mph winds
07/22/2020	7:00 a.m.–11:00 a.m.	Scott Mcmillan	Rare Plants – Pass 2	74°F–82°F, 75%–10% cc, 0–4 mph winds
08/07/2020	7:00 a.m.–10:30 a.m.	Paul Lemons	California Gnatcatcher – Pass 1	65°F–75°F, 0% cc, 1–5 mph winds
08/14/2020	7:20 a.m.–10:40 a.m.	Paul Lemons	California Gnatcatcher – Pass 2	67°F–80°F, 0% cc, 0 mph winds
08/17/2020	7:00 a.m.–11:00 a.m.	Scott Mcmillan	Rare Plants– Pass 3	72°F–80°F, 50%–10% cc, 1–5 mph winds
08/21/2020	7:40 a.m.–10:30 a.m.	Paul Lemons	California Gnatcatcher – Pass 3	73°F–79°F, 60%–40% cc, 1–6 mph winds
02/10/2021	12:15 p.m.–2:45 p.m.	Scott Gressard, Priscilla Hare	BLA Off-Site Parcel Bio Reconnaissance Survey	62°F–65°F, 80%–45% cc, 1–9 mph winds
04/19/2021	5:45 a.m.–9:45 a.m.	Jeff Priest	BLA Off-Site Parcel: California Gnatcatcher – Pass 1	54°F–74°F, 0% cc, 0–4 mph winds
05/02/2021	5:20 a.m.–9:15 a.m.	Jeff Priest	BLA Off-Site Parcel: California Gnatcatcher – Pass 2	57°F–58°F, 100% cc, 0–3 mph winds
05/09/2021	5:16 a.m.–9:13 a.m.	Jeff Priest	BLA Off-Site Parcel: California Gnatcatcher – Pass 3	57°F–61°F, 100% cc, 1–3 mph winds
09/21/2021	8:00 a.m.–12:30 p.m.	Scott McMillan, Erin McKinney	Vegetation Mapping, Habitat Assessment and Rare Plant Update; Restoration Site Analysis	70°F–75°F, 30%–45% cc, 1–5 mph winds
02/02/2023	12:05 p.m.–1:30 p.m.	Scott Gressard, Dylan Ayers	Vegetation Mapping and Jurisdictional Delineation Update	68°F–69°F, 10%–25% cc, 1–6 mph winds

Notes: °F = degrees Fahrenheit; cc = cloud cover; mph = miles per hour.

2.2.1 Resource Mapping

Vegetation communities and land covers within the study area were mapped in the field using an ArcGIS mobile application (Esri 2020). Once in ArcGIS, the acreage of each vegetation community and land cover present within the study area was determined. Some resource mapping updates were conducted using an unmanned aerial vehicle (UAV) to create an up-to-date aerial image reference of current resource limits and indicators.

As directed in the City's Biology Guidelines (City of San Diego 2018a), the vegetation community and land cover mapping follows the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County of San Diego (County) and noted in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Some vegetation communities were given additional descriptions by Dudek biologists to identify highly dominant species within the community. These habitats were then cross-walked to their corresponding community in the City's Biology Guidelines (City of San Diego 2018a).

2.2.2 Flora and Fauna

All plant species encountered during field surveys were identified and recorded directly in a field notebook. Those species that could not be identified immediately were brought into the laboratory for further investigation. A compiled list of plant species observed in the project study area is presented in Appendix A, Plant Compendium. Latin and common names for plant species with a California Rare Plant Rank (CRPR) follow the California Native Plant Society Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2020). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2019) and common names follow the California Natural Community List (CDFW 2020c) or the U.S. Department of Agriculture PLANTS Database (USDA 2020b).

All wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly in a field notebook. Binoculars (10 × 50 magnification) were used to aid in the identification of wildlife. Latin and common names of any animals detected follow Crother (2017) for reptiles and amphibians, American Ornithological Society (AOS 2018) for birds, Wilson and Reeder (2005) for mammals, and North American Butterfly Association (NABA 2016) or SDNHM (2002) for butterflies. In addition to species actually detected during the surveys, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. A list of wildlife species observed in the study area is presented in Appendix B, Wildlife Compendium.

2.2.3 Jurisdictional Resource Delineation

Dudek biologists completed a formal wetland delineation in April 2020 that delineated the extent of potential jurisdictional resources in the study area and these extents were updated during follow-up surveys conducted in February 2023. The delineation defined areas under the jurisdiction of CDFW pursuant to Sections 1600–1603 of the California Fish and Game Code, under the jurisdiction of USACE pursuant to Section 404 of the federal CWA, under the jurisdiction of the Regional Water Quality Control Board pursuant to CWA Section 401 and the Porter–Cologne Water Quality Control Act, and wetlands defined under the City's Biology Guidelines (City of San Diego 2018a).

Specifically, the methodology used for each jurisdiction or regulating agency, including USACE, CDFW, RWQCB, and the City, is described as follows: The USACE wetlands delineation was performed in accordance with the USACE Wetlands Delineation Manual (USACE 1987), the Regional Supplement to the Corps of Engineers Wetland

Delineation Manual: Arid West Region (USACE 2008), Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2010). Interpretation of jurisdiction is based on the final "Revised Definition of Waters of the United States" rule, as amended to conform with Sackett vs. Environmental Protection Agency (USACE and EPA 2023). USACE and RWQCB jurisdiction, pursuant to the federal CWA, includes all areas supporting three-parameter wetlands criteria described in the USACE manual: hydric soils, hydrology, and hydrophytic vegetation. RWQCB may also take jurisdiction over additional waters of the state pursuant to the Porter–Cologne Water Quality Control Act based on the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2019). Waters of the state may include areas that meet both current and historic USACE-jurisdictional definitions, including ephemeral waters and isolated wetlands. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

Section 114 of the San Diego Municipal Code describes specific development regulations pertaining to sensitive biological resources, including wetlands. The City's definition of wetlands is broader than the definition applied by USACE. The City regulates "wetlands" as defined in the City's Biology Guidelines (City of San Diego 2018a). The intention of the definition is to differentiate uplands from wetlands. Under the City's definition, wetlands can include vegetation communities such as freshwater marsh, riparian forest, riparian scrub, or vernal pools. They may also include areas that have hydric soil or wetland hydrology, but human activities have resulted in a lack of hydrophytic vegetation (e.g., channelized streambeds) or recurring natural events. However, according to the Biology Guidelines (City of San Diego 2018a):

> Seasonal drainage patterns that are sufficient enough to etch the landscape (i.e., ephemeral/ intermittent drainages) may not be sufficient enough to support wetland dependent vegetation. These types of drainages would not satisfy the City's wetland definition unless wetland dependent vegetation is either present in the drainage or lacking due to past human activities. Seasonal drainage patterns may constitute "waters of the United States," which are regulated by the Army Corps of Engineers and/or the California Department of Fish and Game.

The Biology Guidelines (City of San Diego 2018a) further state that:

> Areas that contain wetland vegetation, soils or hydrology created by human activities in historically non-wetland areas do not qualify as wetlands under this definition unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Wildlife.

Collectively, areas under the jurisdiction of one or all of the resource agencies (USACE, RWQCB, and CDFW), and/or the City are termed "jurisdictional resources."

To assist in the determination of jurisdictional areas on site, data were collected at nine locations (i.e., wetland determination points) using Wetland Determination Data Forms and five locations using Arid West Ephemeral and Intermittent Stream OHWM Datasheets (Appendix C). Hydrology, vegetation, and soils were assessed and data were collected and captured on approved USACE forms. The locations of data stations were collected using a Trimble GeoXT handheld GPS unit with sub-meter accuracy. Historical aerial photographs of the site (Historical Aerials Online 2020) and a previous permit for repair of erosion caused by an offsite water tank discharge (City of San Diego 2013) were referenced to assist with understanding historic human activities in the area that may have affected the expression of wetland characteristics. Potentially jurisdictional areas were digitized in a geographic information

system (GIS) based on the GPS data collected in the field and data collected directly onto field maps into a project-specific GIS using ArcGIS software.

2.3 Focused Surveys for Sensitive Biological Resources

Sensitive biological resources are those defined by the City's Biology Guidelines (City of San Diego 2018a) as follows: (1) lands that have been included in the MHPA as identified in the Subarea Plan (City of San Diego 1997); (2) wetlands (as defined by the Municipal Code, Section 113.0103); (3) lands outside the MHPA that contain Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the City's Biology Guidelines (City of San Diego 2018a); (4) lands supporting species or subspecies listed as rare, endangered, or threatened; (5) lands containing habitats with narrow endemic species; and (6) lands containing habitats of covered species as listed in the City's Biology Guidelines (City of San Diego 2018a).

Additionally, sensitive biological resources are defined as follows: (1) species that have been given special recognition by federal, state, or local agencies and organizations due to limited, declining, or threatened population sizes; (2) habitat types recognized by local and regional agencies as sensitive; (3) habitat areas or plant communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; and (4) wildlife corridors and habitat linkages. Sources used for determination of sensitive biological resources are as follows: for plants, USFWS (2019b), CDFW (2020a, 2020c), and California Native Plant Society (CNPS 2020); for wildlife, USFWS (2019b) and CDFW (2020b, 2020c); and for plant communities, the Subarea Plan (City of San Diego 1997) and the City's Biology Guidelines (City of San Diego 2018a).

Dudek and/or other qualified biologists conducted surveys and/or habitat assessments for the following sensitive biological resources: surveys for sensitive upland and wetland (i.e., jurisdictional) vegetation communities, focused surveys for sensitive plants, focused protocol surveys for coastal California gnatcatcher, and a habitat assessment for Hermes copper butterfly. Incidental detections of other sensitive wildlife species, either through sight, calls, tracks, scat, or other signs, were also recorded. A summary of the dates and site conditions for the field efforts performed as part of this biological report are presented in Table 1 in Section 2.2, Field Reconnaissance. The following sections provide specific details regarding each survey type.

2.3.1 Focused Surveys for Special-Status Plants

Focused surveys for special-status plant species were conducted in early June, late July, and mid-August 2020 by Dudek Biologist Scott McMillan and an update survey pass was also conducted in September 2021 to confirm the results of these surveys (Table 1). In 2020, Dudek biologists conducted three survey passes in the project study area to capture species during their respective blooming periods. Prior to field surveys, available modeled habitat data and distribution information for sensitive plant species potentially occurring within the project area were reviewed. The same modeled data and distribution information was reviewed prior to the update survey pass conducted in 2021 as well.

Field survey methods and mapping of sensitive plants generally conformed to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001) and General Rare Plant Survey Guidelines (Cypher 2002). Special-status plant observations were mapped in the field using an ArcGIS mobile application (Esri 2020) or were mapped directly onto an aerial field map to record the location of special-status plant populations. Other survey information (e.g., survey conditions and a complete list of all observed plant species) was collected using a mobile application.

The special-status plant observations were then digitized into the geodatabase by a Dudek GIS technician using ArcGIS software.

The results of the surveys are further discussed in Section 3.2.4, Special-Status Plants, of this report.

2.3.2 Focused Coastal California Gnatcatcher Surveys

The coastal California gnatcatcher is a federally listed threatened species, a CDFW Species of Special Concern, and an MSCP-covered species. Focused surveys for coastal California gnatcatcher were conducted by permitted Dudek Biologist Paul Lemons (Permit No. TE051248) in August 2020 within the project study area and by permitted Dudek Biologist Jefferey Priest (Permit No. TE840619-6) in April/May 2021 within the off-site MHPA BLA parcel (Table 1).

All coastal California gnatcatcher surveys were conducted pursuant to the accepted protocol, the USFWS Coastal California Gnatcatcher Presence/Absence Survey Protocol (USFWS 1997). The project construction footprint and study area are both entirely with the Subarea Plan area; thus, the survey included three separate visits at a minimum of 7-day intervals. The entire project study area was covered on foot during each survey visit for 100% visual and auditory coverage of the survey area. A tape of recorded gnatcatcher vocalizations was played approximately every 75–100 feet to induce responses from potentially present gnatcatchers. Tape playback was terminated immediately upon detection of any gnatcatchers to minimize the potential for harassment. A 250-scale (1 inch = 250 feet) aerial photograph of the site overlaid with the study area and a vegetation map was used to identify suitable habitats and map any gnatcatchers detected. Binoculars (10 × 50 magnification) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers (Table 1).

The results of the surveys are discussed further in Section 3.2.5.1, Coastal California Gnatcatcher Focused Survey Results, of this report and further details are provided in Appendices D and H. The focused surveys within the project study area were conducted more than 24 months before this report was finalized, therefore results are provided here as a reference and the necessary presence assumptions have been made in subsequent sections. Since no impacts are proposed at the MHPA BLA site, no update surveys were conducted at that location.

2.3.3 Hermes Copper Butterfly Habitat Assessment

Hermes copper butterfly is not a covered species under the MSCP, but is federally threatened. Dudek mapped suitable Hermes copper butterfly habitat in accordance with the County of San Diego Guidelines for Hermes Copper (*Lycaena hermes*) (Appendix B of County of San Diego 2010). Within the study area, Dudek biologists conducted a focused search for redberry buckthorn (*Rhamnus crocea*) occurring within 15 feet of Eastern Mojave (California) buckwheat (*Eriogonum fasciculatum*) in June 2020, per County guidelines, with an update survey assessment also conducted in September 2021.

The results of the surveys are discussed further in Section 3.2.5.2, Hermes Copper Butterfly Habitat Assessment Results, of this report.

2.3.4 Crotch's Bumble Bee Habitat Assessment

Crotch's bumble bee (*Bombus crotchii*) is not a covered species under MSCP, but is a candidate for listing under the California Endangered Species Act (CESA). Dudek completed a desktop habitat assessment following the *Survey*

Consideration for CESA Candidate Bumble Bee Species (CDFW 2023) including reviewing historic occurrences of the species, assessing general plant diversity, and the potential for nesting resources such as bare ground, rodent burrows, thatched grasses, brush piles, rock piles, and fallen logs.

2.4 Survey Limitations

Site visits were conducted during daylight hours. Complete inventories of biological resources present on a site often require numerous focused surveys at different times of day during different seasons. Some species, such as annual plants, may only be observable in the early spring, and nocturnal animals are difficult to detect during the day. Other species may be present in such low numbers that they could be missed. Due to such timing and seasonal variations, survey results may not represent an absolute list of all species that the study area could support. Special-status plant and wildlife species with potential to occur in the study area are described in Sections 3.2.4 and 3.2.5 of this report and in Appendices E and F.

INTENTIONALLY LEFT BLANK

3 Results

3.1 Physical Characteristics

The physical characteristics and quantification of biological resources described herein pertain to the study area. The physical characteristics are analyzed in the following sections.

3.1.1 Topography and Drainage

Topography varies greatly throughout the study area, but is generally steep and hilly, with lowland canyon bottoms in the southern and northern portion of the project parcel; these areas receive much of the runoff from the surrounding hills and support wetland vegetation or drainages. A generally flat mesa exists in the center of the parcel, where the existing main residence is located (Figure 2). The elevation in the study area ranges from approximately 760 feet to 980 feet above mean sea level (amsl).

Current land uses within and immediately surrounding the study area include existing single-family residential development, Cypress Canyon Park, Spring Canyon Road and other neighborhood streets, sidewalks, and traffic (vehicle and pedestrian), as well as native and disturbed habitat in the canyons between developed residential areas (Figure 2).

3.1.2 Soils

According to the U.S. Department of Agriculture Web Soil Survey (USDA 2020a), two soil types, including Redding cobbly loam (dissected, 15% to 50% slopes) and Riverwash, are mapped within the study area.

Redding soils are on nearly level or dissected fan remnants. Microrelief may be hummocky. Gravel and cobbles tend to concentrate in the swales in hummocky areas. Vernal pools are common in areas with slopes of 0% to 3%. These soils formed in alluvium of mixed rocks (Bowman 1973).

Riverwash is not described in depth in the San Diego Soil Survey (Bowman 1973) but is known to be composed of alluvium, gravel, cobble, and rocks associated with historical drainages or watercourses.

A section of the existing project site near the center of the project construction footprint east of the existing residence consists of manufactured slopes that are landform graded and fill material placed (AGS 2020).

A site-specific geotechnical study was also conducted by Advanced Geotechnical Solutions Inc. in 2020 and provided additional details on the substrates present. The site was determined to support the following major soil and bedrock units (AGS 2020):

- Artificial Fill – Undocumented. Undocumented fill soils form the level pad east of the existing residence. During development of areas adjacent to the project parcel, “dump” materials were placed within the north central canyon area intermittently over several years. These materials included construction debris and miscellaneous export from nearby grading projects in the Scripps Ranch and surrounding areas. Site reconnaissance and subsurface exploration indicate a maximum fill thickness of 98 feet. The fills encountered in borings taken in these areas within the study area typically consisted of poorly compacted

material including silty sands, clayey sands and sandy clays with gravel and cobbles, oversize rock, and pockets of construction demolition materials including large concrete debris, crushed asphalt pavement, oil-stabilized sand and gravel, rebar, wood, and organic waste. Other minor undocumented fill areas are present across the site and were used to construct the existing building pads and roads. These fill areas appear to be derived from on-site excavations into native materials. Undocumented fill soils are not suitable to support proposed structures and improvements in their present condition and require removal and/or recompaction in areas to receive improvements or artificial fill. A significant screening operation will be necessary during excavation operations to remove and segregate unsuitable debris and over-sized material excavated from the central "dump" fill mass. Crushing of oversize materials for reuse in the shallow portion of fills is anticipated during project construction.

- Artificial Fill – Engineered. Conditions indicate that engineered fill was placed in the north central canyon area under the observation and testing of Pacific Soils Engineering (1996 [as cited in AGS 2020]). However, the subject grading report was not available for review to verify the fill condition. These fills are estimated to reach a maximum thickness of 45 feet at the northern end of the property and may exceed 20 feet in thickness where the engineered canyon fill abuts the toe of the undocumented "dump" fill slope. The engineered fill typically consists of tan, medium dense to dense, clayey sands with gravel and cobbles to 20 feet depth underlain by very dense to hard, dark brown, clayey sand and sandy clay with gravel.

  Left-in-place surficial deposits were encountered during the geotechnical study (AGS 2020) underlying the fill along the walls of the filled north central canyon. Based on observations, the upper 5 to 8 feet of the engineered documented fills are weathered and will require removal and recompaction. In addition, deeper removals of left-in-place deposits will be required during project construction along the walls of the filled canyon.
- Colluvium. Colluvium occurs in localized areas on mid- to lower northern canyon slopes. Colluvial soils are derived from erosion of the adjacent formational units and subsequent deposition by sheet flow and gravitational processes. Colluvium generally consists of relatively loose clayey sands, silty sands, and clays that are subject to creep and excessive settlement under fill or foundation loads. Because of the poor exposures of this unit, the thickness of these soils is not known but may be on the order of 5 feet or more in some areas.
- Alluvium. Alluvium, consisting of relatively loose, stream-deposited sands and clayey sands that may reach a thickness of 10 to 20 feet is present at the bottom of the small reservoir located in the southern portion of the site. Alluvial soils are not suitable for support of proposed structures or artificial fill in their present condition and require removal and/or recompaction. It our understanding alluvium was removed from the north canyon bottom prior to filling under the observation of Pacific Soils Engineering (1996 [as cited in AGS 2020]). However, this report was not available for the project team to review. Future studies should determine the limits of the previous removals that were performed in this canyon area.
- Slope Wash. Most of the undisturbed canyon wall terrain is overlain with a thin veneer of natural ground slope wash. These materials typically range from approximately 1 to 3 feet in thickness and consist primarily of dark reddish brown, loose, silty sand with gravel and cobbles. Slope wash materials are not suitable for support of proposed structures or artificial fill in their present condition and require removal and/or recompaction.
- Questionable Landslide. A small possible or questionable landslide near the base of the canyon slope in the northwestern portion of the study area was queried by the previous geotechnical consultant (C.W. La Monte 2005 [as cited in AGS 2020]). The feature is located outside of the proposed development area and lacks geomorphic evidence indicative of a deep seated landslide. Because of the relatively

small size of this feature and poor access, it was not verified by trenching or drilling and will be assessed during grading.

- **Residual Soil.** The formational materials described below are mantled with an intermittent layer of residual soil. The residuum ranges from about 1 to 5 feet in thickness and consists of dark brown, firm to stiff, sandy clay. Residual soils are highly expansive and require removal and/or recompaction for support of proposed structures or artificial fill.

3.2 Biological Resources

The following discussion describes the existing biological conditions within the study area, provided as biological resource descriptions.

3.2.1 Vegetation Communities and Land Cover Types

The vegetation communities and land covers were mapped according to Holland (1986) and Oberbauer et al. (2008), with a few exceptions. Some vegetation communities were given additional descriptions to identify highly dominant species within the community. These habitats were then cross-walked to their corresponding communities listed in the City's Biology Guidelines (City of San Diego 2018a). Six native vegetation communities, six non-native vegetation communities/land cover types, and two wetland communities were mapped within the project parcel boundary. These included Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub, southern mixed chaparral (including disturbed), scrub oak chaparral, emergent wetland, natural flood channel, disturbed habitat, eucalyptus woodland, developed land, *Arundo*-dominated disturbed habitat, and herbaceous wetland (artificial).

The vegetation communities and land cover types recorded on the project parcel are described in detail in the following subsections, their acreages are presented in Table 2, and their spatial distributions are presented on the Vegetation Communities and Land Cover Types map (Figure 2). The majority of these communities also are present outside the project parcel boundary, but were not included here since they are not within the lands owned by the project applicant. Also included in Table 2 are the sensitivity designations of each vegetation community according to the Tiers described in the City's Biology Guidelines (City of San Diego 2018a).

Table 2. Vegetation Communities and Land Cover Types in the Project Parcel Boundary

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Acreage
Native Vegetation Communities			
Diegan coastal sage scrub (including disturbed)	Coastal sage scrub	II	4.60
Diegan coastal sage scrub (*Baccharis*-dominated)	Coastal sage scrub	II	0.11
Coastal sage–chaparral transition	Coastal sage scrub/chaparral	II	4.08
Flat-topped buckwheat scrub	Coastal sage scrub	II	2.41
Southern mixed chaparral (including disturbed)	Mixed chaparral	IIIA	12.25
Scrub oak chaparral	Scrub oak chaparral	I	2.46

Table 2. Vegetation Communities and Land Cover Types in the Project Parcel Boundary

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Acreage
Non-Native Vegetation Communities and Land Covers			
Disturbed habitat	Disturbed land	IV	6.96
Eucalyptus woodland	Eucalyptus woodland	IV	3.58
Urban/developed land	Disturbed land	IV	2.34
Arundo-dominated disturbed habitat	Disturbed land	IV	0.74
Wetlands, including Non-Wetland Waters of the United States and State			
Emergent wetland (artificial)	Freshwater marsh	IV	0.41
Herbaceous wetland (artificial)	Disturbed land	IV	0.42
Natural flood channel	Disturbed land	IV	0.20
		Total	**40.56**

Notes:
[a] City of San Diego 2018a.

3.2.1.1 Diegan Coastal Sage Scrub (Including Disturbed)

Diegan coastal sage scrub is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as coastal sagebrush (*Artemisia californica*), California buckwheat, and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Coastal sage scrub in the study area consists of coastal sagebrush, black sage (*Salvia mellifera*), and Nuttall's scrub oak (*Quercus dumosa*). Coastal sage scrub is present in moderately sized patches in the north and northwest section of the project parcel and in two small patches in the southern area. Some of the patches in the northern area of the project parcel, north of the existing residence, are considered disturbed due to a relatively high cover of non-native species (specifically giant reed [*Arundo donax*]) and evidence of human alteration. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.2 Diegan Coastal Sage Scrub (*Baccharis*-dominated)

Diegan coastal sage scrub (*Baccharis*-dominated) is similar to Diegan coastal sage scrub, but dominated by *Baccharis* species (broom baccharis [*Baccharis sarothroides*] and/or coyote brush [*Baccharis pilularis*]) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys.

Diegan coastal sage scrub (*Baccharis*-dominated) in the study area is dominated by coyote brush, with chamise (*Adenostoma fasciculatum*), black sage, and mission manzanita (*Xylococcus bicolor*). It occurs in one small patch in the central northern section of the project parcel just west of the artificial herbaceous wetland, in an area likely disturbed by previous grading associated with the adjacent development to the north. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.3 Coastal Sage–Chaparral Transition

Coastal sage–chaparral transition is a habitat type composed of a mixture of coastal sage scrub and chaparral species occurring in the transition zone between coastal sage scrub and chaparral (Oberbauer et al. 2008).

Coastal sage–chaparral transition in the study area consists of chamise, laurel sumac, and Nuttall's scrub oak. Coastal sage–chaparral transition is present in relatively large patches just southwest of the existing residence in the central area of the project parcel. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.4 Flat-Topped Buckwheat Scrub

Flat-topped buckwheat scrub is a native vegetation community that, according to Oberbauer et al. (2008), is a nearly monoculture community of California buckwheat, usually resulting from disturbance and transitioning to coastal sage scrub or chaparral. It is often found in disturbed areas in coastal and foothills areas of San Diego County and intergrades frequently with Diegan coastal sage scrub.

Flat-topped buckwheat scrub in the study area is dominated by California buckwheat with felt-leaf yerba santa (*Eriodictyon crassifolium*) and coastal goldenbush (*Isocoma menziesii*). Buckwheat scrub is present in the south and southeast portion of the project parcel, southeast of the existing residence. This vegetation community most closely matches coastal sage scrub in the City's Biology Guidelines (City of San Diego 2018a). Therefore, it is considered a Tier II habitat.

3.2.1.5 Southern Mixed Chaparral (Including Disturbed)

Southern mixed chaparral is a drought- and fire-adapted community of woody shrubs that is 1.5 to 3 meters (5 to 10 feet) tall, frequently forming dense, impenetrable stands. It develops primarily on mesic, north-facing slopes and in canyons and is characterized by crown- or stump-sprouting species that regenerate following burns or other ecological catastrophes. This vegetation community is typically a mixture of chamise, bush-rue (*Cneoridium dumosum*), ceanothus (*Ceanothus* spp.), manzanita species (Eastwood's manzanita [*Arctostaphylos glandulosa*] and mission manzanita), Nuttall's scrub oak, laurel sumac, and black sage.

Southern mixed chaparral in the study area is dominated by chamise with coyote brush, black sage, Nuttall's scrub oak, laurel sumac, and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*). Southern mixed chaparral is present in several relatively large patches in the northeast, east, southeast, and western portions of the project parcel. Two smaller patches of southern mixed chaparral exist in the northern area of the project parcel near an existing shed structure. One of these patches, west of this structure, is considered disturbed due to low vegetation cover and evidence of ground disturbance. This vegetation community is considered a Tier IIIA habitat by the City's Biology Guidelines (City of San Diego 2018a).

The southern mixed chaparral in the study area does not conform with southern maritime chaparral vegetation descriptions (Oberbauer et al. 2008). The two indicators of southern maritime chaparral on the project site are Del Mar manzanita and Nuttall's scrub oak, both of which occur in both coastal and relatively inland settings such as the eastern portions of Miramar Marine Corps Air Station. Other indicators of southern maritime chaparral are absent from the site, including wart-stem lilac (*Ceanothus verrucosus*), weathered sandstone soils, and low-growing, open vegetation cover. The chaparral on site, by contrast, has a tall, dense, closed canopy with a predominance of

chamise. The project site is located approximately 11 miles from the coast, and topographic barriers exist such that the coastal influence required to establish the southern maritime chaparral vegetation community variety is also absent from this site.

3.2.1.6 Scrub Oak Chaparral

Scrub oak chaparral contains a dense, evergreen chaparral up to 20 feet tall, often dominated by Nuttall's scrub oak with considerable mountain-mahogany (*Cercocarpus* spp.). In San Diego County, scrub oak (*Quercus berberidifolia*) is often the dominant species (over 50% cover) and usually occurs in small patches within a variety of other vegetation communities (Oberbauer et al. 2008). Scrub oak chaparral is somewhat more mesic than many chaparrals, and often occurs at slightly higher elevations (to ~5,000 feet amsl). These more favorable sites recover from fire more quickly than other chaparrals. Substantial leaf litter accumulates. In San Diego County, this is usually found on north-facing or otherwise mesic slopes and can occur at various elevations (Oberbauer et al. 2008).

Scrub oak chaparral in the study area consists of Nuttall's scrub oak, toyon (*Heteromeles arbutifolia*), and mission manzanita. Scrub oak chaparral is present in a small patch on the central eastern section of the project parcel. This vegetation community is considered a Tier I habitat by the City's Biology Guidelines (City of San Diego 2018a). The description in Section 3.2.1.5 detailing why the chaparral on site does not conform with southern maritime chaparral vegetation descriptions also applies to this community.

3.2.1.7 Disturbed Habitat/Land

Disturbed lands are areas which have been subject to extensive physical anthropogenic disturbance and as a result cannot be identified as a native or naturalized vegetation association. However, these areas typically still have a recognizable soil substrate. The existing vegetation is typically composed of non-native ornamental or exotic species (Oberbauer et al. 2008).

Disturbed land comprises the gravel storage areas northeast of the residence, dirt roads and ornamental vegetation in the central section of the project parcel, and strips of land in the southern study area north of the wetlands that show evidence of grading and vegetation removal/clearing. This land cover is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.8 Eucalyptus Woodland

Eucalyptus woodland, according to Oberbauer et al. (2008), includes eucalyptus species (blue gum [*Eucalyptus globulus*], river red gum [*E. camaldulensis*], or other *Eucalyptus* species) planted as trees, groves, and windbreaks that form thickets with minimal shrubby understory and scattered trees with a well-developed understory. In most cases, however, eucalyptus trees form dense stands with closed canopies where the understory is either depauperate or absent owing to shade and the possible allelopathic (toxic) properties of the eucalyptus leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Eucalyptus woodland occurs mainly in the southwest portion of the project parcel, south of the wetlands in that area. Smaller patches of eucalyptus woodland occur northwest of the existing residence and in the southeast corner of the project parcel. Eucalyptus woodland is classified as a Tier IV vegetation community under the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.9 Urban/Developed Land

According to Oberbauer et al. 2008, urban/developed land represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities are not supported. This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping.

Within the study area, urban/developed land includes the existing residence, the associated paved driveway, and other human-made structures on the project parcel and the adjacent residential development areas. This land cover is synonymous with disturbed land and is considered a Tier IV vegetation community (City of San Diego 2018a).

3.2.1.10 *Arundo*-Dominated Disturbed Habitat

Arundo-dominated disturbed habitat is composed of monotypic or nearly monotypic stands of giant reed and is fairly widespread in Southern California. Typically, this habitat occurs on moist soils and/or in streambeds and may be related directly to soil disturbance or the introduction of propagules by grading or flooding.

Arundo-dominated disturbed habitat comprises one dense stand of giant reed within the study area just northeast of the existing residence in the central study area. It is positioned on a steep north-facing slope and did not show signs that it was associated with any wetland or riparian features. This land cover is synonymous with disturbed land and is considered a Tier IV vegetation community (City of San Diego 2018a).

3.2.1.11 Emergent Wetland (Artificial)

According to Oberbauer et al. (2008), emergent wetland is a generally persistent wetland type dominated by low-growing, perennial wetland species. These can be found in channels, seeps and springs, floodplains, margins of lakes and rivers, and various basins such as pools and ponds, palustrine lakes, montane meadows, and dune swales. These may be freshwater or alkali wetlands. In San Diego County, these are often in previously disturbed areas where wetlands are emerging, but have not yet established a full suite of species; however, disturbance is not a necessary element of this vegetation community.

The area mapped as emergent wetland in the study area is dominated by mariposa rush (*Juncus dubius*), with annual beard grass (*Polypogon monspeliensis*), toad rush (*Juncus bufonius*), grass poly (*Lythrum hyssopifolia*), curly dock (*Rumex crispus*), Boccone's sand-spurrey (*Spergularia bocconi*), and other non-native herbaceous species. It occurs in two patches of lowlands adjacent to a well-defined drainage in the southern portion of the study area. These two patches correspond with areas of historic disturbance (see Appendix M); the upstream area being the location of a former artificial impoundment (i.e., stock pond) and the downstream area being the location where adjacent development created an artificial impoundment. Further, City records contain evidence that artificial surface runoff was discharged into this drainage from the adjacent Spring Canyon Reservoir (i.e., water tank) (City of San Diego 2013; Appendix N). Based on these factors, emergent wetland onsite is considered an artificial feature that does not meet the City's wetland definition and is considered a Tier IV upland.

3.2.1.12 Herbaceous Wetland (Artificial)

According to Oberbauer et al. (2008), herbaceous wetland (including disturbed varieties) is a seasonal wetland habitat that supports a variety of herbaceous annual species like annual beard grass. In San Diego County, these wetlands may only occur during wetter-than-average years and are usually found in swale areas or adjacent to drainages.

Herbaceous wetland (artificial) is present within the northern portion of the study area and is dominated by annual beard grass. Other species present include western ragweed (*Ambrosia psilostachya*), curly dock, mule-fat (*Baccharis salicifolia*), hottentot-fig (*Carpobrotus edulis*), saltcedar (*Tamarix ramosissima*), and jointed charlock (*Raphanus raphanistrum*). During the jurisdictional delineation in April 2020, Dudek biologists noted a large population of Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) in this area.

However, this area is not considered a City wetland per the City's Biology Guidelines (City of San Diego 2018a) because, based on review of historical aerials and topography, the wetland established as a result of the construction of the residential development to the north, which directed runoff to this area and created conditions suitable for development of the wetland (Appendix M). Prior to the adjacent development, the area supported an upland hillslope, consistent with adjacent areas. As stated in the City's Biology Guidelines, "except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Wildlife." As a result, the herbaceous wetland (artificial) in this location is considered Tier IV (City of San Diego 2018a).

3.2.1.13 Natural Flood Channel

Natural flood channel, also described as non-vegetated channel or floodway (Oberbauer et al. 2008), is the sandy, gravelly, or rocky fringe of waterways or flood channels that are earthen-bottom, and unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel.

Natural flood channel is mapped within small ephemeral drainage features on the project site. Although unvegetated, natural flood channel can be considered a wetlands community according to the City's Biology Guidelines when the overall drainage is substantial enough to support "wetland dependent vegetation" (City of San Diego 2018a). The natural flood channel present in the southern section of the project parcel is connected to emergent wetland habitat upstream and downstream of these unvegetated channel sections. However, the emergent wetland is artificial (as described above). Therefore, both the natural flood channel extents that are located on the upland hillsides on the project parcel and in the southern section of the project parcel were determined to consist of seasonal drainage patterns that do not support wetland dependent vegetation and are not considered City wetlands in accordance with the City's Biology Guidelines (City of San Diego 2018a).

3.2.2 Floral Diversity

A total of 103 species of vascular plants, 61 native (59%) and 42 non-native (41%), were recorded during the biological reconnaissance survey for the project. A cumulative list of all common and sensitive plant species observed in the study area is provided in Appendix A.

3.2.3 Wildlife Diversity

The study area supports primarily coastal sage scrub, chaparral, woodland, and wetland habitats (Figure 2). These habitats provide foraging and nesting habitat for migratory and resident bird species. Open habitats in the study area likely provide foraging opportunities for raptors. Areas of dense cover within vegetated communities in the study area also likely provide cover and foraging opportunities for small reptiles and other mammal species. Wetland areas may be suitable for certain amphibians and aquatic invertebrates.

A total of 42 wildlife species were recorded during focused surveys in the study area. Of the 42 wildlife species observed during field surveys, 2 are considered special status and are described in further detail in Section 3.2.5, Special-Status Wildlife. A cumulative list of wildlife species observed in the study area during field surveys is provided in Appendix B.

3.2.4 Special-Status Plants

Plant species are considered special status if they have been listed or proposed for listing by the federal or state government as rare, endangered, or threatened (listed species); have a CRPR of 1–4; are listed as an MSCP-covered species; and/or have been adopted by the City as narrow endemic. An evaluation of known records in the Poway quadrangle and the surrounding eight quadrangles (CDFW 2020b; CNPS 2020; USFWS 2019b) was conducted to determine which species have been recorded in the project vicinity. In addition, Dudek's knowledge of biological resources, the regional distribution of each species, and the results from 2020 and 2021 focused surveys, as well as elevation, habitat, and soils present within the study area, including the project construction footprint, were evaluated to determine the potential for various special-status species to occur.

Special-status plant species with a moderate potential to occur in the study area were western spleenwort (*Asplenium vespertinum*), Campbell's liverwort (*Geothallus tuberosus*), California adder's-tongue (*Ophioglossum californicum*), and bottle liverwort (*Sphaerocarpos drewei*). These species are described in further detail in Appendix E. Focused rare plant surveys in June, July, and August 2020 and September 2021 captured most perennial and annual plant species that occur within the study area. Five special-status plant species were directly observed in the study area during focused rare plant surveys in 2020 and 2021 (Figure 3, Rare Plants; Appendix A) and are described in detail in Sections 3.2.4.5 through 3.2.5.9. Appendix A lists all plant species observed in the study area during all surveys.

3.2.4.1 Western Spleenwort

Western spleenwort is a CRPR 4.2 species. Western spleenwort is a California native rhizomatous herb that naturally occurs within coastal scrub and chaparral habitats in San Diego County (Calflora 2020). This species naturally occurs at an elevation of 590 to 3,280 feet amsl.

No western spleenwort individuals were detected during focused rare plant surveys in 2020 or 2021.

3.2.4.2 Campbell's Liverwort

Campbell's liverwort is a CRPR 1B.1 species. Campbell's liverwort is a California native ephemeral liverwort that naturally occurs within coastal scrub (mesic) and vernal pool habitats in San Diego County (Calflora 2020). This species naturally occurs at an elevation of 30 to 1,970 feet amsl.

No Campbell's liverwort individuals were detected during focused rare plant surveys in 2020 or 2021.

3.2.4.3 California Adder's-Tongue

California adder's-tongue is a CRPR 4.2 species. California adder's-tongue is a California native perennial rhizomatous that naturally occurs within chaparral, valley and foothill grassland, and vernal pool (margins) habitats in San Diego County (Calflora 2020). This species naturally occurs at an elevation of 30 to 1,970 feet amsl.

No California adder's-tongue individuals were detected during focused rare plant surveys in 2020 or 2021.

3.2.4.4 Bottle Liverwort

Bottle liverwort is a CRPR 1B.1 species. Bottle liverwort is a California native ephemeral liverwort that naturally occurs within chaparral and coastal scrub habitats in San Diego County (Calflora 2020). This species naturally occurs at an elevation of 295 to 1,970 feet amsl.

No bottle liverwort individuals were detected during focused rare plant surveys in 2020 or 2021.

3.2.4.5 Del Mar Manzanita

Del Mar manzanita is federally endangered and is a CRPR 1B.1 and an MSCP covered species. Del Mar manzanita is a California native shrub that naturally occurs in a narrow range within coastal San Diego County (Calflora 2020). This species is typically found in chaparral and naturally occurs at an elevation of 0 to 1,200 feet amsl.

A total of 23 Del Mar manzanita individuals were observed in scrub oak chaparral and mixed chaparral in the northern portion of the study area (Figure 3).

3.2.4.6 San Diego Viguiera

San Diego viguiera is a CRPR 4.3 species and is not an MSCP covered species. San Diego viguiera is a California native shrub that naturally occurs in a somewhat narrow range in coastal Southern California (Calflora 2020). This species is typically found in chaparral and coastal sage scrub and naturally occurs at an elevation of 195 to 2,460 feet amsl.

There were 30 San Diego viguiera individuals observed in southern mixed chaparral and flat-topped buckwheat scrub on the eastern boundary of the study area (Figure 3).

3.2.4.7 San Diego Barrel Cactus

San Diego barrel cactus is a CRPR 2B.1 and MSCP covered species. San Diego barrel cactus is a California native shrub (stem succulent) that naturally occurs in a narrow range within coastal San Diego County (Calflora 2020). This species is typically found in chaparral, grassland, coastal sage scrub, and vernal pool habitats and naturally occurs at an elevation of 5 to 1,475 feet amsl.

There were 94 San Diego barrel cactus individuals observed in mixed chaparral in the southeast portion of the study area (Figure 3).

3.2.4.8 Coulter's Goldfields

Coulter's goldfields is a CRPR 1B.1 species and is not an MSCP covered species. Coulter's goldfields is a California native annual herb that naturally occurs in Southern and Central California (Calflora 2020). This species is typically found in salt marsh, playa, coastal, and vernal pool habitats and naturally occurs at an elevation of 0 to 4,500 feet amsl.

A large population (approximately 700) of Coulter's goldfields individuals was observed within the disturbed herbaceous wetland (artificial) area in the northern portion of the study area (Figure 3). This population is not considered naturally occurring, as this population is a result of an artificial wetland created by adjacent development runoff (Appendix M).

3.2.4.9 Nuttall's Scrub Oak

Nuttall's scrub oak is a CRPR 1B.1 species and is not an MSCP covered species. Nuttall's scrub oak is a California native shrub that occurs throughout the state near the coast (Calflora 2020). This species is typically found in chaparral and coastal sage scrub habitats and naturally occurs at an elevation of 45 to 1,310 feet amsl.

There were 1,181 Nuttall's scrub oak individuals observed throughout the study area in mixed chaparral, in sage scrub, and in the understory of eucalyptus woodland (Figure 3).

3.2.5 Special-Status Wildlife

Special-status wildlife species are those listed as federally/state endangered or threatened, proposed for listing, fully protected by CDFW, on the California watch list, California Species of Special Concern, or MSCP covered species. An evaluation of known records in the Poway quadrangle and the surrounding eight quadrangles (CDFW 2020b; CNPS 2020; USFWS 2019b) was conducted. In addition, Dudek's knowledge of biological resources, regional distribution of each species, and the elevation, habitat, and soils present within the study area were evaluated to determine the potential for various special-status species to occur. Figure 4 displays all known California Natural Diversity Database occurrences of special-status wildlife within 1 mile of the study area.

Special-status wildlife species determined to have a high or moderate potential to occur within the study area include coastal California gnatcatcher, orange-throated whiptail (*Aspidoscelis hyperythra*), red diamondback rattlesnake (*Crotalus ruber*), San Diego ringneck snake (*Diadophis punctatus similis*), two-striped gartersnake (*Thamnophis hammondii*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), Crotch's bumble bee, and San Diego desert woodrat (*Neotoma lepida intermedia*). These species are described in further detail in Appendix F.

Two special-status wildlife species were directly observed in the study area during field surveys in 2020, 2021, and 2023, and are described in detail in Sections 3.2.5.1 and 3.2.5.2.

3.2.5.1 Cooper's Hawk

Cooper's hawk (*Accipiter cooperii*) is a state watch list and MSCP covered species. Cooper's hawks inhabit live oak, riparian deciduous, and other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Nests in deciduous trees are typically located in crotches 20 to 50 feet above the ground; in conifers, nests are on horizontal branches or in the main crotch. Cooper's hawks use patchy woodlands and edges with snags for perching and hunting small birds, small mammals, reptiles, and amphibians (Zeiner et al. 1990). Cooper's hawks are diurnally active and are year-round residents. Breeding occurs from March through August, with peak activity in May through July. Males defend an area of about 330 feet around potential nest sites (Zeiner et al. 1990).

Cooper's hawk could use eucalyptus woodland on and near the site within the MHPA for nesting and scrub habitats for foraging. The species was observed on site during focused coastal California gnatcatcher surveys.

3.2.5.2 San Diegan Tiger Whiptail

The San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*) is a California Species of Special Concern and is not an MSCP covered species. It is known to occupy hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.

One San Diegan tiger whiptail individual was observed during focused coastal California gnatcatcher surveys. This individual is likely associated with mixed chaparral habitat throughout the study area.

3.2.5.3 Coastal California Gnatcatcher Focused Survey Results

No coastal California gnatcatcher individuals were detected within the study area during focused protocol surveys in 2020 (Appendix D), however, a coastal California gnatcatcher California Natural Diversity Database occurrence has been recorded within 1 mile of the study area to the east (Figure 4) and suitable habitat exists on the site. Since more than 24 months has passed since focused surveys were conducted, this species is assumed to be present within suitable habitat both within and adjacent to the project parcel.

3.2.5.4 Hermes Copper Butterfly Habitat Assessment Results

No suitable Hermes copper butterfly habitat was found within the study area during the focused habitat assessment conducted in spring 2020 or in subsequent update surveys in 2021.

3.2.5.5 Crotch's Bumble Bee Habitat Assessment Results

The site provides moderate foraging and nesting habitat for Crotch's bumble bee. This assessment is based on known occurrences within 5 miles of the site, the presence of blooming flowers/foraging habitat, and nesting resources including rodent burrows, bare ground, and fallen logs. A detailed habitat assessment including quantification of plant species in bloom, percent cover, plant diversity, and foraging resources has not been completed. As such the entire site is considered to have potential to support foraging and/or nesting Crotch's bumble bee and the species is assumed to be present.

3.2.6 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Wildlife corridors contribute to population viability by (1) ensuring the continual exchange of genes between populations, which helps maintain genetic diversity; (2) providing access to adjacent habitat areas, representing additional territory for foraging and mating; (3) allowing for greater carrying capacity; and (4) providing routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (e.g., fires).

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation, representing a potential route for gene flow and long-term dispersal. Habitat linkages may serve both as habitat and as avenues of gene flow for small animals such as reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as stepping stones for dispersal.

The study area, including the project construction footprint, contains relatively large patches of southern mixed chaparral and coastal sage scrub that have potential to provide refuge, cover, and foraging opportunities for mobile wildlife species that may be moving thorough the area. Given the residential development surrounding the entire study area, it is likely that birds would be the primary wildlife group that could use the site as a stepping-stone-type habitat linkage between the expansive Scripps Ranch/Miramar open space to the southeast and the Peñasquitos Creek watershed to the northwest; although no evidence of coastal California gnatcatchers using the site was identified during the protocol survey.

The MHPA within the study area is considered a biological core area, but is not designated as a biological linkage per the MSCP (City of San Diego 1997). The study area sits on the edge of a biological core area that is mostly within the City of Poway and unincorporated areas to the east, but is connected by a linkage through Peñasquitos Creek to another biological core area to the west, in Peñasquitos Canyon and Lagoon.

3.2.7 Jurisdictional Resource Delineation

Hydrology, vegetation, and soils were examined at nine geographically distinct sampling locations, and results were recorded on wetland determination and OHWM data forms (Appendix C) to determine the presence or absence of wetland field indicators or OHWM indicators. The study area was assessed for evidence of OHWM, hydrology indicators, wetland vegetation, and significant nexus to traditional navigable waters of the United States. Figure 5, Potential Jurisdictional Resources, shows the extent of these jurisdictional boundaries within the project area and Table 3 summarizes the wetland sampling points.

Table 3. Wetland Sampling Point Summary

Wetland Sampling Point	Wetland Determination Field Indicators			Vegetation Community	Estimated Jurisdiction
	Vegetation	Hydric Soils	Hydrology		
1a	✓		✓	Natural flood channel	▪ RWQCB non-wetland waters ▪ CDFW streambed[a]
1b			✓	Natural flood channel	▪ CDFW riparian habitat
2	✓		✓	Natural flood channel	▪ CDFW riparian habitat
3				Disturbed habitat	▪ Non-jurisdictional
4a	✓	✓	✓	Emergent wetland (artificial)	▪ RWQCB wetlands ▪ CDFW riparian habitat
4b		✓		Disturbed habitat	▪ Non-jurisdictional
5	✓	✓	✓	Emergent wetland (artificial)	▪ RWQCB wetlands ▪ CDFW riparian habitat
6a	✓	✓	✓	Herbaceous wetland (artificial)	▪ RWQCB wetland
6b		✓		Diegan coastal sage scrub (*Baccharis*-dominated)	▪ Non-jurisdictional

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

[a] This wetland sampling point was taken within the OHWM (ordinary high water mark) of the channel that runs through this emergent wetland and is consequently considered USACE/RWQCB non-wetland waters/CDFW streambed.

The potential wetland resource features and vegetation communities mapped include natural flood channel (i.e., ephemeral streams located in the north and south portion of the site), emergent wetland (i.e., located in two locations in the southern canyon drainage that have been subject to previous disturbance), and disturbed herbaceous wetland (an artificially created wetland area in the northern portion of the site) (Figure 5).

U.S. Army Corps of Engineers

The project parcel is not expected to support any jurisdictional waters of the U.S. based on regulatory exclusions for artificial wetlands wholly excavated in pre-existing uplands and ephemeral drainages (i.e., non-relatively permanent waters).

Regional Water Quality Control Board

The limit of RWQCB jurisdictional areas include all natural flood channel, emergent wetland, and disturbed herbaceous wetland (artificial). The RWQCB has adopted procedures defining waters of the state as including any artificial wetland that "resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape" (SWRCB 2019). Based on this definition, the herbaceous wetland (artificial) located in the northern section of the study area could be considered a waters of the state regulated by RWQCB (other agencies, including the City, do not take jurisdiction of artificial features built in uplands) (Figure 5; Table 4A).

Table 4A. Potential RWQCB-Jurisdictional Wetland Resources in the Project Study Area

Vegetation Community/Land Cover Type	Aquatic Resource Type	Area (Acreage)
Emergent wetland	Wetland WOTS	0.41
Herbaceous wetland (artificial)	Wetland WOTS	0.42
Natural flood channel	Non-Wetland WOTS	0.21
	Total	**1.05**

Note: RWQCB = Regional Water Quality Control Board.

California Department of Fish and Wildlife

The limits of CDFW riparian habitat and unvegetated streambed within the study area are composed of emergent wetland and natural flood channel. These resources include the ephemeral drainage within the canyon bottom in the southern portion of the project parcel, emergent wetlands adjacent to the low-flow channel within the drainage, as well as additional ephemeral drainage features within the project. The limits of CDFW streambed were defined by the hydrology indicators within the low-flow channel features (i.e., natural flood channel) and limits of hydrophytic vegetation (i.e., emergent wetland) (Figure 5; Table 4B).

Table 4B. Potential CDFW-Jurisdictional Riparian Habitat/Unvegetated Streambed Resources in the Project Study Area

Vegetation Community/Land Cover Type	Resource Type	Area (Acreage)
Emergent wetland	Streambed (Vegetated)	0.41
Natural flood channel	Streambed	0.21
Total	—	**0.62**

Note: CDFW = California Department of Fish and Wildlife.

City of San Diego

As discussed in Section 3.2.1, none of the potential wetland features, including all natural flood channel, emergent wetland, and herbaceous wetlands, meet the City's wetland definition (City of San Diego 2018a). Based upon review of historical aerials (Appendix M), topography including US Geological Survey 7.5 minute Poway quadrangle (Figure 1), and City permit records (Appendix N), the herbaceous wetland and emergent wetlands established as a result of the construction of adjacent residential development, an onsite artificial impoundment, and historic artificial runoff from an offsite water tank. The natural flood channel areas onsite would not support wetland dependent vegetation were it not for these human activities, which were not intended to create wetlands.

INTENTIONALLY LEFT BLANK

4 Consistency with the City of San Diego Multiple Species Conservation Program

A BLA is proposed as a part of the project. The BLA would remove on-site areas from the MHPA where the project proposes construction, including infrastructure, and the expanded Zone 1 Brush Management area. The project proposes to add three discrete on-site areas to the MHPA as well as a larger off-site parcel within the North Clairemont community. Areas of restored manufactured slopes (with the exception of manufactured slopes within the Vegetated Stormwater Basin Management Area and any infrastructure associated with the project [e.g., storm water pipes, channels, and BMPs such as rip rap]) would remain in the MHPA following project completion (Figures 6A through 6D).

As part of the BLA process, any portions of the project parcel that would be retained within the MHPA boundary following project construction would need to be evaluated to determine long-term viability to ensure in-perpetuity management and conservation of biological functions. It must also be demonstrated that the off-site MHPA BLA site that would be added to the MHPA provides functional equivalence or higher biological value (i.e., habitat equivalency analysis) to the preserve than the current MHPA lands that overlap the project construction and Zone 1 footprint. A determination of functionally equivalent or higher biological function of the off-site MHPA BLA site addition is included below based on the following six criteria (City of San Diego 1988):

1. Effects on significantly and sufficiently conserved habitats (i.e., the exchange maintains or improves the conservation, configuration, or status of significantly and sufficiently conserved habitats, as defined in Section 3.4.2 [of the MSCP Plan]);
2. Effects on covered species (i.e., the exchange maintains or increases the conservation of covered species);
3. Effects on habitat linkages and function of preserve areas (i.e., the exchange maintains or improves any habitat linkages or wildlife corridors);
4. Effects on preserve configuration and management (i.e., the exchange results in similar or improved management efficiency and/or protection of biological resources);
5. Effects on ecotones or other conditions affecting species diversity (i.e., the exchange maintains topographic and structural diversity and habitat interfaces of the preserve); and
6. Effects on species of concern not on the covered species list (i.e., the exchange does not significantly increase the likelihood that an uncovered species will meet the criteria for listing under either the federal or state ESAs).

The existing right-of-way easement on the off-site BLA area would be vacated by the Applicant. The MHPA areas would be dedicated to the City through fee title or as covenant of easement for MHPA lands. The Applicant would be required as a condition of approval to complete a Property Analysis Record or equivalent analysis to evaluate the maintenance costs to preserve the habitat and provide an endowment to fund the ongoing maintenance costs in perpetuity. The management of the MHPA area would be provided in perpetuity by an entity agreed to by the City, USFWS and CDFW. The proposed MHPA boundary changes have received written approval from USFWS and CDFW (Appendix O).

4.1 Project Consistency with Multiple Species Conservation Program Land Use Adjacency Guidelines

Because a portion of the project would still occur within and adjacent to the MHPA following approval of the BLA (i.e., construction of manufactured slopes), the project is required to document compliance with the City's MSCP Land Use Adjacency Guidelines (LUAG). The LUAG and the applicable compliance measures outlined below would be made conditions of project approval. This section is based on the project with the included BLA, as shown in Figures 6A through 6H.

4.1.1 Drainage

> All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA (City of San Diego 1997, p. 47).

The project would involve the installation of impervious surfaces associated with the new housing structures, streets, and sidewalks. Storm water conveyance would be directed and treated according to the Priority Development Project Storm Water Quality Management Plan (Hunsaker & Associates 2023). Drainage from the project construction footprint would be intercepted and conveyed via a private storm drain system into two vegetated stormwater basins in the northwest portion of the project (Figure 2). These basins would have qualities similar to a bioswale and would be composed of various layers of vegetation and natural filters that runoff would pass through prior to being discharged both southwest and northeast towards existing City stormwater infrastructure. The basins would actively filter stormwater runoff as it passes through herbaceous native vegetation and mulch, followed by a thicker soil layer where water would be slowed so that potential pollutants can settle out or be naturally filtered by soil microbes. A final layer of gravel would control water infiltration rates into a pipe prior to the water flowing through a pipe below the ground-level of manufactured slopes and discharging into the emergent wetland habitat to the southwest and herbaceous wetland (artificial) to the northeast. This system would be maintained at least annually through the testing and replacement of any soils saturated with heavy metals/toxins and the removal of exotic plant materials/trash. The basin would ensure that all runoff from the site passes through this natural filtration system prior to entering the MHPA and the southern emergent wetlands within the study area. The vegetated stormwater basins would have outlets that links into the City's existing storm drain system at inlets near Cypress Canyon and Mundial Street on the western and northern boundaries of the study area, respectively. Therefore, construction of the project would be consistent with the Storm Water Quality Management Plan (Hunsaker & Associates 2023) and the City's Storm Water Standards (City of San Diego 2018b) and all flows from impervious surfaces would be directed through biofiltration basins prior to being carried downstream to ensure no toxins, chemicals, petroleum products, exotic plant materials, or other harmful elements are allowed to enter the MHPA. All flows toward the MHPA would be minimized to the extent feasible.

4.1.2 Toxics

> Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA (City of San Diego 1997, p. 47).

No storage method for hazardous construction materials (including fuel) that could impact the adjacent MHPA would be allowed, and any drainage from the construction site shall be required to be clear of such materials. The contractor shall ensure that all areas for staging, storage of equipment and materials, trash, equipment maintenance, and other construction-related activities are within the limits of the project site. Construction of the project would include a stormwater pollution prevention plan (SWPPP) that outlines spill prevention plans and avoidance measures. The functioning bioswale mentioned in Section 4.1.1, Drainage, would also ensure that no toxic chemicals or byproducts enter the MHPA through stormwater runoff or other site drainage. Consistent with the City's Storm Water Standards (City of San Diego 2018b), all flows toward the MHPA shall be controlled to existing levels and water quality controlled pursuant to the City's Storm Water Standards (City of San Diego 2018b) and Priority Development Project Storm Water Quality Management Plan (Hunsaker & Associates 2023) during operations.

4.1.3 Lighting

> Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting (City of San Diego 1997, p. 48).

The project would include exterior lighting and light fixtures to aid in the functions of providing safety for residents; however, these would be shielded or directed away from the MHPA.

All exterior lighting on the building façades and elsewhere on the property would be designed to be directed downward or away from the MHPA. All lighting shall be in accordance with the San Diego Municipal Code §142.0740.

4.1.4 Noise

> Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year (City of San Diego 1997, p. 48).

Construction of the project may produce noise at levels that could indirectly impact MSCP covered species and special-status species that have a moderate to high potential to forage, roost, and nest in the study area. Covered species with potential to occur in the project study area include coastal California gnatcatcher (low potential to occur on site since focused surveys were negative [Appendix D], but suitable habitat is present off site in adjacent areas within the MHPA) and Cooper's hawk (observed foraging on site with potential to nest outside of the project in suitable habitat within the MHPA).

No clearing, grubbing, grading, or other construction activities shall occur during the breeding season of the coastal California gnatcatcher (February 1 through September 15) until the appropriate species-specific MSCP LUAG conditions of project approval have been met to the satisfaction of the City Manager to ensure no impacts to these species would occur from project implementation. These conditions include focused protocol surveys for coastal California gnatcatcher within areas subject to noise levels exceeding 60 A-weighted decibels hourly average. If coastal California gnatcatchers are present in these areas, then no clearing, grubbing, or grading of occupied California gnatcatcher habitat shall be permitted February 1 through September 15. Additionally, during this time, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 A-weighted decibels hourly average, or noise attenuation measures shall be provided, along with a noise model provided to the City prior to construction activities. This condition would be implemented during construction and restoration activities. Once project construction is complete, the housing subdivision is not expected to produce noise at levels that could indirectly impact MSCP covered and special-status species within the habitats adjacent to the project construction footprint (Dudek 2023c).

4.1.5 Barriers

> New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation (City of San Diego 1997, p. 48).

A portion of the project construction footprint runs along the boundary of the MHPA and barriers would be installed to discourage public access and domestic animal activity within the MHPA.

A fence would be constructed along the project boundary between the project construction footprint and the MHPA and would also include a buried wall structure adjacent to residential lots. The fence material would consist of either chain link, wood, or concrete, depending on the final project design.

4.1.6 Invasives

> No invasive non-native plant species shall be introduced into areas adjacent to the MHPA (City of San Diego 1997, p. 48).

The proposed development would include a landscape plan that does not include invasive plant species, as identified by the California Invasive Plant Council (GMP 2023). Within the on-site open space that would be retained as MHPA, any invasive species shall be entirely removed where feasible, and the removal shall be monitored by a Qualified Monitoring Biologist, as defined in the City's Biology Guidelines (City of San Diego 2018a), to ensure that dispersal of propagules (e.g., seeds, stems) is avoided or minimized. The remaining open space areas would also be managed by the City in perpetuity, which would include invasive species treatment. If aboveground plant material cannot be removed (e.g., due to limited access), herbicides shall be applied by a licensed applicator, using chemicals permitted as safe within aquatic environments.

4.1.7 Brush Management

> New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA (City of San Diego 1997, p. 48).

The project proposes a new residential development, but would incorporate a Zone 1 brush management area that includes a 35-foot-wide boundary within the project construction footprint as well as a 25-foot-wide area extending from the edge of the project construction footprint to the MHPA boundary (60-foot total width following BLA approval; see Figures 2 and 6D). Zone 1 brush management would be located outside of the MHPA with the proposed BLA. Since the 25-foot Zone 1 extension area is incorporated and structural fire repellent measures would be installed on portions of homes facing adjacent open space areas in the MHPA boundary (e.g., fire-resistant wall and window materials, etc.), no Zone 2 Brush Management would be required.

Dudek has prepared a fire fuel load modeling report for the project that contains fire protection measures, including a brush management plan (Appendix F in Dudek 2023) to reduce the potential for habitat degradation due to unplanned fire. In addition, there would be no ongoing impact from anthropogenic vegetation management activities associated with any Zone 2 management areas since these areas have been removed from the project design, as described above. Therefore, no impacts within the MHPA from brush management would occur.

4.1.8 Grading/Land Development

> Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA (City of San Diego 1997, p. 49).

Project grading would take place within the project construction footprint and would extend into areas expected to remain in MHPA following approval of the BLA. Following discussions with USFWS, CDFW, and City staff, it was determined that while manufactured slopes are required to be established as part of this development, given the evidence of historic dumping and fill on this particular site as determined through geotechnical investigation, retaining these manufactured slopes within the MHPA would result in a net benefit to the functions and values of the preserve. Specifically, the site provides unique avian movement functions for the region as a corridor connection to larger portions of the MHPA to the northwest in the Los Peñasquitos Canyon Preserve. the manufactured slopes are proposed to remain in the MHPA on this site following construction and be restored with native habitat suitable for avian movement in order to retain the corridor movement functions of the site and ensure long-term management of these resources. In addition, no trails are proposed outside of the project construction footprint.

4.1.9 Area Specific Management Directives

4.1.9.1 Coastal California Gnatcatcher

> Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No cleaning of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15 (City of San Diego 1997, p. 164).

Coastal California gnatcatcher has not been identified during previous focused surveys conducted on the project parcel (most recent from August 2020) and the nearest known occurrence record is located approximately 3,200 feet east of the project parcel, however since focused surveys were conducted more than 24 months before this report was finalized, the species is assumed to be present within suitable habitat both on-site and adjacent. Edge effects and disturbance to this species would be reduced and minimized through compliance with the MSCP LUAG, as described above. A fire fuel load modeling report (Dudek 2023a) has been prepared for the project and contains fire protection measures, including a brush management plan (Appendix F in Dudek 2023a), to reduce the potential for habitat degradation due to unplanned fire. Through extension of the Zone 1 Brush Management area (additional 25 linear feet added) and fire-safe improvements to structures facing open space MHPA areas, the project would not require a Zone 2 Brush Management area, which would reduce edge effects to coastal California gnatcatcher by avoiding maintenance activities typically conducted in Zone 2. In addition, since all manufactured slopes and Tier IV habitats on-site would be restored to native habitats, further edge effects from off-site development would be reduced.

In addition, because the project construction footprint would still be adjacent to the City's MHPA and restoration of manufactured slopes on the project site would overlap with the MHPA boundary following BLA approval, construction and restoration activities that would generate noise levels in excess of 60 A-weighted decibels at the edge of suitable habitat within the MHPA would be avoided during the breeding season of this species. If these noise generating activities adjacent to suitable habitat within the MHPA cannot be avoided during the breeding season, to avoid indirect impacts to this species, focused survey measures would be adhered to, as described in Section 4.1.4, Noise, as conditions of project approval. Since focused surveys already conducted for this species were negative (Appendix D), no direct effects are expected to occur to the species from vegetation clearing, grading, and/or restoration activities within the project.

4.1.9.2 Cooper's Hawk

> Area specific management directives must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

To avoid any indirect impacts to nesting Cooper's hawk, construction within 300 feet of suitable habitat in the MHPA, including any vegetation management activities, shall occur outside of the breeding season for these species (February 1 through August 31), unless a nesting survey has been conducted by a qualified biologist and confirmed no nests are present within 300 feet of project activities, in accordance with the MSCP conditions of coverage. The provision of a 300-foot avoidance area would be made a condition of project approval. This measure would be implemented during construction activities on the project parcel as well as during restoration activities at the MHPA BLA site.

4.1.9.3 San Diego Barrel Cactus

> Area specific management directives must include measures to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle.

Edge effects and disturbance to this species would be reduced and minimized through compliance with the MSCP LUAG, as described above. A fire fuel load modeling report has been prepared for the project and contains fire protection measures, including a brush management plan (Dudek 2023a), to reduce the potential for habitat

degradation due to unplanned fire. The San Diego barrel cactus individuals that would be impacted by the project would be mitigated through habitat-based mitigation. In addition, individuals within the project construction area would be translocated to the on-site manufactured slope areas that would be restored with native habitat and remain in the MHPA following project construction, as described in the project upland restoration plan (Dudek 2023; Appendix J).

4.1.9.4 Del Mar Manzanita

> This is a Covered species; however, no area specific management directives are defined in Appendix A of the City's MSCP (City of San Diego 1998).

A site-specific plan has been designed for this species that includes translocation of individuals from within the project construction footprint and preservation of suitable habitat on-site to ensure 2:1 mitigation and subsistence of the population at this location (Dudek 2023b).

4.2 Multiple Species Conservation Program Preserve Boundary Line Adjustment and Habitat Equivalency Assessment

4.2.1 Boundary Line Adjustment and Habitat Equivalency Assessment

In general, the analysis of the relationship of a project to the MSCP Plan is an analysis of the effects of a project on long-term conservation of biological resources, because a primary purpose of the MSCP plan is to assemble an open space preserve within the MSCP area that will contribute to long-term conservation of biological resources within San Diego County. As such, effects of individual projects on long-term conservation of biological resources must be evaluated in the context of their consistency with established MHPA boundaries. Projects that precisely match the MHPA boundaries would be considered to be consistent with the MHPA and would avoid or reduce to a level below significance those impacts associated with long-term conservation of biological resources. Projects proposing MHPA boundaries that differ from the MHPA boundaries shown in the adopted plans must be determined to be functionally equivalent to the MHPA boundary in the adopted plans. The Subarea Plan allows for a BLA to the MHPA if the BLA would result in the same or higher biological value for the preserve. The comparison of biological value between existing MHPA areas on the project site and proposed areas to be added to the MHPA through the BLA is based on the following factors described in Section 5.4.2 of the MSCP Plan (County of San Diego 1988):

1. Effects on significantly conserved habitats.
2. Effects to Covered Species.
3. Effects on habitat linkages and function of preserve areas.
4. Effects on preserve configuration and management.
5. Effect on ecotones and other conditions affecting species diversity.
6. Effect to species of concern not on the MSCP Covered Species list.

A habitat equivalency assessment was conducted for the sections of the project construction footprint, including infrastructure and Zone 1 Brush Management Area, that overlap with the MHPA boundary, as described in the Subarea Plan. Approximately 13.72 acres of the project construction footprint overlaps with current MHPA boundaries (an additional 8.70 acres of proposed manufactured slope area also overlaps MHPA and would be restored and remain in the MHPA following project completion) (Tables 5A and 5B). Since the project parcel is 40.56 acres in size, in accordance with Section II.B.1 of the City's Biology Guidelines (City of San Diego 2018a), up to 25% of the project parcel area is considered an "allowable development" area (i.e., 10.14 acres). Section II.A.2 defines the hierarchy for siting a project development area within the MHPA based on the presence of various categories of ESL habitats and functional areas. This hierarchy is listed in the City's Biology Guidelines starting with the least sensitive category and increases in sensitivity as follows:

a) areas devoid of vegetation, including previously graded areas and agricultural fields;
b) areas of non-native vegetation, disturbed habitats, and eucalyptus woodlands; areas of chamise or mixed chaparral, and non-native grasslands

The project has been designed for impacts from development to occur within areas outside the MHPA to the maximum extent practicable, such that 6.94 acres of impacts from project construction would occur outside the MHPA (Figure 6A; does not include impacts associated with restoration activities). The remaining 3.20 acres of development needed to reach the 25% allowable development area (i.e., 10.14 acres) would be assigned based on the hierarchy list above and reduced from the overall acreage of BLA the project would be required to provide, but would not change the reduction area on the project site or the net loss/gain of MHPA area with consideration of the off-site MHPA BLA site (Table 5A). Since the project would be approved through the deviation process, mitigation would still be provided for this area at the required ratios defined in the City's Biology Guidelines (City of San Diego 2018a).

The proposed MHPA reduction area within the BLA currently consists of developed land, eucalyptus woodland, disturbed habitat, natural flood channel (not City wetland), *Arundo*-dominated disturbed habitat, scrub oak chaparral, emergent wetland, flat-topped buckwheat scrub, Diegan coastal sage scrub (including disturbed variety), coastal sage-chaparral transition, and southern mixed chaparral (including disturbed variety) (Table 5A; Figures 6A through 6H). In addition to also containing areas of Diegan coastal sage scrub, natural flood channel, and disturbed habitat; the MHPA BLA addition site would incorporate five vegetation communities not currently on the project site into the MHPA. These vegetation communities include coast live oak woodland, non-native grassland, disturbed wetland (poison oak-dominated) (including both City wetland and non-City wetland types), disturbed wetland (palm-dominated), and disturbed wetland (Arundo-dominated) (Figure 7). The BLA would also include the vacation of Lakehurst Avenue on the MHPA BLA addition site (not built), as well as a re-zoning of the entire MHPA BLA addition site from R-1-1 to OC (open space conservation).

Table 5A. MHPA Boundary Line Adjustment Summary

Vegetation Community	City Biology Guidelines Vegetation Community	Tier	Total Parcel (Acres)	Total On-Site MHPA (Acres)	Total On-Site MHPA to Be Removed through BLA (Acres)[a]	Other On-Site MHPA Additions (Acres)[c]	Total MHPA Areas Remaining On-Site (acres)[d]	Total Off-Site MHPA to Be Added from BLA (acres)	Net Loss/ Gain BLA Result (acres)
Sensitive Upland Habitats (Tiers I–IIIA)									
Coast live oak woodland	Oak Woodland	I	0	0	0	0	0	0.92	0.92
Scrub oak woodland	Scrub Oak Chaparral		2.46	2.46	1.05	0	1.4	0	-1.05
		Subtotal Tier I	*2.46*	*2.46*	*1.05*	*0*	*1.40*	*0.92*	*-0.13*
Diegan coastal sage scrub (including disturbed)	Coastal Sage Scrub (CSS)	II	4.60	4.37	1.71	0.19	2.85	10.78	9.26
Diegan coastal sage scrub (*Baccharis*-dominated)			0.11	0.11	0	0	0.11	0	0.00
Flat-topped buckwheat scrub			2.41	0.83	0.4	0	0.43	0	-0.40
Coastal sage–chaparral transition	CSS/Chaparral		4.08	3.12	2.79	0	0.33	0	-2.79
		Subtotal Tier II	*11.20*	*8.43*	*4.67*	*0.19*	*4.9*	*0.19*	*3.72*
Southern mixed chaparral (including disturbed)	Mixed Chaparral	IIIA	12.25	10.45	1.74	0.56	9.28	0	-1.18
Non-native grassland	Non-Native Grasslands	IIIB	0	0	0	0	0	0.21	0.21
		Subtotal Tiers IIIA & IIB	*12.25*	*10.45*	*1.74*	*0.56*	*9.28*	*0.21*	*-0.97*
		Subtotal Sensitive Uplands	*25.91*	*21.21*	*7.69*	*0.75*	*14.4*	*11.91*	*4.97*
Wetlands, including Non-Wetland Waters of the United States and State									
Natural flood channel	Natural Flood Channel		0	0	0	0	0	0.27	0.27
Disturbed wetland (palm-dominated)	Disturbed Wetland (invasive dominated)		0	0	0	0	0	0.17	0.17
Disturbed wetland (poison oak-dominated)	Disturbed Wetland		0	0	0	0	0	1.52	1.52
Disturbed wetland (*Arundo*-dominated)	Disturbed Wetland (invasive dominated)		0	0	0	0	0	0.03	0.03
		Subtotal City Wetlands	*0*	*0*	*0*	*0*	*0*	*1.99*	*1.99*
None (Tier IV)									
Eucalyptus woodland	Eucalyptus Woodland	IV	3.58	3.41	0.57	0	2.87	0	-0.57
Disturbed habitat	Disturbed Land		6.96	5.59	3.87	0.02	2.00	2.21	-1.64
Developed land			2.34	0.96	0.8	0	0.15	0	-0.80
Arundo-dominated disturbed habitat			0.74	0.74	0.6	0	0.14	0	-0.60
Poison oak scrub			0	0	0	0	0	2.63	2.63
Disturbed Herbaceous wetland (artificial)			0.42	0.57	0	0	0.42	0	0.00
Emergent Wetland					0.16	0	0.26	0	-0.16
Natural flood channel			0.21	0.13	0.03	0	0.18	0	-0.03
		Subtotal Tier IV	*14.65*	*11.37*	*6.03*	*0.02*	*6.02*	*4.84*	*-1.17*
		Total	**40.56**	**33.40**	**13.72**	**0.77**	**20.42**	**18.74**	**5.79**

Notes: MHPA = Multi-Habitat Planning Area; BLA = boundary line adjustment; CSS = coastal sage scrub.

[a] Acreage shown represents the area of MHPA that would require BLA replacement, in accordance with the City's Multiple Species Conservation Program (MSCP) Subarea Plan, but does not include areas where impacts would occur from the project and the areas would remain in the MHPA following project construction (i.e., manufactured slopes restored with native habitat).

[b] Acreage shown represents areas currently in the MHPA that will be impacted but restored and remain in MHPA following project completion (i.e., manufactured slopes restored with native habitat),

[c] Includes knoll area in northwest corner of project parcel as well as small areas of native habitat on eastern side of the project parcel not previously included in MHPA boundary, as shown in Figure 6C

[d] Total acres to remain in the MHPA following project construction within the project parcel, including manufactured slopes restored with native habitat.

[e] 13.72 acres of the MHPA boundary would overlap with the project construction footprint and be removed from the preserve, however the project would only be required to provide 10.52 acres of MHPA area as part of the BLA since 3.20 acres of project construction footprint overlap with the MHPA would be approved under the City's Biology Guidelines 25% allowable development area for the sites containing MHPA lands (i.e., 25% of 40.56 acre project parcel equal to 10.14 acres and 6.94 acres of project construction footprint sited outside MHPA).

Table 5B. MHPA Impact Summary

Vegetation Community	City Biology Guidelines Vegetation Community	Tier	Project Construction Footprint Impacts (Acres)[a]	Manufactured Slope MHPA Impacts (Acres)	Vegetated Stormwater Basin MHPA Impacts (Acres)	Zone 1 MHPA Impacts (Acres)	Additional Restoration Impacts (Acres)	Total MHPA Impacts (Acres)	No Impact and in MHPA (Acres)
Sensitive Upland Habitats (Tiers I–IIIA)									
Scrub oak chaparral	Scrub Oak Chaparral	I	0	0.29	0	0	0	0.29	1.11
Diegan coastal sage scrub (including disturbed)	Coastal Sage Scrub (CSS)	II	0	1.82	0	0	0.14	1.96	0.86
Diegan coastal sage scrub (*Baccharis*-dominated)		II	0	0	0	0	0.10	0.10	0
Flat-topped buckwheat scrub		II	0	0.06	0	0	0	0.06	0.37
Coastal sage–chaparral transition	CSS/Chaparral	II	0	0.33	0	0	0	0.33	0
Southern mixed chaparral (including disturbed)	Mixed Chaparral	IIIA	0	3.29	0	0	0.11	3.40	5.87
		Subtotal Sensitive Uplands	*0*	*5.79*	0	*0*	*0.35*	*6.14*	*8.21*
None (Tier IV)									
Eucalyptus woodland	Eucalyptus Woodland	IV	0	1.23	0	0	1.65	2.88	0
Disturbed habitat	Disturbed Land	IV	0	0.92	0	0	0.51	1.43	0.57
Developed land		IV	0	0.15	0	0	0	0.15	0
Arundo-dominated disturbed habitat		IV	0	0.14	0	0	0	0.14	0
Herbaceous wetland (artificial)		IV	0	0.10	0	0	0.31	0.41	0.01
Emergent Wetland		IV	0	0.22	0	0	0	0.22	0.11
Natural flood channel		IV	0	0.15	0	0	0	0.15	0.02
		Subtotal Tier IV	*0*	*2.91*	*0*	*0*	*2.47*	*5.38*	*0.71*
		Total	**0**	**8.70**	**0**	**0**	**2.82**	**11.52**	**8.92**

Notes: MHPA = Multi-Habitat Planning Area.

[a] "Project Construction Footprint" includes impacts from housing, roads, and infrastructure pipelines.

4.2.1.1 MHPA BLA Site Vegetation Communities

The vegetation communities and land cover types recorded on the off-site MHPA BLA site that were not described in Section 3.2.1 for the project study area are detailed below, their acreages are presented in Table 5A, and their spatial distributions are presented on the Biological Resources map for the MHPA BLA area (Figure 8). Also included in Table 5A are the sensitivity designations of each vegetation community according to the Tiers described in the City's Biology Guidelines (City of San Diego 2018a).

Coast Live Oak Woodland

Coast live oak woodland, also described as southern coast live oak woodland (Oberbauer et al. 2008), is a dense riparian forest dominated by coast live oak (*Quercus agrifolia*), often with an herbaceous understory. This community occurs along the bottom or outer slopes of larger streams (Oberbauer et al. 2008). Areas mapped as coast live oak woodland are primarily present in the east section of the MHPA BLA site and are dominated by coast live oak (Figure 8). Coast live oak woodland is considered a Tier I vegetation community according to the City's Biology Guidelines (City of San Diego 2018a).

Diegan Coastal Sage Scrub (*Rhus*-dominated)

Diegan coastal sage scrub (*Rhus*-dominated) is similar to Diegan coastal sage scrub described in Section 3.2.1.1, but is dominated almost entirely by lemonadeberry.

Diegan coastal sage scrub (*Rhus*-dominated) is located in scattered smaller patches on the west sides of the canyons on the MHPA BLA site located on the east side of Regents Road. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

Non-Native Grassland

Non-native grassland consists of dense to sparse cover of annual grasses with flowering culms between 0.5 to 3 feet in height (Oberbauer et al. 2008). In San Diego County the presence of wild oat (*Avena fatua*), bromes (*Bromus* spp.), stork's bill (*Erodium* spp.), and mustard (*Brassica* spp.) are common indicators. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will dominate. A small section of non-native grassland is present on the eastern portion of the MHPA BLA site. According to the City's Biology Guidelines, non-native grassland is considered a Tier IIIB sensitive vegetation community (City of San Diego 2018a).

Disturbed Wetland & Poison Oak Scrub

Disturbed wetlands are areas permanently or periodically inundated by water that have been substantially modified by human activity. Disturbed wetland is often unvegetated, but may include some scattered native or non-native vegetation. Some characteristic non-native species that may be associated with disturbed wetlands include giant reed, tamarisk (*Tamarix* spp.), eucalyptus (*Eucalyptus* spp.), palms (*Phoenix* spp., *Washingtonia* spp.), pampas grass (*Cortaderia* spp.), poison oak (*Toxicodendron diversilobum*), and Bermuda grass (*Cynodon dactylon*). Native wetland species, such as willows (*Salix* spp.) and cattails (*Typha* spp.), also may be present at low cover. Disturbed wetlands include portions of wetlands with obvious artificial structures, such as barricades, riprap, piers, or gates. Therefore, Arizona crossings, detention basins, culverts, and ditches would be considered disturbed wetlands.

Disturbed wetlands occur throughout San Diego County (Oberbauer et al. 2008). Disturbed wetland is considered a wetlands community according to the City Biology Guidelines (City of San Diego 2018a).

Disturbed wetland dominated by Mexican fan palm (*Washingtonia robusta*), giant reed, and poison oak is present on the MHPA BLA location, with disturbed wetland (Poison oak-dominated) vegetation being the predominant vegetation cover along much of the north-facing slope and disturbed wetland (Palm-dominated) and disturbed wetland (*Arundo*-dominated) vegetation present in small patches along the main drainage in the center of the MHPA BLA site.

Poison oak is a facultative species according to USACE's 2020 National Wetland Plant List. Facultative plant species are defined in the USACE Wetlands Delineation Manual (USACE 1987) as "Plants that occur sometimes (estimated probability 1 percent to <33 percent) in wetlands, but occur more often (estimated probability >67 percent to 99 percent) in nonwetlands". As such, this species only marginally fits into the City's wetland definition, which specifies "Common to all wetland vegetation communities is the predominance of hydrophytic plant species (plants adapted for life in anaerobic soils." (City of San Diego 2018a). Therefore, it is understood that determining whether disturbed wetland vegetation communities dominated by poison oak should be considered City wetlands ought to be done on a case-by-case basis through consideration additional factors, such as elevation and proximity to water sources and other City wetlands. Based on this determination, the disturbed wetland (Poison oak-dominated) community on the MHPA BLA site is broken into what is considered a City wetland (i.e., within 50 feet of the streambed at the bottom of the primary canyon; disturbed wetland [Poison oak-dominated]) and what is not considered City wetland (i.e., poison oak scrub) based on distance and elevation above other City wetland features in areas that lack any other hydrologic source or connection suitable for the establishment of wetland vegetation communities (Figure 9).

The remaining disturbed wetland vegetation (i.e., Arundo and Palm-dominated) on the MHPA BLA site is considered a City wetland, according to the City's Biology Guidelines (City of San Diego 2018a) based on the wetland plant species that are dominant and their association with other City wetland features (i.e., natural flood channel).

4.2.1.2 Effects on Significantly and Sufficiently Conserved Habitats

This BLA includes both the restoration of on-site habitats, and the provision of an off-site parcel (i.e., MHPA BLA site; Figure 7) by the applicant that would meet and exceed the requirements of the MSCP (i.e., increased habitat value/function) for loss of MHPA lands. This would occur through restoration of manufactured slope areas with native habitats that would be through long-term management by the City following dedication. Through implementation of the BLA, these restored native habitats would be maintained in higher functioning condition than the existing habitats on the site, which are degraded and currently receive no active management.

The current project parcel overlaps with a total of 33.40 acres of MHPA lands. As outlined above and in Table 5A, 13.72 acres on the project parcel would require a BLA to allow for removal of the area from the MHPA as a result of development activities proposed. However the project would only be required to provide 10.52 acres of MHPA area addition as part of the BLA since 3.20 acres of project construction footprint overlap with the MHPA would be approved under the City's Biology Guidelines 25% allowable development area for the sites containing MHPA lands. There would be 8.70 acres within the current MHPA that would be graded for manufactured slopes, restored with coastal sage scrub (including chaparral transition) habitat and remain in the MHPA following construction (Table 5B). Smaller areas (0.77 acre total) will be added to the MHPA and include restored manufactured slope area that would be restored with coastal sage scrub (including chaparral transition) habitat and existing Tier II and III habitats

(Table 5A). In addition, 2.47 acres undeveloped area outside the project construction footprint currently consisting of Tier IV vegetation communities and land covers would restored to coastal sage scrub (including chaparral transition) and wetland habitats (Table 5A; Figure 7). A total of 20.42 acres of MHPA would remain on the project parcel following completion of construction (Table 5A; Figures 6A through 6H). The post-project MHPA areas would be dedicated to the City in fee title as separate lot parcels for long-term management (Appendix L), with the exception of limited areas with existing easements for Zone 2 or 3 brush management requirements along the northern edge of the project parcel.

The proposed MHPA BLA addition site is located east of Regents Road, south of Conrad Avenue, north of Ogalala Avenue, and west of Pocahontas Court (Assessor's Parcel Nos. 359-210-09-00, 359-210-10-00, 359-210-11-00). As shown in Table 5A, the sensitive upland vegetation communities present at the MHPA BLA addition site that would be gained include 0.92 acres of Tier I, 10.78 acres of Tier II (coastal California gnatcatcher-occupied), and 0.21 acres of Tier IIIB habitat (City of San Diego 2018a). There are also 4.84 acres of Tier IV habitat on the MHPA BLA addition site.

The City wetlands present on the MHPA BLA addition site include 1.52 acres of disturbed wetland (Poison oak-dominated), 0.16 acres of disturbed wetland (Palm-dominated), 0.27 acres of natural flood channel, and 0.03 acres of disturbed wetland (*Arundo*-dominated). There are no City wetlands within the BLA removal area and the project includes a re-established natural flood channel in the southwest section of the project and additional wetland restoration in the northern portion of the project parcel (Figure 7).

In addition to vegetation communities present, there were 103 plant species (61 native) (Appendix A) and 43 wildlife species (Appendix B) detected within the BLA removal area during reconnaissance and focused surveys and there were 48 plant species (27 native) (Appendix H) and 20 wildlife species (Appendix I), including coastal California gnatcatcher, detected on the MHPA BLA addition site during reconnaissance surveys (Table 1). The higher diversity on the project parcel is due to a larger variety of vegetation communities present.

Overall, the proposed BLA would result in preservation of habitat with potential to support special-status plant and wildlife species by retaining and improving through restoration a portion of existing MHPA on-site after construction (i.e., MHPA retained as restored manufactured slopes or restored Tier IV habitats currently in the MHPA) and by adding further MHPA area both on-site and at the off-site MHPA BLA location at a ratio of 1.42:1 (i.e., 13.72 acres would be removed from the MHPA as part of the project BLA and 0.77 acres would be added on-site, such that, with the 18.74 acres within the off-site MHPA BLA, an additional 5.79 acres of MHPA would be added to the preserve in addition to the 1:1 replacement of 10.52 acres BLA area required for the project [Table 5A]).

4.2.1.3 Effects on Covered Species

Surveys for special-status MSCP covered species were conducted as described in Section 2. MSCP covered wildlife and plant species that have the potential to utilize the habitat within the proposed BLA area include orange-throated whiptail, San Diego barrel cactus, and Del Mar manzanita (Figures 3, 6A, and 6B). Similar to the habitat-based approach employed for mitigation to these covered species described in Section 5.2.3 and Section 5.2.4, effects to the remaining covered species (i.e., orange-throated whiptail and San Diego barrel cactus) are proposed to be reduced through a habitat-based replacement for these species (i.e., coastal sage scrub replacement) as well as translocation of barrel cactus on-site. All Del Mar manzanita individuals within the MHPA removal area are also within the project construction footprint and would have cuttings transplanted or be replaced at a ratio of 2:1 within the proposed On-Site Mitigation Area that is located within the existing MHPA boundary; direct replacement of this

species is not proposed as part of this MHPA BLA (Figure 3). It should also be noted that focused surveys for coastal California gnatcatcher within the project's on-site BLA area were negative (Appendix G). However, coastal California gnatcatcher were detected during focused protocol surveys conducted on the off-site MHPA BLA site in April and May 2021 (Table 1; Appendix G). Therefore, the MHPA BLA is expected to have a net positive effect on covered species and would result in the net loss of zero covered plant species individuals.

4.2.1.4 Effects on Habitat Linkages and Function of Preserve Areas

The nearest biological core area is approximately 1.5 miles northwest of the study area and connects to Peñasquitos Creek, which then connects to Peñasquitos Canyon and Lagoon further downstream towards the Pacific Ocean. The project study area is surrounded by residential development and therefore is not expected to serve as a key habitat linkage for wildlife. However, because substantial stands of native habitat are present, the study area could serve as a stop-over location for avian species flying through the area.

The project would maintain the primary stepping-stone avian movement function of the parcel by restoring manufactured slopes with native habitat and maintaining the northern portion of the parcel as undeveloped open space.

The proposed MHPA BLA site is directly connected to the existing MHPA boundary in Marion Bear Memorial Park and contains an unnamed tributary to Rose Canyon Creek within its extent (Figure 8). As a result, the MHPA BLA site would provide opportunities for direct wildlife movement within native habitat to off-site MHPA areas for both avian and terrestrial wildlife species. Therefore, this BLA would maintain and provide improvements to the function of the MHPA biological core areas and also present opportunities for enhanced wildlife corridor movement.

4.2.1.5 Effects on Preserve Configuration and Management

Preserve management efficiency or effectiveness, as well as configuration, would be improved by the proposed MHPA BLA. The MHPA on-site would be accessible for maintenance purposes from the City park located to the east of the site (Figure 6D). In addition, the MHPA BLA addition site is directly abutting contiguous City-owned MHPA lands with multiple access routes from City-owned right-of-ways and parks (Figure 8), providing the opportunity for simple incorporation into the City's adjacent management activities. There is one portion of the proposed MHPA BLA addition site located west of Regents Road that would require separate access, but would still have connection to the larger section of the parcel east of Regents Road through an existing culvert and also would have connection to off-site MHPA areas in Marian Bear Memorial Park and Rose Canyon Open Space Park further to the north (Figure 8). The added MHPA BLA site would be dedicated to the City in fee title and the City Parks and Recreation Department would ensure successful long-term management of the site, consistent with the in-perpetuity management goals of the MSCP defined in the Subarea Plan. A right-of-way vacation would be processed as part of the project for the section of the unbuilt Lakehurst Avenue right-of-way within the MHPA BLA addition site (not yet built), which would further ensure adequate MHPA configuration and management.

4.2.1.6 Effects on Ecotones or Other Conditions Affecting Species Diversity

The proposed MHPA BLA would have a positive effect on ecotone and species diversity. The areas of the MHPA that would remain on the project site after construction include over 5 acres of existing Tier IV habitats that would be restored with suitable native habitats. All MHPA areas will be managed in perpetuity. This would maximize the number of species with opportunity to utilize these areas compared with the current conditions on the project site.

The MHPA BLA addition site is composed of similar upland habitat types as the existing MHPA area within the project construction footprint that would be removed from the MHPA., While more species were identified on the project parcel, the MHPA BLA addition site contains a larger variety of vegetation communities. The MHPA BLA addition site includes substantial City wetland features which are not present in the MHPA area being removed. The MHPA BLA addition site also supports the federally threatened coastal California gnatcatcher (based on historic occurrence records and focused surveys for this species, which were conducted in April 2021) and Cooper's hawk.

Measures for avoidance listed in Sections 4.14 and 4.19 for these species that would be included as conditions of project approval would also be adhered to for restoration of the manufactured slopes such that no impacts to these species would occur as a result of project activities. As a result, the overall positive effects on species diversity within the MHPA are expected to be higher as a result of the MHPA BLA due to the higher quality habitats being added, which include special-status species occupied coastal sage scrub habitat.

4.2.1.7 Effects on Species of Concern Not on the Covered Species List

The project would have impacts on two special-status species not covered under the MSCP: Nuttall's scrub oak and Coulter's goldfields. and 4, respectively. As described in Section 5.2.3, habitat-based mitigation would be provided for Nuttall's scrub oak (CRPR 1B.1) and the species would be utilized in the plant palette proposed on the site; therefore, the effect of the MHPA BLA is anticipated to be minimal. The occurrence of Coulter's goldfields will be retained in the MHPA and is subject to disturbance only from proposed wetlands restoration activities (wetlands rehabilitation). The On-Site Wetland Restoration Plan (Appendix K) is designed to benefit the species and the occurrence is therefore not expected to be adversely affected.,

4.2.2 Summary

In conclusion, the proposed BLA would result in a net increase in MHPA area and value to the MHPA through restoration of existing MHPA areas on the project parcel and off-site addition to the MHPA. As a result, the MHPA BLA proposed here has been determined to meet and exceed the requirements of the City's MSCP for adjustments to the boundary of the MHPA under a "like or equivalent" exchange. Concurrence on this determination has been provided by USFWS and CDFW (Appendix O).

INTENTIONALLY LEFT BLANK.

5 Impacts Analysis

The purpose of this chapter is to describe the direct, indirect, and cumulative impacts of the project on special-status biological resources. The significance determinations for proposed or potential impacts are described in this chapter.

5.1 Definition of Impacts

Based on the project description (Section 1.2), direct impacts, indirect (short-term and long-term) impacts, and cumulative impacts are defined in the following paragraphs.

Direct impacts include both the permanent loss of on-site habitat and the plant and wildlife species that it contains and the temporary loss of on-site habitat. Direct impacts associated with the project would occur from the preparation/grading of the site, building of the new home structures, and installation of all included amenities (e.g., parking lots, sidewalks, landscaping, lighting, fencing, utilities, storm drain system). Impacts were quantified by overlaying the proposed impact alignment onto the biological resources map and evaluating the impacts by vegetation community. No temporary direct project impacts are expected.

Indirect impacts refer to off-site and on-site effects that are short term (i.e., temporary) due to construction of the project construction or long term (i.e., permanent) due to the design of the project and the effects it may have on adjacent resources. For this project, it is assumed that the potential short-term indirect impacts resulting from construction activities may include dust, noise, construction-related soil erosion/runoff, and general human presence that may temporarily disrupt species and habitat vitality. Because the project is surrounded by existing residential development, habitat around the project construction footprint is already subject to minor long-term indirect human impacts, including noise and general human presence; through compliance with the City's MSCP LUAG, additional long-term indirect impacts associated with the project are not expected to occur.

Cumulative impacts refer to the combined environmental effects of the project and other relevant projects. In some cases, the impact from a single project may not be significant, but when combined with other projects, the cumulative impact may be significant.

Lands containing Tier I, II, IIIA, and IIIB habitats (Table 2) and all wetlands (Table 4) are considered sensitive and declining; as such, impacts to these resources may be considered significant. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant.

The City's Biology Guidelines (City of San Diego 2018a) also include additional information regarding significance, as follows:

a. Total upland impacts (Tiers I– IIIB) less than 0.1 acres are not considered significant and do not require mitigation.
b. Impacts to non-native grasslands totaling less than 1.0 acres which are completely surrounded by existing urban developments are not considered significant and do not require mitigation. Examples may include urban infill lots.
c. Total wetland impacts less than 0.01 acres are not considered significant and do not require mitigation. This does not apply to vernal pools or wetlands within the Coastal Zone.

d. Removal/control of non-native plants is not considered to be a significant habitat impact. Examples include disturbed wetlands dominated by invasive plant species such as giant reed or Mexican fan palm.

5.2 Direct Impacts

5.2.1 Vegetation Communities and Land Cover Types

Implementation of the project would result in direct permanent impacts to vegetation communities and land covers, including Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub, southern mixed chaparral (including disturbed), scrub oak chaparral, emergent wetland, natural flood channel, disturbed habitat, eucalyptus woodland, developed land, *Arundo*-dominated disturbed habitat,, and herbaceous wetland (artificial) (Figure 2; Table 6). Impacts would occur from clearing, grading, and/or manufactured slope creation for development of the residential subdivision and associated features.

Additionally, there would be impacts associated with on-site mitigation implementation proposed to occur (Figure 7; Appendix J). Mitigation activities on the project site would result in impacts to urban/developed land, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, and herbaceous wetland (artificial). These impacts are included in the acreages shown in Table 6 and described in detail in Appendices J and K.

Table 6 lists direct impacts to vegetation communities and land cover types that would occur as part of the project. Corresponding City Biology Guidelines (City of San Diego 2018a) habitats and their associated Tiers are also listed.

All impacts to sensitive vegetation communities (Tier I-III) would be significant and would be mitigated through restoration or preservation of suitable habitats, as described in Section 6.1, Mitigation Measures for Direct Impacts.

Table 6. Direct Impacts to Vegetation Communities and Land Cover Types

Vegetation Community	Tier	Total Parcel (Acres)	Project Construction Footprint Impacts (Acres)[a]	Manufactured Slope Impacts (Acres)	Vegetated Stormwater Basin Impacts (Acres)	Zone 1 Impacts (Acres)	Additional Restoration Impacts (Acres)	Total Impacts (Acres)	No Impact (Acres)
Sensitive Upland Habitats (Tiers I – IIIA)									
Scrub oak chaparral	I	2.46	0.24	0.30	0.79	0.02	0	1.35	1.11
Diegan coastal sage scrub (including disturbed)	II	4.60	1.19	2.05	0.07	0.23	0.14	3.68	0.92
Diegan coastal sage scrub (*Baccharis*-dominated)	II	0.11	0	0	0	0	0.10	0.10	0
Flat-topped buckwheat scrub	II	2.41	1.98	0.06	0	0	0	2.04	0.37
Coastal sage–chaparral transition	II	4.08	3.5	0.36	0	0.22	0	4.08	0
Southern mixed chaparral (including disturbed)	IIIA	12.25	2.13	3.55	0.04	0.52	0.11	6.35	5.89
Subtotal Sensitive Uplands[1]		*25.91*	*9.04*	*6.32*	*0.90*	*0.99*	*0.35*	*17.60*	*8.28*
None (Tier IV)									
Eucalyptus woodland	IV	3.58	0.4	1.53	0.02	0	1.65	3.60	0
Disturbed habitat	IV	6.96	4.49	0.97	0.18	0.23	0.51	6.38	0.57
Developed land	IV	2.34	2.17	0.16	0	0.02	0	2.35	0
Arundo-dominated disturbed habitat[b]	IV	0.74	0.51	0.15	0	0.07	0	0.73	0
Herbaceous wetland[b] (artificial)	IV	0.42	0	0.10	0	0	0.31	0.41	0.01
Emergent wetland[b]	IV	0.41	0.01	0.24	0	0.06	0	0.31	0.11

Table 6. Direct Impacts to Vegetation Communities and Land Cover Types

Vegetation Community	Tier	Total Parcel (Acres)	Project Construction Footprint Impacts (Acres)[a]	Manufactured Slope Impacts (Acres)	Vegetated Stormwater Basin Impacts (Acres)	Zone 1 Impacts (Acres)	Additional Restoration Impacts (Acres)	Total Impacts (Acres)	No Impact (Acres)
Natural flood channel[b]	IV	0.20	0.01	0.06	0	0.01	0	0.18	0.02
Subtotal Tier IV		*14.65*	*7.58*	*3.21*	*0.20*	*0.39*	*2.47*	*13.96*	*0.72*
Total		**40.56**	**16.63**	**9.63**	**1.10**	**1.38**	**2.82**	**31.59**	**9.00**

Notes: MHPA = Multi-Habitat Planning Area.

[a] "Project Construction Footprint" includes impacts from housing, roads, and infrastructure pipelines.

[b] These areas do not meet the City's wetland definition.

5.2.2 Jurisdictional Resources

The project would directly impact aquatic resources estimated to include the jurisdiction of RWQCB and CDFW, including wetlands (i.e., emergent wetland and disturbed herbaceous wetland) and non-wetland waters (natural flood channel) in the study area (Table 7, Figure 5). As described in Section 3.2.7, none of the potential jurisdictional resources are considered wetlands under the City's definition or waters of the United States. The project applicant would obtain, as mitigation, all required RWQCB and CDFW permits for impacts to jurisdictional resources prior to project initiation.

Implementation of the project would result in direct impacts from project construction to the herbaceous wetland (artificial) in the northern portion of the study area that would not be regulated as a wetland by the City, CDFW, or USACE (Figure 5). The RWQCB may regulate this area as a wetland, and direct impacts from installation of manufactured slopes would occur. Impacts associated with restoration activities within the herbaceous wetland (artificial) are not anticipated to require mitigation from the RWQCB. CDFW and RWQCB are expected to require mitigation for impacts to natural flood channel and emergent wetland.

Table 7. Direct Impacts to Potential Jurisdictional Resources

Vegetation Community	Jurisdiction	Project Construction Footprint Impacts (Acres)	Additional Restoration Impacts (Acres)	Total Impacts (Acres)	No Impact (Acres)
Emergent wetland	R/C	0.31	0	0.31	0.11
Herbaceous Wetland	R	0.10	0.30	0.41	0.01
Natural flood channel	R/C	0.18	0	0.18	0.03
	Total	**0.59**	**0.30**	**0.90**	**0.15**

Notes: R = Regional Water Quality Control Board, C = California Department of Fish and Wildlife.

5.2.3 Direct Impacts to Special-Status Plants

Five special-status plants were detected within the study area: Del Mar manzanita, San Diego viguiera, San Diego barrel cactus, Coulter's goldfields, and Nuttall's scrub oak. Table 8 lists the number of individuals of sensitive plants that would be directly impacted as part of the project, as well as additional special-status species that have moderate potential to occur, but were not detected in the study area.

Table 8. Direct Impacts to Special-Status Plants in the Project Study Area

Species	Status (Federal/State/CRPR/ City of San Diego MSCP)	Impacts (Number of Individuals)
Species Observed in the Project Study Area		
Del Mar manzanita	FE/None/1B.1/Covered	13
San Diego viguiera	None/None/4.3/None	0
San Diego barrel cactus	None/None/2B.1/Covered	92
Coulter's goldfields	None/None/1B.1/None	700*
Nuttall's scrub oak	None/None/1B.1/None	520
Species with Moderate Potential to Occur but Not Detected in the Project Study Area		
Western spleenwort	None/None/4.2/None	N/A

Table 8. Direct Impacts to Special-Status Plants in the Project Study Area

Species	Status (Federal/State/CRPR/ City of San Diego MSCP)	Impacts (Number of Individuals)
Campbell's liverwort	None/None/1B.1/None	N/A
California adder's-tongue	None/None/4.2/None	N/A
Bottle liverwort	None/None/1B.1/None	N/A

Notes: CRPR = California Rare Plant Rank; MSCP = Multiple Species Conservation Program.

* Impacts to Coulter's goldfields are primarily from wetland restoration activities. A small portion (less than 5%) of the population may be impacted by proposed manufactured slope grading.

Status Definitions:

FE: Federally listed as endangered

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

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

CRPR 4: Watch List: Plants of limited distribution

- .1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- .2 – Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
- .3 – Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

The City's Biology Guidelines state that, "[i]n general, it is accepted that securing comparable habitat at the required ratio will mitigate for the direct impact to most sensitive species. While this is true for species with wide geographic distributions and/or large territory sizes, species with very limited geographic ranges (narrow endemic species) would require additional efforts designed to protect these species" (City of San Diego 2018a). Although Del Mar manzanita is not a narrow endemic species, it does have a restricted geographic range; therefore, species-specific mitigation is required. As a covered species, impacts to this species would be significant. As detailed in the Upland Restoration Plan (Appendix J) and Section 6.1 below, this species would be mitigated via habitat-based mitigation and translocated as a part of habitat restoration efforts.

Nuttall's scrub oak is not a covered or narrow endemic species, but is considered a CRPR 1B.1 species and is present throughout the project parcel where it would be directly impacted by the project. Therefore, impacts to this species would be considered significant. This species would be mitigated via habitat-based mitigation for scrub oak chaparral and southern mixed chapparal, as detailed in the Upland Restoration Plan (Appendix J) and below in Section 6.1.

The other MSCP-covered species present in the study area is San Diego barrel cactus, which is considered a CRPR 2B.1 species and does have a relatively wide geographic distribution within San Diego Conty. Impacts would be significant, and mitigated through application of habitat-based compensatory mitigation. In addition, the project proposal includes translocation of the impacted 92 individuals (Figure 3; Appendix J). Refer to Section 6.1 and Appendix J for further details. The project site contains a population of Coulter's goldfield individuals, which is a CRPR 1B.1 species. This population is expected to benefit from wetlands restoration planned for this area (see Appendix K – On-site Wetland Restoration Plan). While there are some risks that restoration may be unsuccessful or result in conversion to a wetland habitat type that is not as suitable for Coulter's goldfield, since the wetland habitat where this species is present (i.e., disturbed herbaceous wetland) was established artificially, the presence of this species is not considered naturally occurring and impacts from manufactured slopes grading and restoration would not be considered significant.

The following species with moderate potential to occur are CRPR 4 because they are not under immediate threat, and impacts would therefore not be considered significant: San Diego viguiera, western spleenwort, and California adder's-tongue.

5.2.4 Direct Impacts to Special-Status Wildlife

Special-status wildlife species present or determined to have a high or moderate potential to occur within the study area include Cooper's hawk, San Diegan tiger whiptail, coastal California gnatcatcher, orange-throated whiptail, red diamondback rattlesnake, San Diego ringneck snake, two-striped gartersnake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, Crotch's bumble bee, and San Diego desert woodrat (*Neotoma lepida intermedia*). Direct impacts to all species with moderate to high potential to occur would result from the loss of habitat and potential mortality during construction.

Non-listed special-status wildlife species, including but not limited to San Diegan tiger whiptail, orange-throated whiptail, red diamondback rattlesnake, San Diego ringneck snake, two-striped gartersnake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat, all have a relatively wide distribution, and associated habitats could be impacted by general construction activities. These impacts are significant and require habitat-based mitigation.

Direct impacts to coastal California gnatcatcher would occur through the removal of habitat and potential direct take outside the MHPA, despite the project's compliance with the LUAGs and Area Specific Management Directives for the species. The Area Specific Management Directives for coastal California gnatcatcher include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure (City of San Diego 1997, p. 164). The project would comply with the fire protection measures identified in the fire fuel load modeling report, such as the brush management plan. Edge effects to coastal California gnatcatcher would be reduced through the restoration of manufactures slopes and Tier IV habitat to native habitat and lack of a Zone 2 Brush Management Area and associated maintenance activities. Significant impacts of removing habitat would be mitigated through habitat conservation; impacts from direct loss of individuals outside the MHPA is less than significant, due to compliance with take authorization under the MSCP.

While a detailed habitat assessment for Crotch's Bumble Bee was not conducted, nesting and foraging habitat was assessed by presence of blooming flowers which is foraging habitat and nesting resources, including rodent burrows, bare grounds, and fallen logs. As the entire site has the potential to support foraging and nesting habitat, direct impacts to Crotch's bumble bee nesting and foraging habitat, with potential mortality, could occur from construction activities. The impact area supports over 17 acres of sensitive upland habitat with various blooming species that provide Crotch's bumble bee foraging habitat and various suitable ground nesting conditions such as rodent burrows and fallen logs, particularly within the over 3 acres of eucalyptus woodland. The loss of nesting and foraging habitat requires habitat mitigation; the potential for direct take of individuals requires mitigation in the form of surveys, monitoring, and avoidance.

Non-Special-Status Birds (MBTA)

Migratory bird species are protected under the MBTA (16 USC 703–712), and all nesting birds, including raptors, are also afforded protection under California Fish and Game Code Sections 3503 and 3503.5. Non-special-status birds and raptors, including Cooper's hawk, may nest within the study area. Direct impacts to active nests protected under the California Fish and Game Code Sections 3503 and 3503.5 would be avoided entirely through compliance with these regulations and compliance with the MSCP Land Use Adjacency Guidelines described in Section 4.1.

5.3 Indirect Impacts

5.3.1 Vegetation Communities and Land Covers

Seven native vegetation communities were mapped directly adjacent in the vicinity of the project construction footprint: Diegan coastal sage scrub, coastal sage–chaparral transition, southern mixed chaparral, flat-topped buckwheat, emergent wetland, and scrub oak chaparral. In addition, the majority of eucalyptus woodland present would be restored to native upland vegetation communities (Appendix J). Short-term indirect impacts that may affect these adjacent vegetation communities include dust, erosion, invasive plant species, temporary access impacts, and increased human presence. These short-term indirect impacts would be avoided through project compliance with National Pollutant Discharge Elimination System (NPDES) regulations, incorporation of appropriate BMPs during construction (e.g., dust control, biological monitoring, treatment of equipment for invasive species control, temporary site fencing, fiber rolls), installation of permanent BMPs per the City's Storm Water Standards Manual (City of San Diego 2018b), and preparation and implementation of a project-specific SWPPP.

The potential long-term indirect impacts of the project would be from noise, lighting, invasive species introduction, erosion, affects to water quality, and increased human presence adjacent to the MHPA from residential activities and common associated activities. It is assumed that any noise impacts would likely be intermittent and below the 60 A-weighted decibel hourly threshold for impacts to special-status wildlife inhabiting adjacent vegetation and would not cause significant long-term adverse indirect impacts. All new lighting would be confined to the project construction footprint and would be required to be shielded or directed away from the MHPA and native habitats and would not be a significant impact. In order to reduce introduction of invasive species, the project includes a landscape plan that does not include plant species identified by the California Invasive Plant Council (GMP 2023). Within the on-site open space that would be retained as MHPA after construction, invasive species already present shall be entirely removed where feasible, and the removal shall be monitored by a Qualified Monitoring Biologist, as defined in the City's Biology Guidelines (City of San Diego 2018a), to ensure that dispersal of propagules (e.g., seeds, stems) is avoided or minimized. The remaining open space areas would also be managed by the City in perpetuity, which would include invasive species treatment. If aboveground plant material cannot be removed (e.g., due to limited access), herbicides shall be applied by a licensed applicator, using chemicals permitted as safe within aquatic environments, thus indirect impacts from invasive species would not be significant. Effects from erosion and water quality treatment changes would be reduced through the project's stormwater design as storm water conveyance would be directed and treated according to the Priority Development Project Storm Water Quality Management Plan (Hunsaker & Associates 2023). Drainage from the project construction footprint would be intercepted and conveyed via a public storm drain system into two vegetated stormwater basins in the northwest portion of the project. A final layer of gravel would control water infiltration rates into a pipe prior to the water flowing through a pipe below the ground-level of manufactured slopes and discharging into the emergent wetland habitat to the southwest and herbaceous wetland (artificial) to the northeast where a small rip rap pad would control flow rates, such that indirect impacts from erosion and water quality treatment changes would not be significant. The increase in human presence would be limited to the boundaries of the development (see Section 4.1.5, Barriers) and no additional human access or encroachment into the native vegetation is expected (e.g., no trails would be included outside the project construction footprint within native habitats); therefore, no significant indirect impacts are expected. The project would further be required to demonstrate compliance with the City's MSCP LUAG (see Section 4), which would provide a further reduction in indirect impacts to vegetation communities within the MHPA, including prevention of toxic or harmful runoff. Refer to Section 4.1 for additional details.

5.3.2 Jurisdictional Resources

The area outside the proposed project grading extents contains several potentially jurisdictional resources areas, including emergent wetland and several non-wetland waters potentially be regulated by RWQCB and CDFW. Waters of the state are typically affected in the short term by dust, invasive plant species, and increased human presence, and in the long term by changes in the velocity of runoff during and following construction, which could adversely affect the integrity of downstream resources, causing erosion and sedimentation. These indirect impacts to jurisdictional resources would be reduced by measures included in the project design; project compliance with NPDES regulations; incorporation of appropriate BMPs during construction (e.g., fiber rolls); installation of permanent BMPs in accordance with the City's Storm Water Standards Manual (City of San Diego 2018b); preparation and implementation of a project-specific SWPPP; and implementation of standard construction protection measures, which include having a qualified biologist present to supervise flagging of sensitive resources prior to construction, provide environmental training, and ensure no unauthorized impacts occur during construction. There are no City-defined wetlands resources adjacent to the proposed development and therefore no wetland buffers.

The project has been designed to minimize project indirect impacts (1) re-planting native species on the proposed manufactured slopes in order to increase the function of the adjacent wetland buffer and (2) installing a fence along the boundary between the project construction footprint and the MHPA, to discourage human intrusion into sensitive vegetation communities. This would avoid indirect impacts to jurisdictional resources such that no significant indirect impacts to these resources would occur.

5.3.3 Special-Status Plant Species

Potential indirect impacts to off-site special-status plant species would be similar to those previously described for vegetation communities (e.g., increased human presence, dust). These indirect impacts to special-status plant species outside the project would be reduced by measures included in the project design (including the wetland buffer and transitional wetland habitat); project compliance with NPDES regulations; incorporation of appropriate BMPs during construction (e.g., fiber rolls); installation permanent BMPs in accordance with the City's Storm Water Standards Manual (City of San Diego 2018b); preparation and implementation of a project-specific SWPPP; and implementation of standard construction protection measures listed in the project's mitigation and monitoring plan, which includes having a qualified biologist present to supervise flagging of sensitive resources for avoidance prior to construction, provide environmental training, and ensure no unauthorized impacts occur during construction.

5.3.4 Special-Status Wildlife Species

Most of the indirect impacts to vegetation communities previously described can also affect special-status wildlife. Wildlife may also be indirectly affected in the short term by construction-related noise, which can disrupt normal activities and subject wildlife to higher predation risks. Adverse edge effects can cause degradation of habitat quality through the invasion of pest species. Breeding birds can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities.

If project grading or construction occurs during the breeding season for Cooper's hawk and coastal California gnatcatcher (February 1 through September 15), the project could impact these species. Specifically, construction noise levels above 60 decibels in the MHPA may impact nesting coastal California gnatcatchers and is considered significant absent mitigation require minimizing disturbance during the nesting period of this species within the

MHPA. The project restoration activities within the MHPA also have the potential to indirectly impact coastal California gnatcatcher. The Biology Guidelines require a 300-foot construction buffer from active Cooper's hawk nests, which would mitigate significant impacts to nesting Cooper's hawk.

5.4 Cumulative Impacts

In an effort to eliminate cumulative impacts to sensitive biological resources throughout the City, the City is participating in the San Diego MSCP. The MSCP is a long-term regional conservation plan established to protect sensitive species and habitats in San Diego County. The MSCP is divided into subarea plans that are implemented separately from one another.

This planning effort is designed to address cumulative impacts through development of a regional plan that addresses impacts to covered species and habitats in a manner that ensures their conservation despite impacts of cumulative projects over the long term. The ultimate goal of this plan is the establishment of biological reserve areas in conformance with the State of California Natural Communities Conservation Planning Act.

The study area, including the project construction footprint, is within the MSCP Subarea Plan area and portions of the project are both within and adjacent to the MHPA (Figure 6B). Cumulative impacts to sensitive vegetation communities from implementation of the project are not expected to be significant, because all activities proposed, including mitigation required and BLA, are in conformance with the regional and City plans previously described, particularly the City's MSCP (see Section 4.1). In addition, no vernal pools or native grassland habitat would be impacted as part of the project.

While impacts to potential jurisdictional resources would occur as part of the project, both restoration and creation mitigation would be provided on-site at a 2:1 ratio such that no net loss would be achieved and total potential jurisdictional resource area would be expanded as a result of the project. Therefore, cumulative impacts would not be significant.

6 Mitigation

6.1 Vegetation Communities and Jurisdictional Resources

The project would result in direct impacts to sensitive vegetation communities and wetlands (Figures 2 and 5). The project includes mitigation that is consistent with the City's Biology Guidelines (City of San Diego 2018a). According to the City's Significance Determination Thresholds (City of San Diego 2022), impacts of more than 0.1 acres to upland habitats (Tiers I–IIIB) are considered significant and require mitigation. All mitigation ratios for permanent impacts to sensitive vegetation communities within the project construction footprint were determined based on the location of the impacts outside the MHPA because those areas would be removed through the BLA that is included as a part of the project. Mitigation ratios for impacts associated with manufactured slopes or other project features (e.g., re-established natural flood channel, restoration areas) within areas that would remain in the MHPA following project completion were determined based on both impacts and mitigation occurring within the MHPA, in accordance with Table 3 of the City's Biology Guidelines (City of San Diego 2018a). Table 9 provides a detailed summary of the mitigation requirements for direct impacts to these vegetation communities.

INTENTIONALLY LEFT BLANK

Table 9. Mitigation for Direct Impacts to Sensitive Vegetation Communities and Wetlands

Vegetation Community	Tier	Total Parcel (Acres)	Total Impacts Within MHPA (Acres)	Total Impacts Outside MHPA (Acres)	Mitigation Ratio for Impacts Inside MHPA / (Outside MHPA)	Mitigation Required (Acres)
Sensitive Upland Habitats (Tiers I–IIIA)						
Scrub oak chaparral	I	2.46	0.29	1.06	2:1 / (1:1)	1.65
Diegan coastal sage scrub (including disturbed)	II	4.46	1.96	1.72	1:1 / (1:1)	3.68
Diegan coastal sage scrub (*Baccharis*-dominated)	II	0.11	0.10	0	1:1 / (1:1)	0.10
Coastal sage–chaparral transition	II	4.08	0.33	3.75	1:1 / (1:1)	4.08
Flat-topped buckwheat scrub	II	2.41	0.06	1.98	1:1 / (1:1)	2.04
Southern mixed chaparral (including disturbed)	IIIA	12.25	3.18	3.17	1:1 / (0.5:1)	4.88
Subtotal Sensitive Uplands[b]		*25.54*	*5.92*	*11.68*	—	*16.43*
None (Tier IV)						
Eucalyptus woodland	IV	3.54	2.88	0.72	0:1 / (0:1)	0
Disturbed habitat	IV	6.70	1.43	4.95	0:1 / (0:1)	0
Developed land	IV	2.34	0.15	2.20	0:1 / (0:1)	0
Arundo-dominated disturbed habitat	IV	0.74	0.14	0.59	0:1 / (0:1)	0
Herbaceous wetland (artificial)	IV	0.57	0.41	0	0:1 / (0:1)	0
Emergent wetland	IV	0.79	0.22	0.09	0:1 / (0:1)	0
Natural flood channel	IV	0.13	0.15	0.03	0:1 / (0:1)	0
Subtotal Tier IV		*13.99*	*5.38*	*8.58*	—	—
Total[c]		**40.56**	**11.30**	**20.26**	—	**16.43**

Notes:

[a] "Project Construction Footprint" includes impacts from housing, roads, and infrastructure pipelines.

[b] Mitigation for impacts to sensitive uplands required in accordance with Table 3 of the City of San Diego Biology Guidelines (**all mitigation would occur within the MHPA**):
Tier I mitigation ratio of 2:1 for impacts within MHPA and mitigation located within MHPA; 1:1 for impacts outside MHPA (following BLA) and mitigation located within MHPA
Tier II mitigation ratio of 1:1 for impacts within or outside MHPA and mitigation located within MHPA
Tier IIIA mitigation ratio of 1:1 for impacts within or outside MHPA and mitigation located within the MHPA (i.e., manufactured slopes restored with native habitat); 0.5:1 for impacts outside the MHPA and mitigation located within MHPA (i.e., other project impacts)

[c] Some numbers may not sum exactly due to rounding.

BIO-1 Upland Impacts. The project would result in direct impacts to sensitive upland vegetation communities from construction of the project. Permanent direct impacts to upland habitats (Tiers I–IIIA) total 17.60 acres and therefore require mitigation. Impacts to Tier IV upland habitats would not require mitigation.

MM-BIO-1 Upland Mitigation. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Permits and Building Permits by the City of San Diego, the owner/permittee shall mitigate for the loss of 1.35 acres of Tier I habitat, 9.90 acres of Tier II habitat, and 6.35 acres of Tier IIIA habitat, by providing a minimum of 1.65 acres of Tier I habitat, 9.90 acres of Tier II habitat, and 4.88 acres of Tier IIIA habitat mitigation, through a combination of on-site preservation and on-site revegetation (i.e., creation, restoration, and enhancement).

On-Site Preservation. The owner/permittee shall preserve 7.97 acres within the MHPA that support 1.11 acres of Tier I habitat, 1.23 acres of Tier II habitat, and 5.63 acres of Tier IIIA habitat. The on-site preserved habitat provided to satisfy upland mitigation requirements shall be dedicated to the City with a maintenance endowment, and managed in perpetuity by the City as part of the MHPA preserve system.

On-Site Creation, Restoration, and Enhancement. Prior to the issuance of any construction permits, including but not limited to the first grading permit, demolition permit, and building permit, the Assistant Deputy Director (ADD) environmental designee of the City's Land Development Review Division (LDR) shall verify that the following statement is shown on the grading and/or construction plans as a note under the heading Environmental Requirements: "Renzulli Estates Project is subject to the Mitigation Monitoring and Reporting Program (MMRP) and shall conform to the mitigation conditions as contained in the Environmental Impact Report PRJ-0674401 / State Clearinghouse No. 2022040125 ".

Prior to Permit Issuance

A. Land Development Review (LDR) Plan Check
    1. Prior to the issuance of any construction permits, including but not limited to the first grading permit, demolition permit, and building permit whichever is applicable, the ADD environmental designee shall verify that the requirements for the revegetation/restoration plans and specifications, including 4.57 acres of creation and restoration of coastal sage scrub (Tier II), 0.54 acres of scrub oak chaparral (Tier I) restoration, 4.51 acres of coastal sage scrub/chaparral (Tier II) restoration, 0.52 acres of southern mixed chaparral (Tier IIIA) restoration, and 0.11 acres of southern mixed chaparral (Tier IIIA) enhancement. The restoration, creation and enhancement shall be shown and noted on the appropriate landscape construction documents. The landscape construction documents and specifications must be found to be in conformance with the On-site Upland Restoration Plan prepared by Dudek May 2025, the requirements of which are summarized below:

B. Restoration Plan(s) and Specifications
    1. Landscape Construction Documents (LCD) shall be prepared on D-sheets and submitted to the City of San Diego Development Services Department, Landscape Architecture Section (LAS) for review and approval. LAS shall consult with Mitigation Monitoring Coordination (MMC) and obtain concurrence prior to approval of LCD. The LCD shall consist

of revegetation/restoration, planting, irrigation, and erosion control plans; including all required graphics, notes, details, specifications, letters, and reports as outlined below.

2. Landscape Revegetation/Restoration Planting and Irrigation Plans shall be prepared in accordance with the City's Land Development Code (LDC) Chapter 14, Article 2, Division 4, the LDC Landscape Standards submittal requirements, and Attachment "B" (General Outline for Revegetation/Restoration Plans) of the City Biology Guidelines. The Principal Qualified Biologist (PQB) shall identify and adequately document all pertinent information concerning the revegetation/restoration goals and, such as but not limited to, plant/seed palettes, the timing of installation, plant installation specifications, method of watering, protection of adjacent habitat, erosion, and sediment control, performance/success criteria, inspection schedule by City staff, document submittals, reporting schedule, etc. The LCD shall also include comprehensive graphics and notes addressing the ongoing maintenance requirements (after final acceptance by the City).
3. The Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Construction Manager (CM) and Grading Contractor (GC), where applicable shall be responsible for ensuring that all grading and contouring, clearing, and grubbing, installation of plant materials, and any necessary maintenance activities or remedial actions required during installation and the 120-day plant establishment period are done per approved LCD. The following procedures at a minimum, but not limited to, shall be performed:
    a. the RMC shall be responsible for the maintenance of the upland mitigation area for a minimum period of 120 days. Maintenance visits shall be conducted on a minimum monthly basis throughout the plant establishment period.
    b. At the end of the 120-day period, the PQB shall review the mitigation area to assess the completion of the short-term plant establishment period and submit a report for approval by MMC.
    c. MMC will provide approval in writing to begin the five-year long-term establishment/maintenance and monitoring program.
    d. Existing indigenous/native species shall not be pruned, thinned, or cleared in the revegetation/mitigation area.
    e. The revegetation site shall not be fertilized.
    f. The RIC is responsible for reseeding (if applicable) if weeds are not removed, within one week of written recommendation by the PQB.
    g. Weed control measures shall include the following: (1) hand removal, (2) cutting, with power equipment, and (3) chemical control. Hand removal of weeds is the most desirable method of control and will be used wherever possible.
    h. Damaged areas shall be repaired immediately by the RIC/RMC. Insect infestations, plant diseases, herbivory, and other pest problems will be closely monitored throughout the five-year maintenance period. Protective mechanisms such as metal wire netting shall be used as necessary. Diseased and infected plants shall be immediately disposed of off-site in a legally acceptable manner at the discretion of the PQB or Qualified Biological Monitor (QBM) (City approved). Where possible, biological controls will be used instead of pesticides and herbicides.

4. If a Brush Management Program is required the revegetation/restoration plan shall show the dimensions of each brush management zone. Notes shall be provided describing the restrictions on planting and maintenance and identify that the area is impact neutral and shall not be used for habitat mitigation/credit purposes.

C. Letters of Qualification Have Been Submitted to ADD

1. The applicant shall submit, for approval, a letter verifying the qualifications of the biological professional to MMC. This letter shall identify the PQB, Principal Restoration Specialist (PRS), and QBM, where applicable, and the names of all other persons involved in the implementation of the revegetation/restoration plan and biological monitoring program, as they are defined in the City Biological Review References. Resumes and the biology worksheet should be updated annually.
2. MMC will provide the applicant with documentation confirming the qualifications of the PQB/PRS/QBM and all city-approved persons involved in the revegetation/restoration plan and biological monitoring of the project.
3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the revegetation/restoration plan and biological monitoring of the project.
4. PQB must also submit evidence to MMC that the PQB/QBM has completed Storm Water Pollution Prevention Program (SWPPP) training.

Prior to Start of Construction

A. PQB/PRS Shall Attend Preconstruction (Precon) Meetings

1. Prior to beginning any work that requires monitoring:
   a. The owner/permittee or their authorized representative shall arrange a Precon Meeting that shall include the PQB or PRS, Construction Manager (CM) and/or Grading Contractor (GC), Landscape Architect (LA), Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC.
   b. The PQB shall also attend any other grading/excavation-related Precon Meetings to make comments and/or suggestions concerning the revegetation/restoration plan(s) and specifications with the RIC, CM, and/or GC.
   c. If the PQB is unable to attend the Precon Meeting, the owner shall schedule a focused Precon Meeting with MMC, PQB/PRS, CM, BI, LA, RIC, RMC, RE and/or BI, if appropriate, prior to the start of any work associated with the revegetation/ restoration phase of the project, including site grading preparation.
2. Where Revegetation/Restoration Work Will Occur
   a. Prior to the start of any work, the PQB/PRS shall also submit a revegetation/restoration monitoring exhibit (RRME) based on the appropriate reduced LCD (reduced to 11”x 17” format) to MMC, and the RE, identifying the areas to be revegetated/restored including the delineation of the limits of any disturbance/grading and any excavation.
   b. PQB shall coordinate with the construction superintendent to identify appropriate Best Management Practices (BMP’s) on the RRME.

3. When Biological Monitoring Will Occur
    a. Prior to the start of any work, the PQB/PRS shall also submit a monitoring procedures schedule to MMC and the RE indicating when and where biological monitoring and related activities will occur.
4. PQB Shall Contact MMC to Request Modification
    a. The PQB may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the revegetation/restoration plans and specifications. This request shall be based on relevant information (such as other sensitive species not listed by federal and/or state agencies and/or not covered by the MSCP and to which any impacts may be considered significant under CEQA) which may reduce or increase the potential for biological resources to be present.

During Construction

A. PQB or QBM Present During Construction/Grading/Planting
    1. The PQB or QBM shall be present full-time during construction activities including but not limited to, site preparation, clearing, grading, excavation, landscape establishment in association with on-site native habitat revegetation activity which could result in impacts to sensitive biological resources as identified in the LCD and on the RRME. The RIC and/or QBM are responsible for notifying the PQB/PRS of changes to any approved construction plans, procedures, and/or activities. The PQB/PRS is responsible for notifying the CM, LA, RE, BI, and MMC of the changes.
    2. The PQB or QBM shall document field activity via the Consultant Site Visit Record Forms (CSVR). The CM shall provide the CSVRs on the first day of monitoring, the last day of monitoring, monthly, and in the event of a deviation from conditions identified within the LCD and/or biological monitoring program. The RE shall forward copies to MMC.
    3. The PQB or QBM shall be responsible for maintaining and submitting the CSVR at the time that CM responsibilities end (i.e., upon the completion of construction activity other than that associated with biology).
    4. All construction activities (including staging areas) shall be restricted to the development areas as shown on the LCD. The PQB/PRS or QBM staff shall monitor construction activities as needed, with MMC concurrence on method and schedule. This is to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of disturbance as shown on the approved LCD.
    5. The PQB or QBM shall supervise the placement of orange construction fencing or City approved equivalent, along the limits of potential disturbance adjacent to (or at the edge of) all sensitive habitats (coastal sage scrub [Tier II], scrub oak chaparral [Tier I], and southern mixed chaparral [Tier IIIA]), as shown on the approved LCD.
    6. The PQB shall provide a letter to MMC that limits of potential disturbance have been surveyed and staked, and that the construction fencing is installed properly.
    7. The PQB or QBM shall oversee the implementation of BMPs, such as gravel bags, straw logs, silt fences, or equivalent erosion control measures, as needed to ensure the prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible for verifying the removal of all temporary construction BMPs upon completion

of construction activities. Removal of temporary construction BMPs shall be verified in writing on the final construction phase CSVR.

8. PQB shall verify in writing on the CSVR's that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking, or other construction-related activities shall occur adjacent to sensitive habitat. These activities shall occur only within the designated staging area located outside the area defined as a biologically sensitive area.
9. The long-term establishment inspection and reporting schedule per LCD must all be approved by MMC prior to the issuance of the Notice of Completion (NOC) or any bond release.

B. Disturbance/Discovery Notification Process
   1. If unauthorized disturbances occur or sensitive biological resources are discovered that were not previously identified on the LCD and/or RRME, the PQB or QBM shall direct the contractor to divert construction in the area of disturbance or discovery temporarily and immediately notify the RE or BI, as appropriate.
   2. The PQB shall also immediately notify MMC by telephone of the disturbance, report the nature and extent of the disturbance, and recommend the method of additional protection, such as fencing and appropriate Best Management Practices (BMPs). After obtaining concurrence with MMC and the RE, PQB and CM shall install the approved protection and agreement on BMP's.
   3. The PQB shall also submit written documentation of the disturbance to MMC within 24 hours by email with photos of the resource in context (e.g., showing adjacent vegetation).

C. Determination of Significance
   1. The PQB shall evaluate the significance of disturbance and/or discovered biological resource and provide a detailed analysis and recommendation in a letter report with the appropriate photo documentation to MMC to obtain concurrence and formulate a plan of action which can include fines, fees, and supplemental mitigation costs.
   2. MMC shall review this letter report and provide the RE with MMC's recommendations and procedures.

Post Construction

A. Mitigation Monitoring and Reporting Period
   1. Five-Year Mitigation Establishment/Maintenance Period
      a. The RMC shall be retained to complete maintenance monitoring activities throughout the five-year mitigation monitoring period.
      b. Maintenance visits will be conducted monthly for the first three years, quarterly from July to December in the second and third years, and quarterly thereafter.
      c. Maintenance activities will include all items described in the LCD.
      d. Plant replacement will be conducted as recommended by the PQB (note: plants shall be increased in container size relative to the time of initial installation or establishment or maintenance period may be extended to the satisfaction of MMC).

2. Five-Year Biological Monitoring
    a. All biological monitoring and reporting shall be conducted by a PQB or QBM, as appropriate, consistent with the LCD.
    b. Monitoring shall involve both qualitative horticultural monitoring and quantitative monitoring (i.e., performance/success criteria). Horticultural monitoring shall focus on soil conditions (e.g., moisture) and fertility, container plant health, seed germination rates, presence of native and non-native (e.g., invasive exotic) species, any significant disease or pest problems, irrigation repair and scheduling, trash removal, illegal trespass, and any erosion problems.
    c. After plant installation is complete, qualitative monitoring surveys will occur monthly for the first year, monthly from January to June of the second and third years, quarterly from July to December in the second and third years, and quarterly thereafter.
    d. Upon the completion of the 120-day short-term plant establishment period, quantitative monitoring surveys shall be conducted at 12, 24, 36, 48, and 60 months by the PQB or QBM. The revegetation/restoration effort shall be quantitatively evaluated once per year (in spring) during years one through five, to determine compliance with the performance standards identified on the LCD. All plant material must have survived without supplemental irrigation for the last two years.
    e. Quantitative monitoring shall include the use of fixed transects and photo points to determine the vegetative cover within the revegetated habitat. Collection of fixed transect data within the revegetation/restoration site shall result in the calculation of native species richness, percent cover, relative to the reference site, of target vegetation,, and percent total cover of non-native/noninvasive vegetation. Container plants will also be counted to determine percent survivorship. The data will be used to determine the attainment of performance/success criteria identified within the LCD.
    f. The biological monitoring requirements may be reduced if the revegetation meets the fifth-year criteria before the end of the fifth year and the irrigation has been terminated for the last two years.
    g. The PQB or QBM shall oversee the implementation of post-construction BMPs, such as gravel bags, straw logs, silt fences, or equivalent erosion control measures, as needed to ensure the prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible for verifying the removal of all temporary post-construction BMPs upon completion of construction activities. Removal of temporary post-construction BMPs shall be verified in writing on the final post-construction phase CSVR.

B. Submittal of Draft Monitoring Report
    1. A draft monitoring letter report shall be prepared to document the completion of the 120-day plant establishment period. The report shall include a discussion of weed control, horticultural treatments (pruning, mulching, and disease control), erosion control, trash/debris removal, replacement planting/reseeding, site protection/signage, pest management, vandalism, and irrigation maintenance. The revegetation/restoration effort shall be visually assessed at the end of the 120-day period to determine individual mortality.
    2. The PQB shall submit two copies of the Draft Monitoring Report which describes the results, analysis, and conclusions of all phases of the Biological Monitoring and Reporting Program (with appropriate graphics) to MMC for review and approval within 30 days following the

completion of monitoring. Monitoring reports shall be prepared on an annual basis for a period of five years. Site progress reports shall be prepared by the PQB following each site visit and provided to the owner, RMC, and RIC. Site progress reports shall review maintenance activities (qualitatively and quantitatively when appropriate), monitoring results including progress of the revegetation relative to the performance/success criteria, and the need for any remedial measures.

3. Draft annual reports (three copies) summarizing the results of each progress report, including quantitative monitoring results and photographs taken from permanent viewpoints, shall be submitted to MMC for review and approval within 30 days following the completion of monitoring.
4. MMC shall return the Draft Monitoring Report to the PQB for revision or, for preparation of each report.
5. The PQB shall submit a revised Monitoring Report to MMC (with a copy to RE) for approval within 30 days.
6. MMC will provide written acceptance of the PQB and RE of the approved report.

C. Final Monitoring Reports(s)

1. PQB shall prepare a Final Monitoring upon achievement of the fifth-year performance/success criteria and completion of the five-year maintenance period.
    a. This report may be issued before the end of the fifth year if the revegetation meets the fifth-year performance /success criteria and the irrigation has been terminated for the last two years.
    b. The Final Monitoring report shall be submitted to MMC for evaluation of the success of the mitigation effort and final acceptance. At this time, a request for a pre-final inspection shall be submitted; MMC will schedule after reviewing the report.
    c. If at the end of the five years, any of the revegetated areas fails to meet the project's final success standards, the applicant must consult with MMC. This consultation shall take place to determine whether the revegetation effort is acceptable. The applicant understands that failure of any significant portion of the revegetation/restoration area may result in a requirement to replace or renegotiate that portion of the site and/or extend the monitoring and establishment/maintenance period until all success standards are met.

6.2 Special-Status Plants

BIO-2 Special-Status Plant Impacts The project would result in direct impacts to Del Mar manzanita, Nuttall's scrub oak, and barrel cactus individuals. Due to the status and restricted geographic range of Del Mar manzanita, species-specific measures, including 2:1 replacement of affected individuals, are required to offset those impacts (City of San Diego 2018a). The other upland special-status plant species, including Nuttall's scrub oak, would be mitigated through habitat-based mitigation, as discussed above under MM-BIO-1a and detailed in Appendix J.

MM-BIO-2 On-Site Mitigation**.** Prior to the issuance of any construction permits, including but not limited to the first grading permit, demolition permit, and building permit, the Assistant Deputy Director (ADD) environmental designee of the City's Land Development Review Division (LDR) shall verify that the

following statement is shown on the grading and/or construction plans as a note under the heading Environmental Requirements: "Renzulli Estates Project is subject to the Mitigation Monitoring and Reporting Program (MMRP) and shall conform to the mitigation conditions as contained in the Environmental Impact Report PRJ-0674401 / State Clearinghouse No. 2022040125".

Prior to Permit Issuance

A. Land Development Review (LDR) Plan Check

1. Prior to the issuance of any construction permits, including but not limited to the first grading permit, demolition permit, and building permit whichever is applicable, the ADD environmental designee shall verify that the requirements for sensitive plant species restoration, specifically a minimum survivorship of a minimum of 26 Del Mar manzanita individuals (cuttings from impacted individuals to be propagated and used in on-site restoration), a minimum survivorship of 520 Nuttall's scrub oak (cuttings from impacted individuals to be propagated and used in on-site restoration), and a minimum survivorship of 92 barrel cactus (impacted individuals to be salvaged and translocated in on-site restoration), shall be shown and noted on the appropriate landscape construction documents. The landscape construction documents and specifications must be found to be in conformance with the On-site Upland Restoration Plan prepared by Dudek May 2025, the requirements of which are summarized below:

B. Revegetation/Restoration Plan(s) and Specifications

1. Landscape Construction Documents (LCD) shall be prepared on D-sheets and submitted to the City of San Diego Development Services Department, Landscape Architecture Section (LAS) for review and approval. LAS shall consult with Mitigation Monitoring Coordination (MMC) and obtain concurrence prior to approval of LCD. The LCD shall consist of revegetation/restoration, planting, irrigation, and erosion control plans; including all required graphics, notes, details, specifications, letters, and reports as outlined below.
2. Landscape Revegetation/Restoration Planting and Irrigation Plans shall be prepared in accordance with the City's Land Development Code (LDC) Chapter 14, Article 2, Division 4, the LDC Landscape Standards submittal requirements, and Attachment "B" (General Outline for Revegetation/Restoration Plans) of the City Biology Guidelines. The Principal Qualified Biologist (PQB) shall identify and adequately document all pertinent information concerning the revegetation/restoration goals and, such as but not limited to, plant/seed palettes, the timing of installation, plant installation specifications, method of watering, protection of adjacent habitat, erosion, and sediment control, performance/success criteria, inspection schedule by City staff, document submittals, reporting schedule, etc. The LCD shall also include comprehensive graphics and notes addressing the ongoing maintenance requirements (after final acceptance by the City).
3. The Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Construction Manager (CM) and Grading Contractor (GC), where applicable shall be responsible for ensuring that all grading and contouring, clearing, and grubbing, installation of plant materials, and any necessary maintenance activities or remedial actions required

during installation and the 120-day plant establishment period are done per approved LCD. The following procedures at a minimum, but not limited to, shall be performed:

a. The RMC shall be responsible for the maintenance of the sensitive plant restoration areas for a minimum period of 120 days. Maintenance visits shall be conducted on a minimum monthly basis throughout the plant establishment period.

b. At the end of the 120-day period, the PQB shall review the mitigation area to assess the completion of the short-term plant establishment period and submit a report for approval by MMC.

c. MMC will provide approval in writing to begin the five-year long-term establishment/ maintenance and monitoring program.

d. Existing indigenous/native species shall not be pruned, thinned, or cleared in the revegetation/mitigation area.

e. The revegetation site shall not be fertilized.

f. The RIC is responsible for reseeding (if applicable) if weeds are not removed, within one week of written recommendation by the PQB.

g. Weed control measures shall include the following: (1) hand removal, (2) cutting, with power equipment, and (3) chemical control. Hand removal of weeds is the most desirable method of control and will be used wherever possible.

h. Damaged areas shall be repaired immediately by the RIC/RMC. Insect infestations, plant diseases, herbivory, and other pest problems will be closely monitored throughout the five-year maintenance period. Protective mechanisms such as metal wire netting shall be used as necessary. Diseased and infected plants shall be immediately disposed of off-site in a legally acceptable manner at the discretion of the PQB or Qualified Biological Monitor (QBM) (City approved). Where possible, biological controls will be used instead of pesticides and herbicides.

4. If a Brush Management Program is required the revegetation/restoration plan shall show the dimensions of each brush management zone. Notes shall be provided describing the restrictions on planting and maintenance and identify that the area is impact neutral and shall not be used for habitat mitigation/credit purposes.

C. Letters of Qualification Have Been Submitted to ADD

1. The applicant shall submit, for approval, a letter verifying the qualifications of the biological professional to MMC. This letter shall identify the PQB, Principal Restoration Specialist (PRS), and QBM, where applicable, and the names of all other persons involved in the implementation of the revegetation/restoration plan and biological monitoring program, as they are defined in the City Biological Review References. Resumes and the biology worksheet should be updated annually.

2. MMC will provide the applicant with documentation confirming the qualifications of the PQB/PRS/QBM and all city-approved persons involved in the revegetation/restoration plan and biological monitoring of the project.

3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the revegetation/restoration plan and biological monitoring of the project.

4. PQB must also submit evidence to MMC that the PQB/QBM has completed Storm Water Pollution Prevention Program (SWPPP) training.

Prior to Start of Construction

A. PQB/PRS Shall Attend Preconstruction (Precon) Meetings
   1. Prior to beginning any work that requires monitoring:
      a. The owner/permittee or their authorized representative shall arrange a Precon Meeting that shall include the PQB or PRS, Construction Manager (CM) and/or Grading Contractor (GC), Landscape Architect (LA), Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC.
      b. The PQB shall also attend any other grading/excavation-related Precon Meetings to make comments and/or suggestions concerning the revegetation/restoration plan(s) and specifications with the RIC, CM, and/or GC.
      c. If the PQB is unable to attend the Precon Meeting, the owner shall schedule a focused Precon Meeting with MMC, PQB/PRS, CM, BI, LA, RIC, RMC, RE and/or BI, if appropriate, prior to the start of any work associated with the revegetation/ restoration phase of the project, including site grading preparation.
   2. Where Revegetation/Restoration Work Will Occur
      a. Prior to the start of any work, the PQB/PRS shall also submit a revegetation/restoration monitoring exhibit (RRME) based on the appropriate reduced LCD (reduced to 11”x 17” format) to MMC, and the RE, identifying the areas to be revegetated/restored including the delineation of the limits of any disturbance/grading and any excavation.
      b. PQB shall coordinate with the construction superintendent to identify appropriate Best Management Practices (BMP’s) on the RRME.
   3. When Biological Monitoring Will Occur
      a. Prior to the start of any work, the PQB/PRS shall also submit a monitoring procedures schedule to MMC and the RE indicating when and where biological monitoring and related activities will occur.
   4. PQB Shall Contact MMC to Request Modification
      a. The PQB may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the revegetation/restoration plans and specifications. This request shall be based on relevant information (such as other sensitive species not listed by federal and/or state agencies and/or not covered by the MSCP and to which any impacts may be considered significant under CEQA) which may reduce or increase the potential for biological resources to be present.

During Construction

A. PQB or QBM Present During Construction/Grading/Planting
   1. The PQB or QBM shall be present full-time during construction activities including but not limited to, site preparation, clearing, grading, excavation, landscape establishment in association with sensitive plant restoration activity which could result in impacts to

sensitive biological resources as identified in the LCD and on the RRME. The RIC and/or QBM are responsible for notifying the PQB/PRS of changes to any approved construction plans, procedures, and/or activities. The PQB/PRS is responsible for notifying the CM, LA, RE, BI, and MMC of the changes.

2. The PQB or QBM shall document field activity via the Consultant Site Visit Record Forms (CSVR). The CM shall provide the CSVRs on the first day of monitoring, the last day of monitoring, monthly, and in the event of a deviation from conditions identified within the LCD and/or biological monitoring program. The RE shall forward copies to MMC.
3. The PQB or QBM shall be responsible for maintaining and submitting the CSVR at the time that CM responsibilities end (i.e., upon the completion of construction activity other than that associated with biology).
4. All construction activities (including staging areas) shall be restricted to the development areas as shown on the LCD. The PQB/PRS or QBM staff shall monitor construction activities as needed, with MMC concurrence on method and schedule. This is to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of disturbance as shown on the approved LCD.
5. The PQB or QBM shall supervise the placement of orange construction fencing or City approved equivalent, along the limits of potential disturbance adjacent to (or at the edge of) all sensitive habitats (coastal sage scrub [Tier II], scrub oak chaparral [Tier I], and southern mixed chaparral [Tier IIIA]) as shown on the approved LCD.
6. The PQB shall provide a letter to MMC that limits of potential disturbance have been surveyed and staked, and that the construction fencing is installed properly.
7. The PQB or QBM shall oversee the implementation of BMPs, such as gravel bags, straw logs, silt fences, or equivalent erosion control measures, as needed to ensure the prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible for verifying the removal of all temporary construction BMPs upon completion of construction activities. Removal of temporary construction BMPs shall be verified in writing on the final construction phase CSVR.
8. PQB shall verify in writing on the CSVR's that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking, or other construction-related activities shall occur adjacent to sensitive habitat. These activities shall occur only within the designated staging area located outside the area defined as a biologically sensitive area.
9. The long-term establishment inspection and reporting schedule per LCD must all be approved by MMC prior to the issuance of the Notice of Completion (NOC) or any bond release.

B. Disturbance/Discovery Notification Process

1. If unauthorized disturbances occur or sensitive biological resources are discovered that were not previously identified on the LCD and/or RRME, the PQB or QBM shall direct the contractor to divert construction in the area of disturbance or discovery temporarily and immediately notify the RE or BI, as appropriate.
2. The PQB shall also immediately notify MMC by telephone of the disturbance, report the nature and extent of the disturbance, and recommend the method of additional protection,

such as fencing and appropriate Best Management Practices (BMPs). After obtaining concurrence with MMC and the RE, PQB and CM shall install the approved protection and agreement on BMP's.

3. The PQB shall also submit written documentation of the disturbance to MMC within 24 hours by email with photos of the resource in context (e.g., showing adjacent vegetation).

C. Determination of Significance

1. The PQB shall evaluate the significance of disturbance and/or discovered biological resource and provide a detailed analysis and recommendation in a letter report with the appropriate photo documentation to MMC to obtain concurrence and formulate a plan of action which can include fines, fees, and supplemental mitigation costs.
2. MMC shall review this letter report and provide the RE with MMC's recommendations and procedures.

Post Construction

A. Mitigation Monitoring and Reporting Period

1. Five-Year Mitigation Establishment/Maintenance Period
    a. The RMC shall be retained to complete maintenance monitoring activities throughout the five-year mitigation monitoring period.
    b. Maintenance visits will be conducted monthly for the first year, monthly from January to June of the second and third years, quarterly from July to December in the second and third years, and quarterly thereafter.
    c. Maintenance activities will include all items described in the LCD.
    d. Plant replacement will be conducted as recommended by the PQB (note: plants shall be increased in container size relative to the time of initial installation or establishment or maintenance period may be extended to the satisfaction of MMC.
2. Five-Year Biological Monitoring
    a. All biological monitoring and reporting shall be conducted by a PQB or QBM, as appropriate, consistent with the LCD.
    b. Monitoring shall involve both qualitative horticultural monitoring and quantitative monitoring (i.e., performance/success criteria). Horticultural monitoring shall focus on soil conditions (e.g., moisture and fertility), container plant health, seed germination rates, presence of native and non-native (e.g., invasive exotic) species, any significant disease or pest problems, irrigation repair and scheduling, trash removal, illegal trespass, and any erosion problems.
    c. After plant installation is complete, qualitative monitoring surveys will occur monthly for the first three years, quarterly from July to December in the second and third years, and quarterly thereafter.
    d. Upon the completion of the 120-day short-term plant establishment period, quantitative monitoring surveys shall be conducted at 12, 24, 36, 48, and 60 months by the PQB or QBM. The revegetation/restoration effort shall be quantitatively evaluated once per year (in spring) during years one through five, to determine

compliance with the performance standards identified on the LCD. All plant material must have survived without supplemental irrigation for the last two years.

e. Quantitative monitoring shall include counts of Del Mar manzanita, Nuttall's scrub oak and barrel cactus survivorship. The data will be used to determine the attainment of performance/success criteria identified within the LCD.

f. The biological monitoring requirements may be reduced if the revegetation meets the fifth-year criteria before the end of the fifth year and the irrigation has been terminated for the last two years.

g. The PQB or QBM shall oversee the implementation of post-construction BMPs, such as gravel bags, straw logs, silt fences, or equivalent erosion control measures, as needed to ensure the prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible for verifying the removal of all temporary post-construction BMPs upon completion of construction activities. Removal of temporary post-construction BMPs shall be verified in writing on the final post-construction phase CSVR.

B. Submittal of Draft Monitoring Report

1. A draft monitoring letter report shall be prepared to document the completion of the 120-day plant establishment period. The report shall include a discussion of weed control, horticultural treatments (pruning, mulching, and disease control), erosion control, trash/debris removal, replacement planting/reseeding, site protection/signage, pest management, vandalism, and irrigation maintenance. The revegetation/restoration effort shall be visually assessed at the end of the 120-day period to determine individual mortality.
2. The PQB shall submit two copies of the Draft Monitoring Report which describes the results, analysis, and conclusions of all phases of the Biological Monitoring and Reporting Program (with appropriate graphics) to MMC for review and approval within 30 days following the completion of monitoring. Monitoring reports shall be prepared on an annual basis for a period of five years. Site progress reports shall be prepared by the PQB following each site visit and provided to the owner, RMC, and RIC. Site progress reports shall review maintenance activities (qualitatively and quantitatively when appropriate), monitoring results including progress of the revegetation relative to the performance/success criteria, and the need for any remedial measures.
3. Draft annual reports (three copies) summarizing the results of each progress report, including quantitative monitoring results and photographs taken from permanent viewpoints, shall be submitted to MMC for review and approval within 30 days following the completion of monitoring.
4. MMC shall return the Draft Monitoring Report to the PQB for revision or, for preparation of each report.
5. The PQB shall submit a revised Monitoring Report to MMC (with a copy to RE) for approval within 30 days.
6. MMC will provide written acceptance of the PQB and RE of the approved report.

C. Final Monitoring Reports(s)

1. PQB shall prepare a Final Monitoring upon achievement of the fifth-year performance/success criteria and completion of the five-year maintenance period.
    a. This report may be issued before the end of the fifth year if the revegetation meets the fifth-year performance / success criteria and the irrigation has been terminated for the last two years.
    b. The Final Monitoring report shall be submitted to MMC for evaluation of the success of the mitigation effort and final acceptance. At this time, a request for a pre-final inspection shall be submitted; MMC will schedule after reviewing the report.
    c. If at the end of the five years, any of the revegetated areas fails to meet the project's final success standards, the applicant must consult with MMC. This consultation shall take place to determine whether the revegetation effort is acceptable. The applicant understands that failure of any significant portion of the revegetation/restoration area may result in a requirement to replace or renegotiate that portion of the site and/or extend the monitoring and establishment/maintenance period until all success standards are met.

6.3 Special-Status Wildlife

Direct impacts to species with moderate to high potential to occur on the project site would come from the loss of habitat and potential mortality during construction and would be considered significant. These special-status wildlife species include San Diegan tiger whiptail, orange-throated whiptail, red diamondback rattlesnake, San Diego ringneck snake, two-striped gartersnake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat. All these species have a relatively wide distribution and would be adequately mitigated through habitat-based upland compensatory mitigation that would be provided on-site (preservation and restoration) (MM-BIO-1). With regards to the loss of potential nesting and foraging habitat for Crotch's bumble bee, the proposed habitat mitigation would provide the minimum 1:1 mitigation recommended by CDFW. As stated in MM-BIO-1, 18.22 acres of Tier I-III habitat mitigation would be provided for the loss of 17.60 acres of Tier I-III habitat (MM-BIO-1). Furthermore, the proposed total onsite preserve (including Tier IV habitat) would be 18.78 acres which also provides a greater than 1:1 mitigation ratio compared with the total development area (including Tier IV habitat) which would be 18.01 acres (project construction footprint and zone 1 brush management). Therefore, the loss of nesting and foraging habitat for Crotch's bumble bee is reduced to less than significant through implementation of MM-BIO-1.

BIO-3 Cooper's Hawk Nesting Impacts The project could result in impacts to nesting Cooper's hawk.

MM-BIO-3 Avian Protection Requirements. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits or a Notice to Proceed for Subdivisions, removal of habitat that supports active Cooper's hawk nests in the proposed area of disturbance (both on site and within the Wetland Plan area of work) should occur outside of the avian breeding season (February 1 to September 15) or a preconstruction survey shall be completed by a Qualified Biologist to determine the presence or absence of active nesting Cooper's hawk on the proposed area of disturbance or within 300 feet of the area of disturbance. The preconstruction survey shall be conducted within 3 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the

results of the preconstruction survey to City of San Diego DSD for review and written approval prior to initiating any construction activities. If nesting Cooper's hawk are detected, a letter report in conformance with the City of San Diego's Biology Guidelines and applicable state and federal law (i.e., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. A minimum 300-foot buffer shall be established from any nesting Cooper's hawk. The report shall be submitted to the City of San Diego for review and written approval and implemented to the satisfaction of the City of San Diego. The City of San Diego's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction..

BIO-4 Coastal California Gnatcatcher Impacts The project could result in impacts to coastal California gnatcatcher within the MHPA.

MM-BIO-4 Coastal California Gnatcatcher

Prior to the issuance of any Notice to Proceed, or pre-construction meeting, the City Deputy Director (or appointed designee) shall verify that the Multi-Habitat Planning Area (MHPA) boundaries and the following project requirements regarding the coastal California gnatcatcher are shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur within the MHPA between March 1 and August 15, the breeding season of the coastal California gnatcatcher, until the following requirements have been met to the satisfaction of the Deputy Director (or appointed designee):

A. A Qualified Biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) recovery permit) shall survey those habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 dB(A) hourly average for the presence of the coastal California gnatcatcher. Surveys for the coastal California gnatcatcher shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service within the breeding season prior to the commencement of any construction. If gnatcatchers are present, then the following conditions must be met:
    i. Between March 1 and August 15, no clearing, grubbing, or grading of occupied gnatcatcher habitat shall be permitted within the MHPA. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and
    ii. Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied gnatcatcher habitat within the MHPA. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing a current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City representative at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or

iii. At least 2 weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) hourly average at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

***Note:** Construction noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City representative, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If coastal California gnatcatchers are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the Deputy Director (or appointed designee) and applicable resource agencies that demonstrates whether or not mitigation measures, such as noise walls, are necessary between March 1 and August 15, as follows:

1. If this evidence indicates the potential is high for coastal California gnatcatcher to be present based on historical records or site conditions, then condition A.iii shall be adhered to, as specified above.
2. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

BIO-5 Crotch's Bumble Bee Impacts The project could result in direct mortality impacts to nesting and foraging Crotch's bumble bee. While the species was not identified during reconnaissance surveys, focused surveys have not been conducted, therefore, since suitable nesting habitat is present on the project parcel and within the project construction footprint, species nests are assumed to be present.

MM-BIO-5 Pre-Construction Survey for Crotch Bumble Bee.

Should this species no longer be a state candidate for listing or state listed as threatened or endangered at the time of the preconstruction meeting or protocol surveys are completed and determine the species is absent from the project site, then no avoidance measures shall be required.

Prior to the issuance of a Notice to Proceed (NTP) for construction permits, such as Demolition, Grading or Building or beginning and construction-related activity on-site, the Development Services Department (DSD) Director's Environmental Designee (ED) shall review and approve

Construction Documents (CD) (plans, specification, details, etc.) to ensure the applicable MMRP requirements are incorporated into the design.

A) The owner/permittee shall obtain an Incidental Take Permit (ITP) from the California Department of Fish and Wildlife (CDFW) prior to the issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits. Take of any endangered, threatened, candidate species that results from the project is prohibited, except as authorized by State law (California Fish and Game Code §§ 86, 2062, 2067, 2068, 2080, 2085; California Code of Regulations, Title 14, §786.9) under the CESA.

B) To avoid impacts on Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the Colony Active Period between April 1 through August 31. If the removal of habitat in the proposed area of disturbance must occur during the Colony Active Period, a Qualified Biologist shall conduct a pre-activity survey to determine the presence or absence of Crotch's bumble bee within the proposed area of disturbance.

C) Surveys must be conducted by a Qualified Biologist meeting the qualifications discussed in the CDFW guidance (i.e., Survey Considerations for California Endangered Species Act [CESA] Candidate Bumble Bee Species, dated June 6, 2023).

D) The pre-activity survey shall consist of photographic surveys following CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023). In coordination with CDFW, the Qualified Biologist may be required to send all photo vouchers to a CDFW-approved taxonomist to confirm the identifications of the bumble bees encountered during surveys. The surveys shall consist of passive methods unless a Memorandum of Understanding is obtained from CDFW. If additional activities (e.g., capture or handling) are deemed necessary to identify bumble bees of an unknown species that may be Crotch's bumble bee, then the Qualified Biologist shall obtain the required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to CDFW Survey Considerations for CESA Candidate Bumble Bee Species (CDFW 2023). Survey methods that involve lethal take of species are not acceptable. Survey results will be considered valid until the start of the next colony active period.

E) If pre-activity surveys identify Crotch's bumble bee individuals on-site, the Qualified Biologist shall notify and consult with CDFW to establish, monitor, and maintain no-work buffers around the associated floral resources or nest, as appropriate. The size and configuration of the no-work buffer shall be based on the best professional judgment of the Qualified Biologist in consultation with CDFW. Construction activities shall not occur within the no-work buffers until the bees appear no longer active (i.e., associated floral resources appear desiccated and no bees are seen flying for three consecutive days indicating dispersal from the area).

F) Survey data shall be submitted by the Qualified Biologist to the California Natural Diversity Database (CNDDB) in accordance with the Memorandum of Understanding with CDFW, or Scientific Collecting Permit requirements, as applicable.

6.4 Jurisdictional Resources

BIO-6 Jurisdictional Resource Impacts The project could result in direct impacts to CDFW and RWQCB regulated resources.

MM-BIO-6 Jurisdictional Aquatic Resources. Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits by the City of San Diego that impact jurisdictional waters, the project applicant shall obtain all necessary permits from RWQCB and CDFW (or written verification from these agencies that permits are not required). The applicant shall mitigate direct impacts in accordance with the terms and conditions of all required permits. Areas under the jurisdictional authority of RWQCB, and CDFW shall be delineated on all grading plans.

INTENTIONALLY LEFT BLANK

7 Acknowledgments

This report was prepared by Dudek biologists Vipul Joshi and Scott Gressard. Graphics were provided by Kelsey Bacon, Lesley Terry, and Rachel Strobridge. Jennifer Farned, Laurel Porter, and Hannah Wertheimer-Roberts provided technical editing, and Chelsea Ringenback provided formatting.

INTENTIONALLY LEFT BLANK

8 References Cited

AGS (Advanced Geotechnical Solutions Inc.). 2020. *Preliminary Geotechnical Investigation and 50-Scale Tentative Map Review Renulli Estates 11495 Cypress Canyon Road San Diego, California*. Report No. 1902-06-B-5.

AOS (American Ornithological Society). 2018. "Check-List of North and Middle American Birds." Accessed June 2019. http://checklist.americanornithology.org/.

Bowman, R.H. 1973. *Soil Survey, San Diego Area, California, Part 1*. U.S. Department of Agriculture, Soil Conservation Service and Forest Service. December 1973. http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA638/0/part1.pdf.

Calflora. 2020. *The Calflora Database*. Information on Wild California Plants. Berkeley: Calflora. Accessed September 14, 2020. http://www.calflora.org.

CDFW (California Department of Fish and Wildlife). 2020a. California Natural Diversity Data Base. "Special Animals List." California Natural Diversity Database. Sacramento: CDFW, Biogeographic Data Branch. July 2020. https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

CDFW. 2020b. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento: CDFW, Biogeographic Data Branch. Accessed September 14, 2020. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

CDFW. 2020c. *California Natural Community List*. Sacramento, California: CDFW, Biogeographic Data Branch. Revised September 9, 2020. https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List.

CDFW 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species.* June 6, 2023. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline.

City of San Diego. 1988. *Multiple Species Conservation Program – MSCP Plan*. Final. August 1988. https://www.sandiego.gov/planning/programs/mscp/docsmaps.

City of San Diego. 1997. *City of San Diego Final MSCP Subarea Plan*. Prepared by the City of San Diego Community and Economic Development Department. March 1997. https://www.sandiego.gov/sites/*default*/files/legacy//planning/programs/mscp/pdf/subareafullversion.pdf.

City of San Diego. 2013. *Report to the Hearing Office, Scripps Ranch Reservoir Slope Repair PTS Project Number 215568.*

City of San Diego. 2022. *California Environmental Quality Act Significance Determination Thresholds*. September 2022. https://www.sandiego.gov/sites/default/files/sdtceqa.pdf.

City of San Diego. 2018a. *San Diego Municipal Code, Land Development Code—Biology Guidelines*. Amended February 1, 2018, by Resolution No. R-311507. https://www.sandiego.gov/sites/default/files/amendment_to_the_land_development_manual_biology_guidelines_february_2018_-_clean.pdf.

City of San Diego. 2018b. *The City of San Diego Storm Water Standards*. October 1, 2018. https://www.sandiego.gov/sites/default/files/storm_water_standards_manual_oct_2018.pdf.

CNPS (California Native Plant Society). 2001. *CNPS Botanical Survey Guidelines*. California Native Plant Society. Sacramento, California. Revised June 2, 2001. https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf.

CNPS. 2020. *Inventory of Rare and Endangered Plants* (online edition, v8-03 0.39). Sacramento: CNPS. Accessed September 14, 2020. http://www.rareplants.cnps.org.

County of San Diego. 1998. *Final Multiple Species Conservation Program: MSCP Plan*. August 1998. http://www.sdcounty.ca.gov/pds/mscp/docs/SCMSCP/FinalMSCPProgramPlan.pdf.

County of San Diego. 2010. *County of San Diego Report Format and Content Requirements: Biological Resources*. Fourth Revision. Department of Public Works, Department of Land Use and Planning & Development Services, Land Use and Environment Group. September 15, 2010.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. Prepared for U.S. Fish and Wildlife Service. December 1979. Reprinted 1992. http://www.fws.gov/wetlands/documents/classification-of-wetlands-and-deepwater-habitats-of-the-united-states.pdf.

Crother, B.I. 2017. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding*, edited by J.J. Moriarty. 8th ed. Society for the Study of Amphibians and Reptiles; Herpetological Circular No. 43. September 2017. https://ssarherps.org/wp-content/uploads/2017/10/8th-Ed-2017-Scientific-and-Standard-English-Names.pdf.

Cypher, E.A. 2002. *General Rare Plant Survey Guidelines*. California State University, Stanislaus, Endangered Species Recovery Program. Revised July 2002. https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/rare_plant_protocol.pdf.

Dudek. 2023a. *Fire Fuel Load Modeling Report*. Encinitas, California: Dudek.

Dudek. 2023b. Conceptual Restoration Plan for the Renzulli Estates Project Encinitas, California: Dudek.

Dudek. 2023c. Noise Technical Report, Renzulli Estates Project. Encinitas, California: Dudek.

Esri. 2020. Collector for ArcGIS. Version 20.1.0

GMP. 2023. *Concept Plan Renzulli Estates*. Landscape and Architectural Plans.

Google Earth. 2020. *Aerial Photographs*. 1:200 scale.

Historical Aerials Online 2020. *Aerial Photographs.* 1:200 scale. https://www.historicaerials.com/ Accessed on November 10, 2020.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* California Department of Fish and Game, Nongame-Heritage Program. October 1986.

Hunsaker & Associates. 2023. *Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP)*. May 2023.

Jepson Flora Project. 2019. *Jepson eFlora*. Berkeley, California: University of California. http://ucjeps.berkeley.edu/eflora/.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. "The National Wetland Plant List: 2016 Wetland Ratings." *Phytoneuron* 2016-30: 1–17. Published 28 April 2016. ISSN 2153 733X.

NABA (North American Butterfly Association). 2016. "Checklist of North American Butterflies Occurring North of Mexico." Adapted from North American Butterfly Association (NABA) Checklist & English Names of North American Butterflies, eds. B. Cassie, J. Glassberg, A. Swengel, and G. Tudor. 2nd ed. Morristown, New Jersey: NABA. http://www.naba.org/pubs/enames2_3.html.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County.* March 2008. http://www.sdcanyonlands.org/pdfs/ veg_comm_sdcounty_2008_doc.pdf.

Richardson, Dr. Leif. 2023. The Bumble Bees of North America Occurrence Database. GIS Shapefile. August 2023.

SANDAG (San Diego Association of Governments). 2020. SanGIS Parcel Lookup Tool and Geographic Boundary Viewer. https://sdgis.sandag.org/.

SDNHM (San Diego Natural History Museum). 2002. *Butterflies of San Diego County*. Revised September 2002. http://www.sdnhm.org/archive/research/entomology/sdbutterflies.html.

SDNHM. 2012. *San Diego County Plant Atlas*. Last updated 2012. http://www.sdplantatlas.org/GMap/GMapSpeciesMap.htm.

SWRCB (State Water Resources Control Board). 2019. *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. Adopted April 2, 2019. https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/procedures_conformed.pdf.

USACE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual.* Wetlands Research Program Technical Report Y-87- 1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987. http://www.fedcenter.gov/Bookmarks/index.cfm?id=6403&pge_id=1606.

USACE. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (*Version 2.0*). Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. http://el.erdc.usace.army.mil/elpubs/pdf/trel08-28.pdf.

USACE. 2010. *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. Wetland Regulatory Assistance Program, ERDC/CRREL TN-10-1. Prepared by K.E. Curtis and R.W. Lichvar. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center Cold Regions Research and Engineering Laboratory. July 2010.

USACE and EPA (U.S. Environmental Protection Agency). 2008. "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Carabell v. United States*." December 2, 2008. http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008_12_3_wetlands_CWA_Jurisdiction_Following_Rapanos120208.pdf.

USACE and EPA. 2020. "The Navigable Waters Protection Rule: Definition of 'Waters of the United States.'" April 21, 2020. https://www.federalregister.gov/documents/2020/04/21/2020-02500/the-navigable-waters-protection-rule-definition-of-waters-of-the-united-states.

USACE and EPA. 2023. *Final Rule - Revised Definition of "Waters of the United States"* August 29.

USDA (U.S. Department of Agriculture). 2020a. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed September 14, 2020. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

USDA. 2020b. California State PLANTS Checklist. Greensboro, North Carolina: USDA, Natural Resources Conservation Service, National Plant Data Team. Accessed September 14, 2020. https://plants.usda.gov/dl_state.html.

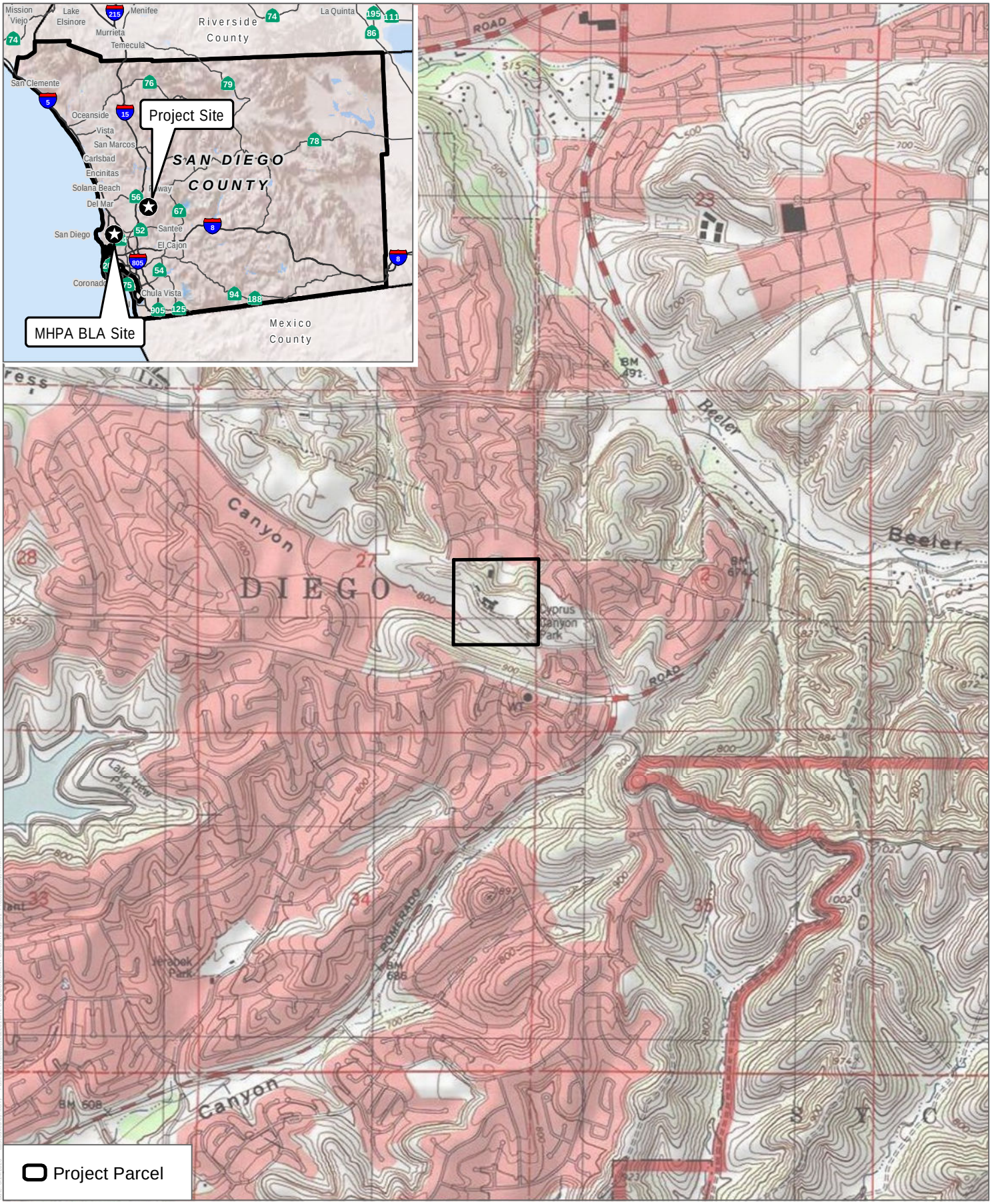
USFWS (U.S. Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Protocol*. https://www.fws.gov/ventura/docs/species/protocols/cagn/coastal-gnatcatcher_survey-guidelines.pdf.

USFWS. 2019a. "Endangered Species Act (ESA)." *Glossary*. USFWS, Ecological Services. Last updated April 16, 2019. https://www.fws.gov/ecological-services/about/glossary.html.

USFWS. 2019b. "Critical Habitat and Occurrence Data" [map]. USFWS Geospatial Services. https://www.fws.gov/gis/data/national/index.html.

Wilson, D.E., and D.M. Reeder, eds. 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference*. 3rd ed. Baltimore, Maryland: Johns Hopkins University Press.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. *California's Wildlife*. Vol. I–III. Updated in the California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento: California Department of Fish and Game. https://www.wildlife.ca.gov/Data/CWHR.



SOURCE: USGS 7.5-Minute Series Poway Quadrangle

DUDEK

0 1,000 2,000 Feet
0 250 500 Meters
1:24,000

FIGURE 1

Project Location

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA Boundary
- 500-foot Project Impact Footprint Buffer
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Manufactured Slopes
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall

Brush Management

- Zone 1
- Roadside Zone
- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)

Vegetation Communities and Land Covers

- ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
- BSC : Flat-topped Buckwheat (Tier II)
- CSS : Diegan Coastal Sage Scrub (Tier II)
- CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
- CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
- DEV : Developed (Tier IV)
- DH : Disturbed Habitat (Tier IV)
- EUC : Eucalyptus Woodland (Tier IV)
- EW : Emergent Wetland (Tier IV)
- NFC : Natural Flood Channel (Tier IV)
- SMX : Southern Mixed Chaparral (Tier IIIA)
- SOC : Scrub Oak Chaparral (Tier I)
- dCSS : Diegan Coastal Sage Scrub (Tier II)
- dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
- dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 2

Vegetation Communities and Land Cover Types

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA Boundary
- 500-foot Project Impact Footprint Buffer
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Manufactured Slopes
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall

Brush Management

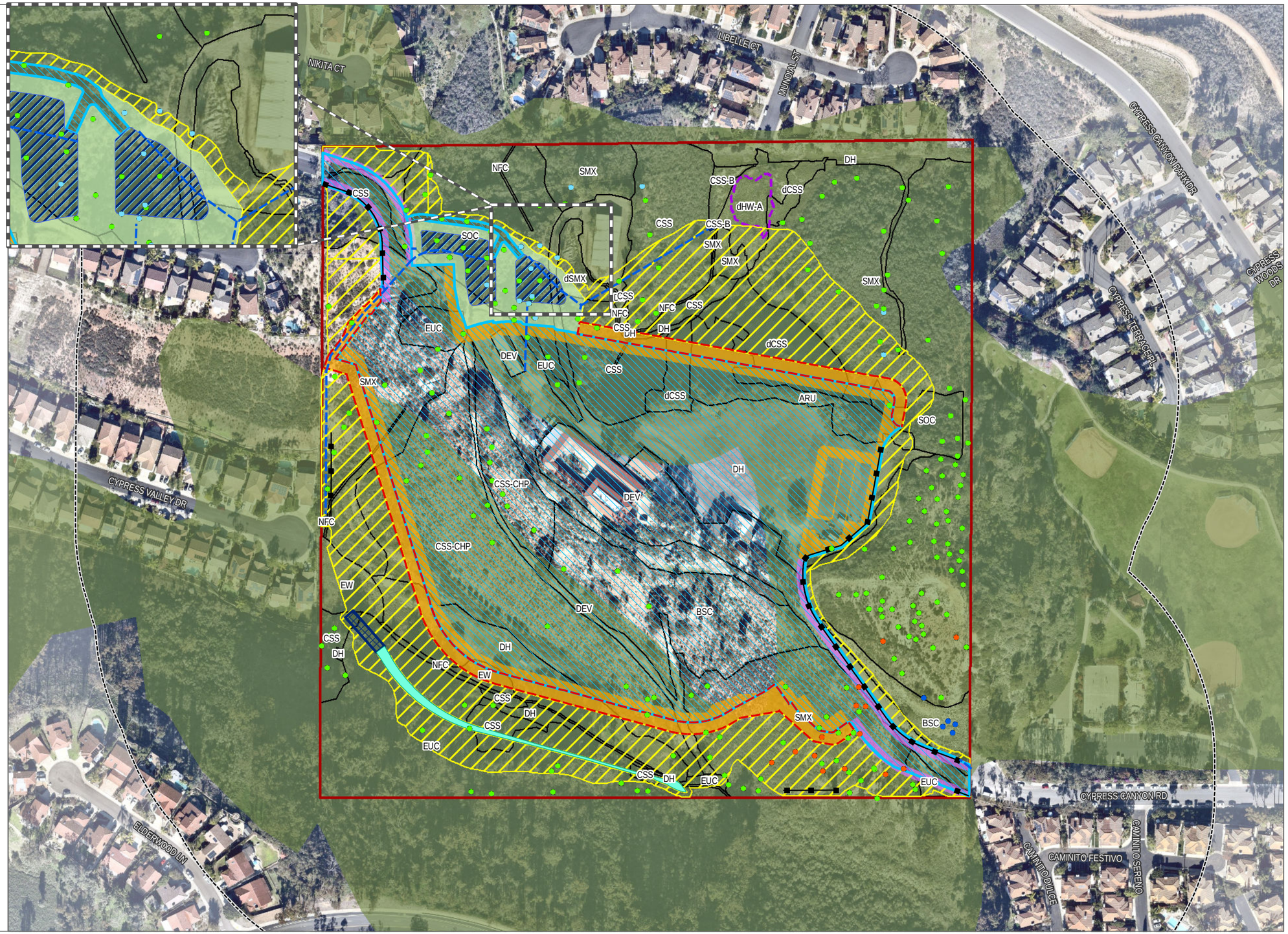
- Zone 1
- Roadside Zone
- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)

Rare Plants

- Coulter's goldfields *(Lasthenia glabrata ssp. coulteri)*
- Del Mar manzanita *(Arctostaphylos glandulosa ssp. crassifolia)*
- San Diego County viguiera *(Bahiopsis laciniata)*
- San Diego barrel cactus *(Ferocactus viridescens)*
- Scrub oak *(Quercus dumosa)*

Vegetation Communities and Land Covers

- ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
- BSC : Flat-topped Buckwheat (Tier II)
- CSS : Diegan Coastal Sage Scrub (Tier II)
- CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
- CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
- DEV : Developed (Tier IV)
- DH : Disturbed Habitat (Tier IV)
- EUC : Eucalyptus Woodland (Tier IV)
- EW : Emergent Wetland (Tier IV)
- NFC : Natural Flood Channel (Tier IV)
- SMX : Southern Mixed Chaparral (Tier IIIA)
- SOC : Scrub Oak Chaparral (Tier I)
- dCSS : Diegan Coastal Sage Scrub (Tier II)
- dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
- dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

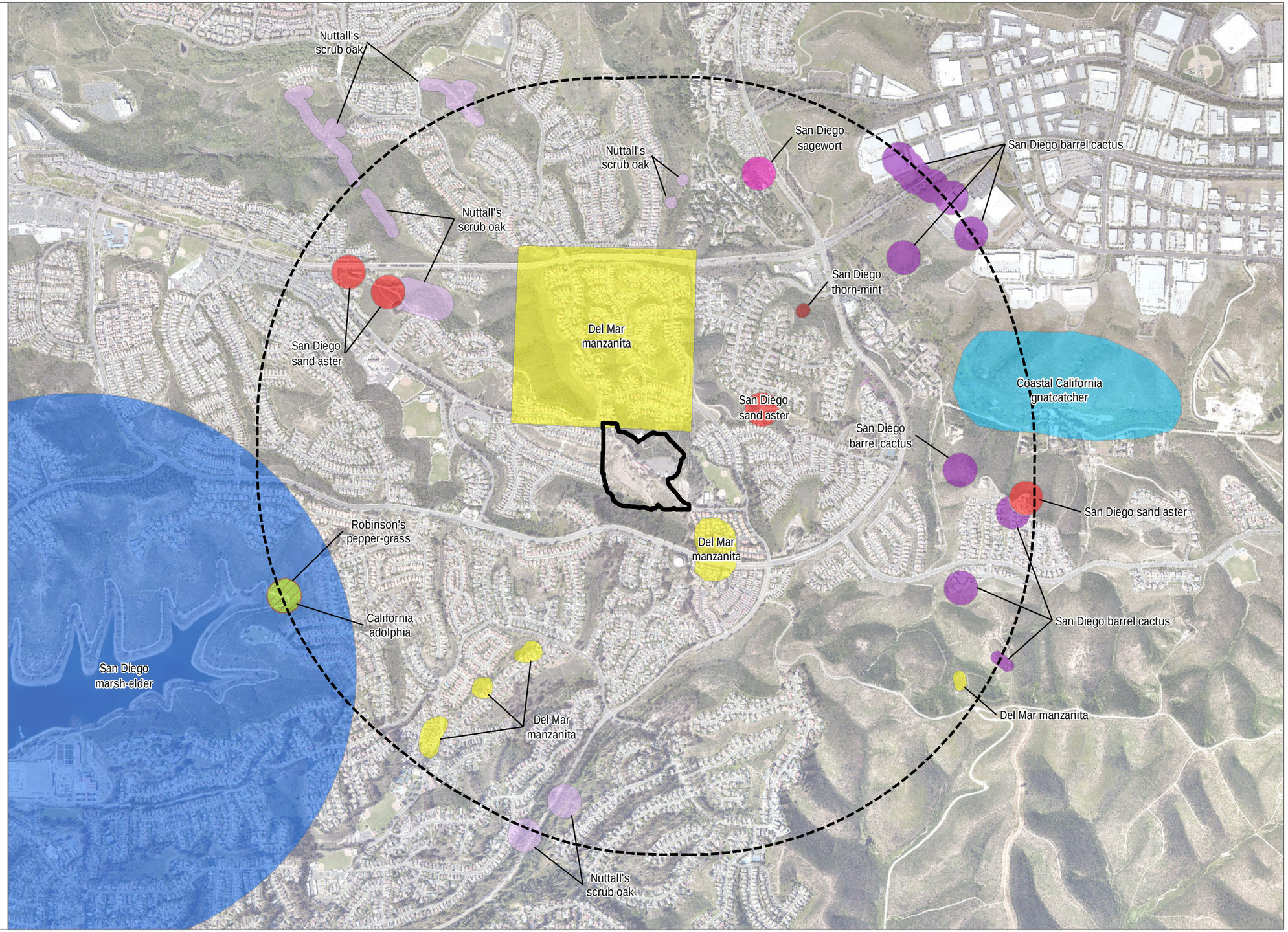
FIGURE 3

Rare Plants

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

1-mile Project Impact Footprint Buffer
Project Impact Foootprint
CNDDB Occurrence
Plant
California adolphia
Robinson's pepper-grass
Del Mar manzanita
San Diego sand aster
San Diego thorn-mint
San Diego barrel cactus
San Diego sagewort
Nuttall's scrub oak
San Diego marsh-elder
Wildlife
Coastal California gnatcatcher



SOURCE: SANGIS 2017, CDFW 2020

DUDEK

0 750 1,500 Feet

FIGURE 4

CNDDB Occurrences Within 1 Mile of the Project Area

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- 500-foot Project Impact Footprint Buffer
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Manufactured Slopes
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall
- Data Point
- Transect (ODP)
- Wetland (Expected RWQCB)
- Non-Wetland Waters (Unvegetated Streambed - Expected RWQCB / CDFW)

Brush Management

- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)

Vegetation Communities and Land Covers

- ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
- BSC : Flat-topped Buckwheat (Tier II)
- CSS : Diegan Coastal Sage Scrub (Tier II)
- CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
- CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
- DEV : Developed (Tier IV)
- DH : Disturbed Habitat (Tier IV)
- EUC : Eucalyptus Woodland (Tier IV)
- EW : Emergent Wetland (Tier IV)
- NFC : Natural Flood Channel (Tier IV)
- SMX : Southern Mixed Chaparral (Tier IIIA)
- SOC : Scrub Oak Chaparral (Tier I)
- dCSS : Diegan Coastal Sage Scrub (Tier II)
- dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
- dSMX : Southern Mixed Chaparral (Tier IIIA)

SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 5

Potential Jurisdictional Resources

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Manufactured Slopes
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall

Brush Management

- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)
- Vegetation Communities and Land Covers
  - ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
  - BSC : Flat-topped Buckwheat (Tier II)
  - CSS : Diegan Coastal Sage Scrub (Tier II)
  - CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
  - CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
  - DEV : Developed (Tier IV)
  - DH : Disturbed Habitat (Tier IV)
  - EUC : Eucalyptus Woodland (Tier IV)
  - EW : Emergent Wetland (Tier IV)
  - NFC : Natural Flood Channel (Tier IV)
  - SMX : Southern Mixed Chaparral (Tier IIIA)
  - SOC : Scrub Oak Chaparral (Tier I)
  - dCSS : Diegan Coastal Sage Scrub (Tier II)
  - dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
  - dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 6A

Existing MHPA Boundary

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA
- MHPA BLA Reduction
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Manufactured Slopes
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall

Brush Management

- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)

Vegetation Communities and Land Covers

- ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
- BSC : Flat-topped Buckwheat (Tier II)
- CSS : Diegan Coastal Sage Scrub (Tier II)
- CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
- CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
- DEV : Developed (Tier IV)
- DH : Disturbed Habitat (Tier IV)
- EUC : Eucalyptus Woodland (Tier IV)
- EW : Emergent Wetland (Tier IV)
- NFC : Natural Flood Channel (Tier IV)
- SMX : Southern Mixed Chaparral (Tier IIIA)
- SOC : Scrub Oak Chaparral (Tier I)
- dCSS : Diegan Coastal Sage Scrub (Tier II)
- dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
- dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

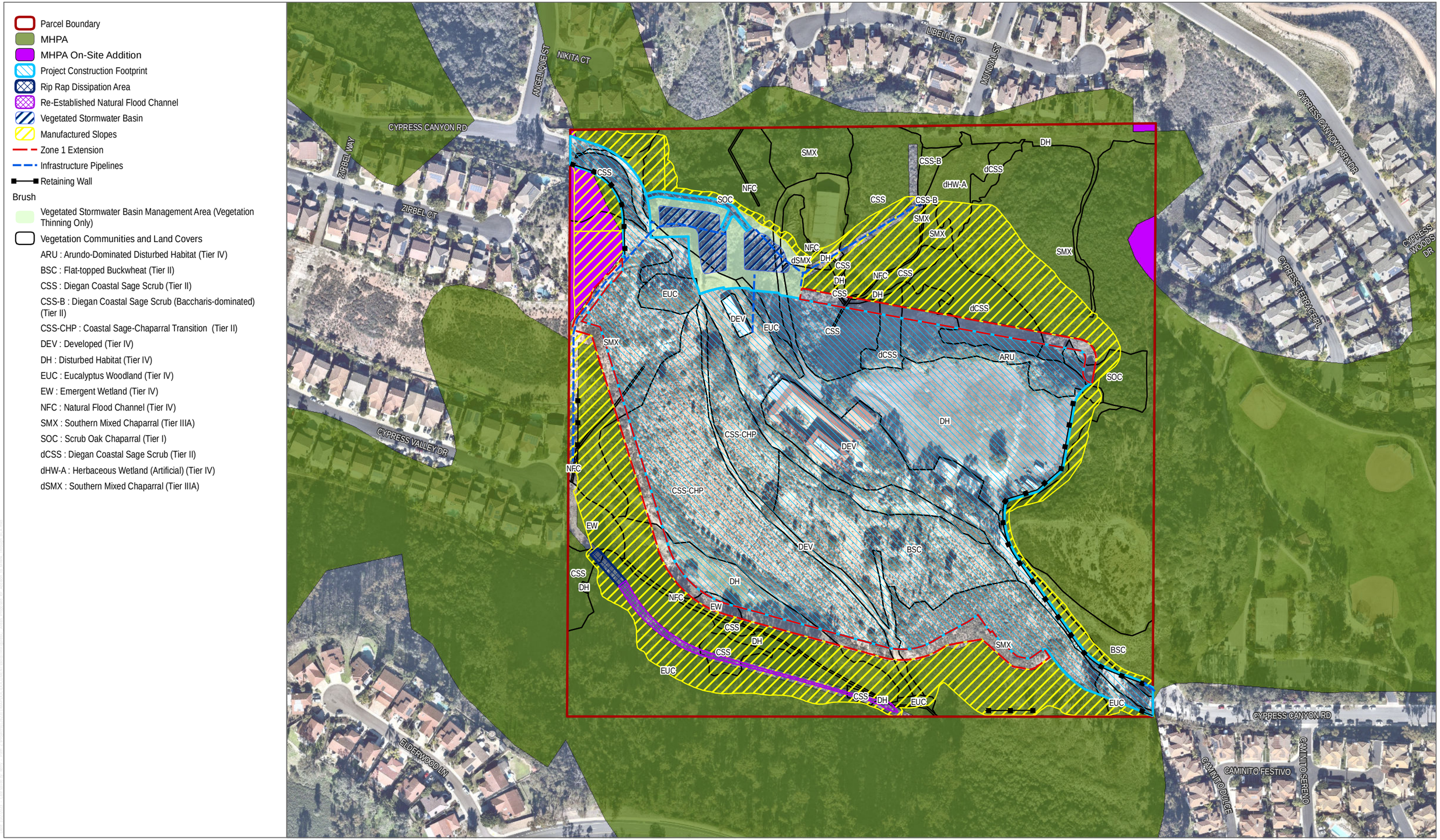
0 100 200 Feet

FIGURE 6B

Areas Proposed for Removal from MHPA Through BLA

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS 2020

DUDEK 0 100 200 Feet

FIGURE 6C

Areas Proposed for Addition to MHPA Through BLA

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA after BLA
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Manufactured Slopes
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall

Brush Management

- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)

Vegetation Communities and Land Covers

- ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
- BSC : Flat-topped Buckwheat (Tier II)
- CSS : Diegan Coastal Sage Scrub (Tier II)
- CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
- CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
- DEV : Developed (Tier IV)
- DH : Disturbed Habitat (Tier IV)
- EUC : Eucalyptus Woodland (Tier IV)
- EW : Emergent Wetland (Tier IV)
- NFC : Natural Flood Channel (Tier IV)
- SMX : Southern Mixed Chaparral (Tier IIIA)
- SOC : Scrub Oak Chaparral (Tier I)
- dCSS : Diegan Coastal Sage Scrub (Tier II)
- dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
- dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK 0 100 200 Feet

FIGURE 6D

Revised MHPA Boundary Following Proposed BLA

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA
- Vegetation Communities and Land Covers
  - ARU : Arundo-Dominated Disturbed Habitat
  - BSC : Flat-topped Buckwheat
  - CLOW : Coast Live Oak Woodland
  - CSS : Coastal Sage Scrub
  - CSS : Diegan Coastal Sage Scrub
  - CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated)
  - CSS-CHP : Coastal Sage-Chaparral Transition
  - CSS-RHU : Coastal Sage Scrub (Rhus Dominated)
  - DEV : Developed
  - DH : Disturbed Habitat
  - DL : Disturbed Land
  - DW-ARU : Arundo-Dominated Disturbed Habitat
  - DW-PD : Disturbed Wetland (Palm Dominated)
  - DW-POD : Tamarisk Scrub
  - DW-POD-W : Tamarisk Scrub (Potential CDFW / City Wetland)
  - EUC : Eucalyptus Woodland
  - EW : Emergent Wetland (Tier IV)
  - NFC : Natural Flood Channel
  - NFC-W : Natural Flood Channel
  - NNG : Non-native Grassland
  - SMX : Southern Mixed Chaparral
  - SOC : Scrub Oak Chaparral
  - dCSS : Diegan Coastal Sage Scrub
  - dCSS : Disturbed Coastal Sage Scrub
  - dHW-A : Herbaceous Wetland (Artificial)
  - dSMX : Southern Mixed Chaparral



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

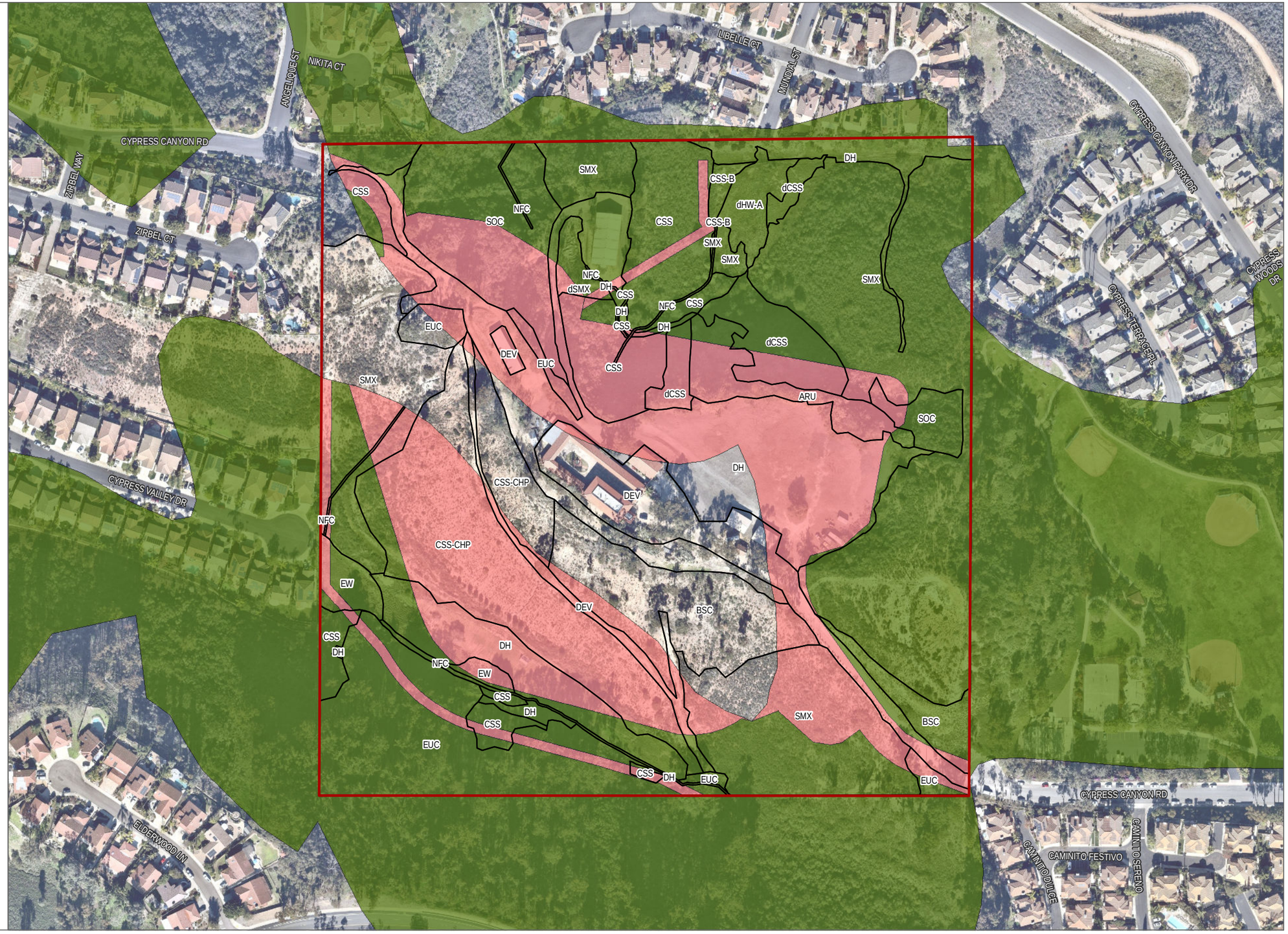
FIGURE 6E

Existing MHPA Boundary (MHPA BLA Only)

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA
- MHPA BLA Reduction
- Vegetation Communities and Land Covers
  - ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
  - BSC : Flat-topped Buckwheat (Tier II)
  - CSS : Diegan Coastal Sage Scrub (Tier II)
  - CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
  - CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
  - DEV : Developed (Tier IV)
  - DH : Disturbed Habitat (Tier IV)
  - EUC : Eucalyptus Woodland (Tier IV)
  - EW : Emergent Wetland (Tier IV)
  - NFC : Natural Flood Channel (Tier IV)
  - SMX : Southern Mixed Chaparral (Tier IIIA)
  - SOC : Scrub Oak Chaparral (Tier I)
  - dCSS : Diegan Coastal Sage Scrub (Tier II)
  - dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
  - dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 6F

Areas Proposed for Removal from MHPA Through BLA (MHPA BLA Only)

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA
- MHPA On-Site Addition
- Vegetation Communities and Land Covers
  - ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
  - BSC : Flat-topped Buckwheat (Tier II)
  - CSS : Diegan Coastal Sage Scrub (Tier II)
  - CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
  - CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
  - DEV : Developed (Tier IV)
  - DH : Disturbed Habitat (Tier IV)
  - EUC : Eucalyptus Woodland (Tier IV)
  - EW : Emergent Wetland (Tier IV)
  - NFC : Natural Flood Channel (Tier IV)
  - SMX : Southern Mixed Chaparral (Tier IIIA)
  - SOC : Scrub Oak Chaparral (Tier I)
  - dCSS : Diegan Coastal Sage Scrub (Tier II)
  - dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
  - dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 6G

Areas Proposed for Addition to MHPA Through BLA (MHPA BLA Only)

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA after BLA
- Vegetation Communities and Land Covers
  - ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
  - BSC : Flat-topped Buckwheat (Tier II)
  - CSS : Diegan Coastal Sage Scrub (Tier II)
  - CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
  - CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
  - DEV : Developed (Tier IV)
  - DH : Disturbed Habitat (Tier IV)
  - EUC : Eucalyptus Woodland (Tier IV)
  - EW : Emergent Wetland (Tier IV)
  - NFC : Natural Flood Channel (Tier IV)
  - SMX : Southern Mixed Chaparral (Tier IIIA)
  - SOC : Scrub Oak Chaparral (Tier I)
  - dCSS : Diegan Coastal Sage Scrub (Tier II)
  - dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
  - dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 6H

Revised MHPA Boundary Following Proposed BLA (MHPA BLA Only)

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- MHPA after BLA
- Project Construction Footprint
- Rip Rap Dissipation Area
- Re-Established Natural Flood Channel
- Vegetated Stormwater Basin
- Restoration (Manufactured Slopes)
- Restoration (Manufactured Slopes - No Credit)
- Preservation
- Preservation (No Credit)
- Creation (Tier II Habitat)
- Enhancement (Tier IIIA Habitat)
- Restoration (Tier IV Habitats)
- Wetland Creation
- Wetland Enhancement
- Wetland Rehabilitation
- Transitional Wetland
- Zone 1 Extension
- Infrastructure Pipelines
- Retaining Wall
- Drainage Facilities Easement
- Brush/Landscape Management Easement

Brush Management

- Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)

- Vegetation Communities and Land Covers
  - ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
  - BSC : Flat-topped Buckwheat (Tier II)
  - CSS : Diegan Coastal Sage Scrub (Tier II)
  - CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
  - CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
  - DEV : Developed (Tier IV)
  - DH : Disturbed Habitat (Tier IV)
  - EUC : Eucalyptus Woodland (Tier IV)
  - EW : Emergent Wetland (Tier IV)
  - NFC : Natural Flood Channel (Tier IV)
  - SMX : Southern Mixed Chaparral (Tier IIIA)
  - SOC : Scrub Oak Chaparral (Tier I)
  - dCSS : Diegan Coastal Sage Scrub (Tier II)
  - dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
  - dSMX : Southern Mixed Chaparral (Tier IIIA)



SOURCE: SANGIS 2020

DUDEK

0 100 200 Feet

FIGURE 7

Post-Project MHPA and Habitat Preservation

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2020, SANGIS 2020

DUDEK

0 75 150 Feet

FIGURE 8

MHPA BLA Biological Resources

Biological Technical Report for the Renzulli Estates Project, City of San Diego, California

INTENTIONALLY LEFT BLANK

Appendix A
Plant Compendium

Plants

Angiosperms: Eudicots

AIZOACEAE – FIG-MARIGOLD FAMILY

* *Carpobrotus edulis* – hottentot-fig

AMARANTHACEAE – AMARANTH FAMILY

Malosma laurina – laurel sumac
Rhus integrifolia – lemonadeberry
* *Amaranthus albus* – white tumbleweed

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia psilostachya – western ragweed
Artemisia californica – coastal sagebrush
Baccharis salicifolia ssp. *salicifolia* – mule-fat, seep-willow
Baccharis sarothroides – broom baccharis
Deinandra fasciculata – fascicled tarweed
Encelia californica – California encelia
Eriophyllum confertiflorum var. *confertiflorum* – long-stem golden-yarrow
Gnaphalium palustre – lowland cudweed
Helianthus californicus – California sunflower
Lasthenia glabrata ssp. *coulteri* – Coulter's salt-marsh daisy
Malacothrix californica – desert dandelion
Pseudognaphalium californicum – California everlasting
Psilocarphus tenellus – slender woolly-marbles
Stylocline gnaphaloides – everlasting nest-straw
Xanthium strumarium – cocklebur
* *Centaurea melitensis* – tocalote
* *Cotula coronopifolia* – African brass-buttons
* *Dittrichia graveolens* – stinkwort
* *Helminthotheca echioides* – bristly ox-tongue
* *Hypochaeris glabra* – smooth cat's ear
* *Logfia gallica* – narrow-leaf cottonrose
* *Sonchus oleraceus* – common sow-thistle
Baccharis pilularis – chaparral broom, coyote brush
Bahiopsis laciniata – San Diego sunflower
Corethrogyne filaginifolia var. *filaginifolia* – California sand-aster
Hazardia squarrosa – sawtooth goldenbush

Isocoma menziesii – coastal goldenbush
Stephanomeria virgata – virgate wreath-plant

BORAGINACEAE – BORAGE FAMILY

Eriodictyon crassifolium – felt-leaf yerba santa

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard
* *Raphanus raphanistrum* – jointed charlock

CACTACEAE – CACTUS FAMILY

Opuntia littoralis – coast prickly-pear
* *Opuntia ficus-indica* – mission prickly-pear, Indian-fig
Ferocactus viridescens var. *viridescens* – coast barrel cactus

CAPRIFOLIACEAE – HONEYSUCKLE FAMILY

Symphoricarpos mollis – creeping snowberry, trip vine

CARYOPHYLLACEAE – PINK FAMILY

Achyronychia cooperi – onyx flower, frost mat
Silene laciniata ssp. *laciniata* – southern pink
* *Silene gallica* – common catchfly
* *Spergularia bocconi* – Boccone's sand-spurrey

CISTACEAE – ROCK-ROSE FAMILY

* *Cistus incanus* – purple rock-rose
Crocanthemum scoparium – peak rush-rose

CRASSULACEAE – STONECROP FAMILY

Dudleya edulis – ladies' fingers
Dudleya lanceolata – lance-leaf dudleya

CUCURBITACEAE – GOURD FAMILY

Marah macrocarpa – manroot, wild-cucumber

ERICACEAE – HEATH FAMILY

Xylococcus bicolor – mission manzanita
Arctostaphylos glandulosa ssp. *crassifolia* – Del Mar manzanita

EUPHORBIACEAE – SPURGE FAMILY

* *Ricinus communis* – castor bean

FABACEAE – LEGUME FAMILY

* *Acacia longifolia* – sydney golden wattle
* *Melilotus albus* – white sweetclover
* *Trifolium hirtum* – rose clover

Acmispon glaber – deerweed

FAGACEAE – OAK FAMILY

Quercus dumosa – Nuttall's scrub oak

LAMIACEAE – MINT FAMILY

Salvia mellifera – black sage

* *Marrubium vulgare* – horehound

LYTHRACEAE – LOOSESTRIFE FAMILY

* *Lythrum hyssopifolia* – grass poly

MALVACEAE – MALLOW FAMILY

* *Malva parviflora* – cheeseweed

MYRSINACEAE – MYRSINE FAMILY

* *Anagallis arvensis* – scarlet pimpernel, poor man's weatherglass

MYRTACEAE – MYRTLE FAMILY

* *Eucalyptus globulus* – blue gum

OROBANCHACEAE – BROOM-RAPE FAMILY

Orobanche bulbosa – chaparral broom-rape

PHRYMACEAE – LOPSEED FAMILY

Diplacus puniceus – coast monkey flower

PLANTAGINACEAE – PLANTAIN FAMILY

Plantago erecta – dot-seed plantain

POLYGONACEAE – BUCKWHEAT FAMILY

Chorizanthe procumbens – prostrate spineflower

* *Rumex crispus* – curly dock

ROSACEAE – ROSE FAMILY

Cercocarpus minutiflorus – San Diego mountain-mahogany

Heteromeles arbutifolia – toyon, Christmas berry

Adenostoma fasciculatum – chamise

RUBIACEAE – MADDER OR COFFEE FAMILY

Galium aparine – common bedstraw, goose grass

RUTACEAE – RUE OR CITRUS FAMILY

Cneoridium dumosum – coast spice bush, bush-rue

SAXIFRAGACEAE – SAXIFRAGE FAMILY

Jepsonia parryi – coast jepsonia

SCROPHULARIACEAE – FIGWORT FAMILY

Scrophularia californica – California bee plant/figwort

* *Verbascum thapsus* – common mullein

SOLANACEAE – NIGHTSHADE FAMILY

* *Nicotiana glauca* – tree tobacco

TAMARICACEAE – TAMARISK FAMILY

* *Tamarix ramosissima* – saltcedar

URTICACEAE – STINGING NETTLE FAMILY

* *Urtica urens* – dwarf nettle

Angiosperms: Monocots

AGAVACEAE – AGAVE FAMILY

Chlorogalum parviflorum – small-flower soap-plant/amole

Hesperoyucca whipplei – chaparral candle

Yucca schidigera – Mohave yucca

IRIDACEAE – IRIS FAMILY

Sisyrinchium bellum – blue-eyed-grass

JUNCACEAE – RUSH FAMILY

Juncus dubius – mariposa rush

Juncus bufonius – toad rush

LILIACEAE – LILY FAMILY

Calochortus weedii – mariposa lily

POACEAE – GRASS FAMILY

Bothriochloa barbinodis – cane bluestem

Koeleria macrantha – junegrass

Melica imperfecta – coast range melic

Stipa pulchra – purple needle grass
* *Agrostis avenacea* – Pacific bent grass
* *Arundo donax* – giant reed
* *Avena barbata* – slender wild oat
* *Bromus diandrus* – ripgut grass
* *Bromus hordeaceus* – soft chess
* *Bromus madritensis* – compact brome
* *Cortaderia jubata* – purple pampas grass
* *Cynodon dactylon* – bermuda grass
* *Festuca myuros* – rat-tail fescue
* *Gastridium phleoides* – nit grass
* *Lamarckia aurea* – golden-top
* *Polypogon monspeliensis* – annual beard grass
* *Cenchrus setaceus* – African fountain grass

THEMIDACEAE – BRODIAEA FAMILY

Bloomeria crocea var. *crocea* – common goldenstar

* Signifies introduced (non-native) species

INTENTIONALLY LEFT BLANK

Appendix B
Wildlife Compendium

Birds

Bushtits

AEGITHALIDAE – LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus – bushtit

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Myiarchus cinerascens – ash-throated flycatcher

Sayornis nigricans – black phoebe

Tyrannus vociferans – Cassin's kingbird

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk

Buteo jamaicensis – red-tailed hawk

Buteo lineatus – red-shouldered hawk

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Selasphorus sasin – Allen's hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Aphelocoma californica – California scrub-jay

Corvus brachyrhynchos – American crow

Corvus corax – common raven

Kinglets

REGULIDAE – KINGLETS

Regulus calendula – ruby-crowned kinglet

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird

Toxostoma redivivum – California thrasher

New World Quail

ODONTOPHORIDAE – NEW WORLD QUAIL

Callipepla californica – California quail

Old World Sparrows

PASSERIDAE – OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

Old World Warblers and Gnatcatchers

POLIOPTILIDAE – GNATCATCHERS

Polioptila caerulea – blue-gray gnatcatcher

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

Woodpeckers

PICIDAE – WOODPECKERS AND ALLIES

Sphyrapicus ruber – red-breasted sapsucker

Dryobates nuttallii – Nuttall's woodpecker

Wrens

TROGLODYTIDAE – WRENS

Troglodytes aedon – house wren

Thryomanes bewickii – Bewick's wren

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melospiza melodia – song sparrow

Melozone crissalis – California towhee

Pipilo maculatus – spotted towhee

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE – SYLVIID WARBLERS

Chamaea fasciata – wrentit

Invertebrates

Butterflies

LYCAENIDAE – BLUES, HAIRSTREAKS, AND COPPERS

Callophrys augustinus – brown elfin

NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Vanessa cardui – painted lady

RIODINIDAE – METALMARKS

Apodemia mormo virgulti – Behr's metalmark

PAPILIONIDAE – SWALLOWTAILS

Papilio rutulus – western tiger swallowtail

PIERIDAE – WHITES AND SULFURS

Colias harfordii – Harford's sulphur

Phoebis sennae – cloudless sulphur

Pieris rapae – cabbage white

Pontia protodice – checkered white

Mammals

Canids

CANIDAE – WOLVES AND FOXES

Canis latrans – coyote

Hares And Rabbits

LEPORIDAE – HARES AND RABBITS

Sylvilagus bachmani – brush rabbit

Rats, Mice, And Voles

CRICETIDAE – RATS, MICE, AND VOLES

Neotoma sp. – woodrat

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

Sceloporus occidentalis – western fence lizard

TEIIDAE – WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri – San Diegan tiger whiptail

* Signifies introduced (non-native) species

Appendix C

Wetland Determination Data Forms and Arid West Ephemeral and Intermittent Stream OHWM Datasheets

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 1A

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): None | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.9242914 | Long: -117.069041 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No **Is the Sampled Area**

Wetland Hydrology Present? Yes No **within a Wetland? Yes No**

Remarks: Sample point taken in thick juncus stand within inundated channel bottom. Floating algal mats present. Last rainfall was over 5 days ago.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Juncus dubius*	65	Yes	FACW
2. *Rumex crispus*	1		FAC
3. *Lythrum hyssopifolium*	1		OBL
4. *Geranium carolinianum*	1		UPL
5. *Bromus diandrus*	1		UPL
6.			
7.			
8.			
Total Cover:	69 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

Remarks: Remaining cover is standing water with floating algae.

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1 =	1
FACW species	65	x 2 =	130
FAC species	1	x 3 =	3
FACU species		x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	69 (A)		144 (B)

Prevalence Index = B/A = 2.09

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-6	10YR 4/2	100					Sand	No redox
6-14	10YR 3/2	100					Sandy clay loam	No redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks: Soils were thoroughly saturated due to pit point in channel; soil was allowed to dry for 2 hours and was observed again but no redox was apparent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):	4-5
Water Table Present?	Yes	No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	0

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 1B

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): None | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.92432629 | Long: -117.06903836 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No **Is the Sampled Area**

Wetland Hydrology Present? Yes No **within a Wetland? Yes No**

Remarks: Sample point taken on banks of inundated channel just outside of area near sample point 1A. Attempt to find a better, less saturated soil sample.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis pilularis*	5	Yes	UPL
2.			
3.			
4.			
5.			
Total Cover:	5 %		
Herb Stratum			
1. *Juncus dubius*	20	Yes	FACW
2. *Rumex crispus*	2		FAC
3. *Bromus hordeaceous*	20	Yes	FACU
4. *Geranium carolinianum*	3		UPL
5. *Bromus diandrus*	50	Yes	UPL
6.			
7.			
8.			
Total Cover:	95 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % | % Cover of Biotic Crust %

Remarks:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	20	x 2 =	40
FAC species	2	x 3 =	6
FACU species	20	x 4 =	80
UPL species	58	x 5 =	290
Column Totals:	100 (A)		416 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-2	10YR 2/1	100					Sandy loam	No redox
2-9	10YR 4/3	95	2.5YR 4/8	5	C	PL	Sandy loam	
9-14	10YR 2/1	100					Sandy loam	No redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks: Middle layer not depleted enough to qualify for F3. Non-hydric despite redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):	1
Water Table Present?	Yes	No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	0

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Point taken just at edge of channel.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 2

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): None | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.92423414 | Long: -117.06883561 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No **Is the Sampled Area**

Wetland Hydrology Present? Yes No **within a Wetland? Yes No**

Remarks: Sample point taken in thick juncus stand on S side of channel.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Juncus dubius*	95	Yes	FACW
2. *Geranium carolinianum*	1		UPL
3. *Bromus rubens*	1		UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	97 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % | % Cover of Biotic Crust %

Remarks:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	95	x 2 =	190
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	97 (A)		200 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-1	10YR 4/3	100					Loam	No redox
1-14	10YR 2/2	100					Sandy loam	No redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks: No redox. Non-hydric

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):	
Water Table Present?	Yes	No	Depth (inches):	11
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	2

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Soil saturated at 2 inches depth. Pit filled with water at 11 inches.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 3

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): None | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.92451145 | Long: -117.0691009 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No **Is the Sampled Area**

Wetland Hydrology Present? Yes No **within a Wetland? Yes No**

Remarks: Sample point taken in field adjacent to channel where patch of juncus is growing

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Juncus dubius*	30	Yes	FACW
2. *Geranium carolinianum*	3		UPL
3. *Bromus diandrus*	10		UPL
4. *Bromus hordeaceous*	10		FACU
5. *Erodium botrys*	50	Yes	FACU
6.			
7.			
8.			
Total Cover:	103 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % | % Cover of Biotic Crust %

Remarks:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	30	x 2 =	60
FAC species		x 3 =	0
FACU species	60	x 4 =	240
UPL species	13	x 5 =	65
Column Totals:	103 (A)		365 (B)

Prevalence Index = B/A = 3.54

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-3	10YR 3/3	100					Clay loam	No redox
3-14	10YR 4/3	97	5YR 4-6	3	C	M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Hard pan

Depth (inches): 14

Hydric Soil Present? Yes No

Remarks: Redox present but matrix not depleted enough to qualify as hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):
Water Table Present?	Yes	No	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No signs of hydrology surrounding or within pit

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 4A

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): None | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.92468254 | Long: -117.06987744 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: PEM1Ch

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No

Hydric Soil Present? Yes No **Is the Sampled Area**

Wetland Hydrology Present? Yes No **within a Wetland? Yes No**

Remarks: Sample point taken in moist channel floodplain with weedy wetland vegetation.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover: %			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover: %			
Herb Stratum			
1. *Juncus bufonius*	30	Yes	FACW
2. *Spergularia bocconi*	40	Yes	FACW
3. *Bromus diandrus*	10		UPL
4. *Bromus hordeaceous*	10		FACU
5. *Centaurea melitensis*	30	Yes	UPL
6.			
7.			
8.			
Total Cover: 120%			
Woody Vine Stratum			
1.			
2.			
Total Cover: %			

% Bare Ground in Herb Stratum % | % Cover of Biotic Crust %

Remarks:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	70	x 2 =	140
FAC species		x 3 =	0
FACU species	10	x 4 =	40
UPL species	40	x 5 =	200
Column Totals:	120 (A)		380 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: 4A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-16	10YR 2/2	93	2.5YR 4/8	7	C	M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

Remarks: Hydric soils

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Thin Muck Surface (C7)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):
Water Table Present?	Yes	No	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Soil cracks present - neighboring areas appear saturated as well.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 4B

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Toe of slope | Local relief (concave, convex, none): None | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.92479233 | Long: -117.06985784 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Paired point taken on toe of slope adjacent to flat wetland area along drainage in SW study area.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Dipterostemon capitatus*	3		FACU
2. *Bromus rubens*	40	Yes	UPL
3. *Bromus diandrus*	40	Yes	UPL
4. *Bromus hordeaceous*	40	Yes	FACU
5.			
6.			
7.			
8.			
Total Cover:	123 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species	43	x 4 =	172
UPL species	80	x 5 =	400
Column Totals:	123 (A)		572 (B)

Prevalence Index = B/A = 4.65

Hydrophytic Vegetation Indicators:

- [ ] Dominance Test is >50%
- [ ] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Grassland at toe of slope

SOIL

Sampling Point: 4B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-15	10YR 3/2	93	5YR 5/8	7	C	M	Sandy clay loam	Redox begins at 6 inches deep

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[4]

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: Hydric soils indicate high ground water table, potentially seeping out of slope or associated with neighboring wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators - toe of upland slope.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 4/02/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 5

Investigator(s): Cody Schaaf | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): Concave | Slope (%): 0-2

Subregion (LRR): C - Mediterranean California | Lat: 32.92529462 | Long: -117.07093269 | Datum: WGS 84

Soil Map Unit Name: Riverwash | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Sample point taken in obvious wetland area with ares of ponding, wetland plants, etc. West of sample points 4A and 4B. Water drains into a culvert to the west underneath existing residential neighborhood. Sample point 4b should serve as the paired point for this sample point - delineation of the boundaries of this wetland were obvious given an abrupt change to upland/grassland vegetation.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Polypogon monspeliensis*	30	Yes	FACW
2. *Juncus bufonius*	20	Yes	FACW
3. *Lythrum hyssopifolium*	20	Yes	OBL
4. *Juncus dubius*	15		FACW
5. *Spergularia bocconi*	10		FACW
6. *Rumex crispus*	2		FAC
7.			
8.			
Total Cover:	97 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	75	x 2 =	150
FAC species	2	x 3 =	6
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	97 (A)		176 (B)

Prevalence Index = B/A = 1.81

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Clear wetland plant assemblage

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-12	10YR 3/2	93	2.5YR 3/6	7	C	PL	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[4]

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Groundwater

Depth (inches): 12

Hydric Soil Present? Yes ◉ No ○

Remarks: Obvious redox along pore linings.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○ No ◉	Depth (inches):	
Water Table Present?	Yes ◉ No ○	Depth (inches):	6
Saturation Present? (includes capillary fringe)	Yes ◉ No ○	Depth (inches):	0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Soil saturated and soggy.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 6/05/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 6A

Investigator(s): Patricia Schuyler, Laura Hernandez | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Valley bottom | Local relief (concave, convex, none): None | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 32.92726025 | Long: -117.06825617 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Sampling point is in the flat valley bottom in north of project study area, dominated by low growing herbaceous vegetation.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Polypogon monspeliensis*	87	Yes	FACW
2. *Ambrosia psylostachya*	10		FACU
3. *Melilotus indicus*	2		FACU
4. *Carpobrotus edulis*	1		FACU
5. *Rumex crispus*	1		FAC
6.			
7.			
8.			
Total Cover:	101 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	87	x 2 =	174
FAC species	1	x 3 =	3
FACU species	13	x 4 =	52
UPL species		x 5 =	0
Column Totals:	101 (A)		229 (B)

Prevalence Index = B/A = 2.27

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

SOIL

Sampling Point: 6A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-10	10YR 4/2	90	10YR 5/8	10	C	M	Sandy loam	
10-16	10YR 6/1	95	10YR 4/6	5	C	M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[4]

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: S5 present in 1-10 in
F3 present in 10-16 in

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Living root linings show clear oxidization.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cypress Canyon Road | City/County: San Diego | Sampling Date: 6/05/2020

Applicant/Owner: The Phair Company | State: CA | Sampling Point: 6B

Investigator(s): Patricia Schuyler, Laura Hernandez | Section, Township, Range: S27 T14S R2W

Landform (hillslope, terrace, etc.): Toe of slope | Local relief (concave, convex, none): None | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 32.92732673 | Long: -117.06837891 | Datum: WGS 84

Soil Map Unit Name: Redding cobbly loam, dissected, 15 to 50 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Sampling point is at toe of slope adjacent to flat valley bottom in northern project study area. Paired sample point for 6A wetland point.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis sarothroides*	80	Yes	FACU
2. *Salvia mellifera*	5		UPL
3.			
4.			
5.			
Total Cover:	85 %		
Herb Stratum			
1. *Polypogon monspeliensis*	3	Yes	FACW
2. *Pseudognaphalium californicum*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	8 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	3	x 2 =	6
FAC species		x 3 =	0
FACU species	85	x 4 =	340
UPL species	5	x 5 =	25
Column Totals:	93 (A)		371 (B)

Prevalence Index = B/A = 3.99

Hydrophytic Vegetation Indicators:

- [ ] Dominance Test is >50%
- [ ] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

SOIL

Sampling Point: 6B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-4	5Y 6/2	60	2.5YR 5/8	10	C	M	Clay loam	First redox color
0-4			5YR 3/4	10	C	M	Clay loam	Second redox color
0-4	Rocks	20						Rocks mixed in with top layer
4-10	5Y 6/2	60	2.5YR 5/8	10	C	M	Clay loam	
			5YR 3/4	10	C	M	Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[4]

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rocks

Depth (inches): 10

Hydric Soil Present? Yes ◉ No ○

Remarks: Lots of redox in rocky soil - hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators present.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project:
Project Number:
Stream: T1
Investigator(s): Cody Schaaf

Date: 4/2/2020
Town: San Diego
Photo begin file#:

Time: n/a
State: CA
Photo end file#:

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: Main channel in southern valley

Projection: **Datum:**

Coordinates: 32.92426094N, 117.06892647W

Potential anthropogenic influences on the channel system:
Surrounding roads + residential.

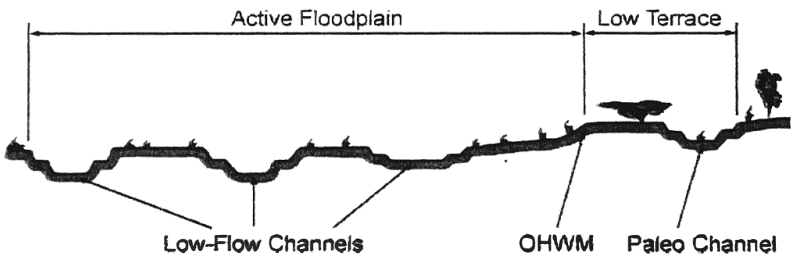
Brief site description: channel within patches of Juncus ~~x~~ dubius on S drainage of project site

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 2020
- ☐ Topographic maps
- ☒ Geologic maps
- ☐ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

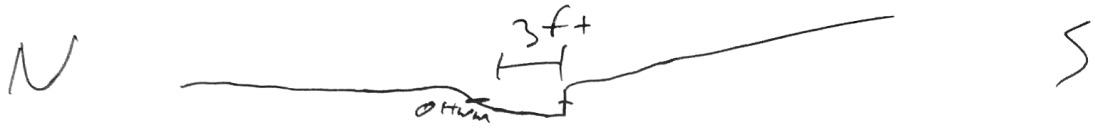


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: **Cross section ID:** T1 **Date:** 4/2/2026 **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- ☒ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments: Clear banks on one side of channel, surface relief on other; standing water in channel in addition to dominant hydrophytic veg in areas on banks and within channel

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Sandy loam

Total veg cover: 20 % Tree: ____ % Shrub: ____ % Herb: 20 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☒ Surface relief
- ☒ Other: water present
- ☐ Other: _____
- ☐ Other: _____

Comments: Obvious channel - herbaceous veg on banks shows direction of flow/drift. Clear surface relief.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Cypress Canyon Rd
Project Number:
Stream: T2
Investigator(s): Cody Schaaf

Date: 4/2/2020 **Time:** n/a
Town: San Diego **State:** CA
Photo begin file#: **Photo end file#:**

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: Main channel in southern valley

Projection: **Datum:**
Coordinates: 32.9244683N, 117.06936521W

Potential anthropogenic influences on the channel system:
Residential and roads surrounding small valley that channel lies in

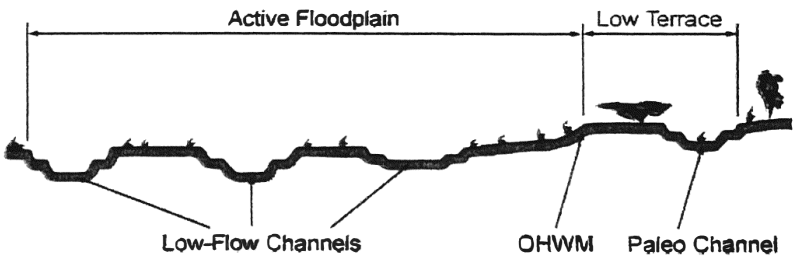
Brief site description:
Ephemeral channel W of Juncus patches w/ deep cut banks.

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 2020
- ☒ Topographic maps
- ☐ Geologic maps
- ☒ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

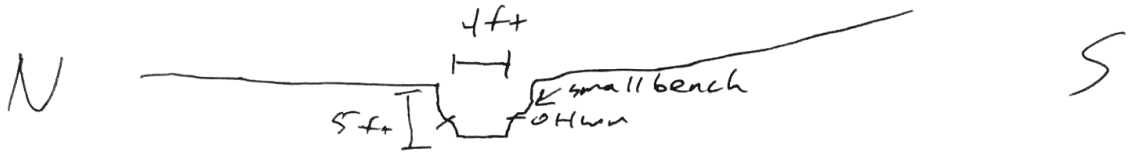


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☒ GPS
   - ☐ Digitized on computer
   - ☐ Other:

Project ID: **Cross section ID:** T2 **Date:** 4/2/20 **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments: Large, deep cut banks, exposed rocks in channel bottom and little veg. cover.

Floodplain unit:

- [x] Low-Flow Channel
- [ ] Active Floodplain
- [ ] Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Sandy loam

Total veg cover: 10 % Tree: ____% Shrub: ____% Herb: 10 %

Community successional stage:

- [ ] NA
- [x] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [ ] Soil development
- [x] Surface relief
- [x] Other: Standing water
- [ ] Other: _____
- [ ] Other: _____

Comments: Clear bed + bank, dramatic surface relief, and small benches above OHWM.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Cypress Canyon Rd
Project Number:
Stream: T3
Investigator(s): Cody Schaaf

Date: 4/2/20
Town: San Diego
Photo begin file#:

Time: n/a
State: CA
Photo end file#:

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details:
Small canyon drainage west of existing residence

Projection: **Datum:**
Coordinates: 32.92614742N, 117.07045391W

Potential anthropogenic influences on the channel system:
Residential and surrounding roads.

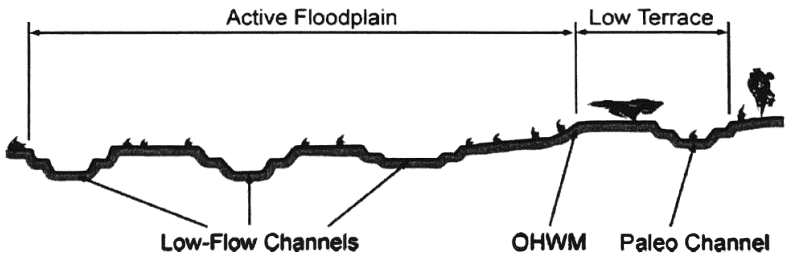
Brief site description:
Ephem channel in mixed chaparral N of Emergent Wetland area to S.

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 2020
- ☒ Topographic maps
- ☐ Geologic maps
- ☒ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

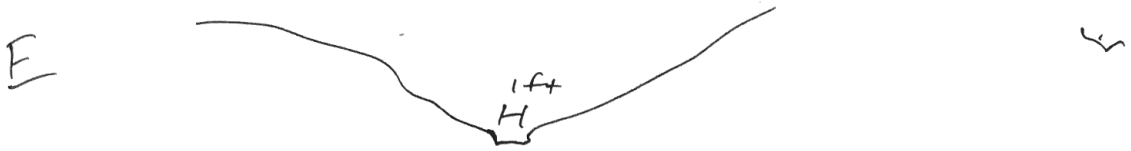


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: **Cross section ID:** T3 **Date:** 4/2/20 **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments: Sandy bottom of channel, clear break in banks, and less veg cover.

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Sandy loam

Total veg cover: 10 % Tree: ____ % Shrub: 10 % Herb: ____ %

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [x] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [x] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments: Sand deposits showing erosion. Clear, small cut banks.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Cypress Canyon Rd
Project Number:
Stream: T4 1st one of day
Investigator(s): JISH LAH

Date: 6/5/20 **Time:**
Town: San Diego **State:** CA
Photo begin file#: **Photo end file#:**

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details:
Canyon drainage north of existing residence draining into northern wetland area

Projection: **Datum:**
Coordinates: 32.92698973N, 117.06840028W

Potential anthropogenic influences on the channel system:
Residential & roads surrounding valley but channel lies ~~Stream~~ is in

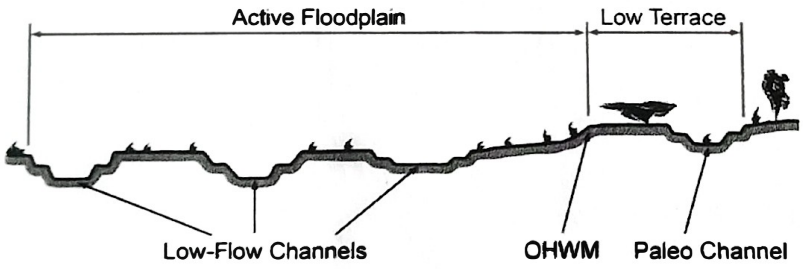
Brief site description:
Ephemeral channel Low point flattening out at base of hillslope

Checklist of resources (if available):

- ☐ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

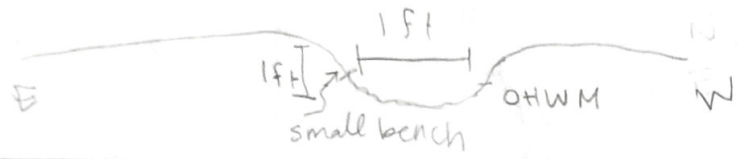


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☒ GPS
   - ☐ Digitized on computer
   - ☐ Other:

Project ID: **Cross section ID:** T4 **Date:** 6/5/20 **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

Exposed rock in channel bottom

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: sandy loam

Total veg cover: 20 % Tree: ____ % Shrub: ____ % Herb: 20 %

Community successional stage:

- [ ] NA
- [x] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [ ] Soil development
- [x] Surface relief
- [x] Other: surface moisture, looks more saturated darker color
- [ ] Other: _____
- [ ] Other: _____

Comments:

lots of pampas grass

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Cypress Canyon Rd
Project Number:
Stream: TS
Investigator(s):

Date: 6/5/20
Time:
Town:
State:
Photo begin file#:
Photo end file#:

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details:
Channel adjacent to dirt road/trail north of existing residence

Projection: **Datum:**
Coordinates: 32.926670N, 117.069003W

Potential anthropogenic influences on the channel system:
channel running parallel with walking trail. Trail was created alongside channel

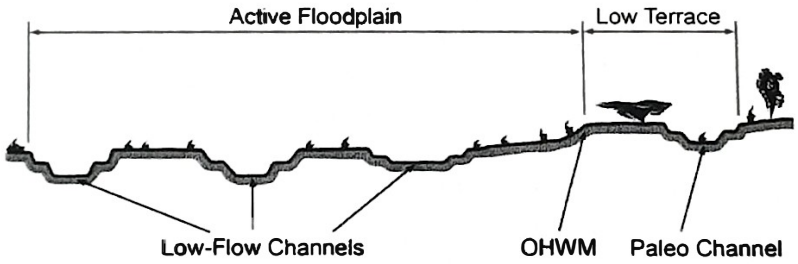
Brief site description:
Near top of slope right next to walking trail to access flat part of site

Checklist of resources (if available):

- ☒ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

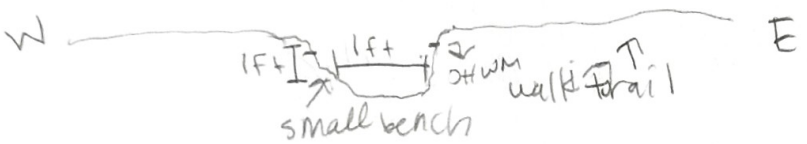


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☒ GPS
   - ☐ Digitized on computer
   - ☐ Other:

Project ID: **Cross section ID:** T5 **Date:** 6/5/2020 **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

Rocky bottom of channel, clear break in banks, and less vegetation cover along west side of walking trail

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: sandy loam

Total veg cover: 20 % Tree: ____ % Shrub: 10 % Herb: 10 %

Community successional stage:

- [ ] NA
- [x] Early (herbaceous & seedlings)
- [x] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [x] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other: Slight racking of veg
- [ ] Other: _____
- [ ] Other: _____

Comments:

Appendix D

2020 Focused California Gnatcatcher Survey Report for the Scripps Cypress Pointe Project, City of San Diego, California

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

September 3, 2020 12622

U.S. Fish and Wildlife Service
Attention: Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: *Focused California Gnatcatcher Survey Report for the Scripps Cypress Pointe Project, City of San Diego, California*

Dear Recovery Permit Coordinator:

This report documents the results of a protocol-level presence/absence survey for the coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher). The focused survey was conducted within suitable gnatcatcher habitat within the approximately 40.8-acre Scripps Cypress Pointe Project (Project), located in the Scripps Ranch community of the City of San Diego, California (Figure 1).

The gnatcatcher is a federally listed threatened species and a California Department of Fish and Wildlife (CDFW) Species of Special Concern. It is closely associated with coastal sage scrub habitat and typically occurs below elevations of 950 feet above mean sea level (AMSL) and on slopes less than 40%, but gnatcatchers have been observed at elevations greater than 2,000 feet AMSL. The species is threatened primarily by loss, degradation, and fragmentation of coastal sage scrub habitat and is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

Location and Existing Conditions

The Project site is located in a residential area within the Scripps Ranch community. The Project is within the City's Multiple Species Conservation Program (MSCP) Subarea Plan, with portions of the Project site within the City's Multi-Habitat Planning Area (MHPA). Approximate elevations within the project site range from approximately 766 feet above mean sea level (AMSL) to approximately 985 feet AMSL. The approximate centroid of the project area is at Latitude 32°55'33.25" North and Longitude 117°04'06.62" West on the U.S. Geographic Survey (USGS) 7.5-minue series Poway quadrangle, Section 27, Range 2 West, Township 14 South (Figure 2).

Vegetation Communities

One vegetation community, coastal sage scrub, that could potentially support California gnatcatchers, occurs on the Project site. Any areas identified as coastal sage scrub within the Project site were surveyed for gnatcatchers during the focused survey effort. Coastal sage scrub is described below.

Coastal Sage Scrub

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including

lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric (dry) slopes. Coastal sage scrub and all its variants generally are recognized as sensitive plant communities by local, state, and federal resource agencies. It supports a diversity of sensitive plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical coverage throughout Southern California.

The coastal sage scrub vegetation on site is slightly atypical of the species composition usually found in the region, consisting primarily of flat-top buckwheat, broom baccharis (*Baccharis sarothroides*), and chamise (*Adenostoma fasciculatum*). Regardless, the habitat structure of mapped coastal sage scrub areas on site is suitable for the presence of California gnatcatchers.

Methods

The project site is within the City's MSCP; thus, in accordance with U.S. Fish and Wildlife Service (USFWS) (USFWS 1997) survey protocol, three surveys were conducted. All potentially suitable habitat was surveyed by Dudek wildlife biologist Paul Lemons (Recovery Permit No TE051248-6). No more than 100 acres of suitable habitat was surveyed during each visit. Details and conditions for each survey visit are summarized in Table 1.

Table 1. Survey Details and Conditions

Date	Biologist	Time	Survey Conditions (temp., skies, wind)
8/7/2020	P. Lemons	0700—1030	65—75 Degrees Fahrenheit (°F), 0% cloud cover (cc), 1—5 mile per hour (mph) winds
8/14/2020	P. Lemons	0720—1040	67—80 °F, 0%cc, 0—mph winds
8/21/2020	P. Lemons	0740—1030	73—79 °F, 60-40%cc, 1—6 mph wind

The entire survey area was covered on-foot during each survey visit for 100% visual and audible coverage of the survey area; routes of the survey are illustrated on Figure 2. Survey visits were conducted at minimum one-week intervals (i.e., 7-day) and were performed in conformance with the currently accepted protocol of the USFWS *Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol* (USFWS 1997).

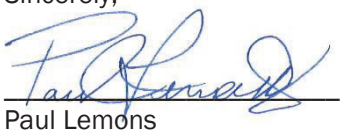
A tape of recorded gnatcatcher vocalizations was played approximately every 75-100 feet to induce responses from potentially present gnatcatchers. A 250-scale (1 inch = 250 feet) aerial photograph of the site overlaid with 500-foot buffer around the project boundary and a vegetation map was used to identify suitable habitats and map any gnatcatchers detected. Binoculars (10x50 magnification) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers.

Results

No gnatcatchers were detected during this focused survey effort. A total of 35 wildlife species were detected on site during the focused survey effort and are listed in Appendix A. Please feel free to contact me at 760.479.4238 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,



Paul Lemons
Permit # TE051248-6

Att: Figure 1, Project Location
Figure 2, Survey Route
Appendix A, Wildlife Species Observed on the Project Site

Literature Cited

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game.

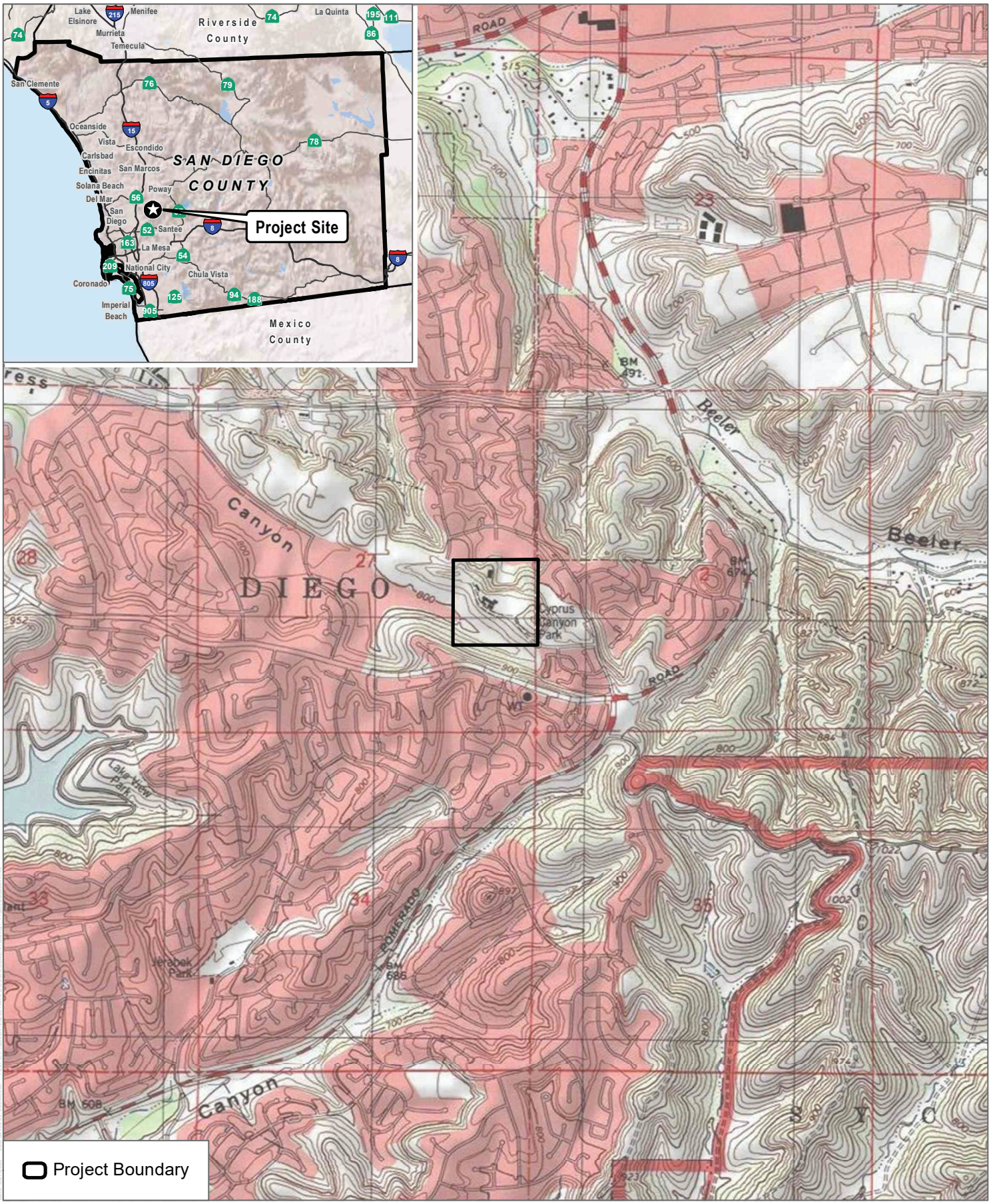
USFWS (U.S. Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher* (Polioptila californica californica) *Presence/Absence Survey Protocol.*

References for Latin and Common Names

American Ornithologists' Union. 1998. Check-list of North American Birds, 7th edition. American Ornithologists' Union. Washington D. C.

Banks, R.C., R.T. Chesser, C. Cicero, J.L. Dunn, A.W. Kratter, I.J. Lovette, P.C. Rasmussen, J.V. Remsen, Jr., J.D. Rising, and D.F. Stotz. 2007. Forty-eighth supplement to the American Ornithologists' Union *Checklist of North American Birds. Auk* 124: 1109–1115.

Jones, J.K., Jr., D.C. Carter, H.H. Genoways, R.S. Hoffman, and D.W. Rice. 1992. Revised Checklist of North American Mammals North of Mexico. Occasional Papers of the Museum of Texas Tech University, no. 146.



SOURCE: USGS 7.5-Minute Series Poway Quadrangle

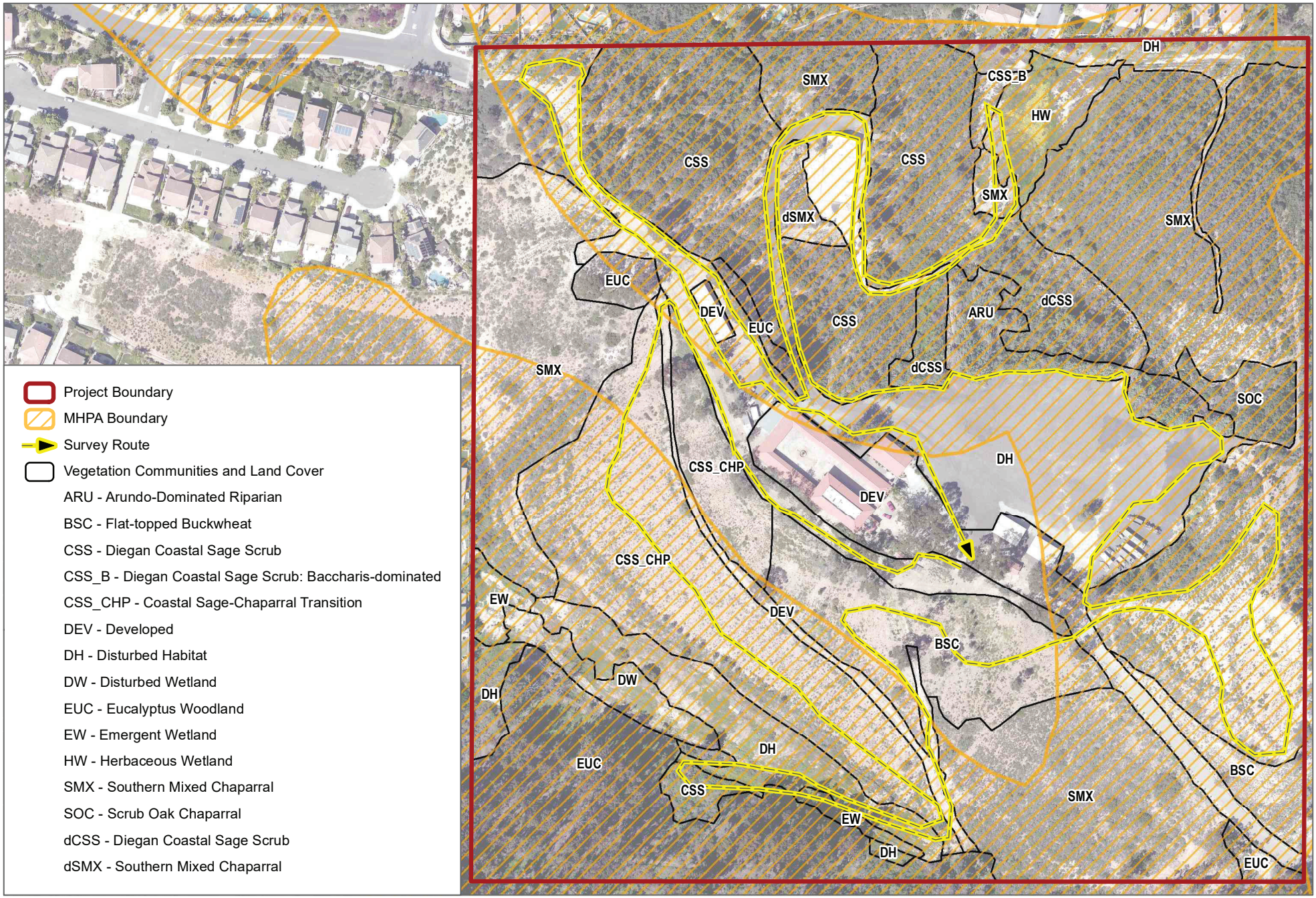
0 1,000 2,000 Feet
0 285 570 Meters
1:24,000

DUDEK

FIGURE 1

Project Location

2020 Focused Coastal California Gnatcatcher Survey for the Proposed Scripps Cypress Pointe Project, City of San Diego, California



SOURCE: SANGIS 2017

DUDEK

0 100 200 Feet

FIGURE 2

Survey Route

2020 Focused Coastal California Gnatcatcher Survey for the Proposed Scripps Cypress Pointe Project, City of San Diego, California

Appendix A

List of Wildlife Species Observed or Detected

Birds

Bushtits

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

Finches

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

Flycatchers

TYRANNIDAE—TYRANT FLYCATCHERS

Myiarchus cinerascens—ash-throated flycatcher

Sayornis nigricans—black phoebe

Tyrannus vociferans—Cassin's kingbird

Hawks

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Accipiter cooperii—Cooper's hawk

Buteo lineatus—red-shouldered hawk

Hummingbirds

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Selasphorus sasin—Allen's hummingbird

Jays, Magpies and Crows

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay

Corvus brachyrhynchos—American crow

Corvus corax—common raven

Kinglets

REGULIDAE—KINGLETS

Regulus calendula—ruby-crowned kinglet

Mockingbirds and Thrashers

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

Toxostoma redivivum—California thrasher

New World Quail

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

Old World Warblers and Gnatcatchers

POLIOPTILIDAE—GNATCATCHERS

Polioptila caerulea—blue-gray gnatcatcher

Pigeons and Doves

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

Woodpeckers

PICIDAE—WOODPECKERS AND ALLIES

Sphyrapicus ruber—red-breasted sapsucker

Dryobates nuttallii—Nuttall's woodpecker

Wrens

TROGLODYTIDAE—WRENS

Troglodytes aedon—house wren

Thryomanes bewickii—Bewick's wren

New World Sparrows

PASSERELLIDAE—NEW WORLD SPARROWS

Melozone crissalis—California towhee

Pipilo maculatus—spotted towhee

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE—SYLVIID WARBLERS

Chamaea fasciata—wrentit

Invertebrates

Butterflies

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Vanessa cardui—painted lady

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

PAPILIONIDAE—SWALLOWTAILS

Papilio rutulus—western tiger swallowtail

PIERIDAE—WHITES & SULFURS

Colias harfordii—Harford's sulphur

Pontia protodice—checkered white

Mammals

Canids

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

Rats, Mice, and Voles

CRICETIDAE—RATS, MICE, AND VOLES

Neotoma sp.—woodrat

Reptiles

Lizards

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—San Diegan tiger whiptail

INTENTIONALLY LEFT BLANK

Appendix E

Special-Status Plant Species Potentially Occurring within the Biological Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Abronia maritima	red sand-verbena	None/None/4.2/None	Coastal dunes/perennial herb/ Feb–Nov/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CCH 2020).
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1/ Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/ Apr–June/30–3150	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1/Covered	Coastal dunes, Coastal scrub (sandy)/annual herb/ Mar–June(July)/0–35	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Adolphia californica	California adolphia	None/None/2B.1/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/ 30–2430	Not expected to occur. There is no clay soil on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1/ Narrow Endemic	Coastal bluff scrub, Coastal scrub; Maritime succulent scrub/perennial leaf succulent/Sep–May/5–395	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Ambrosia monogyra	singlewhorl burrobrush	None/None/2B.2/None	Chaparral, Sonoran desert scrub; sandy/perennial shrub/Aug–Nov/ 30–1640	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1/ Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1360	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Aphanisma blitoides	aphanisma	None/None/1B.2/ Narrow Endemic	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy or gravelly/ annual herb/Feb–June/0–1000	Low potential to occur. There is suitable coastal scrub present but this species is only know to occur closer to the immediate coast. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1/Covered	Chaparral (maritime, sandy)/ perennial evergreen shrub/ Dec–June/0–1200	Occurs on site. This species was observed in scrub oak chaparral and mixed chaparral within the northern portion of the study area. The closest known CNDDB occurrence overlaps the northern boundary of the project site in 1991 mapped from aerial imagery by CNDDB (CDFW 2020).
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2/Covered	Chaparral, Cismontane woodland; metavolcanic/perennial evergreen shrub/Jan–Apr/900–5575	Not expected to occur. All SDNHM records are south of Rancho San Diego, indicating the project site is outside of the species' known geographic range (SDNHM 2020). This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Artemisia palmeri	San Diego sagewort	None/None/4.2/None	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May–Sep/ 45–3000	Low potential to occur. There is suitable chaparral, coastal sage, and riparian habitat present but this perennial species would have been observed during rare plant surveys if present. The closest known occurrence is less than 1 mile from the project site (CDFW 2020, CCH 2020).
Asplenium vespertinum	western spleenwort	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb–June/ 590–3280	Moderate potential to occur. There is suitable chaparral and coastal sage present and may not have been detected during 2020 focused surveys. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Astragalus albens	Cushenbury milk-vetch	FE/None/1B.1/None	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; usually carbonate, rarely granitic/perennial herb/Mar–June/ 3590–6560	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Astragalus deanei	Dean's milk-vetch	None/None/1B.1/None	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/ perennial herb/Feb–May/ 245–2280	Low potential to occur. There is suitable chaparral and coastal scrub habitat present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Astragalus oocarpus	San Diego milk-vetch	None/None/1B.2/None	Chaparral (openings), Cismontane woodland/perennial herb/ May–Aug/1000–5000	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1/ Narrow Endemic	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); often vernally mesic areas/ annual herb/Mar–May/0–165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Atriplex coulteri	Coulter's saltbush	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/ perennial herb/Mar–Oct/5–1510	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Atriplex pacifica	South Coast saltscale	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/ Mar–Oct/0–460	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Atriplex parishii	Parish's brittlescale	None/None/1B.1/None	Chenopod scrub, Playas, Vernal pools; alkaline/annual herb/ June–Oct/80–6235	Not expected to occur. No suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1/Covered	Chaparral (maritime), Cismontane woodland; sandstone/perennial deciduous shrub/Aug,Oct,Nov/ 195–2360	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Berberis nevinii	Nevin's barberry	FE/SE/1B.1/Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; sandy or gravelly/perennial evergreen shrub/(Feb)Mar–June/ 225–2705	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2/None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy/perennial stem succulent/ May–June/5–1295	Low potential to occur. There is suitable chaparral and coastal scrub present but this species is known from areas closer to the immediate coast. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial bulbiferous herb/ Apr–May/160–1525	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1/Covered	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; often clay/perennial bulbiferous herb/Mar–June/ 80–3675	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1/Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/May–July/95–5550	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Calamagrostis koelerioides	San Diego reed grass	None/None/None/Covered	Chaparral, meadows and seeps; slopes, dry hills, ridges/perennial rhizomatous herb/June–Aug/ 0–7546	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Calandrinia breweri	Brewer's calandrinia	None/None/4.2/None	Chaparral, Coastal scrub; sandy or loamy, disturbed sites and burns/ annual herb/(Jan)Mar–June/ 30–4005	Low potential to occur. There is suitable chaparral and coastal scrub present, but species would have been detected during 2020 focused surveys. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2/Covered	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb)Apr–June/ 605–6005	Low potential to occur. There is suitable chaparral present but the site is lacking rocky outcrops and gabbroic/metavolcanics soils. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/3/None	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy or clay/annual herb/ Mar–May(June)/0–985	Low potential to occur. There is suitable coastal scrub present but soils on site are not sandy or clay. There are no known occurrences within 5 miles of the project site (CCH 2020).
Castilleja plagiotoma	Mojave paintbrush	None/None/4.3/None	Great Basin scrub (alluvial), Joshua tree woodland, Lower montane coniferous forest, Pinyon and juniper woodland/perennial herb (hemiparasitic)/Apr–June/ 980–8200	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CCH 2020). The closest occurrence is in Riverside County (CCH 2020).
Caulanthus heterophyllus	California mustard	None/None/None/Covered	Coastal scrub, chaparral; dry, open, generally after fire, disturbance/ annual herb/Mar–May/0–4593	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2/Covered	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/Apr–June/770–2475	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2/None	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1965–3610	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2/Covered	Chaparral/perennial evergreen shrub/Dec–May/0–1245	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Centromadia parryi ssp. *australis*	southern tarplant	None/None/1B.1/None	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/ annual herb/May–Nov/0–1575	Low potential to occur. There is suitable marsh present but this species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Centromadia pungens ssp. *laevis*	smooth tarplant	None/None/1B.1/None	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/annual herb/Apr–Sep/ 0–2100	Low potential to occur. There is suitable marsh habitat present but this species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1/None	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/ 0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Chamaebatia australis	southern mountain misery	None/None/4.2/None	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov–May/980–3345	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. The closest known occurrence is approximately 5 miles from the project site (CCH 2020).
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2/Covered	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/ 0–100	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Chorizanthe leptotheca	Peninsular spineflower	None/None/4.2/None	Chaparral, Coastal scrub, Lower montane coniferous forest; alluvial fan, granitic/annual herb/ May–Aug/980–6235	Low potential to occur. There is suitable chaparral and coastal scrub present but this species would have been observed during rare plant surveys if present. There are no known occurrences within 5 miles of the project site (CCH 2020).
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1/None	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/ annual herb/Mar–May/5–410	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2/None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/annual herb/Apr–July/ 95–5020	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).
Cistanthe maritima	seaside cistanthe	None/None/4.2/None	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/annual herb/ (Feb)Mar–June(Aug)/15–985	Low potential to occur. There is suitable coastal scrub present but this species is only known to occur closer to the immediate coast. There are no known occurrences within 5 miles of the project site (CCH 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Clarkia delicata	delicate clarkia	None/None/1B.2/None	Chaparral, Cismontane woodland; often gabbroic/annual herb/ Apr–June/770–3280	Low potential to occur. There is suitable chaparral present, but species would have been detected during 2020 focused surveys. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020) but a botanical checklist within the Poway Quad has recorded this species (Calflora 2020).
Clinopodium chandleri	San Miguel savory	None/None/1B.2/Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Rocky, gabbroic or metavolcanic/ perennial shrub/Mar–July/ 390–3525	Low potential to occur. There is suitable chaparral, coastal scrub and marsh habitat present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2/None	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–June/95–2590	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Convolvulus simulans	small-flowered morning-glory	None/None/4.2/None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar–July/95–2430	Not expected to occur. There is no clay soil on site. The closest known occurrence is less than 5 miles from the project site (CCH 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1/None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/ June–Sep/5–375	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is less than 1 mile from the project site in 2007 and was possibly impacted by tower construction for Sunrise Powerlink Project (CDFW 2020).
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	None/None/1B.1/Covered	Coastal bluff scrub, Chaparral (maritime, openings), Coastal scrub; sandy/perennial herb/ May,July,Aug,Sep/45–490	Not expected to occur. The site is outside of the species' known elevation range. The closest known occurrence is approximately 5 miles from the project site (CDFW 2020).
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1/ Narrow Endemic	Chaparral, Coastal scrub/perennial stem succulent/Apr–May/95–490	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Deinandra conjugens	Otay tarplant	FT/SE/1B.1/ Narrow Endemic	Coastal scrub, Valley and foothill grassland; clay/annual herb/ (Apr)May–June/80–985	Not expected to occur. There is no clay soil on site. This species is not known to occur within the vicinity[1] (CDFW 2020).
Dichondra occidentalis	western dichondra	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1640	Low potential to occur. There is suitable chaparral, coastal scrub, and grassland present, but species would likely have been detected during 2020 focused surveys. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/2B.1/Covered	Coastal scrub/annual herb (hemiparasitic)/ (Mar)Apr–July(Sep)/30–1150	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Diplacus aridus	low bush monkeyflower	None/None/4.3/None	Chaparral (rocky), Sonoran desert scrub/perennial evergreen shrub/Apr–July/2460–3935	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles from the project site (CCH 2020).
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1/None	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/ Apr–June/15–1475	Not expected to occur. There is no clay soil on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1/ Narrow Endemic	Chaparral (maritime, openings), Coastal scrub; Torrey sandstone/ perennial herb/Apr–May/95–820	Not expected to occur. There is no suitable Torrey sandstone soil present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Dudleya variegata	variegated dudleya	None/None/1B.2/ Narrow Endemic	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/ perennial herb/Apr–June/5–1905	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Dudleya viscida	sticky dudleya	None/None/1B.2/Covered	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/ May–June/30–1805	Low potential to occur. There is suitable chaparral and coastal scrub present but this species is only known from occurrences closer to the immediate coast. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1/Covered	Chaparral, Coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1970	Low potential to occur. There is suitable chaparral and coastal scrub present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Eriodictyon sessilifolium	sessile-leaved yerba stanta	None/None/2B.1/None	Coastal scrub; volcanic/ perennial shrub/July/555–560	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/ annual / perennial herb/Apr–June/ 65–2035	Not expected to occur. No suitable habitat present and species would have been detected during 2020 focused surveys. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2/Covered	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/perennial herb/ Feb–June/0–195	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Erythranthe diffusa	Palomar monkeyflower	None/None/4.3/None	Chaparral, Lower montane coniferous forest; sandy or gravelly/annual herb/Apr–June/ 4000–6005	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles of the project site (CCH 2020).
Euphorbia misera	cliff spurge	None/None/2B.2/None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/ perennial shrub/Dec–Aug(Oct)/ 30–1640	Low potential to occur. There is suitable coastal scrub present but this species is only known from occurrences closer to the immediate coast. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/ perennial stem succulent/ May–June/5–1475	Occurs on site. This species was observed in mixed chaparral in the southeast portion of the study area. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Frankenia palmeri	Palmer's frankenia	None/None/2B.1/None	Coastal dunes, Marshes and swamps (coastal salt), Playas/ perennial herb/May–July/0–35	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1/None	Coastal scrub (mesic), Vernal pools; soil/ephemeral liverwort/N.A./ 30–1970	Moderate potential to occur. There is suitable coastal scrub and mesic habitat present and species may not have been detected during 2020 focused surveys. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/3.1/None	Chaparral (mesic, disturbed areas)/annual herb/Apr–June/ 1475–2295	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles of the project site (CCH 2020).
Grindelia hallii	San Diego gumplant	None/None/1B.2/None	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/ May–Oct/605–5725	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/ annual herb/Mar–May/65–3135	Not expected to occur. There is no clay soil on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CNDDB 2020, CCH 2020).
Hazardia orcuttii	Orcutt's hazardia	None/ST/1B.1/None	Chaparral (maritime), Coastal scrub; often clay/perennial evergreen shrub/Aug–Oct/ 260–280	Not expected to occur. The site is outside of the species' known elevation range. Additionally, there is no clay soil on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1/Covered	Closed-cone coniferous forest, Chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4920	Not expected to occur. There is no clay soil on site. This species is not known to occur within the vicinity[1] (CDFW 2020).
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1/None	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/ Mar–Dec/0–4020	Low potential to occur. There is suitable chaparral and coastal scrub present but this species is generally known from occurrences closer to the immediate coast. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Holocarpha virgata ssp. *elongata*	graceful tarplant	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/ 195–3610	Low potential to occur. There is suitable chaparral, and coastal scrub present but this species would have been observed during rare plant surveys if present. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Hordeum intercedens	vernal barley	None/None/3.2/None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar–June/ 15–3280	Not expected to occur. No suitable habitat present and species would have been detected during 2020 focused surveys. The closest known occurrence is approximately 5 miles from the project site (CCH 2020).
Horkelia truncata	Ramona horkelia	None/None/1B.3/None	Chaparral, Cismontane woodland; clay, gabbroic/perennial herb/ May–June/1310–4265	Not expected to occur. The site is outside of the species' known elevation range. Additionally, there is no clay soil on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2/None	Chaparral, Coastal scrub (sandy, often in disturbed areas)/ perennial shrub/Apr–Nov/30–445	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Iva hayesiana	San Diego marsh-elder	None/None/2B.2/None	Marshes and swamps, Playas/ perennial herb/Apr–Oct/ 30–1640	Low potential to occur. There is suitable marsh present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2/None	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/5–2955	Low potential to occur. There is suitable marsh present but this perennial species would have been observed during rare plant surveys if present. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1/None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/ Feb–June/0–4005	Occurs on site. This species was observed within potential herbaceous wetlands in the northern portion of the project site.
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2/Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland/ perennial shrub/Apr–July/ 1705–4495	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3/Covered	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland; Gabbroic or metavolcanic/perennial shrub/ June–July/1000–3295	Not expected to occur. All SDNHM records are south of Rancho San Diego, indicating the project site is outside of the species' known geographic range (SDNHM 2020). This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3/None	Chaparral, Coastal scrub/ annual herb/Jan–July/0–2905	Low potential to occur. There is suitable chaparral and coastal scrub present, but species would have been detected during 2020 focused surveys. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020, CCH 2020).
Leptosyne maritima	sea dahlia	None/None/2B.2/None	Coastal bluff scrub, Coastal scrub/perennial herb/Mar–May/ 15–490	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Lycium californicum	California box-thorn	None/None/4.2/None	Coastal bluff scrub, Coastal scrub/perennial shrub/ (Dec)Mar,June,July,Aug/15–490	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles from the project site (CCH 2020).
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2/None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/ Mar–May/45–3510	Not expected to occur. There is no clay soil on site. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Mobergia calculiformis	light gray lichen	None/None/3/None	Coastal scrub (?); On rocks/ crustose lichen (saxicolous)/ N.A./30–35	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2/Covered	Chaparral, Cismontane woodland/ perennial rhizomatous herb/ June–Aug/980–5165	Low potential to occur. There is suitable chaparral present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Monardella viminea	willowy monardella	FE/SE/1B.1/Covered	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/ 160–740	Low potential to occur. There is suitable chaparral, coastal scrub, and mesic habitat present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1/None	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/ Mar–June/65–2100	Not expected to occur. No suitable habitat present and species would have been detected during 2020 focused surveys. The closest known occurrence is approximately 5 miles from the project site (CCH 2020). There are no known occurrences within 5 miles of the project site (CCH 2020).
Navarretia fossalis	spreading navarretia	FT/None/1B.1/Narrow Endemic	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/ annual herb/Apr–June/95–2150	Not expected to occur. No suitable habitat present and species would have been detected during 2020 focused surveys. The closest known occurrence is approximately 5 miles from the project site (CCH 2020). The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1/None	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/Apr–July/ 5–3970	Not expected to occur. No suitable habitat present and species would have been detected during 2020 focused surveys. The closest known occurrence is approximately 5 miles from the project site (CCH 2020). There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2/None	Coastal dunes/annual herb/ Apr–Sep/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Nolina interrata	Dehesa nolina	None/SE/1B.1/Covered	Chaparral (gabbroic, metavolcanic, or serpentinite)/perennial herb/ June–July/605–2805	Not expected to occur. All CCH records are south of Crest and east of Rancho San Diego, indicating the project site is outside of the species' known geographic range (CCH 2020). This species is not known to occur within the vicinity[1] (CDFW 2020).
Ophioglossum californicum	California adder's-tongue	None/None/4.2/None	Chaparral, Valley and foothill grassland, Vernal pools (margins); mesic/perennial rhizomatous herb/ (Dec)Jan–June/195–1720	Moderate potential to occur. There is suitable chaparral and mesic habitat present and species may not have been detected during 2020 focused surveys. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/ Narrow Endemic	Vernal pools/annual herb/ Apr–Aug/45–2165	Low potential to occur. This species would have been observed during rare plant surveys. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	None/None/4.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Low potential to occur. There is suitable coastal scrub present but this perennial species would have been observed during rare plant surveys if present. There are no known occurrences within 5 miles from the project site (CCH 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Packera ganderi	Gander's ragwort	None/SR/1B.2/Covered	Chaparral (burns, gabbroic outcrops)/perennial herb/ Apr–June/1310–3935	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/ Mar–July/260–6070	Low potential to occur. There is suitable coastal scrub and mesic habitat present, but species would have been detected during 2020 focused surveys. The closest known occurrence is approximately 5 miles from the project site (CCH 2020).
Phacelia ramosissima var. *austrolitoralis*	south coast branching phacelia	None/None/3.2/None	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt); sandy, sometimes rocky/perennial herb/ Mar–Aug/15–985	Low potential to occur. There is suitable chaparral, coastal scrub, and marsh present but this perennial species would have been observed during rare plant surveys if present. There are no known occurrences within 5 miles from the project site (CCH 2020).
Phacelia stellaris	Brand's star phacelia	None/None/1B.1/None	Coastal dunes, Coastal scrub/ annual herb/Mar–June/0–1310	Low potential to occur. There is suitable coastal scrub present, but species would have been detected during 2020 focused surveys. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/1B.2/Covered	Closed-cone coniferous forest, Chaparral; Sandstone/perennial evergreen tree/N.A./95–525	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Piperia cooperi	chaparral rein orchid	None/None/4.2/None	Chaparral, Cismontane woodland, Valley and foothill grassland/ perennial herb/Mar–June/ 45–5200	Low potential to occur. There is suitable chaparral and grassland present, but species would have been detected during 2020 focused surveys. There are no known occurrences within 5 miles from the project site (CCH 2020).
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1/Narrow Endemic	Vernal pools/annual herb/ Mar–July/295–655	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1/ Narrow Endemic	Vernal pools/annual herb/ May–July/295–820	Not expected to occur. No suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Polygala cornuta var. *fishiae*	Fish's milkwort	None/None/4.3/None	Chaparral, Cismontane woodland, Riparian woodland/perennial deciduous shrub/May–Aug/ 325–3280	Low potential to occur. There is suitable chaparral and riparian habitat present but this perennial species would have been observed during rare plant surveys if present. There are no known occurrences within 5 miles from the project site (CCH 2020).
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2/None	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; sandy, gravelly/perennial herb/ (July)Aug–Nov(Dec)/0–6890	Low potential to occur. There is suitable chaparral, coastal scrub, and riparian habitat present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Quercus cedrosensis	Cedros Island oak	None/None/2B.2/None	Closed-cone coniferous forest, Chaparral, Coastal scrub/ perennial evergreen tree/ Apr–May/835–3150	Low potential to occur. There is suitable chaparral and coastal scrub present but this perennial species would have been observed during rare plant surveys if present. The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1/None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr(May–Aug)/ 45–1310	Occurs on site. Numerous individuals of this species were observed in chaparral and coastal scrub throughout the study area. The closest known CNDDB occurrence is less than 1 mile from the project site in 2015 (CDFW 2020).
Quercus engelmannii	Engelmann oak	None/None/4.2/None	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/ 160–4265	Low potential to occur. There is suitable chaparral and mesic habitat present but this perennial species would have been observed during rare plant surveys if present. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Rosa minutifolia	small-leaved rose	None/SE/2B.1/Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Jan–June/ 490–525	Not expected to occur. The site is outside of the species' known elevation range. This species is not known to occur within the vicinity[1] (CDFW 2020).
Salvia munzii	Munz's sage	None/None/2B.2/None	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/ 375–3495	Low potential to occur. Most records are south of SR-52 (CCH 2020).
Selaginella cinerascens	ashy spike-moss	None/None/4.1/None	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Low potential to occur. There is suitable chaparral and coastal scrub present, but species would have been detected during 2020 focused surveys. The closest known occurrence is less than 5 miles from the project site (CCH 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Senecio aphanactis	chaparral ragwort	None/None/2B.2/None	Chaparral, Cismontane woodland, Coastal scrub; sometimes alkaline/ annual herb/Jan–Apr(May)/ 45–2625	Low potential to occur. There is suitable chaparral and coastal scrub present, but species would have been detected during 2020 focused surveys. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2/None	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/perennial herb/ Mar–June/45–5020	Low potential to occur. There is suitable chaparral and coastal scrub present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Solanum xanti	Purple nightshade	None/None/None/Covered	Coastal scrub, chaparral, cismontane woodland, lower montane coniferous forest/ perennial herb / perennial shrub/ June–July/0–8858	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Sphaerocarpos drewei	bottle liverwort	None/None/1B.1/None	Chaparral, Coastal scrub; openings, soil/ephemeral liverwort/N.A./ 295–1970	Moderate potential to occur. There is suitable chaparral and coastal scrub present and species may not have been detected during 2020 focused surveys. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Stemodia durantifolia	purple stemodia	None/None/2B.1/None	Sonoran desert scrub (often mesic, sandy)/perennial herb/ (Jan)Apr,June,Aug,Sep,Oct,Dec/ 590–985	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Stipa diegoensis	San Diego County needle grass	None/None/4.2/None	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/ Feb–June/30–2625	Low potential to occur. There is suitable chaparral and coastal scrub present, but species would have been detected during 2020 focused surveys. There are no known occurrences within 5 miles of the project site (CCH 2020).
Stylocline citroleum	oil neststraw	None/None/1B.1/None	Chenopod scrub, Coastal scrub, Valley and foothill grassland; clay/ annual herb/Mar–Apr/160–1310	Not expected to occur. Only one historical CCH record in San Diego County from east of Bonita; remaining records are in the Bakersfield area (CCH 2020). Additionally, there is no clay soil on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Suaeda esteroa	estuary seablite	None/None/1B.2/None	Marshes and swamps (coastal salt)/perennial herb/ (May)July–Oct(Jan)/0–15	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Suaeda taxifolia	woolly seablite	None/None/4.2/None	Coastal bluff scrub, Coastal dunes, Marshes and swamps (margins of coastal salt)/perennial evergreen shrub/Jan–Dec/0–165	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles from the project site (CCH 2020).
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2/Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/ 540–3280	Low potential to occur. There is suitable chaparral and coastal scrub present but this perennial species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/State/CRPR/ City of San Diego MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Texosporium sancti-jacobi	woven-spored lichen	None/None/3/None	Chaparral (openings); On soil, small mammal pellets, dead twigs, and on Selaginella spp/crustose lichen (terricolous)/N.A./195–2165	Low potential to occur. There is suitable chaparral present but this lichen species would have been observed during rare plant surveys if present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Triquetrella californica	coastal triquetrella	None/None/1B.2/None	Coastal bluff scrub, Coastal scrub; soil/moss/N.A./30–330	Not expected to occur. The site is outside of the species' known elevation range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Viguiera (Bahiopsis) laciniata	San Diego County viguiera	None/None/4.3/None	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	Occurs on site. This species was observed in southern mixed chaparral and flat-topped buckwheat scrub on the eastern boundary of the study area. The closest known occurrence is less than 5 miles from the project site (CCH 2020).
Xanthisma junceum	rush-like bristleweed	None/None/4.3/None	Chaparral, Coastal scrub/ perennial herb/May–Jan/ 785–3280	Low potential to occur. There is suitable chaparral and coastal scrub present but this perennial species would have been observed during rare plant surveys if present. The closest known occurrence is approximately 5 miles from the project site (CCH 2020).

Notes:

[1] Vicinity refers to USGS 7.5 geological quadrangles within and surrounding the project site: Poway, Rancho Santa Fe, Escondido, San Pasqual, Del Mar, San Vicente Reservoir, La Jolla, La Mesa, and El Cajon.

Statuses:

FE: Federally listed as endangered
FT: Federally listed as threatened
SE: State listed as endangered
ST: State listed as threatened
SR: State Rare
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere

CRPR 2A: Plants presumed extirpated in California but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3: Review List: Plants about which more information is needed
CRPR 4: Watch List: Plants of limited distribution
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

References

CalFlora. 2020. Observation Search. Accessed August 24, 2020 at https://www.calflora.org/entry/observ.html.

CCH (Consortium of California Herbaria). 2020. Featuring California vascular plant data from the Consortium of California Herbaria and other sources. University of California. Updated February 26, 2020. Accessed May 22, 2020

CDFW (California Department of Fish and Wildlife). 2020. California Natural Diversity Database. RareFind Version 5.2.14 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed May 2020. http://www.dfg.ca.gov/biogeodata/cnddb/rarefind.asp.

SDNHM (San Diego Natural History Museum). 2020. Data retrieved from Herbarium and Plant Atlas databases. San Diego County Plant Atlas Project. Online ed. Accessed May 2020. http://www.sdplantatlas.org/publicsearch.aspx.

INTENTIONALLY LEFT BLANK

Appendix F

Special-Status Wildlife Species Potentially Occurring within the Biological Study Area

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC/Covered	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. There are no third order streams present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Rana draytonii	California red-legged frog	FT/SSC/Covered	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Spea hammondii	western spadefoot	None/SSC/None	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Low potential to occur. The wetlands in the northern and southern portion of the study area have numerous areas that remain ponded for at least 3 weeks during the rainy season, as was observed during the April 2020 jurisdictional delineation. However, these areas have been disturbed and the site is relatively isolated from adjacent residential development, so it is not expected to be a preferred location for the species. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Reptiles				
Actinemys pallida	southwestern pond turtle	None/SSC/Covered	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Anniella stebbinsi	southern California legless lizard	None/SSC/None	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. There is suitable chaparral and scrub present, however there are no dunes or dry washes present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Arizona elegans occidentalis	California glossy snake	None/SSC/None	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Low potential to occur. There is suitable sandy areas with brush, however there are no open desert habitat areas present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Aspidoscelis hyperythra	orange-throated whiptail	None/WL/Covered	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Moderate potential to occur. There is suitable coastal scrub and chaparral present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/None	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Occurs on site. This species was observed in chaparral habitat during focused gnatcatcher surveys. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC/None	Rocky areas within coastal scrub and chaparral	Low potential to occur. There is suitable coastal scrub and chaparral present, however there are no rocky areas on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Crotalus ruber	red diamondback rattlesnake	None/SSC/None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Moderate potential to occur. There is suitable coastal scrub, chaparral, and grasslands present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Diadophis punctatus similis	San Diego ringneck snake	None/None/None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	Moderate potential to occur. There is suitable wet meadows, and chaparral present. There are no known CNDDB occurrences within 5 miles from the project site (CDFW 2020).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/Covered	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Low potential to occur. There is suitable coastal scrub, chaparral, and mesic habitat present, however there are no large areas of open sandy soil present and the study area is surrounded by existing roads development. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/None	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Low potential to occur. There is suitable grassland and chaparral present, however there are no rocky areas on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC/None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Low potential to occur. There is suitable scrub vegetation present but ground squirrels and associated small mammal burrows were not observed on the site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Thamnophis hammondii	two-striped gartersnake	None/SSC/None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Moderate potential to occur. There is suitable marsh and wetland habitat present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/Covered	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Occurs on site. This species was observed during California gnatcatcher surveys. The closest known CNDDB occurrence is a nest approximately 1.5 miles southwest of the project site in a small Eucalyptus grove surrounded by residential neighborhood in 2017 (CDFW 2020).
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST/Covered	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to nest. Low potential to forage in grassland. The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to nest and forage. Suitable habitat exists within the study area but it is surrounded by existing roads and development; this species typically prefers more open, contiguous patches of scrub and chaparral. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC/None	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Low potential to nest and forage. There is suitable grassland and scrub present, however there are no large open areas. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Aquila chrysaetos (nesting and wintering)	golden eagle	BCC/FP, WL/Covered	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to nest or forage. The site is surrounded by urban development and there are no large trees or cliffs. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/None	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Low potential to nest and forage. There is suitable coastal scrub and chaparral present, however there are no large, unfragmented patches on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/SSC/Covered	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to nest and forage. There is suitable grassland present, however there is no open, large area for burrows. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Branta canadensis	Canada goose	None/None/Covered	Lakes, rivers, ponds, and other bodies of water; yards, park lawns, and agricultural fields	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Buteo regalis (wintering)	ferruginous hawk	BCC/WL/Covered	Winters and forages in open, dry country, grasslands, open fields, agriculture	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST/Covered	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to nest or forage. There are no isolated large trees or open woodlands or agricultural areas. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Campylorhynchus brunneicapillus sandiegensis (San Diego and Orange Counties only)	coastal cactus wren	BCC/SSC/Covered	Southern cactus scrub patches	Not expected to occur. There are no suitable cactus scrub patches. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC/Covered	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. There are no marine shores or saline lakes on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Charadrius montanus (wintering)	mountain plover	BCC/SSC/Covered	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. The site is outside of the species' known geographic range. This species is not known to occur within the vicinity[1] (CDFW 2020).
Circus hudsonius (nesting)	northern harrier	None/SSC/Covered	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. This species is not known to occur within the vicinity[1] (CDFW 2020).
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/None	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. The site is outside of the species' known geographic range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Coturnicops noveboracensis	yellow rail	BCC/SSC/None	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Not expected to occur. There are no coastal marshes on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Egretta rufescens	reddish egret	None/None/Covered	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity[1] (CDFW 2020).
Elanus leucurus (nesting)	white-tailed kite	None/FP/None	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Not expected to nest. Low potential to forage. There is suitable scrub and grassland present, however the site is surrounded by urban development. The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/Covered	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to nest. Low potential to forage. There are no dense riparian habitats along a stream on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Eremophila alpestris actia	California horned lark	None/WL/None	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Not expected to nest. Low potential to forage. There are no agriculture, beaches, or alpine fields present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Falco mexicanus (nesting)	prairie falcon	BCC/WL/None	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to nest. Low potential to forage in grassland and scrub. There are no cliffs suitable for nesting present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/FP, SDL/Covered	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to nest. Low potential to forage in riparian and wetland on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Haliaeetus leucocephalus (nesting and wintering)	bald eagle	FDL, BCC/FP, SE/Covered	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity[1] (CDFW 2020).
Icteria virens (nesting)	yellow-breasted chat	None/SSC/None	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to nest. Low potential to forage. There are no dense, wide riparian woodlands present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Ixobrychus exilis (nesting)	least bittern	BCC/SSC/None	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. There are no dense aquatic vegetation present. The closest known CNDDB occurrence is approximately 5 miles from the project site (CDFW 2020).
Laterallus jamaicensis coturniculus	California black rail	BCC/FP, ST/None	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. The site is outside of the species' known geographic range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Numenius americanus (nesting)	long-billed curlew	BCC/WL/Covered	Nests in grazed, mixed grass, and short-grass prairies; localized nesting along the California coast; winters and forages in coastal estuaries, mudflats, open grassland, and cropland	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/Covered	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.)	Not expected to occur. There is no coastal saltmarsh vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Passerculus sandwichensis rostratus (wintering)	large-billed savannah sparrow	None/SSC/Covered	Nests and forages in open, low saltmarsh vegetation, including low halophytic scrub	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Pelecanus occidentalis californicus (nesting colonies and communal roosts)	California brown pelican	FDL/FP, SDL/Covered	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. The site is outside of the species' known geographic range. This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Plegadis chihi (nesting colony)	white-faced ibis	None/WL/Covered	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. The site is outside of the species' known geographic range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/Covered	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Low potential to occur. This species was not observed in three passes of focused, protocol California gnatcatcher surveys. Although the site contains adequate coastal scrub and gnatcatcher habitat, the focused survey results suggest that this species does not actively utilize the site for foraging or nesting. There are several known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Pyrocephalus rubinus (nesting)	vermilion flycatcher	None/SSC/None	Nests in riparian woodlands, riparian scrub, and freshwater marshes; typical desert riparian with cottonwood, willow, mesquite adjacent to irrigated fields, ditches, or pastures	Not expected to occur. The site is outside of the species' known geographic range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Rallus obsoletus levipes	Ridgway's rail	FE/SE, FP/Covered	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. There are no coastal emergent wetlands vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/None	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to nest. Low potential to forage. There is no suitable dense riparian woodland on site. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Sialia mexicana	western bluebird	None/None/Covered	Nests in old-growth red fir, mixed-conifer, and lodgepole pine habitats near wet meadows used for foraging	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Sternula antillarum browni (nesting colony)	California least tern	FE/FP, SE/Covered	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. The site is outside of the species' known geographic range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Thalasseus elegans (nesting colony)	elegant tern	None/WL/Covered	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. The site is outside of the species' known geographic range. This species is not known to occur within the vicinity[1] (CDFW 2020).
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE/Covered	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to nest. Low potential to forage. There is no dense riparian thickets along water present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Mammals				
Antrozous pallidus	pallid bat	None/SSC/None	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to roost. Low potential to forage. There are no rocky outcrops or open dry habitats present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/None	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Moderate potential to occur. There is suitable scrub and chaparral present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/None	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Moderate potential to occur. There is suitable coastal scrub and chaparral present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to roost or forage. There is no suitable desert habitat or caves present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC/None	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to roost. Low potential to forage. There are no large areas of riparian habitat present, and no caves or tunnels on site. The closest known occurrence is less than 5 miles from the project site (CDFW 2020).
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST/None	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. The site is outside of the species' known geographic range. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Euderma maculatum	spotted bat	None/SSC/None	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Not expected to roost or forage. There are no suitable streams to feed over, and no arid desert habitats present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Eumops perotis californicus	western mastiff bat	None/SSC/None	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Not expected to roost. Low potential to forage. There are no rocky canyons or cliffs present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Lasionycteris noctivagans	silver-haired bat	None/None/None	Old-growth forest, maternity roosts in trees, large snags 50 feet aboveground; hibernates in hollow trees, rock crevices, buildings, mines, caves, and under sloughing bark; forages in or near coniferous or mixed deciduous forest, stream or river drainages	Not expected to roost. Low potential to forage. There is no suitable old-growth forest present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Lasiurus blossevillii	western red bat	None/SSC/None	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Not expected to roost. Low potential to forage. There is no suitable forest or orchard present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Lasiurus cinereus	hoary bat	None/None/None	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	Low potential to roost. Low potential to forage. There is some suitable eucalyptus woodland and wetland habitat present, but it is limited in size and surrounded by existing residential development. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Lasiurus xanthinus	western yellow bat	None/SSC/None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to roost. Low potential to forage. There is no suitable dense riparian habitat present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Moderate potential to occur. There is suitable grassland and coastal scrub present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Myotis ciliolabrum	western small-footed myotis	None/None/None	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	Not expected to roost. Low potential to forage. There are no caves or mines on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Myotis evotis	long-eared myotis	None/None/None	Brush, woodland, and forest habitats from sea level to 9,000 feet above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Not expected to roost. Low potential to forage. There are no open habitat and large water sources for foraging, and no caves on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Myotis yumanensis	Yuma myotis	None/None/None	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Not expected to roost. Low potential to forage. There are no large streams or rivers for foraging, and no bridges or cliffs for nesting on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Moderate potential to occur. There is suitable coastal scrub and chaparral present, however there are no rocky areas. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC/None	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Not expected to roost. Low potential to forage. There is no suitable desert scrub, cliffs, or rock outcrops present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Nyctinomops macrotis	big free-tailed bat	None/SSC/None	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. There are no rocky areas or caves present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Odocoileus hemionus	mule deer	None/None/Covered	Coastal sage scrub, chaparral, riparian, woodlands, and forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed areas	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Low potential to occur. There are no dunes or open strands present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Puma concolor	cougar	None/None/Covered	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	Not expected to occur. This species is not known to occur within the vicinity[1] (CDFW 2020).
Taxidea taxus	American badger	None/SSC/Covered	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected occur. There are no open, treeless areas on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Invertebrates				
Bombus crotchii	Crotch's bumble bee	None/PSE/None	Open grassland and scrub communities supporting suitable floral resources.	Moderate potential for foraging and nesting to occur. Suitable scrub vegetation present. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. There is no suitable vernal pool or non-vegetated ephemeral pool habitat on site; all wetlands in the study area are vegetated and lacking strong vernal pool indicator plant species. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).
Callophrys thornei	Thorne's hairstreak	None/None/Covered	Interior cypress woodland dominated by host plant Hesperocyparis forbesii (Tecate cypress)	Not expected to occur. There is no cypress woodland or host plant on site. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Danaus plexippus pop. 1	monarch	None/None/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Euphydryas editha quino	quino checkerspot butterfly	FE/None/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include *Plantago erecta*, *Antirrhinum coulterianum,* and *Plantago patagonica* (Silverado Occurrence Complex)	Low potential to occur. There is suitable open coastal scrub and chaparral and *Plantago erecta* was observed on site but per USFWS survey guidelines, the project occurs outside of the survey range and therefore there is a low potential for this species to occur within the project area. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Lycaena hermes	Hermes copper	FT/None/None	Mixed woodlands, chaparral, and coastal scrub	Not expected to occur. The host plants were not observed on site during focused habitat assessment. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).
Panoquina errans	wandering skipper	None/None/Covered	Saltmarsh	Not expected to occur. There is no suitable saltmarsh habitat present. There are no known CNDDB occurrences within 5 miles of the project site (CDFW 2020).

Scientific Name	Common Name	Status (Federal/ State/San Diego MSCP South County)	Habitat	Potential to Occur
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. There is no suitable vernal pool or non-vegetated ephemeral pool habitat on site; all wetlands in the study area are vegetated and lacking strong vernal pool indicator plant species. The closest known CNDDB occurrence is less than 5 miles from the project site (CDFW 2020).

Notes:

[1] Vicinity refers to USGS 7.5 geological quadrangles within and surrounding the project site: Poway, Rancho Santa Fe, Escondido, San Pasqual, Del Mar, San Vicente Reservoir, La Jolla, La Mesa, and El Cajon.

Statuses:

FE: Federally Endangered
FT: Federally Threatened
FC: Federal Candidate
FDL: Federally Delisted
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
BLM: Bureau of Land Management Sensitive Species
SSC: California Species of Special Concern
FP: California Fully Protected Species
WL: California Watch List Species
SE: State Endangered
ST: State Threatened
PSE: Proposed State Endangered
SDL: State Delisted

References

CDFW (California Department of Fish and Wildlife). 2020. California Natural Diversity Database. RareFind Version 5.2.14 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed May 2020. http://www.dfg.ca.gov/biogeodata/cnddb/rarefind.asp.

INTENTIONALLY LEFT BLANK

Appendix G

2021 Focused California Gnatcatcher Survey Report for the BLA Off-site Location

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

June 22, 2021 12622

U.S. Fish and Wildlife Service
Attention: Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: Focused California Gnatcatcher Survey Report for the Renzuli Boundary Line Adjustment Project, City of San Diego, California

Dear Recovery Permit Coordinator:

This report documents the results of a protocol-level presence/absence survey for the coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher). The focused survey was conducted within suitable gnatcatcher habitat within the approximately 11-acre Renzuli Boundary Line Adjustment Project (Project), located in the North Clairemont community of the City of San Diego, California (Figure 1).

The gnatcatcher is a federally listed threatened species and a California Department of Fish and Wildlife (CDFW) Species of Special Concern. It is closely associated with coastal sage scrub habitat and typically occurs below elevations of 950 feet above mean sea level (AMSL) and on slopes less than 40%, but gnatcatchers have been observed at elevations greater than 2,000 feet AMSL. The species is threatened primarily by loss, degradation, and fragmentation of coastal sage scrub habitat and is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

Location and Existing Conditions

The Project site is located in a residential area within the North Clairemont community. The Project is within the City's Multiple Species Conservation Program (MSCP) Subarea Plan, with portions of the Project site within the City's Multi-Habitat Planning Area (MHPA). Approximate elevations within the project site range from approximately 185 feet above mean sea level (AMSL) to approximately 350 feet AMSL. The approximate centroid of the project area is at Latitude 30°50'01.99" North and Longitude 116°12'46.55" West on the U.S. Geographic Survey (USGS) 7.5-minue series La Jolla quadrangle, on un-sectioned lands, Range 3 West, Township 15 South (Figure 2).

Vegetation Communities

Coastal sage scrub, including disturbed and Rhus-dominated forms, that could potentially support California gnatcatchers occur on the Project site. All areas identified with these habitats were surveyed for gnatcatchers during the focused survey effort and are described below.

Coastal Sage Scrub

Diegan coastal sage scrub is a native vegetation community. According to Oberbauer et al. (2008), coastal sage scrub is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous

species—such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.)—with scattered evergreen shrubs, including laurel sumac (*Malosma laurina*).

Diegan coastal sage scrub occupies less than 11 acres onsite, including disturbed forms with lower percent coverage of native species, and Rhus-dominated forms with higher percent coverage of lemonade berry (*Rhus integrifolia*) (Figure 3).

Methods

The project site is within the City's MSCP; thus, in accordance with U.S. Fish and Wildlife Service (USFWS) (USFWS 1997) survey protocol, three surveys were conducted. All potentially suitable habitat was surveyed by Dudek wildlife biologist Jeff Priest (Recovery Permit No TE840619-6). Less than 11 acres of suitable habitat was surveyed during each visit. Details and conditions for each survey visit are summarized in Table 1.

Table 1. Survey Details and Conditions

Date	Biologist	Time	Survey Conditions (temp., skies, wind)
4/19/21	J. Priest	0545-0945	54-74 Degrees Fahrenheit (°F), 0% cloud cover (cc), 0—4 mile per hour (mph) winds
5/2/2021	J. Priest	0520-0915	57—58°F, 100%cc, 0—3 mph winds
5/9/2021	J. Priest	0516-0913	57—61°F, 100%cc, 1—3 mph wind

The entire survey area was covered on-foot during each survey visit for 100% visual and audible coverage of the survey area; survey routes are illustrated on Figure 3. Survey visits were conducted at minimum one-week intervals (i.e., 7-day) and were performed in conformance with the currently accepted protocol of the USFWS *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Protocol* (USFWS 1997).

A tape of recorded gnatcatcher vocalizations was played approximately every 75-100 feet to induce responses from potentially present gnatcatchers. A 250-scale (1 inch = 250 feet) aerial photograph of the site overlaid with 500-foot buffer around the project boundary and a vegetation map was used to identify suitable habitats and map any gnatcatchers detected. Binoculars (10x50 magnification) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers.

Results

One pair of gnatcatchers was detected during this focused survey effort. A total of 36 wildlife species were detected on site during the focused survey effort and are listed in Appendix A. Please feel free to contact me at 619-761-9981 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,

_____

Jeff Priest
Permit # TE840619-6

Att: Figure 1, Project Location
Figure 2, Topographic Map
Figure 3, Biological Resources with Survey Route
Appendix A, Wildlife Species Observed on the Project Site

Literature Cited

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. March 2008. http://www.sdcanyonlands.org/pdfs/veg_comm_sdcounty_2008_doc.pdf.

USFWS (U.S. Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher* (Polioptila californica californica) *Presence/Absence Survey Protocol.*

References for Latin and Common Names

American Ornithologists' Union. 1998. Check-list of North American Birds, 7th edition. American Ornithologists' Union. Washington D. C.

Banks, R.C., R.T. Chesser, C. Cicero, J.L. Dunn, A.W. Kratter, I.J. Lovette, P.C. Rasmussen, J.V. Remsen, Jr., J.D. Rising, and D.F. Stotz. 2007. Forty-eighth supplement to the American Ornithologists' Union *Checklist of North American Birds. Auk* 124: 1109–1115.

Jones, J.K., Jr., D.C. Carter, H.H. Genoways, R.S. Hoffman, and D.W. Rice. 1992. Revised Checklist of North American Mammals North of Mexico. Occasional Papers of the Museum of Texas Tech University, no. 146.



SOURCE: SanGIS 2019; Open Street Map 2019

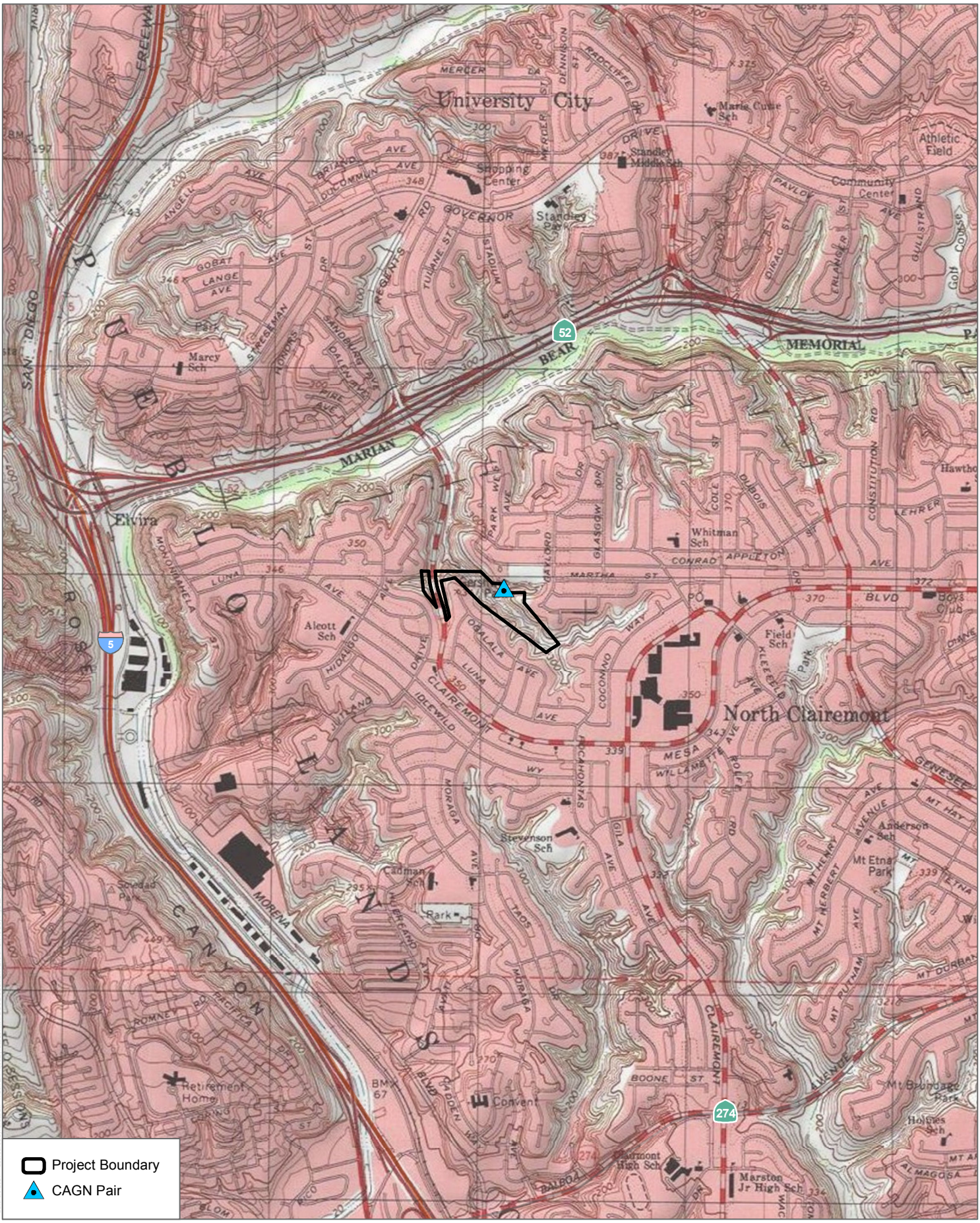
DUDEK

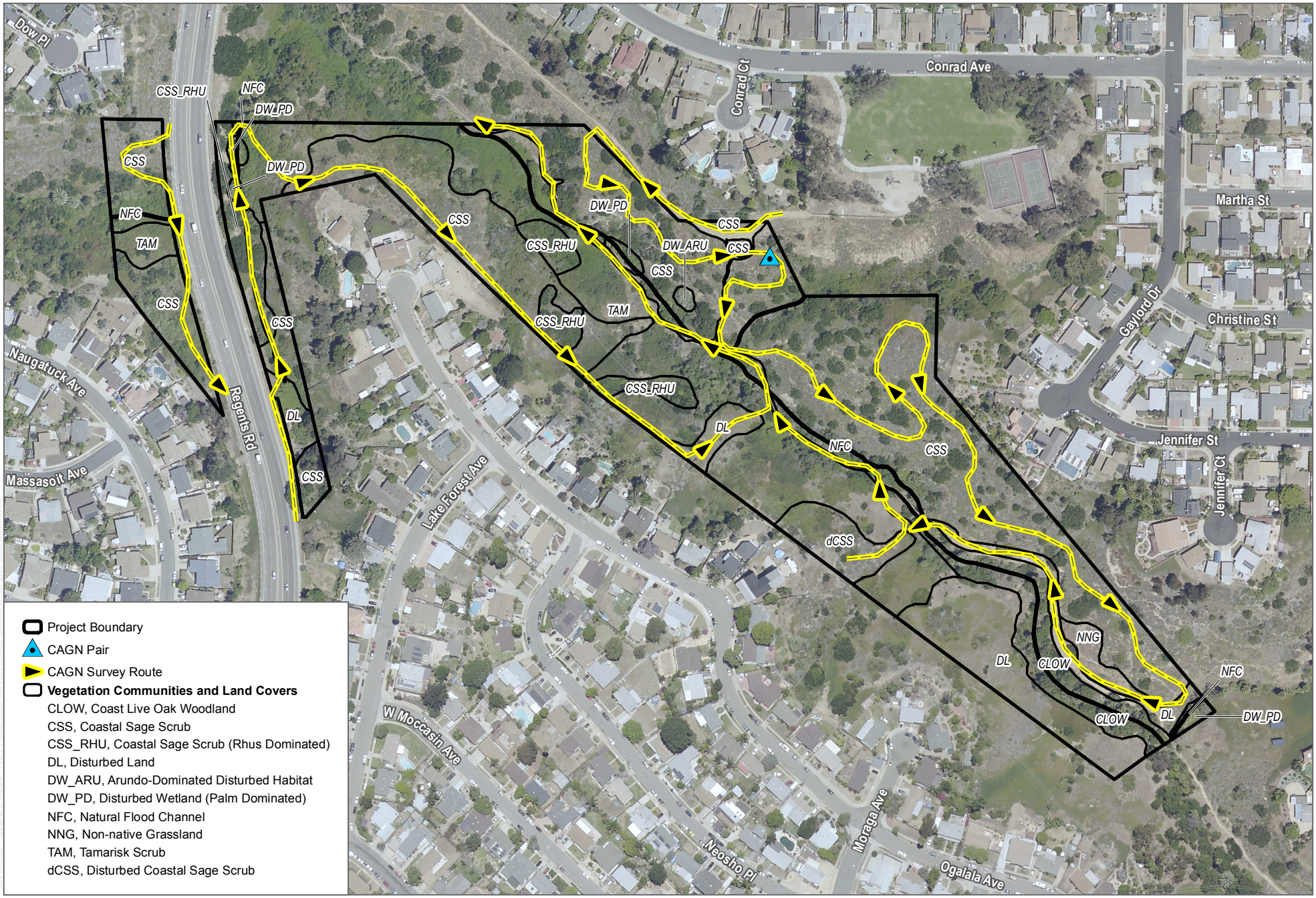
0 400 800 Feet

FIGURE 1

Project Location

Renzuli BLA Focused CAGN Survey Report


Project Boundary
CAGN Pair
University City
North Clairemont
Clairemont Mesa
Linda Vista
Kearny Mesa
Mira Mesa
Miramar
Tierrasanta
Serra Mesa
Navajo
Rancho San Diego
Spring Valley
Lemon Grove
La Mesa
Mission Valley
Kensington
Normal Heights
Talmadge
Mission Hills
Old Town
Pacific Beach
Mission Beach
Ocean Beach
Point Loma
Coronado
Coronado Island
Imperial Beach
Chula Vista
Otay Mesa
Otay Mesa West
Otay Lakes
Otay Mountain
Otay Valley Regional Park
Otay Reservoir
Otay River
Otay River Valley
Otay Valley
Otay Valley Quarry
Otay Valley Road
Otay Valley Trail
Otay Valley Trailhead
Otay Valley Trailhead Park
Otay Valley Trailhead Park
Otay Valley Trailhead Park



SOURCE: SanGIS 2019; Open Street Map 2019

DUDEK

0 125 250 Feet

FIGURE 3

Biological Resources

Renzuli BLA Focused CAGN Survey Report

Appendix A

List of Wildlife Species Observed or Detected

Birds

Bushtits

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

Finches

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

Flycatchers

TYRANNIDAE—TYRANT FLYCATCHERS

Empidonax difficilis—Pacific-slope flycatcher

Sayornis nigricans—black phoebe

Tyrannus vociferans—Cassin's kingbird

Hawks

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Buteo jamaicensis—red-tailed hawk

Hummingbirds

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Selasphorus sasin—Allen's hummingbird

Jays, Magpies and Crows

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay

Corvus brachyrhynchos—American crow

Corvus corax—common raven

Mockingbirds and Thrashers

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

Toxostoma redivivum—California thrasher

Old World Sparrows

PASSERIDAE—OLD WORLD SPARROWS

Passer domesticus—house sparrow

Old World Warblers and Gnatcatchers

POLIOPTILIDAE—GNATCATCHERS

Polioptila californica californica—coastal California gnatcatcher

Pigeons and Doves

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

Starlings and Allies

STURNIDAE—STARLINGS

Sturnus vulgaris—European starling

Wood Warblers & Allies

PARULIDAE—WOOD WARBLERS

Cardellina pusilla—Wilson's warbler

Woodpeckers

PICIDAE—WOODPECKERS AND ALLIES

Dryobates nuttallii—Nuttall's woodpecker

Picoides pubescens—downy woodpecker

Wrens

TROGLODYTIDAE—WRENS

Troglodytes aedon—house wren

Thryomanes bewickii—Bewick's wren

New World Sparrows

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—Song sparrow
Melozone crissalis—California towhee
Pipilo maculatus—spotted towhee

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE—SYLVIID WARBLERS

Chamaea fasciata—wrentit

Invertebrates

Butterflies

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Danaus plexippus—monarch
Limenitis lorquini—Lorquin's admiral

Mammals

Canids

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

Hares and Rabbits

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

Pocket Gophers

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

Squirrels

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

Rats, Mice, and Voles

CRICETIDAE—RATS, MICE, AND VOLES

Rattus rattus—roof rat

Reptiles

Lizards

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

Amphibians

Frogs

HYLIDAE—TREEFROGS

Pseudacris hypochondriaca—Baja California treefrog

INTENTIONALLY LEFT BLANK

Appendix H

BLA Off-Site Location: Plant Compendium

Plants

Angiosperms: Eudicots

ADOXACEAE – ADOXA FAMILY

Sambucus nigra ssp. *caerulea* – blue elderberry

AIZOACEAE – FIG-MARIGOLD FAMILY

* *Carpobrotus edulis* – hottentot-fig

AMARANTHACEAE – AMARANTH FAMILY

Rhus integrifolia – lemonadeberry

Toxicodendron diversilobum – western poison-oak

* *Schinus terebinthifolius* – Brazilian pepper tree

APIACEAE – CARROT FAMILY

Foeniculum vulgare – sweet fennel

ASTERACEAE – SUNFLOWER FAMILY

Artemisia californica – coastal sagebrush

Artemisia palmeri – Palmer's sagewort

Baccharis salicifolia ssp. *salicifolia* – mule-fat, seep-willow

Baccharis sarothroides – broom baccharis

Encelia californica – California encelia

Pseudognaphalium californicum – California everlasting

* *Centaurea melitensis* – tocalote

* *Hypochaeris glabra* – smooth cat's ear

* *Sonchus oleraceus* – common sow-thistle

Baccharis pilularis – chaparral broom, coyote brush

Bahiopsis laciniata – San Diego sunflower

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard

CACTACEAE – CACTUS FAMILY

Cylindropuntia prolifera – coast cholla

Opuntia littoralis – coast prickly-pear

CHENOPODIACEAE – GOOSEFOOT FAMILY

Atriplex canescens – four-wing saltbush/shadscale

* *Salsola tragus* – prickly russian-thistle, tumbleweed

CRASSULACEAE – STONECROP FAMILY

Dudleya pulverulenta – chalk dudleya

FABACEAE – LEGUME FAMILY

Astragalus trichopodus var. *lonchus* – ocean locoweed

Acmispon glaber – deerweed

FAGACEAE – OAK FAMILY

Quercus agrifolia – coast live oak, encina

GERANIACEAE – GERANIUM FAMILY

* *Erodium botrys* – long-beak filaree/storksbill

LAMIACEAE – MINT FAMILY

Salvia mellifera – black sage

* *Marrubium vulgare* – horehound

MALVACEAE – MALLOW FAMILY

Malacothamnus fasciculatus var. *fasciculatus* – chaparral bushmallow

MYRTACEAE – MYRTLE FAMILY

* *Eucalyptus camaldulensis* – river red gum

OLEACEAE – OLIVE FAMILY

* *Olea europaea* – olive

PHRYMACEAE – LOPSEED FAMILY

Diplacus puniceus – coast monkey flower

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum – California buckwheat

* *Rumex crispus* – curly dock

ROSACEAE – ROSE FAMILY

Heteromeles arbutifolia – toyon, Christmas berry

SALICACEAE – WILLOW FAMILY

Salix gooddingii – Goodding's black willow

SOLANACEAE – NIGHTSHADE FAMILY

* *Nicotiana glauca* – tree tobacco

Angiosperms: Monocots

ARECACEAE – PALM FAMILY

* *Phoenix canariensis* – Canary Island date palm
* *Washingtonia robusta* – Mexican fan palm

POACEAE – GRASS FAMILY

Stipa pulchra – purple needle grass
* *Arundo donax* – giant reed
* *Bromus diandrus* – ripgut grass
* *Bromus hordeaceus* – soft chess
* *Bromus madritensis* – compact brome
* *Cortaderia selloana* – selloa pampas grass

TYPHACEAE – CATTAIL FAMILY

Typha latifolia – broad-leaf cattail

Bloomeria crocea var. *crocea* – common goldenstar

* Signifies introduced (non-native) species

INTENTIONALLY LEFT BLANK

Appendix I

BLA Off-Site Location: Wildlife Compendium

Birds

Bushtits

AEGITHALIDAE – LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus – bushtit

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

Tyrannus vociferans – Cassin's kingbird

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk

Buteo jamaicensis – red-tailed hawk

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos – American crow

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird

Old World Sparrows

PASSERIDAE – OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

Old World Warblers and Gnatcatchers

POLIOPTILIDAE – GNATCATCHERS

Polioptila californica – coastal California gnatcatcher

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

Wrens

TROGLODYTIDAE – WRENS

Troglodytes aedon – house wren

Thryomanes bewickii – Bewick's wren

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melospiza melodia – song sparrow

Melozone crissalis – California towhee

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE – SYLVIID WARBLERS

Chamaea fasciata – wrentit

Hares and Rabbits

LEPORIDAE – HARES AND RABBITS

Sylvilagus bachmani – brush rabbit

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

Sceloporus occidentalis – western fence lizard

INTENTIONALLY LEFT BLANK

Appendix J

On-Site Upland Restoration Plan for the Renzulli Estates Project

On-Site Upland Restoration Plan

Renzulli Estates Project

City of San Diego, California
City of San Diego Project Number 664017

AUGUST 2025

Prepared for:

GREEN PHAIR SCRIPPS PARTNERS LLC
945 East J Street
Chula Vista, California 91910
Contact: Austin Dias

Prepared by:

DUDEK

605 Third Street
Encinitas, California 92024
Contact: Erin McKinney

Printed on 30% post-consumer recycled material.

Table of Contents

SECTION **PAGE NO.**

Acronyms and Abbreviations v

Executive Summary vii

1 Project Description 1
- 1.1 Responsible Parties 1
- 1.2 Project Background 1

2 Objectives 3

3 Project Impacts and Analysis 5
- 3.1 Upland Habitat Impacts and Mitigation 5
- 3.2 Special-Status Plant Species 8
- 3.3 Special-Status Wildlife Species 9

4 Site Selection 11

5 Baseline Conditions 13
- 5.1 Restoration Location 13
- 5.2 Topography 13
- 5.3 Soil Conditions 13
- 5.4 Existing Vegetation 15
  - 5.4.1 Diegan Coastal Sage Scrub (Including Disturbed) 16
  - 5.4.2 Diegan Coastal Sage Scrub (*Baccharis*-dominated) 16
  - 5.4.3 Coastal Sage–Chaparral Transition 17
  - 5.4.4 Flat-Topped Buckwheat Scrub 17
  - 5.4.5 Southern Mixed Chaparral (Including Disturbed) 17
  - 5.4.6 Scrub Oak Chaparral 18
  - 5.4.7 Disturbed Habitat/Land 18
  - 5.4.8 Eucalyptus Woodland 18
  - 5.4.9 Urban/Developed Land 19
  - 5.4.10 *Arundo*-Dominated Disturbed Habitat 19
  - 5.4.11 Emergent Wetland (Artificial) 19
  - 5.4.12 Herbaceous Wetland (Artificial) 20
  - 5.4.13 Natural Flood Channel 20
- 5.5 Special-Status Plant Species 20
  - 5.5.1 Del Mar Manzanita 21
  - 5.5.2 Nuttall's Scrub Oak 21
  - 5.5.3 San Diego Barrel Cactus 21
  - 5.5.4 San Diego Viguiera 21

5.6 Existing Wildlife 22
5.6.1 Cooper's Hawk 22
5.6.2 San Diegan Tiger Whiptail 22
5.6.3 Coastal California Gnatcatcher Focused Survey Results 22
6 Mitigation Work Plan 23
6.1 Project Implementation Personnel 23
6.1.1 Permittee/Project Manager 23
6.1.2 Project Biologist 23
6.1.3 Restoration Contractor 23
6.1.4 Seed Supplier 24
6.2 Preliminary Design and Engineering 24
6.3 Rationale for Expecting Success 24
6.4 Site Preparation 25
6.4.1 Avoidance and Minimization 25
6.4.2 Plant Salvage 26
6.4.3 Seed Collection 28
6.4.4 Grading 31
6.4.5 Structure Demolition and Soil Decompaction 31
6.4.6 Eucalyptus Tree Removal 31
6.4.7 Soil Testing 31
6.4.8 Weed Control 32
6.4.9 Irrigation Source 32
6.4.10 Erosion Control Best Management Practices 33
6.5 Implementation Installation 33
6.5.1 Plant Palette 33
6.5.2 Del Mar Manzanita Planting Methods 38
6.5.3 Native Seed Application 39
7 120-Day Plant Establishment Period 41
8 5-Year Maintenance Plan 43
8.1 Maintenance Activities and Schedule 43
8.2 Weed Management 44
8.3 Pest and Herbivory Management 45
8.4 General Site Maintenance 45
8.5 Erosion and Sedimentation 45
8.6 Fencing and Signage 45
9 5-Year Monitoring Ecological Performance Standards 47
9.1 Performance Standards 47
9.2 Reference Sites 48

10 5-Year Monitoring Plan 49
10.1 Monitoring and Reporting Schedule 49
10.2 As-Built Report 49
10.3 120-Day Plant Establishment Period and Report 50
10.4 Qualitative Monitoring 50
10.5 Quantitative Monitoring 51
10.6 Annual Mitigation Monitoring Reports 52
11 Adaptive Management Plan 53
11.1 Drought 53
11.2 Herbivory 53
11.3 Fire 54
12 Financial Assurances 55
13 Completion of Mitigation 57
14 Long-Term Management 59
15 References 61

TABLES

Table 1. Mitigation for Impacts to Upland Vegetation Communities within the Project Footprint 6
Table 2. Direct Impacts to Special-Status Plants within the Project 9
Table 3. Project Impacts to Wetland Habitat Soils within the Restoration Area 14
Table 4. Vegetation Communities and Land Cover Types in the Project Parcel Boundary 15
Table 5. Coastal Sage Scrub and Coastal Sage Scrub /Chaparral Seed Mix (Approximately 10.20 Acres) 29
Table 6. Scrub Oak Chapparal Seed Mix (Approximately 0.55 Acres) 30
Table 7. Southern Mixed Chaparral Seed Mix (Approximately 0.63 Acres) 30
Table 8. Coastal Sage Scrub Plant Palette (Approximately 5.46 Acres Total) 33
Table 9. Coastal Sage Scrub/Chaparral Area Plant Palette (Approximately 4.75 Acres Total) 34
Table 10. Scrub Oak Chaparral Area Plant Palette (Approximately 0.55 Acre Total) 36
Table 11. Southern Mixed Chaparral Area Plant Palette (Approximately 0.63 Acres Total) 36
Table 12. Plant Establishment Period Maintenance Schedule 41
Table 13. Five-Year Maintenance Schedule[a] 43
Table 14. Non-Native Plant Target Species and Treatments 44
Table 15. Summary of Annual Performance Standards and Success Criteria 47
Table 16. Monitoring and Reporting Schedule 49

FIGURES

Figure 1 Project Location 63

Figure 2 Proposed Project Impacts 65
Figure 3 On-Site Restoration Areas Post Boundary Line Adjustment 67
Figure 4 Existing Soils 69
Figure 5 Existing Vegetation Communities and Special-Status Plants 71
Figure 6 Conceptual Upland Restoration Plan 73

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
amsl	above mean sea level
BLA	Boundary Line Adjustment
BMP	best management practice
BTR	Biological Technical Report
City	City of San Diego
CRPR	California Rare Plant Rank
MHPA	Multi-Habitat Planning Area
MSCP	Multiple Species Conservation Program
PEP	plant establishment period
project	Renzullii Estates Project

INTENTIONALLY LEFT BLANK

Executive Summary

This Upland Restoration Plan for impacts to Upland Habitats addresses the proposed on-site compensatory mitigation for impacts to upland habitats and associated sensitive species resulting from the Renzullii Estates Project (project) within the City of San Diego.

The project would involve developing a new 100-unit single-family subdivision and 12 multifamily units as affordable income rentals on a 40.56-acre parcel at 11495 Cypress Canyon Road (Assessor's Parcel Number 319-020-04-00) in the northeast section of the City of San Diego (City), California, south of Scripps Poway Parkway and north of Spring Canyon Road. The project is located within the Scripps Miramar Ranch Community Planning Area and is within the City's Multiple Species Conservation Program Subarea Plan. A substantial portion of the project currently overlaps with the City's Multi-Habitat Planning Area (MHPA). Therefore, a boundary line adjustment is proposed for all MHPA lands that intersect the project construction footprint (which includes expanded Brush Management Zone 1 area and stormwater infrastructure), and new MHPA lands of equal or higher value would be established at a suitable off-site MHPA boundary line adjustment location. Areas of the site currently within the MHPA boundary that would be graded to construct manufactured slopes that would provide structural support to the project construction footprint, would be restored with native habitat-forming species suitable for the site and these areas would remain within the MHPA following project completion.

Based on species composition and resources observed, six native vegetation communities, six non-native vegetation communities/land cover types, and two wetland communities were mapped within the project. These included Tier II uplands: Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub ; Tier IIIA uplands: southern mixed chaparral (including disturbed); Tier I uplands: scrub oak chaparral, and Tier IV uplands (including communities that do not meet the criteria of City wetland due to artificial nature) disturbed habitat, eucalyptus woodland, urban/developed land, *Arundo*-dominated disturbed habitat, emergent wetland, herbaceous wetland (artificial), and natural flood channel.

The project supports four special-status upland plant species: Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), San Diego viguiera (*Viguiera [Bahiopsis] laciniata*), San Diego barrel cactus (*Ferocactus viridescens*), and Nuttall's scrub oak (*Quercus dumosa*), and two special-status wildlife species: Cooper's hawk (*Accipiter cooperii*) and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*). Although previous focused surveys were negative, coastal California gnatcatcher (*Polioptila californica*) is also assumed to be present within suitable habitat since more than 24 months have passed since focused surveys were conducted.

Implementation of the project would consist of demolition of an existing residence (and all associated structures), grading, manufactured slope installation, and development of residential housing units with associated infrastructure and would result in direct impacts to Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub, southern mixed chaparral (including disturbed), scrub oak chaparral, disturbed habitat, eucalyptus woodland, urban/developed land, herbaceous wetland (artificial), *Arundo*-dominated disturbed habitat, emergent wetland and natural flood channel. Del Mar manzanita, San Diego barrel cactus, and Nuttall's scrub oak would be directly impacted by the project and require mitigation, in accordance with the City's Biology Guidelines.

This Upland Restoration Plan provides guidelines for the for the restoration of a total of 11.56 acres including 0.55 acres of scrub oak chaparral, 5.46 acres of Diegan coastal sage scrub, 4.75 acres of coastal sage-chaparral, 0.63 acres of southern mixed chaparral, and the translocation of 520 of Nuttall's scrub oak (cuttings), 26 Del Mar manzanita (cuttings), and 92 barrel cactus within existing and post- boundary line adjustment MHPA areas. The upland compensatory mitigation credit is limited to those portions of the MHPA that will be transferred to City ownership and includes 0.54 acres of Tier I habitat, 9.08 acres of Tier II habitat, and 0.63 acres of Tier IIIA habitat for a total of 10.25 acres. This Upland Restoration Plan outlines the installation, maintenance, monitoring, reporting, performance standards, financial assurances, and contingency measures in accordance with the City of San Diego Multiple Species Conservation Program Subarea Plan (City of San Diego 1997).

1 Project Description

1.1 Responsible Parties

Applicant/Permittee

Green Phair Scripps Partners LLC
3330 Bonita Road
Chula Vista, California 91910
Contact: Austin Dias
Phone: 619.253.4837

Biological Consultant

Dudek
2280 Historic Decatur Road, Suite 200
San Diego, California 92106
Contact: Erin McKinney
Phone: 760.479.4189

1.2 Project Background

The Renzullii Estates Project (project) is approximately 2.5 miles east of Interstate 15, 0.5 miles south of Scripps Poway Parkway, and 0.1 miles north of Spring Canyon Road in the northeast portion of the City of San Diego (Figure 1, Project Location). The project site totals 40.56 acres, and currently contains an existing single-family residence and several outbuildings. The project would require a vesting tentative map and a site development permit to develop a new 100-unit single-family subdivision and 12 multifamily units as affordable income rentals (Figure 2, Proposed Project Impacts). All existing buildings would be removed and either developed or restored with native habitat. In addition to the site development permit, the project would also require a community plan land use amendment to change the existing residential designation of 1.1 dwelling units per acre to 2.8 dwelling units per acre. A re-zone is also proposed to change the existing AR-1-1 zone to RX-1-2, OR-1-2, and RM-2-4. In addition, the project is located in the high fire severity overlay zone. Finally, the project would also require a Multi Habitat Planning Area (MHPA) Boundary Line Adjustment (BLA) and vacation of a street easement on the proposed MHPA BLA addition site as part of the project (i.e., Lakehurst Avenue – not yet built).

The project would include infrastructure improvements on the project site, including installation of utilities, a private storm drain system, and internal sidewalks and roads. Impacts would occur from clearing, grading, and manufactured fill and slope creation for construction of the residential pads, subdivision and associated features and infrastructure.

This Upland Restoration Plan provides for 11.56 acres of restoration including 0.55 acres of scrub oak chaparral (0.01 acres of which is not given compensatory mitigation credit), 5.46 acres of Diegan coastal sage scrub (0.89 acres of which is not given compensatory mitigation credit), 4.75 acres of coastal sage-chaparral (0.24 acres of which is not given compensatory mitigation credit), 0.63 acres of southern mixed chaparral; the translocation of

520 Nuttall's scrub oak,26 Del Mar manzanita, and 92 barrel cactus; and the preservation of 7.97 acres of open space. This Upland Restoration Plan and on-site preservation provides a total of 18.22 acres of compensatory mitigation for impacts to 17.60 acres of sensitive habitat and special status plant species (Figure 3).

2 Objectives

The goal of this Upland Restoration Plan is to provide for compensatory mitigation for impacts to upland habitats resulting from the project and project improvements within the City of San Diego. Proposed on-site restoration would provide functions and values displaced due to project impacts. The quality of the mitigation vegetation communities would be equal to, or exceed that of, the impacted habitat communities. Specific increases in functions and services expected to benefit the upland areas are discussed below and support the following objectives:

Objective 1: Sensitive Plant Translocation. The proposed mitigation includes the translocation of 92 barrel cactus. The on-site restoration area has the appropriate soils and slope aspect for the successful translocation of these special status upland plant species.

Objective 2: Sensitive Plant Cuttings. The proposed mitigation includes establishing a minimum of 26 Del Mar manzanita cuttings and 520 of Nuttall's scrub oak cuttings from impacted individuals. The on-site restoration area has the appropriate soils and slope aspect for the successful installation of these special status upland plant species.

Objective 3: Upland Habitat Restoration. The proposed mitigation includes planting and seeding of native plant species to restore native plant communities and enhance existing habitat within the restoration area. Replacement of the non-native vegetation and associated debris with native vegetation would increase the vegetation structure and diversity and improve habitat functions for wildlife.

Objective 4: Invasive Plant Species Control. The proposed mitigation would control plant species such as (*Eucalyptus camaldulensis)* river red gum, (*Centaurea melitensis*) star-thistle, and non-native grasses within the restoration area. This would provide opportunity for growth and colonization of native species suited to the restoration area, as well as reduce propagules and seeds of non-native species that might otherwise become established within the restoration area.

Objective 5: Native Wildlife Habitat Restoration. The proposed mitigation is designed to provide habitat for wildlife, including birds, invertebrates, amphibians, reptiles, rodents, and other mammals. The restoration area would also provide habitat for sensitive wildlife species, including special-status bird species, coastal California gnatcatcher (*Polioptila californica*), that may occur in the area.

Objective 6: Preservation of Native Habitat. The preservation objectives would be accomplished by protecting the restoration and preservation areas in-place via fee dedication to the City.

INTENTIONALLY LEFT BLANK

3 Project Impacts and Analysis

Pursuant to the San Diego Municipal Code, Land Development Code – Biology Guidelines, direct impacts to sensitive upland habitat require mitigation (City of San Diego 2018a). The project would result in permanent impacts to several sensitive upland vegetation communities that require compensatory mitigation at a 1:1 ratio and 0.5:1 (Table 1) within the City of San Diego. The project would permanently impact 1.35 acres of Tier I habitat, 9.90 acres of Tier II habitat, 6.35 acres of Tier IIIA habitat, and 3 special status plant species. The sensitive upland communities are discussed in Section 3.1, Upland Habitat Impacts and Mitigation, and the sensitive plant species are discussed in Section 3.2, Special-Status Plant Species.

3.1 Upland Habitat Impacts and Mitigation

The vegetation communities and land cover types were mapped according to Holland (1986) and Oberbauer et al. (2008), with a few exceptions. Some vegetation communities were given additional descriptions to identify highly dominant species within the community. These habitats were then cross-walked to their corresponding communities listed in the City's Biology Guidelines (City of San Diego 2018a).

Implementation of the project would result in direct permanent impacts to a total of 32.15 acres including: *Arundo*-dominated disturbed habitat (0.73 acres), coastal sage–chaparral transition (4.08 acres), developed land (2.35 acres), Diegan coastal sage scrub (including disturbed) (3.68 acres), Diegan coastal sage scrub (*Baccharis*-dominated) (0.10 acres), disturbed habitat (6.38 acres), emergent wetland (artificial) (0.79 acres), eucalyptus woodland (3.60 acres), flat-topped buckwheat (2.04 acres), herbaceous wetland (artificial) (0.57 acres), scrub oak chaparral (1.35 acres), and southern mixed chaparral (6.35 acres) (Figure 2). Impacts would occur from clearing, grading, and manufactured slope creation for development of the residential subdivision and associated features. Table 1 lists direct impacts to upland vegetation communities and land cover types that would occur within the project footprint. Corresponding City Biology Guidelines (City of San Diego 2018a) habitats and their associated tiers are also listed.

Table 1. Mitigation for Impacts to Upland Vegetation Communities within the Project Footprint

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Impacts (acres)	Mitigation Required (acres)[b]	Upland Restoration within MHPA (acres)	On-Site Preservation	Total Upland Mitigation[c]	Upland Revegetation No Credit (acres)
Native Vegetation Communities								
Scrub oak chaparral	Scrub oak chaparral	I	1.35	1.65	0.54	1.11	1.65	0.01
		Tier I Subtotal	*1.35*	*1.65*	*0.54*	*1.11*	*1.65*	*0.01*
Diegan coastal sage scrub	Coastal sage scrub	II	3.68	3.68	4.57	0.86	5.43	0.89
Diegan coastal sage scrub (*Baccharis*-dominated)	Coastal sage scrub	II	0.10	0.10	0	0.0	0	0
Coastal sage–chaparral transition	Coastal sage scrub/chaparral	II	4.08	4.08	4.51	0	4.51	0.24
Flat-topped buckwheat scrub	Coastal sage scrub	II	2.04	2.04	0	0.37	0.37	0
Transitional wetland (*Artemisia californica* dominated)[e]		II	0	0	0	0	0	0.17
		Tier II Subtotal	*9.90*	*9.90*	*9.08*	*1.23*	*10.31*	*1.3*
Southern mixed chaparral[d]	Mixed chaparral	IIIA	6.35	4.88	0.63[d]	5.63	6.26	0
		Tier IIIA Subtotal	*6.35*	*4.90*	*0.63[d]*	*5.63*	*6.26*	*0*
Total Native Vegetation Communities		**N/A**	**17.60**	**16.43**	**10.25**	**7.97**	**18.03**	**1.31**
Non-native Upland Vegetation Communities and Land Covers								
Disturbed habitat	Disturbed land	IV	6.38	0	0	0	0	0
Eucalyptus woodland	Eucalyptus woodland	IV	3.6	0	0	0	0	**0**
Developed land	Disturbed land	IV	2.35	0	0	0	0	**0**

Table 1. Mitigation for Impacts to Upland Vegetation Communities within the Project Footprint

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Impacts (acres)	Mitigation Required (acres)[b]	Upland Restoration within MHPA (acres)	On-Site Preservation	Total Upland Mitigation[c]	Upland Revegetation No Credit (acres)
Arundo-dominated disturbed habitat	Disturbed land	IV	0.73	0	0	0	0	0
Herbaceous wetland (artificial)[g]	Disturbed land	IV	0.57	0	0	0	0	0
Emergent wetland (artificial)	Disturbed land	IV	0.79	0	0	0	0	0
Natural flood channel[g]	Disturbed land	IV	0.13	0	0	0	0	0
Total Non-Native Upland Communities		N/A	**14.55**	**0**	**0**	**0**	0	0
Overall Total[c]		**N/A**	**32.15**	**16.43**	**10.25**	**7.97**	**18.03**	**1.31**

Note: N/A = not applicable.

[a] City of San Diego 2018a.

[b] Mitigation for impacts to sensitive uplands required in accordance with Table 3 of the City of San Diego Biology Guidelines:
Tier I mitigation ratio of 2:1 for impacts within MHPA and mitigated within MHPA and 1:1 for impacts outside MHPA (following BLA) and mitigated within MHPA;
Tier II mitigation ratio of 1:1 for impacts within or outside MHPA and mitigated within MHPA;
Tier IIIA mitigation ratio of 1:1 for impacts within MHPA that would be mitigated in MHPA (i.e., vegetated stormwater basins and manufactured slopes restored with native habitat) and 0.5:1 for impacts outside the MHPA that would be mitigated within MHPA (i.e., other project impacts).

[c] Some numbers may not sum due to rounding.

[d] Includes 0.11 acres of SMX enhancement.

[e] Transitional wetland is given credit for 0.17 acres of Tier II compensatory mitigation for the project within this Upland Restoration Plan. However, the restoration design details are addressed in the Wetland Restoration Plan.

[f] This area is within an easement and, therefore, not given mitigation credit.

[g] Not considered a City wetlands based on on-site conditions and criteria in City's Biology Guidelines (City of San Diego 2018a).

In accordance with the BTR and mitigation measure **BIO-1a** (Dudek 2023a), compensation for the loss of 1.35 acres of Tier I habitat, 9.90 acres of Tier II habitat, 6.35 acres of Tier IIIA habitat, would be provided through on-site restoration of 0.54 acres of Tier I habitat, 9.08 acres of Tier II habitat, and 0.63 acres of Tier IIIA habitat providing 10.25 acres of compensatory mitigation.

The project also includes 7.97 acres of open space lots within existing MHPA boundaries that support 1.11 acres of Tier I habitat, 1.23 acres of Tier II habitat, and 5.63 acres of Tier IIIA habitat that would be preserved. Preservation and long-term management are addressed in a sperate Long-Term Management Plan.

This Upland Restoration Plan outlines the upland restoration program for 0.55 acres of scrub oak chaparral, 5.46 acres of Diegan coastal sage scrub, 4.75 acres of coastal sage-chaparral transition, 0.63 acres of southern mixed chaparral and, the translocation of 520 Nuttall's scrub oak, 26 Del Mar manzanita, and 92 barrel cactus (Figure 3).

Wetland impacts and compensatory mitigation are addressed in a separate Wetland Restoration Plan, which would provide mitigation for impacts to Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional wetlands and non-wetland waters. There are no impacts to City of San Diego wetlands. The wetland mitigation is not discussed further in this Upland Restoration Plan. For additional information on wetland mitigation for this project, refer to the Wetland Mitigation Plan (Dudek 2023b).

For additional information on habitat and land types that would be impacted by the project and the mitigation required, refer to the BTR (Dudek 2023a).

3.2 Special-Status Plant Species

Four naturally occurring upland special-status plants were detected within the parcel boundary: Del Mar manzanita, San Diego County sunflower (*Viguiera (Bahiopsis) laciniata*), San Diego barrel cactus (*Ferocactus viridescens*), and Nuttall's scrub oak. Table 2 lists the number of individuals of each of these special status plant species that would be directly impacted within the project footprint.

Del Mar manzanita would be mitigated at a ratio of 2:1 within the coastal sage scrub-chaparral, scrub oak chaparral, and southern mixed chaparral restoration areas. These restoration areas have the appropriate soils for the species and are located on appropriate north-facing slopes within the project. While Nuttal's scrub oak would be mitigated through habitat-based mitigation, 520 individuals would be obtained from cuttings from the existing on-site population and planted within the coastal sage scrub-chaparral, scrub oak chaparral, and southern mixed chaparral restoration areas to further support establishment of this species in these areas. The translocation of Del Mar manzanita and Nuttall's scrub oak would be completed in accordance with the BTR and mitigation measure **BIO-2** (Dudek 2023a). Section 6.5, Site Preparation, discusses the translocation and restoration in more detail below.

In addition, San Diego barrel cacti that are currently within the project construction footprint would be translocated on the south-facing manufactured slopes. While habitat-based mitigation would be used to compensate for impacts to this species, the on-site translocation is being provided as an additional measure to allow survivorship of these individuals.

For additional information on special-status plant species that will be impacted by the project and the mitigation required, refer to the BTR (Dudek 2023a).

Table 2. Direct Impacts to Special-Status Plants within the Project

Species	Status (Federal/State/CRPR/ City of San Diego MSCP)	Impacts (Number of Individuals)
Species Observed in the Project Study Area		
Del Mar manzanita	FE/None/1B.1/Covered	13
San Diego sunflower	None/None/4.3/None	0
San Diego barrel cactus	None/None/2B.1/Covered	92
Nuttall's scrub oak	None/None/1B.1/None	520

Source: Dudek 2023a.

3.3 Special-Status Wildlife Species

Two special-status wildlife species, Cooper's Hawk (*Accipiter cooperii*) And San Diegan Tiger Whiptail (*Aspidoscelis tigris stejnegeri*) were directly observed in the parcel boundary during field surveys in 2020. While no coastal California gnatcatcher individuals were detected during focused protocol surveys in 2020, a coastal California gnatcatcher California Natural Diversity Database occurrence has been recorded within 1 mile of the study area to the east and suitable habitat exists on the site. Since more than 24 months has passed since focused surveys were conducted, this species is assumed to be present within suitable habitat both within and adjacent to the project parcel. These species are described in detail in Section 5.6, Existing Wildlife.

The special-status species have a relatively wide distribution and would be adequately mitigated through habitat-based measures in accordance with the BTR (Dudek 2023a).

For additional information on special-status wildlife species that would be impacted by the project and the mitigation required, refer to the BTR (Dudek 2023b).

INTENTIONALLY LEFT BLANK

4 Site Selection

Site selection was based on availability of preserved land and establishment opportunities within the project boundary. The proposed areas have direct connectivity to adjacent native habitat (Figures 2 and 3). The restoration area had the same general soil type, gradient, and aspect as the impact areas. Access to the mitigation areas can be obtained without incurring impacts to aquatic resources.

The proposed restoration and preservation areas have no significant encumbrances and can be protected in-perpetuity with a conservation easement or similar mechanism.

INTENTIONALLY LEFT BLANK

5 Baseline Conditions

Baseline conditions are included below and are used to help determine the appropriate compensatory mitigation and success criteria, and guide mitigation design, installation, maintenance, and monitoring procedures.

5.1 Restoration Location

The 11.56 -acre restoration project is located approximately 2.5 miles east of Interstate 15, 0.5 miles south of Scripps Poway Parkway, and 0.1 miles north of Spring Canyon Road in the northeast portion of the City (Figure 3). The project is located on an approximately 40.56-acre parcel located at 11495 Cypress Canyon Road (Assessor's Parcel Number 319-020-04-00). The restoration areas would be established within preserved open space land.

5.2 Topography

The elevation in the restoration area ranges from approximately 760 feet to 980 feet above mean sea level (amsl). is generally steep and hilly, with lowland canyon bottoms in the southern and northern portion of the project parcel; these areas receive much of the runoff from the surrounding hills and support wetland vegetation or drainages. A generally flat mesa exists in the center of the parcel, where the existing main residence is located (Figure 2).

Surrounding land use consists of existing residential development, small patches of undeveloped open space, and Cypress Canyon Park to the east (Figure 1).

5.3 Soil Conditions

Two soil types occurs within the restoration area: Redding cobbly loam (dissected), 15% to 50% slopes, and Riverwash (Figure 4, Existing Soils).

According to the U.S. Department of Agriculture, Natural Resources Conservation Service, the Redding cobbly loam (dissected), 15% to 50% slopes consists of well-drained very high runoff mean annual precipitation of approximately 14 to 25 inches, and a mean annual air temperature of 61°F to 63°F. The soil's available water capacity is very low (approximately 1.2 inches). These soils include cobbly loam, cobbly clay loam, cobbly clay, and an indurated layer (USDA 2023a). Redding soils are on nearly level or dissected fan remnants. Microrelief may be hummocky. Gravel and cobbles tend to concentrate in the swales in hummocky areas. Vernal pools are common in areas with slopes of 0% to 3%. These soils formed in alluvium of mixed rocks (Bowman 1973).

Riverwash is not described in depth in the San Diego Soil Survey (Bowman 1973) but is known to be composed of alluvium, gravel, cobble, and rocks associated with historical drainages or watercourses.

These soil types are shown in Table 3 and Figure 4 (USDA 2023a). Redding cobbly loam is not ranked as hydric while Riverwash is ranked as a hydric soil (USDA 2023b).

Table 3. Project Impacts to Wetland Habitat Soils within the Restoration Area

Soil Category	Soil Description	Hydric Rating	Acreage of Mitigation Area (acres)[a]
Redding Cobbly Loam	Redding cobbly loam (dissected, 15% to 50% slopes	Nonhydric	11.13
Riverwash	Riverwash	Hydric	0.44
		Total	**11.56**

Sources: USDA 2023a, 2023b

[a] Presented in acres rounded to the nearest hundredth and linear feet rounded to the nearest foot

A site-specific geotechnical study was also conducted by Advanced Geotechnical Solutions Inc. in 2020 and provided additional details on the substrates present. The site was determined to support the following major soil and bedrock units (AGS 2020):

- Artificial Fill – Undocumented. Undocumented fill soils form the level pad east of the existing residence. During development of areas adjacent to the project parcel, "dump" materials were placed within the north central canyon area intermittently over several years. These materials included construction debris and miscellaneous export from nearby grading projects in the Scripps Ranch and surrounding areas. Site reconnaissance and subsurface exploration indicate a maximum fill thickness of 98 feet. The fills encountered in borings taken in these areas within the study area typically consisted of poorly compacted material including silty sands, clayey sands and sandy clays with gravel and cobbles, oversize rock, and pockets of construction demolition materials including large concrete debris, crushed asphalt pavement, oil-stabilized sand and gravel, rebar, wood, and organic waste. Other minor undocumented fill areas are present across the site and were used to construct the existing building pads and roads. These fill areas appear to be derived from on-site excavations into native materials. Undocumented fill soils are not suitable to support proposed structures and improvements in their present condition and require removal and/or recompaction in areas to receive improvements or artificial fill. A significant screening operation would be necessary during excavation operations to remove and segregate unsuitable debris and over-sized material excavated from the central "dump" fill mass. Crushing of oversize materials for reuse in the shallow portion of fills is anticipated during project construction.
- Artificial Fill – Engineered. Conditions indicate that engineered fill was placed in the north central canyon area under the observation and testing of Pacific Soils Engineering (1996 [as cited in AGS 2020]). However, the subject grading report was not available for review to verify the fill condition. These fills are estimated to reach a maximum thickness of 45 feet at the northern end of the property and may exceed 20 feet in thickness where the engineered canyon fill abuts the toe of the undocumented "dump" fill slope. The engineered fill typically consists of tan, medium dense to dense, clayey sands with gravel and cobbles to 20 feet depth underlain by very dense to hard, dark brown, clayey sand and sandy clay with gravel.

  Left-in-place surficial deposits were encountered during the geotechnical study (AGS 2020) underlying the fill along the walls of the filled north central canyon. Based on observations, the upper 5 to 8 feet of the engineered documented fills are weathered and would require removal and recompaction. In addition, deeper removals of left-in-place deposits would be required during project construction along the walls of the filled canyon.
- Colluvium. Colluvium occurs in localized areas on mid- to lower northern canyon slopes. Colluvial soils are derived from erosion of the adjacent formational units and subsequent deposition by sheet flow and gravitational processes. Colluvium generally consists of relatively loose clayey sands, silty sands, and clays

that are subject to creep and excessive settlement under fill or foundation loads. Because of the poor exposures of this unit, the thickness of these soils is not known but may be on the order of 5 feet or more in some areas.

- **Alluvium.** Alluvium, consisting of relatively loose, stream-deposited sands and clayey sands that may reach a thickness of 10 to 20 feet is present at the bottom of the small reservoir located in the southern portion of the site. Alluvial soils are not suitable for support of proposed structures or artificial fill in their present condition and require removal and/or recompaction. It our understanding alluvium was removed from the north canyon bottom prior to filling under the observation of Pacific Soils Engineering (1996 [as cited in AGS 2020]). However, this report was not available for the project team to review. Future studies should determine the limits of the previous removals that were performed in this canyon area.
- **Slope Wash.** Most of the undisturbed canyon wall terrain is overlain with a thin veneer of natural ground slope wash. These materials typically range from approximately 1 to 3 feet in thickness and consist primarily of dark reddish brown, loose, silty sand with gravel and cobbles. Slope wash materials are not suitable for support of proposed structures or artificial fill in their present condition and require removal and/or recompaction.
- **Questionable Landslide.** A small possible or questionable landslide near the base of the canyon slope in the northwestern portion of the study area was queried by the previous geotechnical consultant (C.W. La Monte 2005 [as cited in AGS 2020]). The feature is located outside of the proposed project area and lacks geomorphic evidence indicative of a deep seated landslide. Because of the relatively small size of this feature and poor access, it was not verified by trenching or drilling and would be assessed during grading.
- **Residual Soil.** The formational materials described below are mantled with an intermittent layer of residual soil. The residuum ranges from about 1 to 5 feet in thickness and consists of dark brown, firm to stiff, sandy clay. Residual soils are highly expansive and require removal and/or recompaction for support of proposed structures or artificial fill.

5.4 Existing Vegetation

There are 13 vegetation communities and land cover types recorded on the parcel boundary are described in detail in the following subsections, their acreages are presented in Table 4, and their spatial distributions are presented on the Vegetation Communities and Land Cover Types figure (Figure 5, Existing Vegetation Communities and Special-Status Plants). Many of these communities also are present outside the project parcel boundary but were not included here since they are not within the lands owned by the project applicant. Also included in Table 4 are the sensitivity designations of each vegetation community according to the Tiers described in the City's Biology Guidelines (City of San Diego 2018a).

Table 4. Vegetation Communities and Land Cover Types in the Project Parcel Boundary

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Acreage
Native Vegetation Communities			
Diegan coastal sage scrub (including disturbed)	Coastal sage scrub	II	4.60
Diegan coastal sage scrub (*Baccharis*-dominated)	Coastal sage scrub	II	0.11

Table 4. Vegetation Communities and Land Cover Types in the Project Parcel Boundary

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Acreage
Coastal sage–chaparral transition	Coastal sage scrub/chaparral	II	4.08
Flat-topped buckwheat scrub	Coastal sage scrub	II	2.41
Southern mixed chaparral (including disturbed)	Mixed chaparral	IIIA	12.25
Scrub oak chaparral	Scrub oak chaparral	I	2.46
Non-Native Vegetation Communities and Land Covers			
Disturbed habitat	Disturbed land	IV	6.96
Eucalyptus woodland	Eucalyptus woodland	IV	3.58
Urban/developed land	Disturbed land	IV	2.34
Arundo-dominated disturbed habitat	Disturbed land	IV	0.74
Wetlands, including Non-Wetland Waters of the United States and State			
Emergent wetland	Disturbed land	IV	0.41
Herbaceous wetland (artificial)	Disturbed land	IV	0.42
Natural Flood Channel	Disturbed land	IV	0.20
		Total	**40.56**

Note:
[a] City of San Diego 2018a.

5.4.1 Diegan Coastal Sage Scrub (Including Disturbed)

Diegan coastal sage scrub is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as coastal sagebrush (*Artemisia californica*), California buckwheat, and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Coastal sage scrub within the parcel boundary consists of coastal sagebrush, black sage (*Salvia mellifera*), and Nuttall's scrub oak (*Quercus dumosa*). Coastal sage scrub is present in moderately sized patches in the north and northwest section of the project parcel and in two small patches in the southern area. Some of the patches in the northern area of the project parcel, north of the existing residence, are considered disturbed due to a relatively high cover of non-native species (specifically giant reed [*Arundo donax*]) and evidence of human alteration. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

5.4.2 Diegan Coastal Sage Scrub (*Baccharis*-dominated)

Diegan coastal sage scrub (*Baccharis*-dominated) is similar to Diegan coastal sage scrub, but dominated by *Baccharis* species (broom baccharis [*Baccharis sarothroides*] and/or coyote brush [*Baccharis pilularis*]) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys.

Diegan coastal sage scrub (*Baccharis*-dominated) in parcel boundary is dominated by coyote brush, with chamise (*Adenostoma fasciculatum*), black sage, and mission manzanita (*Xylococcus bicolor*). It occurs in one small patch in the central northern section of the project parcel just west of the artificial herbaceous wetland, in an area likely disturbed by previous grading associated with the adjacent development to the north. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

5.4.3 Coastal Sage–Chaparral Transition

Coastal sage–chaparral transition is a habitat type composed of a mixture of coastal sage scrub and chaparral species occurring in the transition zone between coastal sage scrub and chaparral. Oberbauer et al. (2008) does not formally recognize this as a vegetation community, but the City acknowledges this vegetation community as coastal sage scrub/chaparral.

Coastal sage–chaparral transition in the parcel boundary consists of chamise, laurel sumac, and Nuttall's scrub oak. Coastal sage–chaparral transition is present in relatively large patches just southwest of the existing residence in the central area of the project parcel. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

5.4.4 Flat-Topped Buckwheat Scrub

Flat-topped buckwheat scrub is a native vegetation community that, according to Oberbauer et al. (2008), is a nearly monoculture community of California buckwheat, usually resulting from disturbance and transitioning to coastal sage scrub or chaparral. It is often found in disturbed areas in coastal and foothills areas of San Diego County and intergrades frequently with Diegan coastal sage scrub.

Flat-topped buckwheat scrub in the parcel boundary is dominated by California buckwheat with felt-leaf yerba santa (*Eriodictyon crassifolium*) and coastal goldenbush (*Isocoma menziesii*). Buckwheat scrub is present in the south and southeast portion of the project parcel, southeast of the existing residence. This vegetation community most closely matches coastal sage scrub in the City's Biology Guidelines (City of San Diego 2018a). Therefore, it is considered a Tier II habitat.

5.4.5 Southern Mixed Chaparral (Including Disturbed)

Southern mixed chaparral is a drought- and fire-adapted community of woody shrubs that is 1.5 to 3 meters (5 to 10 feet) tall, frequently forming dense, impenetrable stands. It develops primarily on mesic, north-facing slopes and in canyons and is characterized by crown- or stump-sprouting species that regenerate following burns or other ecological catastrophes. This vegetation community is typically a mixture of chamise, bush-rue (*Cneoridium dumosum*), ceanothus (*Ceanothus* spp.), manzanita species (Eastwood's manzanita [*Arctostaphylos glandulosa*] and mission manzanita), Nuttall's scrub oak, laurel sumac, and black sage.

Southern mixed chaparral in the parcel boundary is dominated by chamise with coyote brush, black sage, Nuttall's scrub oak, laurel sumac, and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*). Southern mixed chaparral is present in several relatively large patches in the northeast, east, southeast, and western portions of the project parcel. Two smaller patches of southern mixed chaparral exist in the northern area of the project parcel near an existing shed structure. One of these patches, west of this structure, is considered disturbed due to low

vegetation cover and evidence of ground disturbance. This vegetation community is considered a Tier IIIA habitat by the City's Biology Guidelines (City of San Diego 2018a).

5.4.6 Scrub Oak Chaparral

Scrub oak chaparral contains a dense, evergreen chaparral up to 20 feet tall, often dominated by Nuttall's scrub oak with considerable mountain-mahogany (*Cercocarpus* spp.). In San Diego County, scrub oak (*Quercus berberidifolia*) is often the dominant species (over 50% cover) and usually occurs in small patches within a variety of other vegetation communities (Oberbauer et al. 2008). Scrub oak chaparral is somewhat more mesic than many chaparrals, and often occurs at slightly higher elevations (to approximately 5,000 feet amsl). These more favorable sites recover from fire more quickly than other chaparrals. Substantial leaf litter accumulates. In San Diego County, this is usually found on north-facing or otherwise mesic slopes and can occur at various elevations (Oberbauer et al. 2008).

Scrub oak chaparral in the study area consists of Nuttall's scrub oak, toyon (*Heteromeles arbutifolia*), and mission manzanita. Scrub oak chaparral is present in a small patch on the central eastern section of the project parcel. This vegetation community is considered a Tier I habitat by the City's Biology Guidelines (City of San Diego 2018a).

5.4.7 Disturbed Habitat/Land

Disturbed lands are areas that have been subject to extensive physical anthropogenic disturbance and as a result cannot be identified as a native or naturalized vegetation association. However, these areas typically still have a recognizable soil substrate. The existing vegetation is typically composed of non-native ornamental or exotic species (Oberbauer et al. 2008).

Disturbed land comprises the gravel storage areas northeast of the residence, dirt roads and ornamental vegetation in the central section of the project parcel, and strips of land in the southern parcel boundary north of the wetlands that show evidence of grading and vegetation removal/clearing. This land cover is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018a).

5.4.8 Eucalyptus Woodland

Eucalyptus woodland, according to Oberbauer et al. (2008), includes eucalyptus species (blue gum [*Eucalyptus globulus*], river red gum [*E. camaldulensis*], or other *Eucalyptus* species) planted as trees, groves, and windbreaks that form thickets with minimal shrubby understory and scattered trees with a well-developed understory. In most cases, however, eucalyptus trees form dense stands with closed canopies where the understory is either depauperate or absent owing to shade and the possible allelopathic (toxic) properties of the eucalyptus leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Eucalyptus woodland occurs mainly in the southwest portion of the project parcel, south of the wetlands in that area. Smaller patches of eucalyptus woodland occur northwest of the existing residence and in the southeast corner of the project parcel. Eucalyptus woodland is classified as a Tier IV vegetation community under the City's Biology Guidelines (City of San Diego 2018a).

5.4.9 Urban/Developed Land

According to Oberbauer et al. 2008, urban/developed land represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities are not supported. This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping.

Within the parcel boundary, urban/developed land includes the existing residence, the associated paved driveway, and other human-made structures on the project parcel and the adjacent residential development areas. This land cover is synonymous with disturbed land and is considered a Tier IV vegetation community (City of San Diego 2018a).

5.4.10 *Arundo*-Dominated Disturbed Habitat

Arundo-dominated disturbed habitat is composed of monotypic or nearly monotypic stands of giant reed and is fairly widespread in Southern California. Typically, this habitat occurs on moist soils and/or in streambeds and may be related directly to soil disturbance or the introduction of propagules by grading or flooding.

Arundo-dominated disturbed habitat comprises one dense stand of giant reed within the parcel boundary just northeast of the existing residence in the central parcel boundary. It is positioned on a steep north-facing slope and did not show signs that it was associated with any wetland or riparian features. This land cover is synonymous with disturbed land and is considered a Tier IV vegetation community (City of San Diego 2018a).

5.4.11 Emergent Wetland (Artificial)

According to Oberbauer et al. (2008), emergent wetland is a generally persistent wetland type dominated by low-growing, perennial wetland species. These can be found in channels, seeps and springs, floodplains, margins of lakes and rivers, and various basins such as pools and ponds, palustrine lakes, montane meadows, and dune swales. These may be freshwater or alkali wetlands. In San Diego County, these are often in previously disturbed areas where wetlands are emerging, but have not yet established a full suite of species; however, disturbance is not a necessary element of this vegetation community.

The area mapped as emergent wetland in the parcel boundary is dominated by mariposa rush (*Juncus dubius*), with annual beard grass (*Polypogon monspeliensis*), toad rush (*Juncus bufonius*), grass poly (*Lythrum hyssopifolia*), curly dock (*Rumex crispus*), Boccone's sand-spurrey (*Spergularia bocconi*), and other non-native herbaceous species. It occurs in two patches of lowlands adjacent to a well-defined drainage in the southern portion of the parcel boundary. These two patches correspond with areas of historic disturbance; the upstream area being the location of a former artificial impoundment (i.e., stock pond) and the downstream area being the location where adjacent development created an artificial impoundment. Further, City records contain evidence that artificial surface runoff was discharged into this drainage from the adjacent Spring Canyon Reservoir (i.e., water tank). Based on these factors, emergent wetland on site is considered an artificial feature that does not meet the City's wetland definition and is considered a Tier IV upland.

5.4.12 Herbaceous Wetland (Artificial)

According to Oberbauer et al. (2008), herbaceous wetland is a seasonal wetland habitat that supports a variety of herbaceous annual species like annual beard grass. In San Diego County, these wetlands may only occur during wetter-than-average years and are usually found in swale areas or adjacent to drainages.

Herbaceous wetland (artificial) is present within the northern portion of the parcel boundary and is dominated by annual beard grass. Other species present include western ragweed (*Ambrosia psilostachya*), curly dock, mule-fat (*Baccharis salicifolia*), hottentot-fig (*Carpobrotus edulis*), saltcedar (*Tamarix ramosissima*), and jointed charlock (*Raphanus raphanistrum*). During the jurisdictional delineation in April 2020, Dudek biologists noted a large population of Coulter's goldfields in this area.

However, this area is not considered a city wetland per the City's Biology Guidelines (City of San Diego 2018a) because, based on review of historical aerials and topography, the wetland established as a result of the construction of the residential development to the north, which directed runoff to this area and created conditions suitable for development of the wetland. Prior to the adjacent development, the area supported an upland hillslope, consistent with adjacent areas. As stated in the City's Biology Guidelines, "except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Wildlife." As a result, the herbaceous wetland (artificial) in this location would be considered Tier IV (City of San Diego 2018a).

5.4.13 Natural Flood Channel

Natural flood channel, also described as non-vegetated channel or floodway (Oberbauer et al. 2008), is the sandy, gravelly, or rocky fringe of waterways or flood channels that are earthen-bottom, and unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel.

Natural flood channel is mapped within small ephemeral drainage features on the project. Although unvegetated, natural flood channel can be considered a wetlands community according to the City's Biology Guidelines when the overall drainage is substantial enough to support "wetland dependent vegetation" (City of San Diego 2018a). The natural flood channel present in the southern section of the project parcel is connected to emergent wetland habitat upstream and downstream of these unvegetated channel sections. However, the emergent wetland is artificial (as described above). Therefore, both the natural flood channel extents that are located on the upland hillsides on the project parcel and in the southern section of the project parcel were determined to consist of seasonal drainage patterns that do not support wetland dependent vegetation and are not considered City wetlands, according to the City's Biology Guidelines (City of San Diego 2018a).

5.5 Special-Status Plant Species

Focused rare plant surveys in June, July, and August 2020 captured most perennial and annual plant species that occur within the parcel boundary. A total of 103 species of vascular plants, 61 native (59%) and 42 non-native plant species (41%), were recorded during the biological reconnaissance survey for the project. For a cumulative list of all common and sensitive plant species observed in the project, refer to the BTR (Dudek 2023a).

Four special-status plants were detected within the project: Del Mar manzanita, San Diego viguiera, San Diego barrel cactus, and Nuttall's scrub oak were directly observed within the parcel boundary during focused rare plant surveys in 2020. Three of those species: Del Mar manzanita, San Diego barrel cactus, and Nuttall's scrub oak would be directly impacted by the construction of the project (Figure 2).

5.5.1 Del Mar Manzanita

Del Mar manzanita is federally endangered and is a CRPR 1B.1 and an MSCP covered species. Del Mar manzanita is a California native shrub that naturally occurs in a narrow range within coastal San Diego County (Calflora 2020). This species is typically found in chaparral and naturally occurs at an elevation of 0 to 1,200 feet amsl.

Del Mar manzanita individuals were observed in scrub oak chaparral and mixed chaparral in the northern portion of the parcel boundary (Figure 3). A total of 13 Del Mar manzanita individuals would be impacted as a result of the project.

5.5.2 Nuttall's Scrub Oak

Nuttall's scrub oak is a CRPR 1B.1 species and is not an MSCP covered species. Nuttall's scrub oak is a California native shrub that occurs throughout the state near the coast (Calflora 2020). This species is typically found in chaparral and coastal sage scrub habitats and naturally occurs at an elevation of 45 to 1,310 feet amsl.

Nuttall's scrub oak individuals were observed throughout the parcel boundary in in the understory of eucalyptus woodland (Figure 5). A total of 520 Nuttall's scrub oak would be impacted as a result of the project.

5.5.3 San Diego Barrel Cactus

San Diego barrel cactus is a CRPR 2B.1 and MSCP covered species. San Diego barrel cactus is a California native shrub (stem succulent) that naturally occurs in a narrow range within coastal San Diego County (Calflora 2020). This species is typically found in chaparral, grassland, coastal sage scrub, and vernal pool habitats and naturally occurs at an elevation of 5 to 1,475 feet amsl.

San Diego barrel cactus individuals observed in mixed chaparral in the southeast portion of the parcel boundary (Figure 3). A total of 92 San Diego barrel cactus would be impacted as a result of the project.

5.5.4 San Diego Viguiera

San Diego viguiera is a CRPR 4.3 species and is not an MSCP covered species. San Diego viguiera is a California native shrub that naturally occurs in a somewhat narrow range in coastal Southern California (Calflora 2020). This species is typically found in chaparral and coastal sage scrub and naturally occurs at an elevation of 195 to 2,460 feet amsl.

San Diego viguiera individuals observed in southern mixed chaparral and flat-topped buckwheat scrub on the eastern boundary of the project (Figure 5). No San Diego viguiera would be impacted as a result of the project.

Refer to the BTR for more information (Dudek 2023a).

5.6 Existing Wildlife

A total of 42 wildlife species were recorded during focused surveys in the parcel boundary parcel boundary. Of the 42 wildlife species observed during field surveys, two are considered special status and are described in further detail below. For information on additional special-status wildlife species impacted by the project, refer to the BTR for more information (Dudek 2023a).

5.6.1 Cooper's Hawk

Cooper's hawk is a state watch list and an MSCP covered species. Cooper's hawks inhabit live oak, riparian deciduous, and other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Nests in deciduous trees are typically located in crotches 20 to 50 feet above the ground; in conifers, nests are on horizontal branches or in the main crotch. Cooper's hawks use patchy woodlands and edges with snags for perching and hunting small birds, small mammals, reptiles, and amphibians (Zeiner et al. 1990). Cooper's hawks are diurnally active and are year-round residents. Breeding occurs from March through August, with peak activity in May through July. Males defend an area of about 330 feet around potential nest sites (Zeiner et al. 1990).

Cooper's hawk could use eucalyptus woodland on and near the site within the MHPA for nesting, and scrub habitats for foraging.

5.6.2 San Diegan Tiger Whiptail

San Diegan tiger whiptail is a California species of special concern and is not an MSCP covered species. It is known to occupy hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.

One San Diegan tiger whiptail individual was observed during focused coastal California gnatcatcher surveys. This individual is likely associated with mixed chaparral habitat throughout the parcel boundary.

5.6.3 Coastal California Gnatcatcher Focused Survey Results

The coastal California gnatcatcher is a federally listed threatened species, a CDFW Species of Special Concern, and an MSCP-covered species. No coastal California gnatcatcher individuals were detected within the study area during focused protocol surveys in 2020, however, a coastal California gnatcatcher California Natural Diversity Database occurrence has been recorded within 1 mile of the study area to the east and suitable habitat exists on the site. Since more than 24 months has passed since focused surveys were conducted, this species is assumed to be present within suitable habitat both within and adjacent to the project parcel.

Refer to the BTR for more information (Dudek 2023a).

6 Mitigation Work Plan

This chapter describes who would be responsible for each task and how the proposed compensatory mitigation program would be accomplished.

6.1 Project Implementation Personnel

6.1.1 Permittee/Project Manager

As the Permittee, Green Phair Scripps Partners LLC would be responsible for mitigation installation and successful implementation of this Upland Restoration Plan. Project management would be provided by Green Phair Scripps Partners LLC (or subsequent legal owners) who would be financially responsible for implementation and management of the project.

6.1.2 Project Biologist

Green Phair Scripps Partners LLC would select a qualified Project Biologist who would review the environmental permits, documents, final Upland Restoration Plan, and mitigation construction documents, and help to ensure that all site protections, pre-work bird surveys, and any other required items are adequately performed prior to mitigation work implementation.

The Project Biologist would perform site monitoring during mitigation implementation and throughout the 5-year maintenance and monitoring period. The Project Biologist would prepare mitigation annual reports with required biological data and submit them to Green Phair Scripps Partners LLC and the City of San Diego Mitigation Monitoring Coordination (MMC) and Parks and Recreation Open Space Division. The Project Biologist would have a degree in biology, ecology, or related field, and be able to demonstrate at least three successful similar restoration projects in San Diego County. The Project Biologist would possess at least 5 years of habitat restoration experience in Southern California.

6.1.3 Restoration Contractor

Green Phair Scripps Partners LLC would select a qualified Restoration Contractor to implement the mitigation installation work and provide subsequent restoration area maintenance. Restoration installation and maintenance work would be performed by a contractor possessing a valid California landscape contractor's license (Class C-27) who has previous experience with native habitat restoration in San Diego County and can demonstrate at least three successful similar restoration projects in San Diego County. The Restoration Contractor must be able to field implementation crew members who can identify San Diego County native plants and common weed species and demonstrate knowledge of habitat restoration techniques.

The Restoration Contractor would be responsible for conformance to this Upland Restoration Plan and permit requirements for the project. The Restoration Contractor's responsibility for installation would continue until successful completion and final acceptance by Green Phair Scripps Partners LLC and the Project Biologist. The Restoration Contractor would not be released from contractual obligations for installation until written notification is received from Green Phair Scripps Partners LLC that all required installation tasks as defined in the installation

contract, final plans and specifications, this Upland Restoration Plan, and the project permits have been successfully completed.

After initial installation and completion of implementation, a 5-year habitat maintenance program would be performed by a qualified Restoration Contractor who specializes in the maintenance and management of native habitat restoration and/or natural lands management. Maintenance work would be performed as indicated herein and per the Project Biologist's recommendations. Green Phair Scripps Partners LLC may choose to hire a maintenance contractor that is separate from the installation contractor or replace a contractor that fails to perform work satisfactorily.

6.1.4 Seed Supplier

Should seed need to be procured, the seed supplier must be a qualified commercial native plant seed supplier having collection sources from within the 25 miles of the restoration area and must have experience collecting seeds from native riparian and upland areas appropriate for the project.

Seed collection would follow sound ecological restoration practices. Any seed within areas of permanent impact may be collected to 100%. However, should seed need to be collected from within adjacent open space areas, no more than 5% of the available seed would be taken on any given year. The Project Biologist may substitute plant species as appropriate should the species listed in this Upland Restoration Plan not be available at the time of collection or purchase. Seed collection would comply with all project permits and requirements.

6.2 Preliminary Design and Engineering

The proposed mitigation program includes the restoration of 0.55 acres of scrub oak chaparral, 5.46 acres of Diegan coastal sage scrub, 4.75 acres of coastal sage-chaparral, 0.63 acres of southern mixed chaparral located within the Renzulli Estates Property (Figure 6, Conceptual Upland Restoration Plan). Restoration would be implemented once demolition of the structures, grading of the project, and decompaction of the coastal sage scrub creation area has been completed. The grading plans and landscape design sheets include detailed information on the layout and planting plan for the restoration area. Additional details are described further in the following sections of this Upland Restoration Plan.

6.3 Rationale for Expecting Success

Success would be largely dependent on native plant establishment and adequate treatment of invasive weeds to encourage the establishment of native annual and perennial species. Container plants would be installed to accelerate the establishment of native perennial species in the restoration area, and a native seed mix would be applied to provide initial colonization of native species in bare areas. Additionally, the seed mix would contribute to the existing seed bank and support long-term stability of habitat recovery.

The selected plant palette and seed mix includes species that occur within and adjacent to the project impact areas. Supplemental irrigation would be used during the first 3 years to aid in the establishment of native species from container plants and seed. The implementation, maintenance, and monitoring tasks outlined in this Upland Restoration Plan are anticipated to produce viable vegetation communities that augment the surrounding unimpacted native vegetation communities.

6.4 Site Preparation

Site preparation would be conducted under direction from Green Phair Scripps Partners LLC and the Project Biologist. Specific site preparation tasks are outlined below. Prior to site preparation, photo points would be identified, and pre-implementation photos taken to document site conditions prior to mitigation implementation.

Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the project applicant or their designee would provide written confirmation that a biological monitor approved by the City of San Diego has been retained. This biologist(s) would be present during clearing, grubbing, and/or grading activities to prevent disturbance to areas outside the limits of grading.

6.4.1 Avoidance and Minimization

Temporary fencing (with silt barriers) would be required at the limits of work for the restoration area to prevent inadvertent impacts to areas outside of the restoration area footprint.

Impacts from fugitive dust that may occur during filling and grading activities adjacent to the restoration area would be avoided to the maximum extent practicable and minimized through watering and other appropriate measures.

The Project Biologist would be on site to oversee installation of temporary fencing and any grading within 100 feet of existing wetland and non-wetland waters.

Equipment would be checked for leaks prior to operation and repaired as necessary. A spill kit for each piece of construction equipment would be on site and must be used in the event of a spill.

To avoid indirect impacts to sensitive resources, the project would be required to meet National Pollutant Discharge Elimination System regulations; incorporate BMPs during construction; install permanent BMPs in accordance with the City's Storm Water Standards Manual (City of San Diego 2018b), and be consistent with the Storm Water Quality Management Plan (Hunsaker & Associates 2023) and the City's Storm Water Standards (City of San Diego 2018b). All flows from impervious surfaces would be directed through a bio filtration basin prior to being carried downstream to ensure no toxins, chemicals, petroleum products, exotic plant materials or other harmful elements are allowed to enter the MHPA. All flows toward the MHPA would be minimized to the extent feasible.

In addition, the project would be required to adhere to all standard construction protection measures listed in the project's Mitigation and Monitoring and Reporting Plan, which includes having a qualified biologist present to supervise flagging of sensitive resources prior to construction, provide environmental training and during construction to ensure no unauthorized impacts occur.

6.4.1.1 Fencing and Signage

Temporary fencing along the perimeter of restoration area shall be placed adjacent to sensitive vegetation communities or other biological resources as identified by the Project Biologist in accordance with mitigation BTR (Dudek 2023a). All temporary fencing shall be shown on grading plans and would serve as the boundary limits and to discourage pedestrian entry into restoration areas. The temporary fencing would remain in place for the duration of the 5-year maintenance and monitoring period and shall be removed following successful completion restoration.

Temporary fencing shall consist of metal T-posts stakes with yellow nylon rope. Use of plastic construction fencing (snow fencing) is not permitted.

Signage shall identify a contact person and a phone number for interested parties to call for more information. The language for the signage is included in the grading plans.

6.4.1.2 Special-Status Plant Species

There are 17 scrub oaks located within the restoration area that would remain. All special-status plant species shall be avoided during site preparation, implementation, and site maintenance. Restoration actions shall not take place beyond the approved restoration area; therefore, no additional impacts to special-status plant species are anticipated.

6.4.1.3 Special-Status Wildlife Species

Impacts to special-status wildlife species are not anticipated to occur during implementation of the mitigation program. Implementation of this Upland Restoration Plan is anticipated to take place outside of the bird nesting season (typically February through September). However, if any work involving heavy equipment is required during the nesting bird season, nesting bird surveys shall be required within 3 days prior to work and within 300 feet of the work area. Implementation and maintenance staff shall be trained to identify sensitive wildlife species and their habitats so as not to disturb species during implementation and maintenance activities.

6.4.2 Plant Salvage

Plant salvage would be conducted under direction from Green Phair Scripps Partners LLC and the Project Biologist. Specific site plant salvage tasks are outlined in the following subsections.

Prior to issuance of land permits, including clearing, grubbing, grading, and/or construction permits, the Project applicant or their designee would provide written confirmation that a biological monitor approved by the City of San Diego has been retained. This biologist(s) would be present during clearing, grubbing, and/or grading activities to prevent disturbance to areas outside the limits of grading.

Salvageable plants include the collection of 281 cuttings of Del Mar manzanita (26 of which satisfy the mitigation requirement), and the collection of 520 cuttings of Nuttall's scrub oak , and the translocation of 92-barrel cactus. Plant salvage would be taken from within the project's existing on-site populations (Figure 2) and would be translocated onto the restoration area (Figure 6). Additionally, seed would be taken in order to produce nursery container stock.

6.4.2.1 Barrel Cactus Salvage

Barrel cactus is covered by the MSCP and impacts to barrel cactus within the MHPA are considered significant and require mitigation. Surveys were conducted on the project which identified 92 barrel cactus that would be impacted by construction (Figure 2).

The timing for salvaging and translocating barrel cacti is not as critical as it may be for other plants and may occur at any time of year. Barrels would be salvaged prior to clearing, grubbing, and/or grading on the project. Prior to salvage, the barrels would be marked on the south side of each barrel to ensure that the barrels are planted on the

slope in the same cardinal direction as originally collected. All cacti would be salvaged using hand tools to successfully remove the plant and the root ball.

In additions to salvaging barrels, cobbles would be collected from the slope. These cobbles would be placed around the barrels after translocation.

Once salvaged, the 92 barrels would be taken to a nursery (with root balls intact) for storage in container pots until the on-site translocation area's manufactured slope construction is completed. Planting would be limited from October through February to coincide with appropriate moist and cool weather conditions.

6.4.2.2 Del Mar Manzanita Propagation Methods

Given the limited success with direct salvage and translocation of Del Mar manzanita, propagation of additional plants is proposed to enhance the potential for a success translocation effort. There are two techniques for propagating Del Mar manzanita. The first method involves growing plants from seed collected from the existing Del Mar manzanita prior to salvage, while the second involves growing plants from cuttings collected from the existing Del Mar manzanita. These techniques are described further in the following subsections.

If Del Mar manzanita is available from a local native plant nursery, and the source location is within 5 miles of the restoration area, then commercial nursery-produced container plants can be substituted instead of cuttings or container plants produced from seed.

6.4.2.2.1 Propagation from Seed

Propagation of Del Mar manzanita from seed is challenging, partially due to its adaptation and dependence on fire for seed germination. The *Arctostaphylos* species are prolific post-fire seedling producers (Keeley 1991). *Arctostaphylos* species are able to germinate without fire, but a variety of factors are required, such as a cold stratification period along with a drying out period (Keeley 1991). This may be due to the hard seedcoat and the embryo dormancy needed in *Arctostaphylos* species. However, the germination rate significantly drops without the brief intense heat of fire and the incubation period within a charred wood setting.

Growing *Arctostaphylos* species from seed in a controlled environment has not had much documented success. Some propagation techniques that have had limited success include laying out the seed in a single layer on a sheet of aluminum foil and then burning 4 to 5 inches of pine needles on top of the seed to emulate the heat shock process in wildfires. This process was researched by D.E. Emery in 1988, who observed some germination by many species of manzanita that were subjected to this technique. Emersion of the seed in sulfuric acid is another process to promote germination, which can help soften the hard seed coat and allow them to become immediately ready for germination. A period of cold stratification coupled with acid emersion can also assist in germination of *Arctostaphylos* species, resulting in percentages of 30% to 60% (USDA 2008). Once seeds have germinated, they are then transplanted into appropriately sized plant containers (Keely 1991).

The sulfuric acid-stratification treatments and the fire treatment of Emery (1988) previously described are currently the only published procedures for nursery seed propagation of manzanita species. The manzanitas are much more easily propagated from cuttings than from seeds, and in practice most nursery propagation is probably accomplished in this way (USDA 2008).

6.4.2.2.2 Propagation from Cuttings

Del Mar manzanita are typically propagated from cuttings. Cuttings should be approximately 4 inches in length taken from the semi-mature wood of the current season's growth, with leaves from the lower half of the cutting removed. The cuttings are then dipped into a rooting hormone solution and installed into 4-inch pots that have mixture of sand and peat. Once installed, the cuttings should be stored in an area that receives plenty of natural light, without being directly in the sun. The flats should be kept moist. Rooting typically occurs between 1 to 2 months following planting. The rooted cuttings can then be transplanted into larger containers and stored until the plants are ready for translocation.

At least two nurseries have had success growing Del Mar manzanita from cuttings. According to nursery owner Sue Krauss, Del Mar manzanita is propagated exclusively from cuttings at Moosa Creek nursery, since they had very limited success propagating Del Mar manzanita from seed. Tree of Life Nursery also propagates Del Mar manzanita successfully through cuttings.

6.4.2.2.3 Storage and Care of Propagated Plants

Plants that are propagated from seed or from cuttings would be maintained under light shade at a nursery facility until ready for planting into the transplant site. Initially the propagated plants would be grown and maintained in 1-gallon pots, would be fertilized with a low concentration general liquid fertilizer as needed, and would be watered weekly. It is anticipated that the propagated plants would not require pots larger than the 1-gallon, but if for any reason plants show signs of being root bound, they would be repotted into 5-gallon pots. Propagated plants would be maintained in soil that is a mixture of native soil from the transplants site mixed evenly with high quality potting soil.

6.4.2.3 Nuttall's Scrub Oak Propagation Methods

Like the manzanita species, scrub oak species have a low survivorship when salvaged and transplanted, but they can be readily propagated from cuttings. Therefore, scrub oak container plants would be established by taking cuttings from impacted individuals, propagation in a greenhouse, and then planted into the restoration area. The same techniques previously described for Del Mar manzanita in Section 6.4.2.2 should be used for Nuttall's scrub oak.

If Nuttall's scrub oak is available from a local native plant nursery, and the source location is within 25 miles of the restoration area, then commercial nursery produced container plants can be substituted instead of cuttings.

6.4.3 Seed Collection

Native seed shall be collected and/or sourced from local sources originating within 25 miles of the restoration area, as practicable. The preferred seed collection location is within upland areas within the proposed project footprint and areas adjacent to the restoration area that are proposed to be impacted by the project (see Figure 2). Seed shall be collected for hydroseeding, hand broadcast, and/or raking, as well as for container plant propagation. Seed shall be mixed, and container plants shall be grown and propagated at a reputable native plant nursery.

The species proposed in Tables 5 through 7 are selected to provide similar species diversity and appropriate functions and services as compared to impacted vegetation. The seed palettes have been designed to include a mixture of native grasses, forbs, and low-growing shrubs adapted to the target restoration area. Plants with different

germination responses, water affinities, and growth forms have been chosen to provide plant growth under a wide range of conditions that may occur in the restoration area.

Some species may not be available as seed at the time of initial installation. Those species may be obtained when available and installed at a later date. Substitutions, other donor sites, or use of commercial material may be allowed if materials are unavailable, under direction of the Project Biologist.

Pure live seed recommendations are shown in Tables 5 through 7; however, if the delivered seed differs from specified purity and germination rates presented herein, the total pounds per acre rates shall be adjusted accordingly to achieve the specified pounds of pure live seed.

Table 5. Coastal Sage Scrub and Coastal Sage Scrub /Chaparral Seed Mix (Approximately 10.20 Acres)

Botanical Name	Common Name	Percent Purity/ Germination[a]	Application Rate (Pounds per Acre)
Acmispon glaber	deerweed	95/80	1
Artemisia californica	California sagebrush	25/80	3
Bothriochloa barbinodis	cane bluestem	70/20	2
Dienandra fasciculata	fascicled Tarweed	10/25	1
Diplacus puniceus	coast monkey flower	2/60	2
Dipterostemon capitatus	blue dicks	90/80	2
Encelia californica	California encelia	40/60	2
Eriogonum fasciculatum	California buckwheat	10/65	3
Eriophyllum confertiflorum var. *confertiflorum*	Long-stem golden-yarrow	30/50	2
Hazardia squarrosa var. *squarrosa*	sawtooth goldenbush	10/20	2
Isocoma menziesii	coastal goldenbush	20/35	2
Koeleria macrantha	junegrass	80/80	2
Melica imperfecta	coast range melic	80/60	2
Muhlenbergia microsperma	little-seed muhly	15/30	3
Salvia mellifera	black sage	70/50	3
Silene laciniata ssp. *laciniata*	southern pink	98/40	1
Scrophularia californica	California bee plant	90/60	1
Sisyrinchium bellum	blue-eyed-grass	95/75	2
Stipa pulchra	purple needlegrass	70/60	2
		Total	**38**

Note:

[a] Seed purity and germination can vary dramatically for field collected seed from wild populations. The purity and germination rates shown are typical of each species.

Table 6. Scrub Oak Chapparal Seed Mix (Approximately 0.55 Acres)

Botanical Name	Common Name	Percent Purity/ Germination[a]	Application Rate (Pounds per Acre)
Artemisia californica	California sagebrush	25/80	3
Cercocarpus minutiflorus	San Diego mountain-mahogany	50/70	4
Diplacus puniceus	coast monkey flower	2/60	4
Dipterostemon capitatus	blue dicks	90/80	3
Encelia californica	California encelia	40/60	3
Eriophyllum confertiflorum var. *confertiflorum*	Long-stem golden-yarrow	30/50	3
Heteromeles arbutifolia	toyon	95/60	2
Malosma laurina	laurel sumac	98/62	2
Melica imperfecta	coast range melic	80/60	2
Muhlenbergia microsperma	little-seed muhly	15/30	3
Rhus integrifolia	lemonadeberry	90/77	2
Stipa pulchra	purple needlegrass	20/50	6
		Total	**37**

Note:

[a] Seed purity and germination can vary dramatically for field collected seed from wild populations. The purity and germination rates shown are typical of each species.

Table 7. Southern Mixed Chaparral Seed Mix (Approximately 0.63 Acres)

Botanical Name	Common Name	Percent Purity/ Germination[a]	Application Rate (Pounds per Acre)
Adenostoma fasciculatum	chamise	85/20	4
Bahiopsis laciniata	San Diego sunflower	40/50	3
Diplacus puniceus	coast monkey flower	2/60	2
Eriogonum fasciculatum	California buckwheat	10/65	2
Eriophyllum confertiflorum	golden-yarrow	30/50	2
Lupinus bicolor	miniature lupine	98/80	3
Malacothamnus fasciculatus	chaparral bushmallow	15/60	2
Malosma laurina	laurel sumac	95/60	2
Mirabilis laevis var. *crassifolia*	California four o'clock	80/70	3
Rhus integrifolia	lemonadeberry	90/60	2
Stipa lepida	foothill needlegrass	20/50	4
Stipa pulchra	purple needlegrass	20/50	4
		Total	**33**

Note:

[a] Seed purity and germination can vary dramatically for field collected seed from wild populations. The purity and germination rates shown are typical of each species.

6.4.4 Grading

The project and restoration area would be mass graded in preparation for the proposed project within the project footprint. The location and conceptual layout of the restoration area is shown in Figure 6, on the grading plans, and on the landscape plans.

Final restoration area construction grading plans and specifications shall be prepared by a registered landscape architect and/or civil engineer in consultation with the Project Biologist.

6.4.5 Structure Demolition and Soil Decompaction

A dirt road, building pad, and structure are located just outside of the project footprint in the northeast section of the parcel boundary. The structure and building pad would be demolished as part of the construction for the project.

A total of 0.41 acres of coastal sage scrub would be created (restoration) along the dirt road and pad., The road and pad are heavily compacted and should be ripped and cross ripped prior to restoration. This can be accomplished as part of the construction for the project using forks on a bucket for a backhoe, bulldozer, or other heavy equipment. This would alleviate compaction and aid restoration.

6.4.6 Eucalyptus Tree Removal

Eucalyptus trees shall be cut to within 8 inches of the ground. Fresh cut stumps should be treated with an approved herbicide (typically Glyphosate or Garlon) around the circumference where the cambium layer is located. The herbicide should be applied within 1 to 3 minutes after the tree is felled. Left untreated, stumps would resprout, and would need to be cut again. paint brush glyphosate/Garlon within 1 to 3 minutes after cutting and drill.

Trunks and material up to 24 inches in diameter can be chipped and used as mulch. Other larger trees would be felled with chain saws and cut into 4-foot lengths and removed from the restoration area. All remaining debris including branches, leaf litter, and trunks shall be removed from the site. Larger materials may be hauled away to a composting site or a landfill or cut into logs for firewood and removed from the restoration area.

To the maximum extent possible, eucalyptus tree removal should be completed in the fall after nesting bird season (January 15 through September 15). Should the eucalyptus tree removal take place during this time, a nest survey would need to be completed by a certified biologist before the trees can be cut down.

6.4.7 Soil Testing

The Project Biologist would collect soil samples and send them to a soil lab for major constituent analysis. Should soils be found to be problematic for revegetation of the native species included in this Upland Restoration Plan, appropriate soil amendments should be designated with sufficient lead time so that they can be incorporated into the revegetation materials (i.e., container plants and seed). Soil amendments may include agricultural gypsum, mycorrhizal inoculum, or other suitable amendments as recommended by the Project Biologist.

6.4.8 Weed Control

To the maximum extent practicable, this mitigation program should begin in the fall after nesting bird season. As part of site prep, dead thatch, deadwood, and other organic litter would be removed. Weed control would be conducted. Maintenance crews would be trained to identify native plant species for avoidance of volunteers that recruit into the restoration area.

Weed control would include hand-pulling of weeds, use of hand tools, use of line-trimmers, and/or foliar treatments of appropriate herbicides as determined by the Project Biologist. Specific herbicide application rates and methods would be based on manufacturer specifications, and would follow the general guidelines summarized below:

- Application methods would follow manufacturer specifications regarding application and safety procedures. Herbicide application would comply with state and local regulations. All application tasks would be performed by or under supervision of a licensed applicator with the Pest Control Business License issued by the State of California Department of Parks and Recreation and registered with the County Agricultural Commissioner.
- Herbicide Application would consist of (1) spot applications to individual plants where weed coverage is sparse and (2) broadcast applications to dense patches of weed species where native species are not establishing. Applications would be uniform and complete. Contact with native species must be avoided; in the event of gusty winds or winds in excess of 5 miles per hour, application work would be temporarily discontinued to protect applicators and adjacent natural resources from herbicide drift. Treatment would not occur if rainfall is predicted and would be temporarily discontinued in the event of rainfall since rainfall reduces the effectiveness of the herbicide.
- Sprayed vegetation would be left undisturbed for 7 days to allow the herbicide to be distributed throughout the entire plant. Visible effects of herbicide application consist of wilted foliage, brown foliage, and disintegrated root material.
- Excessive dead weed materials would be removed from the soil surface and disposed of off-site.

6.4.9 Irrigation Source

Long term, the restoration area would receive hydrologic inputs from groundwater and surface flows from manufactured slopes and treated stormwater flows from the adjacent developments.

During the 5-year maintenance and monitoring period for the restoration area, a temporary aboveground irrigation system shall be designed and installed to supplement natural rainfall to facilitate survival of the container plantings. This irrigation system shall be used whenever there is not sufficient or frequent enough rainfall to support establishing plants, particularly if there is a dry winter and/or spring season.

If a permanent water source is not available at the time the mitigation plantings need to be implemented, then the irrigation system shall be designed to be remotely supplied by a water truck or the plants shall be directly watered from a water truck using hoses. The temporary irrigation system would be removed prior to the end of the 5-year maintenance period or another method of irrigation (i.e. hand watering) would be employed as needed after removal of temporary irrigation system.

6.4.10 Erosion Control Best Management Practices

BMPs are schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention, educational practices, maintenance procedures, and other management practices to prevent or reduce, to the maximum extent practicable, the discharge of pollutants directly or indirectly to receiving waters. It is the responsibility of the property owner or his/her designee (Restoration Contractor) to select, install, and maintain appropriate construction BMPs. BMPs are used to effectively reduce the mobilization and transport of sediments from the restoration area during initial implementation and during the maintenance and monitoring period. Suitable BMPs shall be installed based on site conditions in accordance with the Storm Water Quality Management Plan (Hunsaker & Associates 2020) and the City's Storm Water Standards (City of San Diego 2018b).

6.5 Implementation Installation

6.5.1 Plant Palette

The restoration area would be revegetated with native species that are appropriate to the site context and mitigation goals. The species proposed in Tables 8 through 11 were selected to provide as similar of physical structure through the tree and shrub layer as possible when compared to the native vegetation found in the upland habitats with no impacts. The intent of these plant palettes is to create a diverse assemblage of native species that would provide appropriate functions and services. The plant palettes have been designed to include a mixture of native trees, grasses, forbs, and low-growing shrubs adapted to target the area's native habitat based on hydrology, soils, and adjacent habitat structure. Plants with different germination responses, hydrologic affinities, and growth forms were chosen to provide plant growth under a wide range of conditions that may occur in the mitigation site.

Table 8. Coastal Sage Scrub Plant Palette (Approximately 5.46 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (5.46 Acres)
Artemisia californica	California sagebrush	1 gallon	5	11	1,001
Bahiopsis laciniata	San Diego viguiera	1 gallon	5	8	801
Bothriochloa barbinodis	Cane bluestem	1 gallon	5	6	601
Dipterostemon capitatus	blue dicks	1 gallon	5	2	200
Dudleya edulis	ladies fingers	1 gallon	5	2	200
Dudleya lanceolata	lance-leaf dudleya	1 gallon	5	2	200
Encelia californica	California encelia	1 gallon	5	8	801
Eriogonum fasciculatum	California buckwheat	1 gallon	5	8	801
Ferocactus viridescens	barrel cactus	1 gallon	5	1	92[a]

Table 8. Coastal Sage Scrub Plant Palette (Approximately 5.46 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (5.46 Acres)
Hazardia squarrosa var. *squarrosa*	sawtooth goldenbush	1 gallon	5	3	300
Hesperoyucca whipplei	chaparral candle	1 gallon	5	2	200
Isocoma menziesii	coastal goldenbush	1 gallon	5	8	801
Malosma laurina	laurel sumac	1 gallon	5	4	401
Melica imperfecta	coast range melic	1 gallon	5	6	601
Opuntia littoralis	coastal prickly-pear	1 gallon	5	2	200
Peritoma arborea var. *arborea*	bladderpod spiderflower	1 gallon	5	4	401
Rhus integrifolia	lemonadeberry	1 gallon	5	4	401
Salvia mellifera	black sage	1 gallon	5	4	401
Sisyrinchium bellum	blue-eyed grass	1 gallon	5	6	601
Stipa pulchra	purple needlegrass	1 gallon	5	4	401
Yucca schidigera	Mojave yucca	1 gallon	5	1	108
				Total Individuals	9,513

Note:
[a] A total of 92 translocated individuals

Table 9. Coastal Sage Scrub/Chaparral Area Plant Palette (Approximately 4.75 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (4.75 Acres)
Adenostoma fasciculatum	chamise	1 gallon	5	12	962
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar Manzanita	1 gallon	5	2	166[a]
Artemisia californica	California sagebrush	1 gallon	5	5	385
Bothriochloa barbinodis	Cane bluestem	1 gallon	5	3	289
Cercocarpus minutiflorus	San Diego mountain-mahogany	1 gallon	5	5	385
Cneoridium dumosum	Bush-rue	1 gallon	5	3	248

Table 9. Coastal Sage Scrub/Chaparral Area Plant Palette (Approximately 4.75 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (4.75 Acres)
Diplacus puniceus	coast monkey flower	1 gallon	5	6	497
Dipterostemon capitatus	blue dicks	1 gallon	5	5	385
Dudleya edulis	ladies fingers	1 gallon	5	2	192
Dudleya lanceolata	lance-leaf dudleya	1 gallon	5	2	192
Encelia californica	California encelia	1 gallon	5	5	385
Hazardia squarrosa var. *squarrosa*	sawtooth goldenbush	1 gallon	5	5	385
Hesperoyucca whipplei	chaparral candle	1 gallon	5	2	192
Heteromeles arbutifolia	toyon	1 gallon	5	4	331
Isocoma menziesii	coastal goldenbush	1 gallon	5	3	289
Malosma laurina	laurel sumac	1 gallon	5	3	248
Melica imperfecta	coast range melic	1 gallon	5	2	192
Opuntia littoralis	coastal prickly-pear	1 gallon	5	2	192
Quercus dumosa	Nuttall's Scrub Oak	1 gallon	5	5	401[b]
Rhus integrifolia	lemonadeberry	1 gallon	5	3	248
Salvia mellifera	black sage	1 gallon	5	5	385
Scrophularia californica	California bee plant	1 gallon	5	5	385
Sisyrinchium bellum	blue-eyed grass	1 gallon	5	3	289
Stipa pulchra	purple needlegrass	1 gallon	5	4	346
Xylococcus bicolor	mission manzanita	1 gallon	5	1	83
Yucca schidigera	Mojave yucca	1 gallon	5	2	192
				Total Individuals	**8,247**

Notes:

[a] A total of 166 cuttings 26 of which satisfy the 2:1 mitigation ratio requirement

[b] A total of 401 cuttings

Table 10. Scrub Oak Chaparral Area Plant Palette (Approximately 0.55 Acre Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (0.55 Acres)
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar Manzanita	1-gallon	5	12	115[a]
Artemisia californica	California sagebrush	1-gallon	5	10	92
Bothriochloa barbinodis	Cane bluestem	1-gallon	4	7	108
Cercocarpus minutiflorus	San Diego mountain-mahogany	1-gallon	5	5	46
Diplacus puniceus	coast monkey flower	1-gallon	5	2	23
Dipterostemon capitatus	blue dicks	1 gallon	5	2	36
Encelia californica	California encelia	1-gallon	5	3	29
Hesperoyucca whipplei	chaparral candle	1-gallon	5	5	48
Heteromeles arbutifolia	toyon	1-gallon	5	7	69
Malosma laurina	laurel sumac	1-gallon	5	4	35
Melica imperfecta	coast range melic	1-gallon	5	2	23
Quercus agrifolia	Coast live oak	1-gallon	5	8	77
Quercus dumosa	Nuttall's Scrub Oak	1-gallon	5	7	67[b]
Rhus integrifolia	lemonadeberry	1-gallon	5	7	69
Sisyrinchium bellum	blue-eyed grass	1-gallon	5	2	23
Stipa pulchra	purple needlegrass	1-gallon	5	5	46
Symphoricarpos mollis	creeping snowberry	1-gallon	5	6	57
Yucca schidigera	Mojave yucca	1-gallon	5	5	46
				Total Individuals	1,011

Notes:
[a] A total of 115 cuttings
[b] A total of 67 cuttings

Table 11. Southern Mixed Chaparral Area Plant Palette (Approximately 0.63 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (0.63 Acres)
Adenostoma fasciculatum	chamise	1-gallon	5	12	131

Table 11. Southern Mixed Chaparral Area Plant Palette (Approximately 0.63 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Percent Composition	Total Number of Individuals (0.63 Acres)
Bahiopsis laciniata	San Diego County sunflower	1-gallon	5	10	105
Brickellia californica	California brickellbush	1-gallon	4	5	82
Ceanothus tomentosus	Ramona-lilac	1-gallon	5	5	52
Cercocarpus minutiflorus	San Diego mountain-mahogany	1-gallon	5	2	26
Diplacus puniceus	coast monkey flower	1-gallon	4	2	41
Encelia californica	California encelia	1-gallon	5	5	52
Eriogonum fasciculatum	California buckwheat	1-gallon	5	7	78
Gutierrezia californica	California matchweed	1-gallon	5	7	78
Hesperoyucca whipplei	chaparral candle	1-gallon	5	2	26
Heteromeles arbutifolia	toyon	1-gallon	5	2	26
Isocoma menziesii	coastal goldenbush	1-gallon	5	7	78
Malosma laurina	laurel sumac	1-gallon	5	5	52
Opuntia littoralis	coastal pricklypear	1-gallon	5	2	26
Quercus dumosa	scrub oak	1-gallon	5	5	52[a]
Rhamnus crocea	spiny redberry	1-gallon	5	5	52
Rhus integrifolia	lemonadeberry	1-gallon	5	2	26
Ribes indecorum	white-flower currant	1-gallon	5	5	52
Salvia apiana	white sage	1-gallon	5	2	26
Salvia mellifera	black sage	1-gallon	5	5	52
Yucca schidigera	Mojave yucca	1-gallon	5	2	26
				Total Individuals	**1,142**

Note:
[a] A total of 52 cuttings

6.5.1.1 Container Plant Installation

Implementation of this Upland Restoration Plan must be coordinated with the Restoration Contractor, applicant, and Project Biologist. Plant species and quantities would be confirmed upon arrival at the restoration area, and all container plants would be checked for viability and general health by the Project Biologist. Plant materials not meeting acceptable standards of health as determined visually by the Project Biologist would be rejected. Reasons

for rejection of plant material may include plants that show signs of damaged foliage or stalks, diminutive stature or signs of disease or pests, and plants that are root-bound in the container.

Planting design and container plant layout would be randomly patterned (as opposed to rows) to create a natural patchiness that is typical within the target plant community. The Restoration Contractor would lay out container plants in groupings by species, ranging from three to six plants per grouping. Plant species that require more water would go into the areas that are wetter and are located closer to the water table, and plant species that require less water would be placed in drier areas located farther from the water table. Plant species would also be planted based on typical slope preference; for example, barrel cactus (*Ferocactus viridescens*) and San Diego sunflower (*Bahiopsis laciniata*) prefer south-facing slopes and California encelia (*Encelia californica*) prefers north-facing slopes. The Project Biologist would inspect the locations and adjust placement of groupings, if necessary.

Standard planting procedures would be employed for installing container plants, including holes approximately twice the width of the rootball of the plant and slightly deeper than rootball. If insufficient soil moisture is present, holes would be filled with water and allowed to drain immediately prior to planting. Backfill soil containing amendments (as defined by the landscape construction documents and as directed by the Project Biologist) would be placed in every planting hole following soaking. Container plants would be installed so that the rootball is below grade approximately 0.5 inches. Plants would be thoroughly watered to settle backfill around the plant rootball.

6.5.2 Del Mar Manzanita Planting Methods

Mature Del Mar manzanita that have been grown in the greenhouse can be planted directly into the mitigation site. It should be noted that Del Mar manzanita is shade intolerant and can be replaced by taller stature species (USFWS 2010), so care should be made to pick the permanent transplant sites in an area that would not receive overt competition from neighboring trees or large shrubs, and in general has a northerly slope aspect.

To avoid competition from invasive weed species, all designated planting sites should either be mowed or chemically treated prior to planting the Del Mar manzanita. To maximize potential for successful establishment, planting should occur in the fall, prior to the onset of winter rains.

The greenhouse container Del Mar manzanita should be watered heavily 1 to 2 days prior to translocation and planting. The Del Mar manzanita should be transported to the receiver site in an enclosed truck. A hole should be dug at least twice the diameter of the mature Del Mar manzanita root ball and 6 inches deeper than the height of the root collar to the lowest root of the root ball. This would create a basin around the plant once the soil is backfilled and compacted around the plant to act as a catchment system for supplemental watering. The basin created in the soil would allow the water to percolate down through the soil and remain next to the base of the plant, enabling to newly planted Del Mar manzanita greater uptake of water into the root system.

Once the hole is excavated to the acceptable width and depth, the hole should be filled with water. Once the water is absorbed, the Del Mar manzanita container plants can be installed. Keep intact as much soil around the root ball as possible, thereby reducing the chance of losing the soil around the root mass and minimizing the exposure of the root system to air and heat.

It is unknown how large the newly propagated cutting would be at the time of transplantation. The hole for planting should be formed using similar dimensions as for mature Del Mar manzanita; that is, twice the diameter of the container (possibly 15 gallon sized) and only 3-inches deeper than the root collar to the lowest of the newly formed roots.

Supplemental watering should occur frequently during in the first three months to prevent extensive dry out periods for the newly transplanted Del Mar manzanita. Recommended watering frequency is once a week for the first month and then once every other week for the next 2 months. After the first three months, plants would be watered monthly through the first year, and then quarterly in years 2 through year 3 as needed. If plants are healthy, watering would be suspended in year 3 to confirm that the population is established well enough to survive on its own.

6.5.3 Native Seed Application

The seed mixes shown in Tables 5–7 would be applied after initial container planting is complete. Labels for each seed delivered to the restoration area would be inspected and approved by the Project Biologist prior to mixing and application. Seed application would consist of hydroseeding, hand broadcast, and/or raking into the soil. If some species are not available at the time of seeding, they may be acquired when available and hand broadcast at a later date.

All seeds would be clearly labeled showing type of seed, test date, the name of the supplier, and percentages of the following: pure seed, crop seed, inert matter, weed seed, noxious weeds, and total germination content. All material would be delivered to the restoration area in original, unopened containers bearing the provider's guaranteed analysis. If seed needs to be stored temporarily, all seed mixes would be stored in a dark, cool, and dry storage location.

Application of seed from October to the end of December is ideal for allowing establishment during the cooler and wetter time of the year. However, seed application timing may be modified as directed by the Project Biologist to avoid loss in storm flow events or to take advantage of predicted rain events.

Diegan coastal seed/chaparral mix would be placed throughout the restoration area, as shown in Figure 6. Some areas may be hydroseeded as part of the SWPPP requirements associated with the project. If this is the case, the seed and slurry mixture should be documented in the As-Built Report.

INTENTIONALLY LEFT BLANK

7 120-Day Plant Establishment Period

During the first 120 days following completion of installation, the Restoration Contractor would be responsible for the health and mortality of the installed plant material. The Project Biologist would visit the restoration area at 30, 60, 90, and 120 days during this plant establishment period (PEP). At the 90-day visit, the Project Biologist would observe site conditions and seed germination and would provide a punch-list of replacement plants for the Restoration Contractor. Generally, plants would be recommended for in-kind replacement; however, the Project Biologist may recommend alternative species if it is suspected that the site is unsuitable for certain species. Plants noted for replacement would be installed prior to the 120-day walk-through with the Project Biologist. Plants must be in the ground at least 30 days prior to completion of the PEP. At the 120-day PEP, the Restoration Contractor is responsible for guaranteeing that the installed plant material would have a 100% survival rate. As a part of this period, the Restoration Contractor who performs the installation is contractually obligated to guarantee their workmanship and perform remedial measures to fix any observed problems as necessary before the 120-day PEP is considered complete and the work transitions into the 5-year maintenance and monitoring period. The following criteria must be met for the 120-day PEP to be considered successful:

1. Areas should be relatively free of weeds (0% cover of California Invasive Plant Council Inventory weed species and less than 10% cover of all other weed species).
2. Areas free of debris.
3. No erosion or trash.
4. 100% survivorship of container plants.

A PEP schedule is shown in Table 12.

Table 12. Plant Establishment Period Maintenance Schedule

Work Task	1–30 Days	31–60 Days	61–90 Days	91–120 Days
Weed abatement	X	X	X	X
Plant replacement	As needed	As needed	As needed	As needed
Supplemental water	X	X	X	X
Erosion control	X	X	X	X
Pest and herbivory control	X	X	X	X
Site cleanup and maintenance	X	X	X	X

INTENTIONALLY LEFT BLANK

8 5-Year Maintenance Plan

Maintenance activities would begin upon completion and approval of installation work. The Restoration Contractor's maintenance activities would be performed as indicated herein and as necessary to meet the established performance standards.

8.1 Maintenance Activities and Schedule

Maintenance activities would be directed by the Project Biologist to correct any deficiencies. Following installation, during the first year following completion of installation, general site visits would be conducted monthly; Years 2 and 3 would be conducted monthly for January through June and quarterly thereafter; and Years 4 and 5 would be quarterly monitoring. Regardless of the schedule below, more frequent monitoring would be conducted if needed to meet the performance standards indicated herein. A schedule is shown in Table 13.

Table 13. Five-Year Maintenance Schedule[a]

Task[a]	Year 1	Year 2	Year 3	Year 4	Year 5
Weed and Pest Control[b]	Monthly	Monthly (Jan–June); quarterly thereafter	Monthly (Jan–June); quarterly thereafter	Quarterly	Quarterly
Plant Replacement[c]	As Needed; conducted in Oct–Dec	As needed; conducted in Oct–Dec	As needed; conducted in Oct–Dec	As needed; conducted in Oct–Dec[c]	As needed; conducted in Oct–Dec[c]
Supplemental Water[d]	As needed	As needed	As needed	As needed[d]	As needed[d]
General Site Maintenance	Monthly	Monthly (Jan–June); quarterly thereafter	Monthly (Jan–June); quarterly thereafter	Quarterly	Quarterly
Erosion Control and Sedimentation	Monthly	Monthly (Jan–June); quarterly thereafter	Monthly (Jan–June; quarterly thereafter	Quarterly	Quarterly
Trash Removal	Monthly	Monthly (Jan–June); quarterly thereafter	Monthly (Jan–June); quarterly thereafter	Quarterly	Quarterly

Notes:

[a] Maintenance task schedule and frequency would be adjusted, as appropriate, depending on site conditions and in coordination with the Project Biologist. It is anticipated that more intensive maintenance would occur during the first few years and taper down as the work approaches Year 5.

[b] Any maintenance performed during the nesting season (January 15 through September 15) would be conducted under direction of the Project Biologist.

[c] Should extensive planting be required in Years 4 and 5, even due to unforeseen circumstances, the mitigation and monitoring program may be required to be extended.

[d] Only to be performed as needed during the first 3 years of the 5-year program, depending on site conditions. No supplemental watering would occur for 2 years prior to completion of the maintenance and monitoring period.

8.2 Weed Management

The Restoration Contractor would coordinate with the Project Biologist to identify weeds for removal as needed. Non-native plant control measures would primarily include the application of approved herbicides. Mechanical or hand control methods would be used where herbicide cannot be used, or the level of weeds does not warrant the use of herbicides. Should mechanical or hand control methods be used, weeds would be pulled and/or cut when plants are 6–12 inches tall or when they can be positively identified, and prior to the formation of seed heads.

Chemical herbicide control would be used for both annual and perennial species. Herbicide treatments must be pre-approved by the Project Biologist and applied by a licensed or certified pest control applicator. Application of herbicide would be suspended should precipitation be expected to occur within 24 hours of application and/or if wind exceeds 6 miles per hour. Specific herbicide application rates and methods would be based on manufacturer specifications and would follow the general guidelines summarized in Section 6.5.8, Weed Control.

Table 14 shows the non-native plant species that would be targeted during site preparation and maintenance, as well as potential methods for removal and control. Additional weed control information is provided in Section 6.5.8.

Table 14. Non-Native Plant Target Species and Treatments

Weed Species		Potential Control Methods				
Botanical Name	Common Name	De-Thatch	Herbicide	Hand Pull	Mowing	Cut and Treat
Brassica nigra	black mustard	X	X	X	X	
Bromus hordeaceus	softchess brome	X	X	X	X	
Bromus madritensis	compact brome	X	X	X	X	
Bromus rubens	red brome	X	X	X	X	
Carpobrotus edulis	hottentot-fig		X	X		X
Centaurea melitensis	star-thistle	X	X	X	X	
Cortaderia selloana	Pampas grass		X		X	X
Erodium botrys	broad leaf filaree	X	X	X	X	
Eucalyptus camaldulensis	river red gum		X	X		X
Eucalyptus globulus	blue gum		X	X		X
Eucalyptus spp.	eucalyptus		X	X		X
Foeniculum vulgare	sweet fennel		X	X		
Hypochaeris glabra	smooth cat's ear	X	X	X	X	X
Nicotiana glauca	tree tobacco		X		X	X
Phoenix canariensis	Canary Island date palm		X			X
Salsola tragus	tumbleweed					
Schinus terebinthifolius	Brazilian pepper tree		X			X
Sonchus oleraceus	common sowthistle	X	X	X	X	X
Tamarix ramosissima	saltcedar		X			X
Washingtonia robusta	Mexican fan palm		X			X

8.3 Pest and Herbivory Management

If any plant diseases or pests become significant enough to warrant control, the Restoration Contractor would consult with the Project Biologist along with a licensed pest control adviser for specific control measures, which would be conducted following all applicable laws, regulations, label directions, and safety precautions, as well as in coordination with the citywide Integrated Pest Management Plan. Pest control would be performed by the Restoration Contractor using the least toxic method available, such as washing pests off plants with a strong stream of water, using insecticidal soap, or installing plant protection devices.

Some herbivory (grazing and browsing) is expected to occur within the restoration area. However, the Restoration Contractor would confer with the Project Biologist if significant plant mortality and/or reduction in overall cover occurs. Remedial measures, such as browse guards (plastic fencing/wire cages) or plant collars (collars made of plastic, peat, or paper), may be installed around the base of trees and young shrub plants in affected areas to reduce plant mortality.

8.4 General Site Maintenance

Pruning or clearing of native vegetation would generally not be allowed within the restoration area except as directed by the Project Biologist. Native dead biomass and plant litter would not be removed and would be left in place unless its removal is required for a specific management objective. Native organic biomass and leaf litter provide valuable microhabitats for terrestrial invertebrates, reptiles, small mammals, and birds. In addition, the decomposition of plant material is essential for the replenishment of soil nutrients and minerals. Fertilizers would not be used unless deemed necessary by the Project Biologist to rectify a specific nutrient deficiency.

Trash would be removed from the restoration area by the Restoration Contractor on a regular basis. Trash consists of all anthropogenic materials, equipment, or debris dumped, thrown, washed, blown, or left within the restoration area.

8.5 Erosion and Sedimentation

BMPs are not anticipated to be needed after vegetation has established in the restoration area. However, temporary BMPs, such as burlap fiber rolls, silt fence, and burlap gravel bags, would be maintained as needed for proper function until the restoration area has reached Year 3, or until the Project Biologist has deemed the BMPs unnecessary. Once the restoration area is stabilized by native vegetation, the Restoration Contractor would remove and dispose of temporary BMPs. If, after Year 3, there is active erosion or sedimentation within or directly adjacent to the restoration area, the Project Biologist would use the methods and protocols set forth under Chapter 11, Adaptive Management Plan, of this Upland Restoration Plan.

8.6 Fencing and Signage

Fencing would be placed along any areas open space areas that would otherwise be accessible to the public. The location of fencing and signage, and the language for the signage, are included in the grading plans. Maintenance would include repair of fencing and signage, and replacement as needed. The Restoration Contractor would confer with the Project Biologist if it appears that maintenance needs of the restoration area indicate that changes in the specified location, materials, or methods of fencing need to be altered to meet their intent and to provide appropriate site delineation and protection.

INTENTIONALLY LEFT BLANK

9 5-Year Monitoring Ecological Performance Standards

Performance standard for vegetation cover are regarded as interim objectives designed to achieve the final mitigation goals and would be used to assess the annual progress of the mitigation program. Annual performance standards are provided to serve as a benchmark toward achieving the final success criteria and mitigation goals. These interim performance targets would be used to assess the progress of the mitigation program each year.

Monitoring would be conducted qualitatively and quantitatively by the Project Biologist to determine if the restoration area is meeting the established criteria. Table 15 summarizes the annual performance standards criteria through Year 5. If the restoration area fails to meet the performance standard in any given year, the Project Biologist would recommend remedial actions to bring the restoration area into a level of satisfactory establishment.

9.1 Performance Standards

Native cover of the restoration area is expected to be 70% or greater relative to the reference site by the end of Year 5, with native species richness of 10% or more, 10% or less absolute cover by general non-native species (such as annual weeds), and 0% absolute cover by perennial invasive species, as shown in Table 15. All non-native weed species would be controlled as part of the maintenance effort, including the high-ranked California Invasive Plant Council Inventory species. Transect data would be collected as absolute cover to capture density and stratum overlap, which can also be converted to relative cover for overall vegetation composition comparison.

A minimum survivorship of 520 Nuttall's scrub oak, 26 Del Mar manzanita, and 92 barrel cactus must be met by the end of the 5-year maintenance and monitoring period. Additionally, these individuals must have survived without supplemental water for at least two years.

Table 15. Summary of Annual Performance Standards and Success Criteria

Year	Native Species Richness (Count)	Native Species Plant Cover (Relative to the Reference Site) (Percent)[a]	Container Plant Percent Survival	Maximum Percent Total Non-Native Cover	Maximum Percent Perennial Invasive and Cal-IPC Inventory Species
1	5	20	100	20	0
2	6	30	90	20	0
3	7	50	80	10	0
4	9	60	80	10	0
5	10	70	80	10	0

Notes: Cal-IPC = California Invasive Plant Council.

[a] In-kind natural recruitment of native vegetation through seedling germination can serve to compensate for container plant mortality.

9.2 Reference Sites

Three reference sites would be identified from within adjacent areas with which to compare with restoration area conditions. One reference site would consist of Diegan coastal sage scrub habitat, one would consist of scrub oak chaparral, and one would consist of southern mixed chaparral habitat. The City of San Diego must review and approve reference sites to be used. A justification for the selected reference sites and limitations for comparisons to reference sites (relative, not direct, comparisons) would be provided in the first annual monitoring report. The reference sites would be used to determine if progress of the restoration area is consistent with response of the reference sites to prevailing weather and environmental conditions.

10 5-Year Monitoring Plan

The Project Biologist would perform restoration area monitoring during implementation through Year 5 to ensure the mitigation program requirements are adhered to, to document the mitigation effort and progress toward the annual performance standards, and to ensure that site maintenance is being adequately performed by the Restoration Contractor.

Monitoring would consist of qualitative monitoring and quantitative (transect) monitoring. The monitoring methods for the mitigation program would be conducted as outlined below.

10.1 Monitoring and Reporting Schedule

Monitoring would consist of monthly qualitative site visits for the 120-day PEP and Year 1, monthly for Years 2–3 for January through June; and quarterly for Years 4 and 5 (Table 16). Qualitative monitoring would be conducted by the Project Biologist to determine if the site is on trajectory to meet the annual performance standards. If mitigation efforts fail to meet the performance standards in any given year, the Project Biologist would recommend remedial actions to bring the restoration area into alignment with the performance standards.

Table 16. Monitoring and Reporting Schedule

Task	120-Day PEP	Year 1	Year 2	Year 3	Year 4	Year 5
Qualitative Monitoring	At 30-, 60-, 90-, and 120-day PEP	Monthly	Monthly (Jan–June); quarterly thereafter	Monthly (Jan–June); quarterly thereafter	Quarterly	Quarterly
Quantitative (Transect) Monitoring	N/A	Annually in spring	Annually in spring	Annually in spring	Annually in spring	Annually in spring
Reporting	As-built; site observation; 120-day PEP	Site observation annual (Jan)	Site observation; annual (Jan)	Site observation; annual (Jan)	Site observation; annual (Jan)	Site observation; annual (Jan)

Note: PEP = plant establishment period; N/A = not applicable.

10.2 As-Built Report

Within 45 days of successful completion of the installation of hydroseed, the Project Biologist would submit a post-construction memorandum to the City of San Diego MMC and Parks and Recreation Open Space Division documenting the completion of the irrigation installation, container plant installation, and hydroseed application describing the “as-built” conditions of the restoration area. The report would include a copy of the reduced set of construction drawings and a figure showing the final “as-built” limits of the restoration area. Photographs would be included in the “as-built” report to document the site at the completion of the initial phase of implementation. The As-Built Report would include the following:

- Date(s) work was initiated and completed.
- Summary of compliance work completed during implementation.

- Color photographs (including maps of photo points) taken at the restoration area before and after construction.
- One copy of the "as-built" drawings for the restoration area.
- Schedule for future monitoring and reporting.

10.3 120-Day Plant Establishment Period and Report

Initial survival of the native plants installed within the restoration area would be evaluated after a 120-day PEP. This period would start after planting is completed and conclude after the 120-day period and upon the acceptance of successful establishment of the restoration area.

The Restoration Contractor would be responsible for the health and mortality of the installed plant material. The Project Biologist would visit the restoration area at 30, 60, 90, and 120 days during the PEP. The Project Biologist would coordinate with the Restoration Contractor to replace any native plants that have died during the PEP. Generally, plants would be recommended for in-kind replacement; however, the Project Biologist may recommend alternative species if it is determined that the site is unsuitable for certain species. Plants noted for replacement would be installed prior to the 120-day walk-through with the Project Biologist. Plants must be in the ground at least 30 days prior to completion of the PEP.

The following criteria must be met for the 120-day PEP to be considered successful, the results of which would be documented in the 120-day PEP report:

- All target exotics removed or killed in place.
- Areas free of debris and trash.
- Areas free of erosion.
- 100% survivorship of container plants.

The 5-year maintenance and monitoring program would begin after the 120-day PEP has been accepted. Maintenance activities would be conducted concurrent with the installation, would continue throughout the initial PEP, and would conclude at the end of the 5-year maintenance and monitoring period.

10.4 Qualitative Monitoring

Qualitative monitoring of the restoration area would include native container plant health and vigor, need for replacement planting, seed germination, plant pests, level of non-native plant infestation, site disturbance, wildlife usage, need for erosion repair, and need for trash removal. Any recommended remedial measures would be reported to Green Phair Scripps Partners LLC and the Restoration Contractor for immediate consideration and implementation.

Following each site visit, the Project Biologist would generate a brief Site Observation Report indicating the condition of the site and any maintenance and/or remedial actions needed to help ensure the mitigation program meets its annual performance goals. Although no focused wildlife surveys would be conducted, wildlife usage would be documented. Copies of the Site Observation Report would be provided to Green Phair Scripps Partners LLC and the Restoration Contractor.

10.5 Quantitative Monitoring

Quantitative monitoring would be used to assess vegetation establishment and within the restoration areas. Annual quantitative monitoring would be conducted in the spring of each monitoring year to record as many species as possible. Restoration and reference transect locations would be established by the Project Biologist during the first year after installation completion in representative locations. The goal of the transect placement is to capture data "representative" of the larger context the transect results are meant to represent. The specific placement of the individual transect would be randomized within a given vegetation community to control for bias; however, the general representative area of the vegetation community would be determined by the Project Biologist. Because the installed restoration areas do not exist at the time of this Upland Restoration Plan development, it cannot yet be determined which specific areas within a given vegetation community polygon are representative of that vegetation community. It is for this reason that exact transect locations would be determined by the Project Biologist, in the field, following installation completion. At a minimum, two transects per acre of restoration area would be established, proportioned by as-built mitigation acreages. Additional transects may be added if necessary.

In addition to quantitative monitoring of the restoration areas, two permanent transects within the reference site would be established adjacent to the restoration area and monitored in Years 1, 3, and 5, following the same methods as the restoration area (outlined below).

Transect beginning and end points would be permanently marked by two 4-foot metal T posts driven into the ground, and GPS coordinates recorded for each position. Transects would be sampled using the point-intercept method, which is a modification of the line-intercept method (Canfield 1941). To collect data, a transect tape would be run between two posts 25 meters (82 feet) apart (or an appropriate length determined by the Project Biologist based on spatial feasibility of the polygon). A vegetative intercept line would be visually projected above and below the tape at every 0.5-meter (1.6-foot) mark for a total of 50 intercepts per transect for a 25-meter transect. Each herb, shrub, and tree that intercepts the projected line would be recorded by species. Due to the potential for vegetation to overlap in each strata layer at a given sample point, more than one plant may be recorded per sample point. This can result in a greater number of plant occurrences recorded than total number of sampling points. To address this overlap, data would be recorded as "absolute cover" in addition to "relative cover." All species occurring within a 4-meter (13-foot) species richness belt, 2 meters (6.6 feet) on either side of the transect tape, would be recorded for inclusion in species richness data.

Native cover, non-native cover, and species richness would be calculated for the restoration area and compared to the success criteria annually. All data would be used to determine total percent plant cover, percent native cover, percent non-native cover, and overall species richness. Quantitative monitoring would be conducted once annually in the spring beginning in Year 1 and extending through Year 5 of the mitigation program. Data regarding native cover for the restoration areas and reference sites would be averaged for the purpose of comparison. This would allow the restoration areas to be compared to healthy native vegetation communities while accounting for natural fluctuations between years.

Permanent photo-documentation stations would be established along each transect to record the progress of quantitative data collection over the 5-year period. Additionally, photographs would be taken of any significant management issues or biological observations, including photographs of changing conditions within the restoration area. Photos from photo-documentation points and mapped locations would be included in annual reports.

10.6 Annual Mitigation Monitoring Reports

An annual biological monitoring report outlining the results of the progress of the restoration area would be prepared by the Project Biologist and submitted to Green Phair Scripps Partners LLC and the City of San Diego MMC and Parks and Recreation Open Space Division at the end of each year on the anniversary date of completion of installation. The annual monitoring reports would describe the existing conditions of the restoration area derived from qualitative and quantitative data, provide a comparison of annual performance standards with field conditions, identify all shortcomings of the mitigation program, and recommend remedial measures and/or adaptive management necessary for the successful completion of the mitigation program. Each annual report would provide a summary of the accumulated data.

11 Adaptive Management Plan

An integral part of a successful compensatory mitigation program is early detection of problems determining the cause(s) of those problems and attempting to correct those problems so that the compensatory mitigation program achieves its objectives and ecological performance standards. If annual performance guidelines are not met for any given year in the 5-year mitigation period and/or if the mitigation program experiences a significant unexpected problem, the Project Biologist would prepare an analysis of the cause(s) of failure and shall propose remedial actions in the annual report.

Adaptive management measures would include the use of qualitative data gathered in the field prior to and throughout the monitoring period to assess the effects of weeding maintenance, status of seed germination, and container plant health and cover within the restoration area. Following an event that causes damage to all or part of the restoration area, this data would be used in part to drive management considerations for the repair of damaged areas. Achieving the key goals of the mitigation program and establishing a naturally functioning native habitat would be the focus of all adaptive management decisions.

If determined necessary, the Project Biologist, in consultation with Green Phair Scripps Partners LLC and the City of San Diego, would prepare an analysis of the program's problems and propose remedial actions to correct the problems in order to meet the performance standards at the end of the 5-year maintenance and monitoring period. The maintenance and monitoring obligations would continue and/or alternative contingency measures and interim performance standards would be negotiated until the City of San Diego give final permit compliance/approval or approval for alternative compensation measures. If it is decided that an alternative location is required to complete compensatory mitigation requirements, then Green Phair Scripps Partners LLC would coordinate with the City of San Diego, depending on the location of the underperforming areas, to locate an approved site.

Individual environmental stressors are discussed below, along with an anticipated range of management responses to correct any damage that may occur to the restoration area.

11.1 Drought

Seasonal drought is a normal annual cycle in San Diego County. The seed mix has been designed with drought-tolerant plant species that are capable of withstanding seasonal fluctuations in available moisture. However, periods of extended drought could occur, including low seasonal rainfall and prolonged high temperatures that may negatively affect the restoration area (e.g., lower native cover, higher plant mortality, increased potential for pest infestations on site).

If drought conditions limit native vegetation development, an additional seed application may be considered to replenish the native seed bank to allow the restoration area to respond normally with the eventual return of rainfall and more favorable site conditions.

11.2 Herbivory

As discussed in Section 8.3, Pest and Herbivory Management, some grazing and browsing by native herbivores is expected to occur. The plant palettes for each vegetation community have been designed to tolerate a moderate

level of plant browsing. If browsing levels should become elevated (i.e., if significant plant mortality and cover reduction occurs) as indicated by qualitative monitoring of the restoration area, remedial measures would be implemented. Browse guards and plant collars may be installed around the base of trees and young shrub plants in affected areas to reduce plant mortality. In addition, remedial planting or seeding may be necessary, depending upon the stage of the mitigation program.

11.3 Fire

San Diego County experiences periodic wildfires on a regular basis. Vegetation communities native to the area are adapted to this periodic fire regime, with plant species possessing the ability to stump, sprout, or otherwise regenerate from underground plant material. Although fire is a co-evolutionary factor, it also presents the possibility for faster-growing, early successional non-natives to out-compete the recovering native species. In the event of fire affecting the restoration area, the Project Biologist would assess the post-fire conditions and provide adaptive management recommendations, including an increase in weed control management.

12 Financial Assurances

As owner and permittee of the mitigation program, Green Phair Scripps Partners LLC is financially responsible for implementation and management of the mitigation program. Costs include planning and design, construction, and interim maintenance and monitoring through the 5-year maintenance and monitoring period. Financial assurance in the form of performance bonds would be provided to cover the cost to construct and implement the mitigation program and monitor and maintain the mitigation program until formal acceptance by the City of San Diego. The same funding source established by Green Phair Scripps Partners LLC would be available to complete the compensatory mitigation program, to provide alternative compensatory mitigation, and/or for use by a third party to complete required tasks, should the initial mitigation effort fail to be successful.

INTENTIONALLY LEFT BLANK

13 Completion of Mitigation

At the end of the fifth year, the final annual monitoring report would be submitted to the City of San Diego MMC and Parks and Recreation Open Space Division, including an evaluation of mitigation program success. The report would make a determination as to whether the requirements and performance standards of the mitigation program have been achieved. Successful mitigation would be considered to have been achieved when the restoration area is self-sustaining without supplemental irrigation or any substantial remedial activities for a minimum of 2 years. Following attainment of final performance standards, a vegetation mapping effort would be conducted to document site conditions and be included in the final annual report.

At the conclusion of the 5-year maintenance and monitoring period, or at such time that the mitigation program has achieved the performance standards, the Project Biologist would inform the applicant and the City of San Diego MMC and Parks and Recreation Open Space Division and request final sign-off/approval. A site review would be scheduled for all interested parties to review the restoration area to confirm final conditions. Upon verbal and/or preferably written confirmation of mitigation program success by the City of San Diego, the City would release Green Phair Scripps Partners LLC of all obligations associated with the 5-year maintenance and monitoring program.

INTENTIONALLY LEFT BLANK

14 Long-Term Management

The overall goal of long-term management is to promote long-term viability of the mitigation area's resources and surrounding habitat. Routine monitoring and minor maintenance tasks are included herein to ensure the viability of the restoration area in perpetuity.

Green Phair Scripps Partners LLC is the initial Restoration Contractor responsible for completion of the 5-year maintenance and monitoring period. Upon successful completion of the 5-year maintenance and monitoring period, and inspection and approval of site conditions to the satisfaction to the City of San Diego MMC and Parks and Recreation Open Space Division, upland mitigation areas would be dedicated to the City in fee title as separate lot parcels and would transfer management responsibilities to the City of San Diego Parks and Recreation Open Space Division. The Permittee shall provide funding to the City to complete ongoing long-term maintenance and monitoring outlined in the long-term management plan (Dudek 2023c) based on a property analysis record or equivalent analysis. As noted above, some upland restoration areas (particularly in the northwest corner of the project) will be retained in HOA ownership and while they will be restored in accordance with this plan, these areas are not included in mitigation credit acreages. For additional information, see the BTR (Dudek 2023a), the City of San Diego MSCP Subarea Plan (City of San Diego 1997), and the Long-term Management Plan (Dudek 2023c).

INTENTIONALLY LEFT BLANK

15 References

AGS (Advanced Geotechnical Solutions Inc.). 2020. *Preliminary Geotechnical Investigation and 50-Scale Tentative Map Review Renulli Estates 11495 Cypress Canyon Road San Diego, California*. Report No. 1902-06-B-5.

Bowman, R.H. 1973. *Soil Survey, San Diego Area, California, Part 1*. U.S. Department of Agriculture, Soil Conservation Service and Forest Service. December 1973. http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA638/0/part1.pdf.

Calflora. 2020. *The Calflora Database. Information on Wild California Plants*. Berkeley: Calflora. Accessed September 14, 2020. http://www.calflora.org.

Canfield, R.H. 1941. "*Application of the Line Interception Method in Sampling Range Vegetation*." Journal of Forestry 39:388–394.

City of San Diego. 1997. *City of San Diego MSCP Subarea Plan. Prepared by the City of San Diego Community and Economic Development Department*. March 1997. http://www.sandiego.gov/planning/programs/mscp/docsmaps/index.shtml.

City of San Diego. 2018a. *San Diego Municipal Code, Land Development Code—Biology Guidelines*. Amended February 1, 2018, by Resolution No. R-311507. https://www.sandiego.gov/sites/default/files/amendment_to_the_land_development_manual_biology_guidelines_february_2018_-_clean.pdf.

City of San Diego. 2018b. *The City of San Diego Storm Water Standards*. October 1, 2018. https://www.sandiego.gov/sites/default/files/storm_water_standards_manual_oct_2018.pdf.

Dudek. 2023a. *Biological Technical Report for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Dudek. 2023b. *Wetland Mitigation Plan for the Renzulli Estates Project City of San Diego, California* City of San Diego Project Number 664017. October 2023.

Dudek. 2023c.*Long-term Management Plan for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Emery DE. 1988. Seed propagation of native California plants. Santa Barbara, California: Santa Barbara Botanical Garden. 115 p.

Google Earth. 2020. Aerial Photographs. 1:200 scale.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Nongame-Heritage Program, California.

Hunsaker & Associates. 2023. *Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP*). May 2023.

Keeley JE. 1991. Seed germination and life history syndromes in the California chaparral. Botanical Review 57(2): 81–116.

Meyer, S.E. 2008. Arctostaphylos Adans. The Woody Plant Seed Manual. USDA Agriculture Handbook. 727: 266-269.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California*," by R.F. Holland, PhD, October 1986. March 2008.

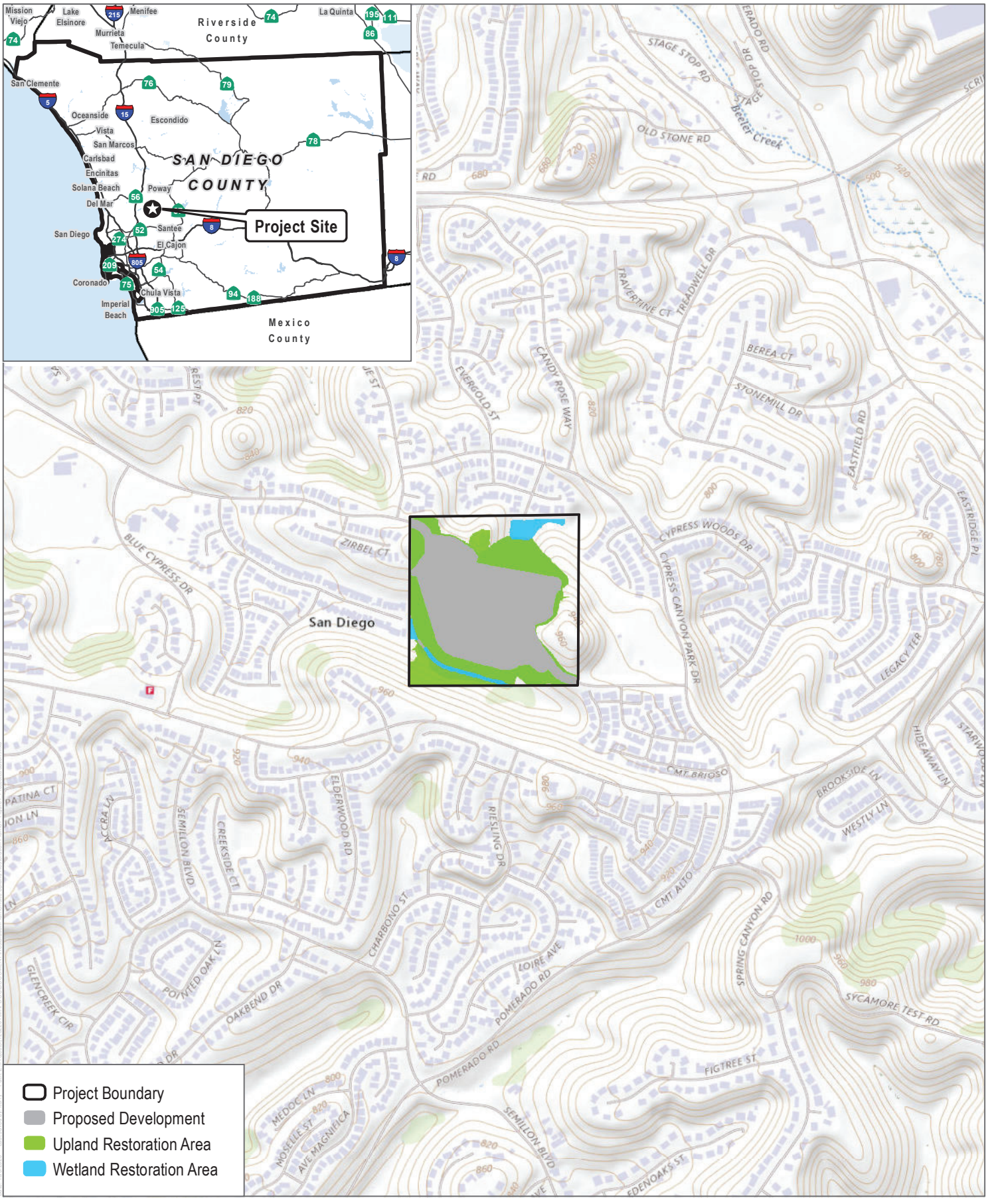
USDA (U.S. Department of Agriculture). 2008. "*Arctostaphylos Adans*." Prepared by S.E. Meyer. In *The Woody Plant Seed Manual*. USDA Agriculture Handbook. 727: 266–269.

USDA. 2021a. *Web Soil Survey*. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed January 2021. http://websoilsurvey.nrcs.usda.gov/.

USDA. 2021b. "*State Soil Data Access (SDA) Hydric Soils List*." Accessed January 2021. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1389479.html#reportref.

USFWS (U.S. Fish and Wildlife Service).2010. *Arctostaphylos glandulosa subsp. Crassifolia (Del Mar manzanita) 5-Year Review: Summary and Evaluation. August 13, 2010*. https://www.fws.gov/carlsbad/SpeciesStatusList/5YR/20100813_5YR_ARGLCR.pdf.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. California's Wildlife. Vol. I–III. *Updated in the California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento: California Department of Fish and Game*. https://www.wildlife.ca.gov/Data/CWHR.



SOURCE: ESRI MAPPING SERVICE; USGS TOPO

DUDEK

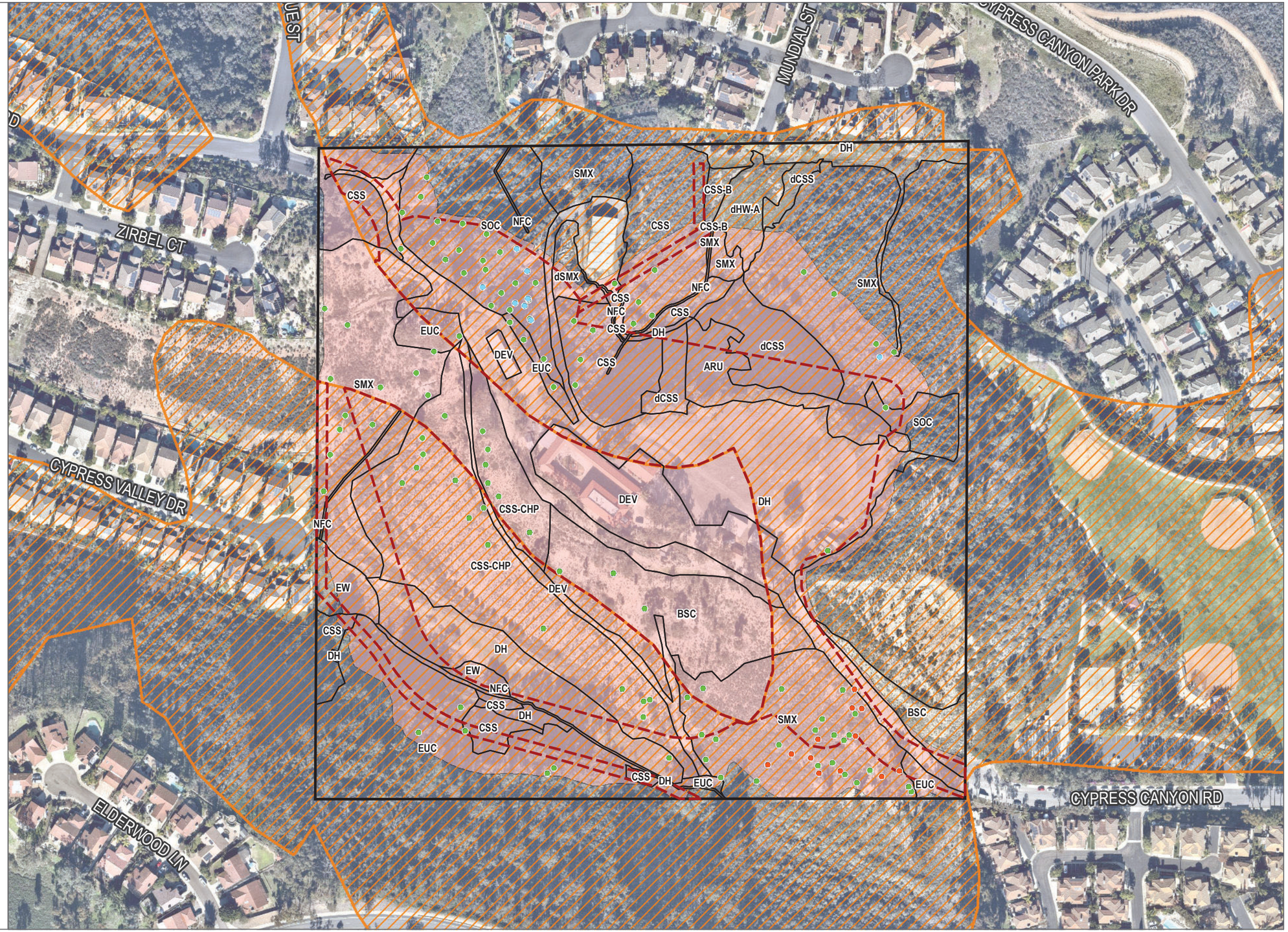
0 500 1,000 Feet
0 250 500 Meters
1:12,000

FIGURE 1

Project Location

Upland Restoration Plan for the Renzulli Estates Project

- Project Boundary
- Impacts
- MHPA Boundary (33.38 acres On-site)
- Proposed MHPA Removal Area
- Existing Vegetation Communities
  - ARU : Arundo-Dominated Disturbed Habitat
  - BSC : Flat-topped Buckwheat
  - CSS : Diegan Coastal Sage Scrub
  - CSS-B: Diegan Coastal Sage Scrub (Baccharis-dominated)
  - CSS-CHP: Coastal Sage-Chaparral Transition
  - DEV : Developed
  - DH : Disturbed Habitat
  - EUC : Eucalyptus Woodland
  - EW : Emergent Wetland
  - NFC : Natural Flood Channel
  - SMX : Southern Mixed Chaparral
  - SOC : Scrub Oak Chaparral
  - dCSS : Diegan Coastal Sage Scrub
  - dHW-A: Disturbed Herbaceous Wetland (Artificial)
  - dSMX : Southern Mixed Chaparral
- Del Mar manzanita *(Arctostaphylos glandulosa ssp. crassifolia)*
- San Diego barrel cactus *(Ferocactus viridescens)*
- Scrub oak *(Quercus dumosa)*



SOURCE: SANGIS IMAGERY 2020, SANGIS 2023

DUDEK

0 100 200 Feet

FIGURE 2

Proposed Project Impacts

Upland Restoration Plan for the Renzulli Estates Project

- Project Boundary
- Proposed Development Area
- MHPA Boundary (Post-BLA)
- Upland Restoration Area
- Wetland Restoration Area



SOURCE: SANGIS IMAGERY 2020; SANGIS 2023

DUDEK

0 100 200 Feet

FIGURE 3

On-Site Restoration Areas Post Boundary Line Adjustment

Upland Restoration Plan for the Renzulli Estates Project



SOURCE: Bing Maps 2021, USDA 2020

DUDEK

0 250 500 Feet

FIGURE 4

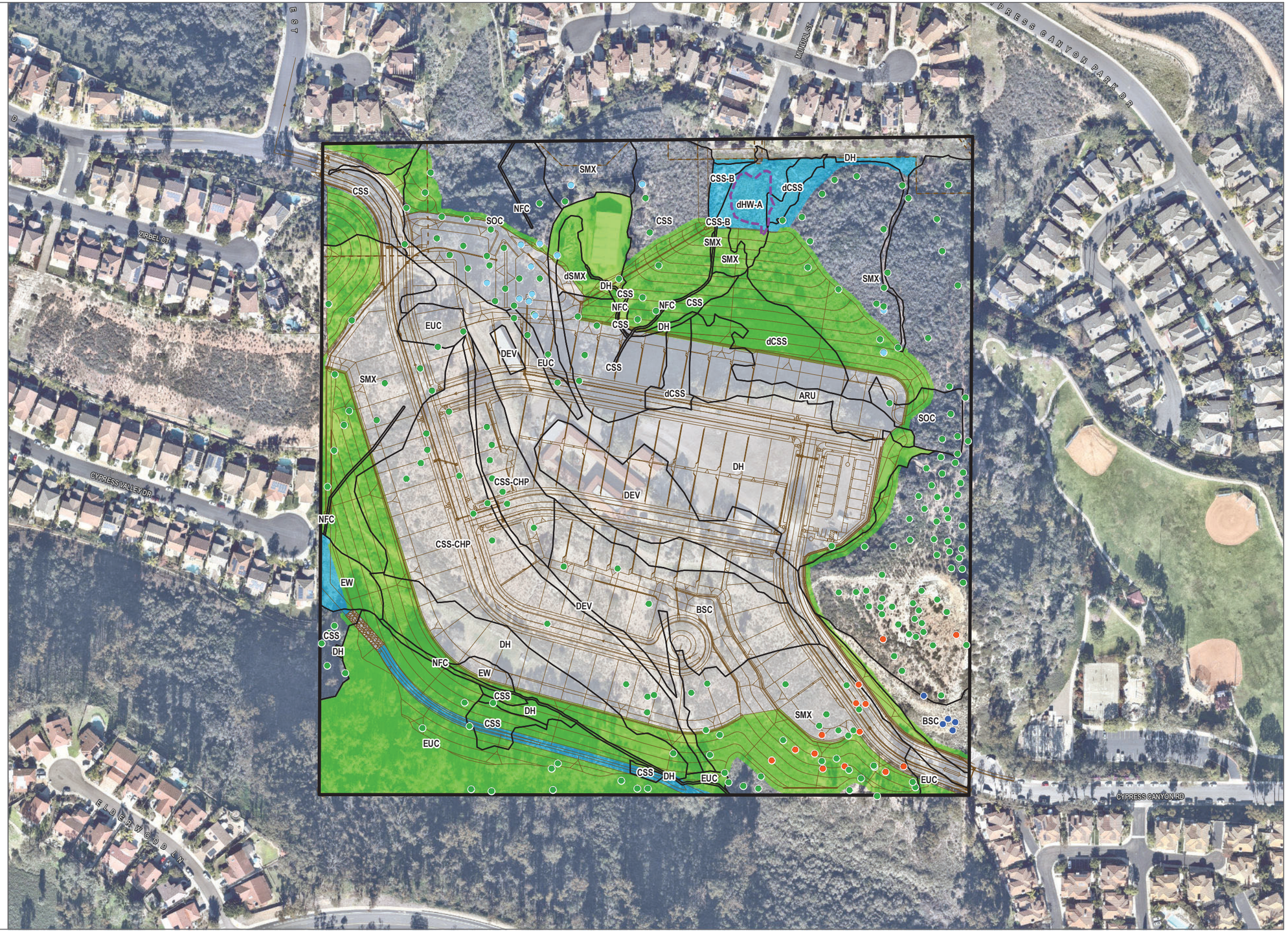
Existing Soils

Upland Restoration Plan for the Renzulli Estates Project

- Parcel Boundary
- Upland Restoration Area
- Wetland Restoration Area
- Proposed Development Area
- Existing Vegetation Communities
  - ARU : Arundo-Dominated Disturbed Habitat
  - BSC : Flat-topped Buckwheat
  - CSS : Diegan Coastal Sage Scrub
  - CSS-B: Diegan Coastal Sage Scrub (Baccharis-dominated)
  - CSS-CHP: Coastal Sage-Chaparral Transition
  - DEV : Developed
  - DH : Disturbed Habitat
  - EUC : Eucalyptus Woodland
  - EW : Emergent Wetland
  - NFC : Natural Flood Channel
  - SMX : Southern Mixed Chaparral
  - SOC : Scrub Oak Chaparral
  - dCSS : Diegan Coastal Sage Scrub
  - dHW-A: Disturbed Herbaceous Wetland (Artificial)
  - dSMX : Southern Mixed Chaparral

Existing Special Status Plants

- Coulter's goldfields *(Lasthenia glabrata ssp. coulteri)*
- Del Mar manzanita *(Arctostaphylos glandulosa ssp. crassifolia)*
- San Diego County viguiera *(Bahiopsis laciniata)*
- San Diego barrel cactus *(Ferocactus viridescens)*
- Scrub oak *(Quercus dumosa)*



SOURCE: SANGIS IMAGERY 2022, DEVELOPMENT-HUNSAKER 2023

DUDEK

0 80 160 Feet

FIGURE 5

Existing Vegetation Communities and Special Status Plants

Upland Restoration Plan for the Renzulli Estates Project

- Parcel Boundary
- Proposed Development Area
- Existing Vegetation Communities
  - ARU : Arundo-Dominated Disturbed Habitat
  - BSC : Flat-topped Buckwheat
  - CSS : Diegan Coastal Sage Scrub
  - CSS-B: Diegan Coastal Sage Scrub (Baccharis-dominated)
  - CSS-CHP: Coastal Sage-Chaparral
  - DEV : Developed
  - DH : Disturbed Habitat
  - EUC : Eucalyptus Woodland
  - EW : Emergent Wetland
  - NFC : Natural Flood Channel
  - SMX : Southern Mixed Chaparral
  - SOC : Scrub Oak Chaparral
  - dCSS : Diegan Coastal Sage Scrub
  - dHW-A: Disturbed Herbaceous Wetland (Artificial)
  - dSMX : Southern Mixed Chaparral

Upland Restoration Plan

- CSS Creation Area (5-year)
- SMX Enhancement Area (5-year)
- CSS Restoration Area (5-year)
- CSS-CHP Restoration Area (5-year)
- SMX Restoration Area (5-year)
- SOC Restoration Area (5-year)
- Restored Manufactured Slope-No Credit (25-months)

Wetland Restoration Plan

- Wetland Restoration Area (See Wetland Restoration Plan for details)



SOURCE: SANGIS IMAGERY 2022, DEVELOPMENT-HUNSAKER 2023

DUDEK

0 90 180 Feet

FIGURE 6

Conceptual Upland Restoration Plan

Upland Restoration Plan for the Renzulli Estates Project

Appendix K

On-Site Wetland Restoration Plan for the Renzulli Estates Project

On-Site Wetland Mitigation Plan

Renzulli Estates Project
City of San Diego, California
City of San Diego
Project Number 664017

OCTOBER 2023

Prepared for:

GREEN PHAIR SCRIPPS PARTNERS LLC
945 East J Street
Chula Vista, California 91910
Contact: Austin Dias

Prepared by:

DUDEK

605 Third Street
Encinitas, California 92024
Contact: Erin McKinney

Printed on 30% post-consumer recycled material.

Table of Contents

SECTION **PAGE NO.**

Acronyms and Abbreviations v

Executive Summary vii

1 Project Description 1
- 1.1 Responsible Parties 1
- 1.2 Project Background 1

2 Objectives 3
- 2.1 Target Functions and Values 3
- 2.2 Project Impacts to Jurisdictional Resources 3
  - 2.2.1 Jurisdictional Wetlands and Streambeds 3
  - 2.2.2 Special-Status Plant Species 4
  - 2.2.3 Special-Status Wildlife Species 5

3 Site Selection Criteria 7

4 Baseline Information 9
- 4.1 Hydrology 9
- 4.2 Soil Conditions 9
- 4.3 Existing Vegetation 10
  - 4.3.1 Diegan Coastal Sage Scrub (Including Disturbed) 10
  - 4.3.2 Diegan Coastal Sage Scrub (*Baccharis*-dominated) 11
  - 4.3.3 Disturbed Habitat/Land 11
  - 4.3.4 Emergent Wetland 11
  - 4.3.5 Herbaceous Wetland (Artificial) Emergent Wetland 12
  - 4.3.6 Natural Flood Channel 12
  - 4.3.7 Southern Mixed Chaparral 13
- 4.4 Special-Status Plant Species 13
- 4.5 Existing Wildlife 14
  - 4.5.1 Cooper's Hawk 14
  - 4.5.2 San Diegan Tiger Whiptail 14
  - 4.5.3 Coastal California Gnatcatcher Focused Survey Results 14

5 Determination of Mitigation Credits 15

6 Site Protection Measures 17

7 Mitigation Work Plan 19
- 7.1 Project Implementation Personnel 19

7.1.1 Permittee/Project Manager 19
7.1.2 Project Biologist 19
7.1.3 Restoration Contractor 19
7.1.4 Seed Supplier 20
7.2 Preliminary Design and Engineering 20
7.3 Site Preparation 20
7.3.1 Seed Collection 20
7.3.2 Grading 21
7.3.3 Irrigation Source 22
7.3.4 Erosion Control Best Management Practices 22
7.3.5 Weed Control 22
7.3.6 Avoidance and Minimization Measures 24
7.3.7 Fencing and Signage 24

8 Implementation Installation 25
8.1 Plant Palette 25
8.2 Container Plant Installation 26
8.3 Native Seed Application 26

9 120-Day Plant Establishment Period 29

10 5-Year Maintenance Plan 31
10.1 Weed and Pest Control 31
10.2 General Site Maintenance 32
10.3 Erosion and Sedimentation 32
10.4 Fence and Signage Maintenance 32

11 5-Year Monitoring Ecological Performance Standards 33
11.1 Streamed/Non-Wetland Waters 33
11.2 Jurisdictional Evaluation at the End of Year 5 34
11.3 California Rapid Assessment Method 34
11.4 Reference Site 38

12 Monitoring and Reporting Requirements 39
12.1 Monitoring and Reporting Schedule 39
12.2 As-Built Report 39
12.3 120-Day Plant Establishment Period and Report 40
12.4 Qualitative Monitoring 40
12.5 Quantitative Monitoring 41
12.6 California Rapid Assessment Method 42
12.7 Annual Mitigation Monitoring Reporting 43

13 Adaptive Management Plan 45
13.1 Drought 45

13.2 Herbivory 45
13.3 Adverse Hydrologic Changes 45
13.4 Fire 45
14 Financial Assurance 47
15 Completion of Mitigation 49
15.1 Notification of Completion 49
15.2 Regulatory Agency Confirmation 49
16 Mitigation Site Conveyance and Preservation 51
17 Contingency Measures 53
17.1 Alternative Location for Contingency Contemporary Mitigation 53
17.2 Funding 53
18 Long-Term Management Plan 55
19 References 57

TABLES

1 Direct Impacts to Potential Jurisdictional Resources 4
2 Impacts to Coulter's Goldfields 4
3 Project Impacts to Wetland Habitat Soils within the Restoration Area 9
4 Vegetation Communities and Land Cover Types in the Project Parcel Boundary 10
5 Mitigation for Impacts to Upland Vegetation Communities within the Project Footprint 16
6 Wetland Seed Mix (Approximately 0.86 Acres) 21
7 Transitional Seed Mix (Approximately 0.17 Acres) 21
8 Weed Control Target Non-Native Plant Species and Treatments 23
9 Wetland Area Plant Palette (Approximately 0.86 Acres Total) 25
10 Transitional Container Plant Palette (Approximately 0.17 Acres Total) 25
11 Plant Establishment Period Maintenance Schedule 29
12 Maintenance Schedule 31
13 Mitigation Project Performance Standards for Streambed/Non-Wetland Waters 33
14 Summary of Riverine CRAM Attributes and Metrics and Feasibility for Improvement 35
15 Summary of Depressional CRAM Attributes and Metrics and Feasibility for Improvement 36
16 Monitoring and Reporting Schedule 39

FIGURES

1 Project Location 59
2 Watershed and Jurisdictional Boundaries 61
3 Proposed Project Impacts to Wetlands 63
4 On-Site Restoration Areas Post Boundary Line Adjustment 65
5 Existing Soils 67
6 Existing Vegetation Communities and Special-Status Plants 69
7 Conceptual Wetland Restoration Plan 71

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AA	assessment area
BMP	best management practice
BTR	Biological Technical Report
City	City of San Diego
CRAM	California Rapid Assessment Method
MHPA	Multi-Habitat Planning Area
MSCP	Multiple Species Conservation Program
PEP	plant establishment period
RWQCB	Regional Water Quality Control Board
project	Renzullii Estates Project

INTENTIONALLY LEFT BLANK

Executive Summary

This Wetland Restoration Plan addresses the proposed on-site compensatory mitigation (mitigation project) including creation, restoration (rehabilitation), and enhancement for impacts to resources potentially under the jurisdiction of the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) associated with development of the Renzullii Estates Project (project) within the City of San Diego.

The project would involve developing a residential project on a 40.56-acre parcel at 11495 Cypress Canyon Road (Assessor's Parcel Number 319-020-0400) in the northeast section of the City of San Diego, California, south of Scripps Poway Parkway and north of Spring Canyon Road. The project is located within the Scripps Miramar Ranch Community Planning Area and is within the City's Multiple Species Conservation Program Subarea Plan. A substantial portion of the project currently overlaps with the City's Multi-Habitat Planning Area (MHPA). Therefore, a boundary line adjustment is proposed for all MHPA lands that intersect the project construction footprint, and new MHPA lands of equal or higher value will be added on the site as well as off-site. Areas of the site currently within the MHPA boundary that would be graded to construct manufactured slopes that would provide structural support to the project construction footprint, would be restored with native habitat-forming species suitable for the site and these areas would remain within the MHPA following project completion.

Based on species composition and resources observed, six native vegetation communities, six non-native vegetation communities/land cover types, and two wetland communities were mapped within the project. These included Tier II uplands: Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), coastal sage–chaparral transition, flat-topped buckwheat scrub; Tier IIIA uplands: southern mixed chaparral (including disturbed); Tier I uplands: scrub oak chaparral; and Tier IV uplands (including communities that do not meet the criteria of wetland due to artificial nature) disturbed habitat, eucalyptus woodland, urban/developed land, *Arundo*-dominated disturbed habitat, emergent wetland, herbaceous wetland (artificial), and natural flood channel.

The project site supports five special-status plant species: Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), San Diego viguiera (*Viguiera [Bahiopsis] laciniata*), San Diego barrel cactus (*Ferocactus viridescens*), Coulter's goldfields (Lasthenia glabrata ssp. coulteri), and Nuttall's scrub oak (Quercus dumosa), and two special-status wildlife species: Cooper's hawk (*Accipiter cooperii*) and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*). One special status plant, Coulter's goldfields, are located within the wetland mitigation project.

Construction of the project would result in a total of 0.59 acre of permanent impacts to jurisdictional resources, of which 0.18 acre are impacts to streambed/non-wetland waters, and 0.41 acre are to emergent and herbaceous wetlands. An additional 0.30 acre of herbaceous wetland is subject to temporary impacts from wetland restoration activities. Impacts to jurisdictional resources associated with the project are primarily a result of the development of residential units, utilities, and improvements. The wetland mitigation area are located outside the construction footprint within planned open space.

Mitigation for permanent impacts would occur through permittee-responsible mitigation within the project site. Final mitigation would be determined through consultation with the RWQCB and CDFW. This Wetland Restoration Plan represents the initial proposed to address the anticipated compensatory mitigation for impacts to RWQCB and CDFW jurisdictional resources.

Impacts to jurisdictional resources would be mitigated at 2:1 and 1:1 mitigation-to-impact ratios based on existing wetland functions and the level of avoidance/minimization provided by the project design.

This Wetland Mitigation Plan provides guidelines for the creation of 0.09 acres of streambed/non-wetland waters, 0.43 acres of emergent wetland, and 0.17 acres of transitional wetland; restoration (rehabilitation) of 0.32 acres of emergent wetland (currently mapped as herbaceous wetland); enhancement of 0.11 acres of emergent wetland; and 0.05 acres of riprap installation. A total of 0.52 acres of creation, 0.32 acres of restoration (rehabilitation), and 0.11 acre of enhancement are credited towards permittee responsible compensatory mitigation for jurisdictional resource impacts. This Wetland Restoration Plan outlines the installation, maintenance, monitoring, reporting, performance standards, financial assurances, and contingency measures in accordance with anticipated RWQCB and CDFW permit requirements.

1 Project Description

1.1 Responsible Parties

Applicant/Permittee

Green Phair Scripps Partners LLC 3330 Bonita Road
Chula Vista, California 91910
Contact: Austin Dias
Phone: 619.253.4837

Biological Consultant

Dudek
2280 Historic Decatur Road
Suite 200
San Diego, California 92106
Contact: Erin McKinney
Phone: 760.479.4189

1.2 Project Background

The Renzullii Estates Project (project) is located approximately 2.5 miles east of Interstate 15, 0.5 miles south of Scripps Poway Parkway, and 0.1 miles north of Spring Canyon Road in the northeast portion of the City of San Diego within the Los Peñasquitos Watershed (Figure 1, Project Location, and Figure 2, Watershed and Jurisdictional Boundaries). The project construction footprint currently contains an existing single-family residence and several outbuildings and are approximately 40.56 acres in total area. The project would require a vesting tentative map and a site development permit to develop a 100-unit single-family units and 12 multifamily units. In addition to the site development permit, the project would also require a community plan land use amendment to change the existing residential designation of 1.1 dwelling units per acre to 2.8 dwelling units per acre. A re-zone is also proposed to change the existing AR-1-1 zone to RX-1-2, OR-1-2, and RM-2-4. In addition, the project is located in the high fire severity overlay zone. Finally, the project would also require an Multiple Species Conservation Program (MSCP) Boundary Line Adjustment and vacation of a street easement on the proposed Multi-Habitat Planning Area (MHPA) Boundary Line Adjustment site as part of the project (i.e., Lakehurst Avenue – not yet built) (Figure 3, Proposed Project Impacts to Wetlands).

The project would include infrastructure improvements on the parcel, including installation of utilities, a private storm drain system, and internal sidewalks and roads. Impacts would occur from clearing, grading, and manufactured fill and slope creation for development of the residential pads, subdivision and associated features and infrastructure.

As part of the project, undeveloped manufactured slopes would be restored and would remain or be added into the MHPA boundary. Additionally, an off-site MHPA Boundary Line Adjustment parcel would be incorporated into the City's MHPA preserve boundary to offset the loss of MHPA areas that overlap with the project construction footprint

and other applicable development features (e.g., vegetated stormwater basins and stormwater infrastructure) from project construction (Figure 4, On-Site Restoration Areas Post Boundary Line Adjustment).

This Wetland Restoration Plan provides creation of 0.09 acres of streambed/non-wetland waters, 0.43 acres of emergent wetland, restoration (rehabilitation) of 0.32 acres or emergent wetland, and enhancement of 0.11 acres of emergent wetland, as compensatory mitigation credit to meet the anticipated jurisdictional mitigation requirement. An additional 0.17 acres of creation of transitional wetland and 0.05 acres of riprap installation are provided but are not included as compensatory mitigation for a total of 1.17 acres of wetland restoration. Habitat-based mitigation would be provided for impacts to special-status plant species present within the project.

2 Objectives

2.1 Target Functions and Values

The following are functions and services anticipated to be established at the proposed mitigation sites. The mitigation sites are located in northern portion of the parcel boundary, and the east and southern manufactured slope.

Invasive plant species reduction. The proposed mitigation project would eliminate plant species such as pampas grass (*Cortaderia jubata*), and saltcedar (*Tamarix ramosissima*), and Bermuda grass (*Cynodon dactylon*) within the mitigation sites. This would provide opportunity for growth and colonization of the acreage by native riparian species suited to the mitigation sites, as well as reducing propagules and seeds of non-native species which might otherwise be dispersed downstream.

Nutrient retention and transformation. The streambed/non-wetland water and emergent wetland, would provide trapping of nutrients, which the mitigation sites' vegetation communities can use to support growth and establishment, breaking down some of the compounds in the process.

Native riparian floodplain. The mitigation project would increase storm flow storage through jurisdictional area establishment and facilitate conveyance during precipitation events and provide a naturally functioning floodplain.

Groundwater recharge. The mitigation project would provide opportunity for water which has entered the site during a 2-year flow event to pass through the sites when velocities and depths are sufficient, or to percolate back down through the soil profile if not flowing.

Sediment trapping. The mosaic of native vegetation would support areas where overland surface flow is slowed during storm events, allowing sediment and suspended particles to settle out of the water column.

Toxicant trapping. The mitigation project toxicant trapping abilities are the same as described previously in nutrient retention and transformation.

Wildlife habitat. The mitigation project would be designed to provide habitat for common birds, invertebrates, amphibians, reptiles, rodents, and other small mammals. The mitigation sites would provide habitat for certain special-status riparian bird species.

Aquatic habitat. The mitigation project would be designed to create potential habitat for some aquatic species, such as certain amphibians and aquatic insects when surface water is present.

2.2 Project Impacts to Jurisdictional Resources

2.2.1 Jurisdictional Wetlands and Streambeds

Dudek biologists completed a formal wetland delineation in April 2020 that delineated the extent of potential jurisdictional resources in the project area and these extents were updated during follow-up surveys conducted in February 2023. The delineation defined areas under the jurisdiction of the California Department of Fish and

Wildlife pursuant to Sections 1600–1603 of the California Fish and Game Code, under the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act, under the jurisdiction of the Regional Water Quality Control Board pursuant to Clean Water Act Section 401 and the Porter–Cologne Water Quality Control Act, and wetlands defined under the City's Biology Guidelines (City of San Diego 2018a).

None of the jurisdictional resources on site are considered City wetlands due to lack of sufficient conditions to support wetland dependent vegetation anywhere along their extents (City of San Diego 2018a). In addition, based upon review of historical aerials and topography, the herbaceous wetland present in the northern section of the study area established as a result of the construction of the residential development north of the project parcel boundary, which directed runoff to this area and created conditions suitable for wetland vegetation to establish. Since this herbaceous wetland feature was created artificially, it would not be considered a City wetland (City of San Diego 2018a).

Table 1. Direct Impacts to Potential Jurisdictional Resources

Vegetation Community	Jurisdiction	Project Construction Footprint Impacts (Acres)	Additional Restoration Impacts (Acres)	Total Impacts (Acres)	No Impact (Acres)
Emergent wetland	R/C	0.31	0	0.31	0.11
Herbaceous Wetland	R	0.10	0.30	0.41	0.01
Natural flood channel	R/C	0.18	0	0.18	0.03
	Total	**0.59**	**0.30**	**0.90**	**0.15**

Notes: R = Regional Water Quality Control Board, C = California Department of Fish and Wildlife.

2.2.2 Special-Status Plant Species

One naturally occurring special-status plant was detected within the mitigation project: Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). Table 2 lists the number of individuals of each of these special status plant species that would be directly impacted by the project.

Temporary impacts to Coulter's goldfields would occur due to restoration within the artificial wetland in the northern area of the mitigation project. However, Coulter's goldfields are included in the plant palette and seed mix to provide replacement at a 1:1 ratio bringing the impact to less than significant.

Table 2. Impacts to Coulter's Goldfields

Species Common Name (Scientific Name) or Vegetation Community	Impacts	Mitigation Requirement Source
Coulter's goldfields	None/None/1B.1/None	0

Source: Dudek 2023b.

For additional information on special-status wetland plant species that would be impacted by the project and the mitigation required, refer to the BTR (Dudek 2023b).

2.2.3 Special-Status Wildlife Species

Two special-status wildlife species, Cooper's hawk (*Accipiter cooperii*) and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), were directly observed in the study area during field surveys in 2020 and are described in detail in Section 4.5, Existing Wildlife. While no coastal California gnatcatcher (*Polioptila californica*) individuals were detected during focused protocol surveys in 2020, a coastal California gnatcatcher California Natural Diversity Database occurrence has been recorded within 1 mile of the study area to the east and suitable habitat exists on the site. Since more than 24 months has passed since focused surveys were conducted, this species is assumed to be present within suitable habitat both within and adjacent to the project parcel. These species are described in detail in Section 4.5, Existing Wildlife.

The special-status species have a relatively wide distribution and would be adequately mitigated through habitat-based measures in accordance with the BTR (Dudek 2023b).

For additional information on special-status wildlife species that would be impacted by the project and the mitigation required, refer to the BTR (Dudek 2023b).

INTENTIONALLY LEFT BLANK

3 Site Selection Criteria

Site selection was based on availability of preserved land and establishment opportunities within the project parcel boundary. The proposed areas have direct connectivity to adjacent native habitat (Figures 2 and 3). The mitigation sites have the same general soil type, gradient, and aspect as the impact areas. Access to the mitigation sites can be obtained without incurring impacts to jurisdictional resources.

The proposed restoration and preservation areas have no significant encumbrances and can be protected in-perpetuity with a conservation easement or similar mechanism. The following criteria was considered in this selection:

- Available acreage within the watershed of impact
- Creation, restoration, and enhancement for disturbed areas that will be in context with surrounding native vegetation communities
- Implementation and maintenance accessibility
- Existing site protection instruments in place

INTENTIONALLY LEFT BLANK

4 Baseline Information

4.1 Hydrology

The mitigation project is located within the Los Peñasquitos Watershed within Hydrologic Unit Code 8 San Diego 18070304, Hydrologic Unit Code 10 Poway Creek 1807030404, Hydrologic Unit Code 12 Los Peñasquitos Creek 180703040402, which is approximately 149.39 square kilometers (USGS 2023) (Figure 2).

The project site natural flood channels, and emergent wetlands. Hydrological input consists of surface water runoff entering natural flood channels and emergent wetlands of the project from the surrounding hills and paved surfaces. All surface waters within the Project site ultimately connect directly to the Pacific Ocean.

4.2 Soil Conditions

Two soil types occur within the restoration area: Redding cobbly loam (dissected), 15% to 50% slopes, and Riverwash (Figure 5, Existing Soils).

According to the U.S. Department of Agriculture, Natural Resources Conservation Service, the Redding cobbly loam (dissected), 15% to 50% slopes consisting of well-drained very high runoff mean annual precipitation of approximately 14 to 25 inches, and a mean annual air temperature of 61°F to 63°F. The soil's available water capacity is very low (approximately 1.2 inches). These soils include cobbly loam, cobbly clay loam, cobbly clay, and an indurated layer (USDA 2021a). Redding soils are on nearly level or dissected fan remnants. Microrelief may be hummocky. Gravel and cobbles tend to concentrate in the swales in hummocky areas. Vernal pools are common in areas with slopes of 0% to 3%. These soils formed in alluvium of mixed rocks (Bowman 1973).

Riverwash is not described in depth in the San Diego Soil Survey (Bowman 1973) but is known to be composed of alluvium, gravel, cobble, and rocks associated with historical drainages or watercourses.

This soil type is shown in Table 3 and in Figure 5 (USDA 2021a). This soil type is not ranked as hydric (USDA 2021b).

Table 3. Project Impacts to Wetland Habitat Soils within the Restoration Area

Soil Category	Soil Description	Hydric Rating	Acreage of Wetland Restoration Area (acres)[a]
Redding Cobbly Loam	Redding cobbly loam (dissected, 15% to 50% slopes	Nonhydric	1.04
Riverwash	Riverwash	Hydric	0.13
		Total	**1.17**

Sources: USDA 2021a, 2021b

[a] Presented in acres rounded to the nearest hundredth and linear feet rounded to the nearest foot

4.3 Existing Vegetation

The vegetation communities and land cover types recorded within the mitigation project are described in detail in the following subsections, their acreages are presented in Table 4. The mitigation sites, are located in the northern open space area, the south manufactured slope, and the western side of the project parcel boundary and contain a total of eight existing vegetation communities and land cover types (Figure 6, Existing Vegetation Communities and Special-Status Plants). Also included in Table 4 are the sensitivity designations of each vegetation community according to the Tiers described in the City's Biology Guidelines (City of San Diego 2018a).

Table 4. Vegetation Communities and Land Cover Types in the Project Parcel Boundary

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community [a]	Subarea Plan Tier[a]	Acreage
Wetlands, including Non-Wetland Waters			
Emergent wetland (artificial)	Freshwater marsh (artificial)	IV	0.11
Natural Flood Channel	Natural Flood Channel (non-wetland)	IV	0.002
	Disturbed Land	IV	0.001
Native Vegetation Communities			
Diegan coastal sage scrub (including disturbed)	Coastal sage scrub	II	0.20
Diegan coastal sage scrub (*Baccharis*-dominated)	Coastal sage scrub	II	0.11
Southern mixed chaparral (including disturbed)	Mixed chaparral	IIIA	0.11
Non-Native Vegetation Communities and Land Covers			
Eucalyptus Woodland	Eucalyptus woodland	IV	0.24
Disturbed habitat	Disturbed land	IV	0.08
Herbaceous wetland (artificial)	Disturbed land	IV	0.32
		Total	**1.17**

Note: [a] City of San Diego 2018a.

4.3.1 Diegan Coastal Sage Scrub (Including Disturbed)

Diegan coastal sage scrub is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as coastal sagebrush (*Artemisia californica*), California buckwheat, and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Coastal sage scrub in the study area consists of coastal sagebrush, black sage (*Salvia mellifera*), and Nuttall's scrub oak (*Quercus dumosa*). Coastal sage scrub is present in moderately sized patches in the north and northwest section of the project parcel and in two small patches in the southern area. Some of the patches in the northern area of the project parcel, north of the existing residence, are considered disturbed due to a relatively high cover of

non-native species (specifically giant reed [*Arundo donax*]) and evidence of human alteration. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

4.3.2 Diegan Coastal Sage Scrub (*Baccharis*-dominated)

Diegan coastal sage scrub (*Baccharis*-dominated) is similar to Diegan coastal sage scrub but dominated by *Baccharis* species (broom baccharis [*Baccharis sarothroides*] and/or coyote brush [*Baccharis pilularis*]) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys.

Diegan coastal sage scrub (*Baccharis*-dominated) in the study area is dominated by coyote brush, with chamise (*Adenostoma fasciculatum*), black sage, and mission manzanita (*Xylococcus bicolor*). It occurs in one small patch in the central northern section of the project parcel just west of the artificial herbaceous wetland, in an area likely disturbed by previous grading associated with the adjacent development to the north. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

4.3.3 Disturbed Habitat/Land

Disturbed lands are areas which have been subject to extensive physical anthropogenic disturbance and as a result cannot be identified as a native or naturalized vegetation association. However, these areas typically still have a recognizable soil substrate. The existing vegetation is typically composed of non-native ornamental or exotic species (Oberbauer et al. 2008).

Disturbed land comprises the gravel storage areas northeast of the residence, dirt roads and ornamental vegetation in the central section of the project parcel, and strips of land in the southern study area north of the wetlands that show evidence of grading and vegetation removal/clearing. This land cover is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018a).

4.3.4 Emergent Wetland (Artificial)

According to Oberbauer et al. (2008), emergent wetland is a generally persistent wetland type dominated by low-growing, perennial wetland species. These can be found in channels, seeps and springs, floodplains, margins of lakes and rivers, and various basins such as pools and ponds, palustrine lakes, montane meadows, and dune swales. These may be freshwater or alkali wetlands. In San Diego County, these are often in previously disturbed areas where wetlands are emerging but have not yet established a full suite of species; however, disturbance is not a necessary element of this vegetation community.

The area mapped as emergent wetland in the study area is dominated by mariposa rush (*Juncus dubius*), with annual beard grass (*Polypogon monspeliensis*), toad rush (*Juncus bufonius*), grass poly (*Lythrum hyssopifolia*), curly dock (*Rumex crispus*), Boccone's sand-spurrey (*Spergularia bocconi*), and other non-native herbaceous species. It occurs in two patches of lowlands adjacent to a well-defined drainage in the southern portion of the study area. These two patches correspond with areas of historic disturbance (see Appendix M of the BTR); the upstream area being the location of a former artificial impoundment (i.e., stock pond) and the downstream area being the location where adjacent development created an artificial impoundment. Further, City records contain evidence that artificial surface runoff was discharged into this drainage from the adjacent Spring Canyon Reservoir (i.e., water tank). Based

on these factors, emergent wetland on site is considered an artificial feature that does not meet the City's wetland definition and is considered a Tier IV upland.

4.3.4.1 Eucalyptus Woodland

Eucalyptus woodland, according to Oberbauer et al. (2008), includes eucalyptus species (blue gum [*Eucalyptus globulus*], river red gum [*E. camaldulensis*], or other *Eucalyptus* species) planted as trees, groves, and windbreaks that form thickets with minimal shrubby understory and scattered trees with a well-developed understory. In most cases, however, eucalyptus trees form dense stands with closed canopies where the understory is either depauperate or absent owing to shade and the possible allelopathic (toxic) properties of the eucalyptus leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Eucalyptus woodland occurs mainly in the southwest portion of the project parcel, south of the wetlands in that area. Smaller patches of eucalyptus woodland occur northwest of the existing residence and in the southeast corner of the project parcel. Eucalyptus woodland is classified as a Tier IV vegetation community under the City's Biology Guidelines (City of San Diego 2018a).

4.3.5 Herbaceous Wetland (Artificial) Emergent Wetland

According to Oberbauer et al. (2008), herbaceous wetland is a seasonal wetland habitat that supports a variety of herbaceous annual species like annual beard grass. In San Diego County, these wetlands may only occur during wetter-than-average years and are usually found in swale areas or adjacent to drainages.

Herbaceous wetland (artificial) is present within the northern portion of the study area and is dominated by annual beard grass. Other species present include western ragweed (*Ambrosia psilostachya*), curly dock, mule-fat (*Baccharis salicifolia*), hottentot-fig (*Carpobrotus edulis*), saltcedar (*Tamarix ramosissima*), and jointed charlock (*Raphanus raphanistrum*). During the jurisdictional delineation in April 2020, Dudek biologists noted a large population of Coulter's goldfields in this area.

This area is not considered a city wetland per the City's Biology Guidelines (City of San Diego 2018a) because, based on review of historical aerials and topography, the wetland established as a result of the construction of the residential development to the north, which directed runoff to this area and created conditions suitable for development of the wetland. Prior to the adjacent development, the area supported an upland hillslope, consistent with adjacent areas. As stated in the City's Biology Guidelines, "except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Wildlife." As a result, the herbaceous wetland (artificial) in this location would be considered Tier IV (City of San Diego 2018a).

4.3.6 Natural Flood Channel

Natural flood channel, also described as non-vegetated channel or floodway (Oberbauer et al. 2008), is the sandy, gravelly, or rocky fringe of waterways or flood channels that are earthen-bottom, and unvegetated on a relatively

permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel.

Natural flood channel is mapped within small ephemeral drainage features on the parcel boundary. Although unvegetated, natural flood channel can be considered a wetlands community according to the City's Biology Guidelines when the overall drainage is substantial enough to support "wetland dependent vegetation" (City of San Diego 2018a). The natural flood channel present in the southern section of the project parcel is connected to emergent wetland habitat upstream and downstream of these unvegetated channel sections. However, the emergent wetland is artificial (as described above). Therefore, both the natural flood channel extents that are located on the upland hillsides on the project parcel and in the southern section of the project parcel were determined to consist of seasonal drainage patterns that do not support wetland dependent vegetation and are not considered City wetlands, according to the City's Biology Guidelines (City of San Diego 2018a).

4.3.7 Southern Mixed Chaparral

Southern mixed chaparral is a drought- and fire-adapted community of woody shrubs that is 1.5 to 3 meters (5 to 10 feet) tall, frequently forming dense, impenetrable stands. It develops primarily on mesic, north-facing slopes and in canyons and is characterized by crown- or stump-sprouting species that regenerate following burns or other ecological catastrophes. This vegetation community is typically a mixture of chamise, bush-rue (*Cneoridium dumosum*), ceanothus (*Ceanothus* spp.), manzanita species (Eastwood's manzanita [*Arctostaphylos glandulosa*] and mission manzanita), Nuttall's scrub oak, laurel sumac, and black sage.

Southern mixed chaparral in the study area is dominated by chamise with coyote brush, black sage, Nuttall's scrub oak, laurel sumac, and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*). Southern mixed chaparral is present in several relatively large patches in the northeast, east, southeast, and western portions of the project parcel. Two smaller patches of southern mixed chaparral exist in the northern area of the project parcel near an existing shed structure. One of these patches, west of this structure, is considered disturbed due to low vegetation cover and evidence of ground disturbance. This vegetation community is considered a Tier IIIA habitat by the City's Biology Guidelines (City of San Diego 2018a).

4.4 Special-Status Plant Species

Focused rare plant surveys in June, July, and August of 2020 captured most perennial and annual plant species that occur within the study area. A total of 103 species of vascular plants, 61 native (59%) and 42 non-native plant species (41%), were recorded during the biological reconnaissance survey for the project. For a cumulative list of all common and sensitive plant species observed in the project, refer to the BTR (Dudek 2021b).

One special-status plant species, Coulter's goldfields, was directly observed in the mitigation project during focused rare plant surveys in 2020.

Coulter's goldfieldsis a California Rare Plant Rank 1B.1 species and is not an MSCP covered species. Coulter's goldfields is a California native annual herb that naturally occurs in Southern and Central California (Calflora 2020). This species is typically found in salt marsh, playa, coastal, and vernal pool habitats and naturally occurs at an elevation of 0 to 4,500 feet above mean sea level.

Refer to the BTR for more information (Dudek 2023b).

4.5 Existing Wildlife

A total of 42 wildlife species were recorded during focused surveys in the project study area. Of the 42 wildlife species observed during field surveys, two are considered special status and are described in further detail below. For information on additional special-status wildlife species impacted by the project, refer to the BTR for more information (Dudek 2023b).

4.5.1 Cooper's Hawk

Cooper's hawk (*Accipiter Cooperii*) is a state watch list and an MSCP covered species. Cooper's hawks inhabit live oak, riparian deciduous, and other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Nests in deciduous trees are typically located in crotches 20 to 50 feet above the ground; in conifers, nests are on horizontal branches or in the main crotch. Cooper's hawks use patchy woodlands and edges with snags for perching and hunting small birds, small mammals, reptiles, and amphibians (Zeiner et al. 1990). Cooper's hawks are diurnally active and are year-round residents. Breeding occurs from March through August, with peak activity in May through July. Males defend an area of about 330 feet around potential nest sites (Zeiner et al. 1990).

4.5.2 San Diegan Tiger Whiptail

The San Diegan tiger whiptail (*Accipiter Cooperii*) is a California species of special concern and is not an MSCP covered species. It is known to occupy hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.

One San Diegan tiger whiptail individual was observed during focused coastal California gnatcatcher surveys. This individual is likely associated with mixed chaparral habitat throughout the project footprint.

4.5.3 Coastal California Gnatcatcher Focused Survey Results

The coastal California gnatcatcher is a federally listed threatened species, a CDFW Species of Special Concern, and an MSCP-covered species. No coastal California gnatcatcher individuals were detected within the study area during focused protocol surveys in 2020, however, a coastal California gnatcatcher California Natural Diversity Database occurrence has been recorded within 1 mile of the study area to the east) and suitable habitat exists on the site. Since more than 24 months has passed since focused surveys were conducted, this species is assumed to be present within suitable habitat both within and adjacent to the project parcel.

Refer to the BTR for more information (Dudek 2023a).

5 Determination of Mitigation Credits

Definitions of creation, establishment, and rehabilitation vary between regulatory agencies. For the purpose of this Wetland Restoration Plan, the City of San Diego Land Development Code Biology Guidelines apply (City of San Diego 2018a):

- 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.

Determination of mitigation ratio, type of mitigation, and location of mitigation was developed based on the functions and services of the existing jurisdictional resources and overall project design in terms of avoidance and minimization. The configuration of the project footprint and resulting open space areas was extensively coordinated with the City, US Fish and Wildlife Service, and California Department of Fish and Wildlife staff. Unavoidable impacts of the project footprint include relocation of the majority of the southern drainage on site supporting both wetland (emergent wetland) and non-wetlands (natural flood channel). Since the emergent wetland has higher functions that will take longer to be replaced by mitigation, a 2:1 mitigation-to-impact ratio is proposed; whereas the natural flood channel is proposed to be mitigated at a 1:1 ratio (Table 5). In addition, a portion of the herbaceous wetland (artificial) in the northern portion of the site will be unavoidably impacted by grading for a manufactured slope. Given the artificial nature of this wetland area and minimized impact that retains (and with restoration, expands) the existing wetland, a 1:1 mitigation-to-impact ratio is proposed for this area (Table 5).

Table 5. Mitigation for Impacts to Upland Vegetation Communities within the Project Footprint

City of San Diego Biology Guidelines Vegetation Community[a]	Impacts (acres)	Proposed Mitigation Requirement[a] (acres)	Wetland Creation (acres)	Wetland Restoration (Rehabilitation) (acres)	Wetland Enhancement (acres)	Total (acres)
Wetland Mitigation Credit Areas						
Emergent wetland (artificial)	0.31	0.62	0.43	0	0.11	0.54
Herbaceous wetland (artificial)	0.10	0.10	0	0.32	0	0.32
Natural flood channel (non-wetland	0.18	0.18	0.09	0	0	0.09
Total Mitigation	**0.59**	**0.90**	**0.52**	**0.32**	**0.11**	**0.95**
No Credit Areas						
Transitional Wetland	0	0	0	0	0	0.17
Riprap Pad	0	0	0	0	0	0.05
Total	**0.59**	**0.90**	**0.52**	**0.32**	**0.11**	**1.17**

Note: [a] 2:1 impact-to-mitigation ratio for emergent wetland (artificial); 1:1 impact-to-mitigation ratio for herbaceous wetland (artificial) and natural flood channel (non-wetland).

6 Site Protection Measures

Prior to the initiation of mitigation site preparation activities, fencing and signage would be installed around the remaining perimeters of the sites, which would delineate the work areas to prevent unauthorized impacts by the installation contractor during the installation process, as well as discouraging unauthorized pedestrian traffic from entering the mitigation sites.

During the project installation process, work would be monitored by the Project Biologist to ensure compliance with the mitigation site boundaries. The Project Biologist would also review the signage and fencing to verify that they are in good repair and functioning as intended. The Project Biologist would make recommendations to the installation contractor if repairs, additions, or other modifications need to be made to the mitigation site protection materials as needed.

During the minimum 5-year maintenance and monitoring period, the mitigation sites would be restricted from public access and would be delineated with temporary fencing and signage stating the nature of the mitigation project and access restrictions as appropriate.

INTENTIONALLY LEFT BLANK

7 Mitigation Work Plan

This chapter describes in detail who would be responsible for each task and how the proposed compensatory mitigation project would be accomplished.

7.1 Project Implementation Personnel

7.1.1 Permittee/Project Manager

As the permittee, Green Phair Scripps Partners LLC would be responsible for mitigation installation and successful implementation of this Wetland Restoration Plan. Project management would be provided by Green Phair Scripps Partners LLC (or subsequent legal owners) who would be financially responsible for implementation and management of the project.

7.1.2 Project Biologist

Green Phair Scripps Partners LLC would select a qualified Project Biologist who shall review the environmental permits, documents, final Wetland Restoration Plan, and mitigation construction documents, and help to ensure that all site protections, pre-work bird surveys, and any other required items are adequately performed prior to mitigation work implementation.

The Project Biologist shall perform site monitoring during mitigation implementation and throughout the 5-year maintenance and monitoring period. The Project Biologist would prepare mitigation annual reports with required biological data and submit them to Green Phair Scripps Partners LLC and the City of San Diego. The Project Biologist will have a degree in biology, ecology, or related field, and be able to demonstrate at least three successful similar restoration projects in San Diego County. The Project Biologist will possess at least 5 years of habitat restoration experience in Southern California.

7.1.3 Restoration Contractor

Green Phair Scripps Partners LLC would select a qualified Restoration Contractor to implement the mitigation installation work and provide subsequent restoration area maintenance. Restoration installation and maintenance work would be performed by a contractor possessing a valid California landscape contractor's license (Class C-27) who has previous experience with native habitat restoration in San Diego County and can demonstrate at least three successful similar restoration projects in San Diego County. The Restoration Contractor must be able to field implementation crew members who can identify San Diego County native plants and common weed species and demonstrate knowledge of habitat restoration techniques.

The Restoration Contractor would be responsible for conformance to this Wetland Restoration Plan and permit requirements for the project. The Restoration Contractor's responsibility for installation would continue until successful completion and final acceptance by Green Phair Scripps Partners LLC and the Project Biologist. The Restoration Contractor will not be released from contractual obligations for installation until written notification is received from Green Phair Scripps Partners LLC that all required installation tasks as defined in the installation

contract, final plans and specifications, this Wetland Restoration Plan, and the project permits have been successfully completed.

After initial installation and completion of implementation, a 5-year habitat maintenance program would be performed by a qualified Restoration Contractor who specializes in the maintenance and management of native habitat restoration and/or natural lands management. Maintenance work would be performed as indicated herein and per the Project Biologist's recommendations. Green Phair Scripps Partners LLC may choose to hire a maintenance contractor that is separate from the installation contractor or replace a contractor that fails to perform work satisfactorily.

7.1.4 Seed Supplier

Should seed need to be procured, the seed supplier must be a qualified commercial native plant seed supplier having collection sources from within the 25 miles of the restoration area, and must have experience collecting seeds from native riparian and upland areas appropriate for the project.

Seed collection would follow sound ecological restoration practices. Any seed within areas of permanent impact may be collected to 100%. However, should seed need to be collected from within adjacent open space areas, no more than 5% of the available seed would be taken on any given year. The Project Biologist may substitute plant species as appropriate should the species listed in this Wetland Restoration Plan not be available at the time of collection or purchase. Seed collection would comply with all project permits and requirements.

7.2 Preliminary Design and Engineering

The proposed wetland restoration program includes the creation of 0.09 acres of non-wetland waters, 0.43 acres of emergent wetland, and 0.17 acres of transitional wetland; restoration of 0.32 acres of emergent wetland; the enhancement of 0.11 acres of emergent wetland; and 0.05 acres of riprap (Figure 7, Conceptual Wetland Restoration Plan). Creation, restoration, and enhancement activities would be implemented once grading of the project has been completed. The grading plans and landscape design sheets include detailed information on the layout and planting plan for the restoration area. Additional details are described further in the following sections of this Wetland Restoration Plan.

7.3 Site Preparation

7.3.1 Seed Collection

Native seed shall be collected and/or sourced from local sources originating within 25 miles of the mitigation sites, as practicable. The preferred seed collection would take place within the wetland and upland areas that are proposed to be permanently impacted by the project (see Figure 7). The species proposed in Tables 6 and 7 are selected to provide similar species diversity and appropriate functions and services. The seed palettes have been designed to include a mixture of native grasses, forbs, and low-growing shrubs adapted to the target mitigation sites hydrology. Plants with different germination responses, wetland affinities, and growth forms have been chosen to provide plant growth under a wide range of conditions that may occur in the mitigation sites. Some species may not be available as seed at the time of initial project installation.

Pure live seed recommendations are shown in Tables 6 and 7; however, if the delivered seed differs from specified purity and germination rates presented herein, the total pounds per acre rates shall be adjusted accordingly to achieve the specified pounds of pure live seed.

Table 6. Wetland Seed Mix (Approximately 0.86 Acres)

Botanical Name	Common Name	Percent P/G[a]	Application Rate (Pounds/Acre)
Ambrosia psilostachya	western ragweed	45/45	3
Artemisia douglasiana	California mugwort	15/40	5
Baccharis salicifolia	mule-fat	10/20	3
Distichlis spicata	salt grass	50/80	5
Eleocharis macrostachya	Spike rush	95/60	5
Epilobium ciliatum	Fringed willowherb	25/50	5
Eriophyllum confertiflorum	golden-yarrow	25/40	2
Juncus bufonius	toad rush	95/60	5
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	95/80	5
		Total	38.0

Notes: P/G = purity/germination rate.

[a] Purity and germination can vary dramatically for field-collected seed from wild populations. The purity and germination rates shown are typical of each species.

Table 7. Transitional Seed Mix (Approximately 0.17 Acres)

Botanical Name	Common Name	Percent P/G[a]	Application Rate (Pounds/Acre)
Artemisia californica	California sagebrush scrub	25/80	5
Artemisia palmeri	San Diego sagewort	20/50	5
Bahiopsis laciniata	San Diego viguiera	50/80	5
Eriogonum fasciculatum	California buckwheat	50/90	2
Eriophyllum confertiflorum	golden-yarrow	25/40	2
Isocoma menziesii	coastal goldenbush	30/30	4
Salvia mellifera	black sage	50/70	3
Sisyrinchium bellum	western blue-eyed grass	20/20	4
Stipa pulchra	purple needlegrass	20/50	5
		Total	35.0

Notes: P/G = purity/germination rate.

[a] Purity and germination can vary dramatically for field-collected seed from wild populations. The purity and germination rates shown are typical of each species.

7.3.2 Grading

The project and restoration area would be mass graded in preparation for the proposed development. The location and conceptual layout of the mitigation sites are shown in Figure 7, on the grading plans, and on the landscape plans.

Following vegetation removal, Diegan coastal sage scrub (disturbed), Diegan coastal sage scrub (*Baccharis*-dominated), and the southern mixed chaparral located in the northern area directly adjacent to the disturbed herbaceous wetland would be graded down one foot. Grading would be designed to allow runoff to inundate the area to create and restore emergent wetlands. The final grade would be reviewed and approved by the Project Biologist prior to removing grading equipment from the site. Exact elevations would be determined based on depth to saturated soil and groundwater.

Final restoration area construction grading plans and specifications shall be prepared by a registered landscape architect and/or civil engineer in consultation with the Project Biologist.

7.3.3 Irrigation Source

Long term, the restoration area would receive hydrologic inputs from groundwater and surface flows from manufactured slopes and treated stormwater flows from the adjacent developments.

During the 5-year maintenance and monitoring period for the restoration area, a temporary aboveground irrigation system shall be designed and installed to supplement natural rainfall to facilitate survival of the container plantings. This irrigation system shall be used whenever there is not sufficient or frequent enough rainfall to support establishing plants, particularly if there is a dry winter and/or spring season.

If a permanent water source is not available at the time the mitigation plantings need to be implemented, then the irrigation system shall be designed to be remotely supplied by a water truck or the plants shall be directly watered from a water truck using hoses.

7.3.4 Erosion Control Best Management Practices

BMPs are schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention, educational practices, maintenance procedures, and other management practices to prevent or reduce, to the maximum extent practicable, the discharge of pollutants directly or indirectly to receiving waters. It is the responsibility of the property owner or his/her designee (Restoration Contractor) to select, install, and maintain appropriate construction BMPs. BMPs are used to effectively reduce the mobilization and transport of sediments from the restoration area during initial implementation and during the maintenance and monitoring period. Suitable BMPs shall be installed based on site conditions in accordance with the Storm Water Quality Management Plan (Hunsaker & Associates 2023) and the City's Storm Water Standards (City of San Diego 2018b).

7.3.5 Weed Control

Within each of the mitigation sites, the contractor shall cut and/or control existing non-native vegetation. Initial site preparation would concentrate on the removal of all non-native plant species from the mitigation sites, and this would take place before any channel re-contouring or other soil disturbances. To the maximum extent practicable, this mitigation project should begin in the fall after nesting bird season. Should any grading, grubbing, or removal of habitat take place during the breeding season, then a biological monitor would be required to ensure that impacts to nesting birds do not occur as a result of construction activities. As part of this site prep, dead thatch, deadwood, and other organic litter would be removed. It is assumed that there would not be any germination or growth of herbaceous weed species, but if there is, then weed control (hand, mowing, or herbicide) would be conducted. This effort would include the removal of artichoke thistle, pampas grass, and stinkwort from the channels and adjacent

habitats. Other species that would be targeted by this program of herbaceous weed removal would be star thistle (*Centaurea melitensis*), black mustard (*Brassica nigra*), brome grasses (*Bromus* spp.), and other herbaceous non-native grasses and forbs.

Table 8 shows the non-native plant species that would be targeted during site preparation and during maintenance, as well as potential methods for removal and control.

Table 8. Weed Control Target Non-Native Plant Species and Treatments

Weed Species		Potential Control Methods				
Botanical Name	Common Name	De-Thatch	Herbicide	Hand Pull	Mowing	Cut and Treat
Apium graveolens	celery		X		X	X
Avena barbata	slender oat grass	X	X	X	X	
Avena fatua	wild oat	X	X	X	X	
Brassica nigra	black mustard	X	X	X	X	
Bromus hordeaceus	softchess brome	X	X	X	X	
Bromus madritensis	compact brome	X	X	X	X	
Bromus rubens	red brome	X	X	X	X	
Carduus pycnocephalus	Italian thistle	X	X	X	X	
Centaurea melitensis	star-thistle	X	X	X	X	
Cortaderia selloana	pampas grass		X		X	X
Dipsacus fullonum	Fuller's teasel	X	X	X	X	
Dittrichia graveolens	stinkwort			X		X
Erodium botrys	long-beak filaree	X	X	X	X	
Erodium cicutarium	storksbill	X	X	X	X	
Eucalyptus spp.	eucalyptus		X	X		X
Festuca perennis	Italian rye grass	X	X	X	X	
Foeniculum vulgare	sweet fennel		X	X		
Helminthotheca echioides	bristly ox-tongue	X	X	X	X	
Lactuca serriola	prickly lettuce	X	X	X	X	
Logfia gallica	narrowleaf cottonrose	X	X	X	X	
Lysimachia arvensis	scarlet pimpernel	X	X	X	X	
Nicotiana glauca	tree tobacco		X		X	X
Phalaris aquatica	Harding grass	X	X	X	X	
Polypogon monspeliensis	rabbitsfoot grass	X	X	X	X	
Rumex crispus	curly dock	X	X	X	X	
Sonchus asper	spiny sowthistle	X	X	X	X	
Sonchus oleraceus	common sowthistle					
Tamarix ramosissima	saltcedar		X			X

7.3.6 Avoidance and Minimization Measures

Temporary fencing (with silt barriers) would be required at the limits of work for the restoration area to prevent inadvertent impacts to areas outside of the restoration area footprint.

Impacts from fugitive dust that may occur during filling and grading activities adjacent to the restoration area would be avoided to the maximum extent practicable and minimized through watering and other appropriate measures.

The Project Biologist would be on site to oversee installation of temporary fencing and any grading within 100 feet of existing wetland and non-wetland waters.

Equipment would be checked for leaks prior to operation and repaired as necessary. A spill kit for each piece of construction equipment would be on site and must be used in the event of a spill.

In order to avoid indirect impacts to sensitive resources, the project would be required to meet National Pollutant Discharge Elimination System regulations; incorporate BMPs during construction; install permanent BMPs in accordance with the City's Storm Water Standards Manual (City of San Diego 2018b) and be consistent with the Storm Water Quality Management Plan (Hunsaker & Associates 2023) and the City's Storm Water Standards (City of San Diego 2018b). All flows from impervious surfaces would be directed through a bio filtration basin prior to being carried downstream to ensure no toxins, chemicals, petroleum products, exotic plant materials or other harmful elements are allowed to enter the MHPA. All flows toward the MHPA would be minimized to the extent feasible.

In addition, the project would be required to adhere to all standard construction protection measures listed in the project's Mitigation and Monitoring and Reporting Plan, which includes having a qualified biologist present to supervise flagging of sensitive resources prior to construction, provide environmental training and during construction to ensure no unauthorized impacts occur.

7.3.7 Fencing and Signage

Temporary fencing in the form of rope fastened to T-posts would be installed around the mitigation project and would be maintained during the 5-year maintenance and monitoring period. No plastic construction fencing shall be used, as it introduces a wildlife movement barrier and is subject to collection of wracking during storm flow events.

Signage on the fence shall be installed to identify the mitigation project as habitat restoration projects and to indicate that access from unauthorized personnel is prohibited. Signage shall identify a contact person and a phone number for interested parties to call for more information.

8 Implementation Installation

8.1 Plant Palette

The creation, restoration (rehabilitation), and enhancement areas of the mitigation sites would be revegetated with native species that are appropriate to the site context and compensatory mitigation goals. There are two plant palettes broken down by restoration area and the associated vegetation type (see Tables 9 and 10 and Figure 7 for locations). The species proposed in Tables 9 and 10 are selected to provide as similar of physical structure through the tree and shrub layer as possible when compared to the native vegetation found in the wetland open spaces of the project. The intent of these plant palettes is to create a diverse assemblage of native species that would provide appropriate functions and services. The plant palettes have been designed to include a mixture of native trees, grasses, forbs, and low-growing shrubs adapted to target each Mitigation Site's hydrology. Plants with different germination responses, wetland affinities, and growth forms have been chosen to provide plant growth under a wide range of conditions that may occur in the mitigation sites.

Table 9. Wetland Area Plant Palette (Approximately 0.86 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Total Number of Individuals
Ambrosia psilostachya	western ragweed	5	8	115
Anemopsis californicum	Yerba mansa	5	12	173
Artemisia douglasiana	California mugwort	5	12	173
Artemisia palmeri	San Diego sagewort	5	8	115
Baccharis salicifolia	mule-fat	5	4	58
Distichlis spicata	salt grass	3	8	320
Eleocharis macrostachya	Spike rush	5	19	288
Juncus dubius	mariposa rush	5	19	288
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	5	12	173
			Total Individuals	**1,703**

Table 10. Transitional Container Plant Palette (Approximately 0.17 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Total Number of Individuals
Artemisia californica	California sagebrush scrub	5	22	64
Artemisia palmeri	San Diego sagewort	5	17	52
Bahiopsis laciniata	San Diego viguiera	5	17	52
Eriogonum fasciculatum	California buckwheat	5	9	26
Eriophyllum confertiflorum	golden-yarrow	5	4	13
Isocoma menziesii	coastal goldenbush	5	4	13

Table 10. Transitional Container Plant Palette (Approximately 0.17 Acres Total)

Botanical Name	Common Name	Container Plants	Average Spacing (Feet on Center)	Total Number of Individuals
Salvia mellifera	black sage	5	4	13
Sisyrinchium bellum	western blue-eyed grass	5	9	26
Stipa pulchra	purple needlegrass	5	13	39
			Total Individuals	**296**

8.2 Container Plant Installation

Implementation of this Wetland Restoration Plan must be coordinated with the contractor, applicant, and the Project Biologist. All container plants would be checked for viability and general health upon arrival at the mitigation sites by the Project Biologist. Plant materials not meeting acceptable standards of health as determined visually by the Project Biologist would be rejected. Reasons for rejection of plant material may include root-bound in the container, damaged foliage or stalks, diminutive stature, or signs of disease or pests.

Plant species and quantities would be confirmed after delivery by the Project Biologist. Container plants shall be laid out by the contractor, and their placement verified and adjusted by the Project Biologist.

Planting design and container plant layout shall be randomly patterned (as opposed to rows), to create a natural patchiness that is typical within the target plant community. The installation contractor shall lay out container plants in groupings by species, ranging from three to six plants per grouping. Plant species that require more water should go into the areas that are wetter and are located closer to the water table, while plant species that require less water would be placed in drier areas located further from the water table. The Project Biologist shall inspect the locations and adjust placement of groupings, if necessary.

Standard planting procedures would be employed for installing container plants. Holes approximately twice the width of the rootball of the plant and the same depth. If insufficient soil moisture is present, holes would be filled with water and allowed to drain immediately prior to planting. Container plants would be installed so that the rootball is below grade with the crown 1 inch above grade. Plants would be thoroughly watered in to settle backfill around the plant rootball.

8.3 Native Seed Application

The seed mixes shown in Tables 6 and 7 would be applied after initial container planting is complete. Labels for each seed delivered to the mitigation sites would be inspected and approved by the Project Biologist prior to mixing and application. Seed application shall consist of hand broadcasting and raking into the soil. If some species are not available at the time of seeding, they may be acquired when available and hand broadcast at a later date.

All seeds would be clearly labeled showing type of seed, test date, the name of the supplier, and percentages of the following: pure seed, crop seed, inert matter, weed seed, noxious weeds, and total germination content. All material would be delivered to the Mitigation Sites in original, unopened containers bearing the

manufacturer's guaranteed analysis. All seed mixes would be stored in a dark, cool place and would not be allowed to become damp.

Installation between the months of October to the end of December is ideal for allowing establishment during the cooler and wetter time of the year. However, seed installation timing may be modified as directed by the Project Biologist to avoid loss in storm flow events, or to take advantage of predicted rain events.

INTENTIONALLY LEFT BLANK

9 120-Day Plant Establishment Period

During the first 120 days following completion of project installation, the contractor shall be responsible for the health and mortality of the installed plant material. The Project Biologist would visit the mitigation sites at 30, 60, 90, and 120 days during this plant establishment period (PEP). At the 90-day visit, the Project Biologist shall observe site conditions and seed germination and shall provide a punch-list of replacement plants for the contractor. Generally, plants would be recommended for in-kind replacement; however, the Project Biologist may recommend alternative species if it is suspected that unsuitable growing conditions caused mortality. Plants noted for replacement shall be installed prior to the 120-day walk through with the Project Biologist. Plants must be in the ground at least 30 days prior to completion of the PEP. At the 120-day PEP, the installation contractor is responsible for guaranteeing that the installed plant material shall have a 100% survival rate. As a part of this period, the contractor who performs the installation is contractually obligated to guarantee their workmanship and perform remedial measures to fix any observed problems as necessary before the 120-day PEP is considered complete, and the project transitions into the remainder of the 5-year maintenance and monitoring period. The following criteria must be met for the 120-day PEP to be considered successful:

1. Areas should be relatively free of weeds (0% cover of California Invasive Plant Council Inventory weed species and less than 10% cover of all other weed species).
2. Areas free of debris.
3. No erosion or trash.
4. 100% survivorship of container plants.

A PEP schedule is shown in Table 11.

Table 11. Plant Establishment Period Maintenance Schedule

Work Task	1–30 Days	31–60 Days	61–90 Days	91–120 Days
Weed abatement	X	X	X	X
Plant replacement	As needed	As needed	As needed	As needed
Supplemental water	X	X	X	X
Erosion control	X	X	X	X
Non-weed pest control	X	X	X	X
Site cleanup and maintenance	X	X	X	X

INTENTIONALLY LEFT BLANK

10 5-Year Maintenance Plan

Maintenance activities would begin upon completion and approval of installation work. The Restoration Contractor's maintenance activities shall be performed as indicated herein and as necessary to meet the established performance standards.

Following installation, during the first year following completion of project installation, general site visits would be conducted monthly; Years 2 and 3 would be conducted monthly for December through April and then quarterly thereafter; and Years 4 and 5 would be quarterly monitoring. More frequent monitoring would be conducted if needed to meet the performance standards indicated herein. A schedule is shown in Table 12.

Table 12. Maintenance Schedule

Task	Year 1	Year 2	Year 3	Year 4	Year 5
Weed and Pest Control[a]	Monthly	Monthly (Dec-Apr); quarterly thereafter	Monthly (Dec-Apr); quarterly thereafter	Quarterly	Quarterly
Plant Replacement[b]	Annually; conducted in Oct–Dec	Annually; conducted in Oct–Dec	Annually; conducted in Oct–Dec	As needed; conducted in Oct–Dec [c]	As needed; conducted in Oct–Dec[c]
Supplemental Water[c]	As needed	As needed	As needed	As needed[d]	As needed[d]
General Site Maintenance	Monthly	Monthly (Dec-Apr); quarterly thereafter	Monthly (Dec-Apr); quarterly thereafter	Quarterly	Quarterly
Erosion Control and Sedimentation	Monthly	Monthly (Dec-Apr); quarterly thereafter	Monthly (Dec-Apr); quarterly thereafter	Quarterly	Quarterly
Trash Removal	Monthly	Monthly (Dec-Apr); quarterly thereafter	Monthly (Dec-Apr); quarterly thereafter	Quarterly	Quarterly
Fencing and Signage Maintenance	Monthly	Monthly (Dec-Apr); quarterly thereafter	Monthly (Dec-Apr); quarterly thereafter	Quarterly	Quarterly

Notes:

[a] Maintenance task schedule and frequency will be adjusted, as appropriate, depending on site conditions and in coordination with the Project Biologist. It is anticipated that more intensive maintenance will occur during the first few years of the project and taper down as the project approaches Year 5.

[b] Any maintenance performed during the nesting season (March 15 through September 15) shall be conducted under direction of the Project Biologist during the bird breeding season.

[c] Should extensive planting be required in Years 4 and 5, even due to unforeseen circumstances, the mitigation and monitoring program may be required to be extended.

[d] Only to be performed as-needed during the first 3 years of the 5-year program, depending on site conditions. No supplemental watering will occur for 2 years prior to completion of maintenance and monitoring period.

10.1 Weed and Pest Control

Non-native plant control measures would include the following: (1) hand pulling, hand cutting, (2) cutting with handheld mechanical devices, and (3) application of approved herbicides. Hand removal of non-natives is the most

desirable method of control and would be used within seeded areas where feasible. Weeds shall be pulled when plants are 6–12 inches tall or when they can be positively identified, and prior to the formation of seed heads.

The maintenance contractor shall coordinate with the Project Biologist to identify weeds for removal as needed. Chemical herbicide control would be used for perennial species that are difficult to control by hand pulling. Herbicide treatments must be pre-approved by the Project Biologist and applied by a licensed or certified pest control applicator. The herbicide must be approved for use in wetland areas. Application of herbicide would be suspended should precipitation be expected to occur within 24 hours of application and/or if wind exceeds 6 miles per hour.

Plant pests would be controlled utilizing Integrated Pest Management Techniques. Pests control would be performed by the Restoration Contractor using the least toxic method available, such as washing pests off plants with a strong stream of water, utilizing insecticidal soap, or installing plant protection devices.

10.2 General Site Maintenance

Trash would be removed from the mitigation sites by the contractor on a regular basis. Trash consists of all anthropogenic materials, equipment, or debris dumped, thrown, washed, blown, and left within the mitigation sites.

Pruning or clearing of native vegetation would generally not be allowed within the mitigation sites, except as directed by the Project Biologist. Native dead biomass and plant litter would not be removed and would be left in place unless its removal is required for a specific management objective. Native organic biomass and leaf litter provide valuable microhabitats for benthic and terrestrial invertebrates, reptiles, small mammals, and birds. In addition, the decomposition of plant material is essential for the replenishment of soil nutrients and minerals. The exception to this may be leaf litter from adjacent eucalyptus that is not removed as part of the project. This material may need to be removed as part of site maintenance, as directed by the Project Biologist. Fertilizers would not be used unless deemed necessary by the Project Biologist to rectify a specific nutrient deficiency.

10.3 Erosion and Sedimentation

BMPs are not anticipated to be needed after vegetation has established in the mitigation sites. However, temporary BMPs such as burlap fiber rolls, silt fence, and burlap gravel bags would be maintained as needed for proper function until the site has reached Year 3, or until the Project Biologist has deemed the BMPs unnecessary. Once the site is stabilized by native vegetation the contractor shall remove and dispose of temporary BMPs. If after Year 3, there is active erosion or sedimentation within or directly adjacent to the mitigation project, the Project Biologist would use the methods and protocol set forth in Chapter 13, Adaptive Management Plan.

10.4 Fence and Signage Maintenance

The location of gates and signage, and the language for the signage are included in the grading plans. Maintenance shall include repair of project gates and signage, and replacement as needed. The contractor shall confer with the Project Biologist if it appears that maintenance needs of the mitigation sites indicate that changes in the specified location, materials, or methods of fencing need to be altered to meet their intent for this project and provide appropriate site delineation and protection.

11 5-Year Monitoring Ecological Performance Standards

11.1 Streamed/Non-Wetland Waters

Aquatic functions of streambed/non-wetland water impacts are generally associated with the interaction of water flowing over unvegetated soil and rock substrate. As such, these functions are related to hydrology and the formation of fluvial features rather than vegetation with an emphasis on chemical and non-biological benefits including:

- Short- or long-term surface water storage
- Subsurface water storage
- Moderation of groundwater flow or discharge
- Dissipation of energy
- Cycling of nutrients
- Removal of elements and compounds
- Retention of particulates
- Export of organic carbon

Mitigation would be achieved primarily through site grading to establishment the site hydrology connections and associated aquatic functions to replace those lost from the project impacts. A reference site in within this watershed would be established to compare the ecological responses of the mitigation project to ambient environmental conditions including flood frequency, fluvial micro-topographic feature formation (e.g., braided ephemeral channels, cut banks and slip faces, sandbars), sediment transport, and debris wracking. Natural recruitment of native vegetation either from the applied seed mix or from seed and propagule transport through flood water would be assessed as an indication of normal ecological function.

Mitigation maintenance would focus on control of non-native vegetation through the 5-year maintenance effort. Additionally, the mitigation project must exhibit signs of evidence of wildlife use during the final 2 years of monitoring.

The Mitigation Sites would be monitored for a period of 5 years after mitigation implementation is complete or until performance standards are achieved. A biologist would monitor the streambeds to document the standards in Table 13 and follow the monitoring schedule per Section 12.1.

Table 13. Mitigation Project Performance Standards for Streambed/Non-Wetland Waters

Year	Evidence of Surface Hydrology via Active Storm or Post-Storm Flow[a]	Formation of Fluvial Features[b]
1	Minimum of one surface hydrology indicator observed	Minimum of one fluvial feature observed
2	Minimum of one surface hydrology indicator observed	Minimum of one fluvial feature observed

Table 13. Mitigation Project Performance Standards for Streambed/Non-Wetland Waters

Year	Evidence of Surface Hydrology via Active Storm or Post-Storm Flow[a]	Formation of Fluvial Features[b]
3	Minimum of one surface hydrology indicator observed	Minimum of one fluvial feature observed
4	Minimum of one surface hydrology indicator observed	Minimum of two fluvial features observed
5	Minimum of one surface hydrology indicator observed	Minimum of two fluvial features observed

Notes:

[a] Evidence of surface hydrology indicators include drift and/or organic debris, small break/texture break in bank slope, change in average sediment, mud cracks, ripples, benches, surface relief, change vegetation density between the channel and the surrounding areas, soil development, minor erosional channels, evidence of surface hydrology via active storm or post-storm flow, debris wracking, sediment deposition, organic deposition, leaf staining, and micro-channel formation.

[b] Fluvial features include short- or long-term surface water storage, subsurface water storage, moderation of groundwater flow or discharge, dissipation of energy, cycling of nutrients, removal of elements and compounds, retention of particulates, and export of organic carbon.

11.2 Jurisdictional Evaluation at the End of Year 5

At the end of Year 5, an evaluation of the dominance of wetland vegetation throughout the site shall be conducted, utilizing the "Vegetation" portion of the Wetland Determination Data Form–Arid West Region. The results of this exercise must achieve a Prevalence Index Score of less than or equal to 3. Results would be included in the Year 5 Annual Report (USACE 2008).

11.3 California Rapid Assessment Method

The purpose of the California Rapid Assessment Method (CRAM) surveys for the mitigation project is to evaluate the wetland function and value of the ephemeral drainages (washes and braided channels) and to quantify improvement of these functions and values over time. CRAM metrics would be compared to previous CRAM studies and used to inform management decisions. Adaptive management strategies, if necessary, would be identified, prioritized, and implemented.

Application of CRAM to measure improvement in wetland quality can be an effective tool, but it has limitations. CRAM considers a wide variety of factors that influence the health of a wetland, and some attributes cannot be improved within the confines of a 5-year mitigation project. A wetland may show a small change in total CRAM score over time in spite of great change in general appearance. For example, Attribute 1 in Table 14 is very difficult to change because it considers influences within 500 meters (1,640 feet) of the assessment area (AA), most of which may be outside the project footprint. However, Attributes 3 and 4 can be greatly affected by decisions made during the design phase of the mitigation project. Tables 14 and 15 provides a summary of CRAM attributes, associated metrics, and feasibility for improvement in the context of this project.

Table 14. Summary of Riverine CRAM Attributes and Metrics and Feasibility for Improvement

Attribute	Metric	What This Metric Measures	Anticipated Implementation Score	Ways to Improve the Score	Feasibility for This Project
Attribute 1: Buffer and Landscape Context	Stream Corridor Continuity	Quality of connection to upstream and downstream areas	D	Remove/reduce developments near the channel 500 meters upstream and downstream.	Low. With additional development this may be reduced further.
	Buffer	Size and natural quality of the area within 250 meters	D	Minimize proximity to pavement, closed fences, active recreation, and urbanized areas.	Low. With additional development this may be reduced further.
Attribute 2: Hydrology	Water Source	Natural quality of hydrologic inputs and watershed within 2 kilometers	C–D	Remove/minimize obstructions to flow within 2 kilometersl	Low. With additional development this may be reduced further.
	Channel Stability	Ability of the channel to maintain equilibrium (no-net-gain/loss of sediment)	C–D	Reduce velocity of water within the channel; minimize sedimenation from outside sources.	Moderate at time of creation. Low for change over 5-year mitigation period.
	Hydrologic Connectivity	Connection of the primary channel with a functional floodplain	C–D	Construct the primary channel for 2-year events, and create a floodplain that is easily accessed during high flow (>2-year) events.	Moderate at time of creation. Low for change over 5-year mitigation period.
Attribute 3: Physical Structure	Patch Richness	Diversity of physical surfaces and features	D	Add cobbles, boulders, and woody debris; build a stream gradient and channel width that allows for pools/riffles; provide adequate floodplain for pool, depressions, and side channels; construct swales that interact with the primary channel; and make the channel banks uneven.	Moderate at time of creation. Low for change over 5-year mitigation period.
	Topographic Complexity	Quality and diversity of	C–D	Construct a primary channel with adjacent	Moderate at time of creation. Low

Table 14. Summary of Riverine CRAM Attributes and Metrics and Feasibility for Improvement

Attribute	Metric	What This Metric Measures	Anticipated Implementation Score	Ways to Improve the Score	Feasibility for This Project
		elevation changes		floodplain and upland bench; create an uneven stream gradient; and add cobbles, boulders, and woody debris.	for change over 5-year mitigation period.
Attribute 4: Biotic Structure	Plant Composition	Diversity of native plant species and plant heights; low cover from non-native invasive species	D	Install/seed a wide variety of species of various heights and eliminate non-native invasive species.	Moderate–High
	Horizontal Interspersion	Number and distribution of distinct plant groupings	D	Install/seed species in distinct associations and avoid uniform application.	Moderate–High.
	Vertical Structure	Number of overlapping plant layers	D	Install/seed species of various heights.	Moderate–High

Table 15. Summary of Depressional CRAM Attributes and Metrics and Feasibility for Improvement

Attribute	Metric	What This Metric Measures	Anticipated Implementation Score	Ways to Improve the Score	Feasibility for This Project
Attribute 1: Buffer and Landscape Context	Aquatic Area Abundance	Quality of spatial association with other areas of aquatic resources	D	Remove/reduce developments near the channel 500 meters upstream and downstream.	Low. With additional development this may be reduced further.
	Buffer	Size and natural quality of the area within 250 meters	D	Minimize proximity to pavement, closed fences, active recreation, and urbanized areas.	Low. With additional development this may be reduced further.

Table 15. Summary of Depressional CRAM Attributes and Metrics and Feasibility for Improvement

Attribute	Metric	What This Metric Measures	Anticipated Implementation Score	Ways to Improve the Score	Feasibility for This Project
Attribute 2: Hydrology	Water Source	Natural quality of hydrologic inputs and watershed within 2 kilometers	C–D	Remove/minimize obstructions to flow within 2 kilometersl	Low. With additional development this may be reduced further.
	Hydroperiod	changes in the hydroperiod, flow regime, or sediment regime of and affects to the structure and composition of the wetland plant community	C–D	Reduce or increase the inundation and drawdown to reflect natural patterns. .	Moderate at time of creation. Low for change over 5-year mitigation period.
	Hydrologic Connectivity	Connection of the primary channel with a functional floodplain	C–D	Construct the primary channel for 2-year events, and create a floodplain that is easily accessed during high flow (>2-year) events.	Moderate at time of creation. Low for change over 5-year mitigation period.
Attribute 3: Physical Structure	Patch Richness	Diversity of physical surfaces and features	D	Add cobbles, boulders, and woody debris; build a stream gradient and channel width that allows for pools/riffles; provide adequate floodplain for pool, depressions, and side channels; construct swales that interact with the primary channel; and make the channel banks uneven.	Moderate at time of creation. Low for change over 5-year mitigation period.
	Topographic Complexity	Quality and diversity of elevation changes	C–D	Construct a primary channel with adjacent floodplain and upland bench; create an uneven stream gradient; and add cobbles, boulders, and woody debris.	Moderate at time of creation. Low for change over 5-year mitigation period.

Table 15. Summary of Depressional CRAM Attributes and Metrics and Feasibility for Improvement

Attribute	Metric	What This Metric Measures	Anticipated Implementation Score	Ways to Improve the Score	Feasibility for This Project
Attribute 4: Biotic Structure	Plant Composition	Diversity of native plant species and plant heights; low cover from non-native invasive species	D	Install/seed a wide variety of species of various heights and eliminate non-native invasive species.	Moderate–High
	Horizontal Interspersion	Number and distribution of distinct plant groupings	D	Install/seed species in distinct associations and avoid uniform application.	Moderate–High.
	Vertical Structure	Number of overlapping plant layers	D	Install/seed species of various heights.	Moderate–High

CRAM scores would be used to evaluate form and function of the mitigation project and therefore general achievement of non-wetland waters and wetland mitigation requirements for compensatory mitigation. When compared to the pre-construction and implementation conditions, the results of the Years 1, 3, and 5 CRAM surveys should show at a minimum the following:

- Physical form and structure that are suitable for consolidated flow and conveyance
- Development of hydrologic features within the channel (wash and braided channels) that provide evidence of expected function
- Continued improvement in biotic structure (improved score in Attribute 4)
- Overall trajectory toward improved rather than degraded condition (improved scores in Attributes 3 and 4)
- Overall increase in CRAM score

11.4 Reference Site

One reference site would be identified from within adjacent areas with which to compare with restoration area conditions. One reference site would consist of Diegan coastal sage scrub habitat, one would consist of scrub oak chaparral, and one would consist of southern mixed chaparral habitat. The City of San Diego must review and approve reference sites to be used. A justification for the selected reference sites and limitations for comparisons to reference sites (relative, not direct, comparisons) would be provided in the first annual monitoring report. The reference sites would be used to determine if progress of the restoration area is consistent with response of the reference sites to prevailing weather and environmental conditions.

12 Monitoring and Reporting Requirements

12.1 Monitoring and Reporting Schedule

Monitoring would consist of monthly qualitative site visits for the 120-day PEP period and Year 1; Years 2–3 monthly for the months of December through April; and Years 4–5 quarterly. CRAM pre-construction survey, implementation, and Years 1, 3, and 5 (Table 16). Qualitative monitoring would be conducted by the Project Biologist to determine if the site is on trajectory to meet the annual performance standards. If mitigation efforts fail to meet the performance standards in any given year, the Project Biologist would recommend remedial actions to bring the site into alignment with the performance standards.

Table 16. Monitoring and Reporting Schedule

Task	120-Day PEP	Year 1	Year 2	Year 3	Year 4	Year 5
Qualitative Monitoring	At 30, 60, 90, and 120-day PEP	Monthly	Monthly (Dec-Apr); quarterly thereafter	Monthly (Dec-Apr); quarterly thereafter	Quarterly	Quarterly
CRAM Monitoring	Prior to implementation (pre-construction)	Year 1 in fall/winter	N/A	Once in fall/winter	N/A	Once in fall/winter
Transect Data	N/A	Annually in fall	Annually in fall	Annually in fall	Annually in fall	Annually in fall
Reporting	As-built (implementation); site observation (monthly); 120-day PEP	Site observation; annual (Jan)	Site observation); annual (Jan)	Site observation); annual (Jan)	Site observation; annual (Jan)	Site observation; annual (Jan)

Notes: CRAM = California Rapid Assessment Method; PEP = plant establishment period; N/A = not applicable

12.2 As-Built Report

Prior to implementation, Photo stations would be selected, and photos of the project taken. These photo stations shall coincide with the transect sampling areas and serve as photographic evidence for the mitigation sites.

Within 45 days of successful completion of the installation of the hydroseed, the Project Biologist shall submit a post-construction memorandum to the Regional Water Quality Control Board (RWQCB) documenting the completion of the ephemeral drainage installation, weed removal, cobble/rock placement, and hydroseeding installation phase and describing the "as-built" conditions of the mitigation sites. The report shall include a copy of the reduced set of construction drawings and a figure showing the final as-built limits of the mitigation project. Photographs shall be included in the as-built report to document the site at the completion of the initial phase of implementation. The post-construction memorandum shall include the following:

- Date(s) work within waters of the United States and waters of the state was initiated and completed
- Summary of compliance status for each 401 condition

- Color photographs (including maps of photo points) taken at the mitigation site before and after construction
- One copy of the as-built drawings for the entire mitigation site
- Results of the pre-construction CRAM analysis
- Schedule for future mitigation site monitoring and reporting

12.3 120-Day Plant Establishment Period and Report

The initial survival of the native plants installed within the mitigation site shall be evaluated after a 120-day PEP. This period would start after planting is completed and conclude after the 120-day period and upon the acceptance of successful establishment of the mitigation site.

The contractor shall be responsible for the health and mortality of the installed plant material. The Project Biologist would visit the mitigation site at 30, 60, 90, and 120 days during this PEP. The Project Biologist shall coordinate with the restoration contractor to replace any native plants that have died during the PEP. Generally, plants would be recommended for in-kind replacement; however, the Project Biologist may recommend alternative species if it is suspected that unsuitable growing conditions caused mortality. Plants noted for replacement shall be installed prior to the 120-day walk through with the Project Biologist. Plants must be in the ground at least 30 days prior to completion of the PEP.

The following criteria must be met for the 120-day PEP (the results of which shall be documented in the 120-day PEP report) to be considered successful:

- All target exotics removed or killed in place.
- Areas free of debris and trash.
- Areas free of erosion.
- 100% survivorship of container plants.

The 5-year maintenance and monitoring program shall begin after the 120-day PEP has been accepted. Maintenance activities would be conducted concurrent with the installation, would continue throughout the initial PEP and would conclude at the end of the 5-year maintenance and monitoring period.

12.4 Qualitative Monitoring

Qualitative monitoring would include the assessment of the overall conditions of the rehabilitated non-wetland waters and the wetland mitigation sites. The conditions to be assessed qualitatively would include visual evaluation of hydraulic functions and conditions if present, evidence of surface hydrology via active storm or post-storm flow if present, number and type of hydric soil indicators if present, plant health, need for replacement planting, plant pests, wildlife usage, level of non-native plant infestation, and need for trash removal. Any recommended remedial measures would be reported to Green Phair Scripps Partners LLC and the Restoration Contractor for immediate consideration and implementation.

Following each site visit, the Project Biologist would generate a brief Site Observation Report indicating the condition of the site and any maintenance and/or remedial actions needed to help ensure the project meets its annual performance goals. While no focused wildlife surveys would be conducted, wildlife usage would be documented.

Copies of the Site Observation Report would be provided to Green Phair Scripps Partners LLC and the Restoration Contractor. While no focused wildlife surveys would be conducted, wildlife usage would be documented.

12.5 Quantitative Monitoring

Monitoring visits during all years would be conducted to evaluate plant species establishment, prescribe any necessary remedial measures, and to determine the need to continue the supplemental watering through the following year. Qualitative evaluation would assess general condition and repair of the mitigation site and be communicated to the maintenance contractor.

Transects would be sampled using the point-intercept method which is a modification of the line-intercept method (Canfield 1941) established during Year 1 in representative locations by the Project Biologist. The purpose of establishing the transect locations during Year 1 is that the goal of the transect placement is to capture data "representative" of the larger context the transect results are meant to represent. The specific placement of the individual transect would be randomized within a given vegetation community/mitigation credit type to control for bias, however the general representative area of the vegetation community/mitigation credit type would be determined by the Project Biologist. Because the installed mitigation site does not exist at the time of this Wetland Restoration Plan development, it cannot yet be determined which specific areas within a given vegetation community polygon are representative of that vegetation community. It is for this reason that exact transect locations would be determined by the Project Biologist, in the field, following project installation completion. At a minimum, two transects per acre of mitigation site would be established, proportioned by as-built mitigation acreages. Additional transects may be added if necessary.

Transect beginning and end points would be permanently marked by two 4-foot metal T-posts driven into the ground, and GPS coordinates recorded for each position. To collect data, a transect tape would be run between two posts 25 meters (82 feet) apart (or an appropriate length determined by the Project Biologist based on spatial feasibility of the polygon), and vegetative intercept line would be visually projected above and below the tape at every half-meter (1.6-foot) mark for a total of 50 intercepts per transect for a 25-meter transect. Each herb, shrub, or tree that intercepts the projected line would be recorded by species. All data would be utilized to determine total percent plant cover, percent native cover, percent non-native cover, and overall species richness. Quantitative monitoring would be conducted once annually in the fall beginning in Year 1 and extending through Year 5 of the mitigation project.

Due to the potential for vegetation to overlap in each strata layer at a given sample point, more than one plant may be recorded per sample point. This can result in a greater number of plant occurrences recorded than total number of sampling points. To address this overlap, data would be recorded as "absolute cover" in addition to "relative cover."

Permanent photo-documentation points would be established at key locations to visually document progress of the mitigation project. The Project Biologist would establish permanent photo points prior to project implementation and provide them on a site map for future reference. Photos would be taken at milestone events during installation and annually through the long-term monitoring phase of the project. Permanent photo-documentation stations would also be established along each transect to record the progress of quantitative data collection over the 5-year period. Additionally, photographs would be taken of any significant management issues or biological observations, including photographs of changing conditions within the mitigation site. Photos from photo-documentation points and mapped locations would be included in annual reports.

12.6 California Rapid Assessment Method

A Pre-CRAM survey would be conducted within each mitigation site prior to construction to document pre-construction conditions of the temporary impact areas. All CRAM surveys would be conducted by trained CRAM practitioners and would follow the approved methodologies for the CRAM Riverine Module (CMWM 2013a; field book version 6.1 or most current; datasheet version 6.1 or most current) within no- wetland waters and the CRAM Depressional Module (CMWM 2013b; field book version 6.1 or most current; datasheet version 6.1 or most current) for emergent wetlands. Results of the CRAM surveys would be included in the Annual Reports for Years 1, 3, and 5 and would be entered into the CRAM online database.

The purpose of CRAM surveys for the mitigation sites (i.e., the created ephemeral drainages) is to evaluate the wetland function and value of the drainages and to quantify improvement of these functions and values during the mitigation monitoring period. All CRAM surveys would be conducted by trained CRAM practitioners and would follow the approved methodologies for the CRAM Riverine Module (version 6.1 or most current) and CRAM Depressional Module (version 6.1 or most current).

CRAM surveys would be conducted for the as-built (baseline) condition, Year 3, and Year 5. The as-built survey would be conducted directly after construction of the drainages is complete and prior to the start of the 5-year mitigation monitoring period. Subsequent surveys would be conducted during Years 3 and 5 of the mitigation monitoring period. Results of CRAM surveys would be reported in the as-built report and Year 3 and Year 5 annual reports. The CRAM scores in Years 3 and 5 would be compared to baseline scores to evaluate how the wetland functions and values improved during the mitigation monitoring period.

Per the CRAM riverine protocol, each CRAM survey is conducted for one AA that is always between 100 and 200 meters in length. The length of each AA is a direct function of channel width. Assuming the average width of the mitigation site channels is less than 10 meters, the size of each AA for this project would be 100 meters. It is recommended that at least one AA be chosen within the streambed/non-wetland water area.

Per the CRAM depressional protocol, the recommended size of the AA is a 56-meter radius circle, or about 100m x 100m square, but shape can vary. The maximum size is for an AA is an 80-meter radius circle, or about 140m x 140m square, but shape can vary . It is recommended that at least one AA be chosen within each of the emergent wetlands the streambed/non-wetland water area

Establishment of the AAs would occur during the initial survey (i.e., the pre-CRAM survey) per CRAM protocol. Subsequent surveys (Implementation and Years 3 and 5) would be conducted within these same AAs.

The Riverine Module requires the collection of information on the AA that includes the surrounding landscape (Attribute 1: Buffer and Landscape Context), water source and influences (Attribute 2: Hydrology), spatial arrangement of the vegetation (Attribute 3: Physical Structure), and quality of vegetation (Attribute 4: Biotic Structure). Each attribute is scored individually, and then used to calculate the final CRAM score. Potential environmental “stressors” are noted for the AA, but do not factor into the total CRAM score.

The Depressional Module requires the collection of information on the AA that includes the surrounding landscape (Attribute 1: Buffer and Landscape Context), water source and influences and hydroperiod (Attribute 2: Hydrology), spatial arrangement of the vegetation (Attribute 3: Physical Structure), and quality of vegetation (Attribute 4: Biotic

Structure). Each attribute is scored individually, and then used to calculate the final CRAM score. Potential environmental "stressors" are noted for the AA, but do not factor into the total CRAM score.

12.7 Annual Mitigation Monitoring Reporting

An annual biological monitoring report summarizing the progress of the mitigation sites would be submitted to Green Phair Scripps Partners LLC, the City, RWQCB, and CDFW annually following completion of all installation work. Annual reporting would be due January 1 each year. If no as-built report was required for this mitigation project, then the first annual report would include a discussion of the as-built conditions according to the grading plan and any minor changes that occurred to the grading plans were Each report would document the condition of the mitigation sites with photographs taken from the same fixed points in the same directions. Annual reports would identify any shortcomings of the mitigation project and recommend remedial measures if necessary, for the successful completion of the mitigation project.

INTENTIONALLY LEFT BLANK

13 Adaptive Management Plan

13.1 Drought

Seasonal drought is a normal annual cycle in San Diego County, especially in low-precipitation areas like the desert. The seed mix has been designed with drought-tolerant plant species that are capable of withstanding seasonal fluctuations in available moisture. However, periods of extended drought could occur, including low seasonal rainfall and prolonged high temperatures that may negatively affect the mitigation project (e.g., lower native cover, higher plant mortality, increased potential for pest infestations on site).

If drought conditions limit native vegetation development, an additional seed application may be considered to replenish the native seed bank to allow the site to respond normally in the event of renewed rainfall and/or flooding.

13.2 Herbivory

Some grazing and browsing by native herbivores is expected to occur within the mitigation sites. The plant palettes for each vegetation community have been designed to tolerate a moderate level of plant browsing. If browsing levels should become elevated (i.e., if significant plant mortality and cover reduction occurs) as indicated by qualitative monitoring of the Mitigation Sites, remedial measures shall be implemented. Browse guards (e.g., plastic fencing/wire cages) may be installed around the base of trees and young shrub plants in affected areas to reduce plant mortality. In addition, remedial planting or seeding may be necessary, depending upon the stage of the mitigation site.

13.3 Adverse Hydrologic Changes

Floodplains are dynamic systems that can experience topographic modification due to storm flow and flood events. It is expected that sediment would be deposited and exported from the mitigation sites during flood events. If elevations within the mitigation sites (such as excessive aggradation or degradation) change in such a way that compromise the success of the mitigation project, localized grading or recontouring may be necessary for the mitigation sites to achieve success. In the event of adverse hydrologic and/or topographic changes affecting the mitigation sites, the Project Biologist would assess the conditions and provide adaptive management recommendations to the RWQCB, including but not limited to additional grading and/or weed-free BMPs such as burlap-encased straw wattles, fiber rolls, or burlap gravel bags.

13.4 Fire

San Diego County experiences periodic wildfires. Vegetation communities native to the area are adapted to this periodic fire regime, with plant species possessing the ability to stump, sprout, or otherwise regenerate from underground plant material. While fire is a co-evolutionary factor, it also presents the possibility for faster-growing, early successional non-natives to out-compete the recovering native species. In the event of fire affecting the mitigation project, the Project Biologist would assess the post-fire conditions and provide adaptive management recommendations, including but not limited to an increase in weed control management.

INTENTIONALLY LEFT BLANK

14 Financial Assurance

As owner and permittee of the mitigation project, Green Phair Scripps Partners LLC is financially responsible for implementation and management of the mitigation project. Costs include planning and design, construction, interim maintenance and monitoring, and long-term management through funding of a Community Facilities District and/or a non-wasting endowment. Green Phair Scripps Partners LLC must post a performance bond to cover the initial implementation and 5-year maintenance and monitoring activities outlined in this Wetland Restoration Plan. The same funding source established by Green Phair Scripps Partners LLC would be available to complete the compensatory mitigation project, to provide alternative compensatory mitigation, and/or to be used by a third party to complete required tasks, should the initial mitigation effort fail to be successful.

Financial assurance in the form of performance bonds would be provided to cover the cost to (1) construct and implement the mitigation project and (2) monitor and maintain the mitigation project until formal acceptance by the City.

INTENTIONALLY LEFT BLANK

15 Completion of Mitigation

15.1 Notification of Completion

At the end of the fifth year, the final annual monitoring report would be submitted to RWQCB and CDFW including an evaluation of mitigation project success. The report would make a determination of whether the requirements and performance standards of the mitigation project have been achieved. Successful mitigation would be considered to have been achieved when the mitigation project is self-sustaining without supplemental irrigation or any substantial remedial activities for a minimum of 2 years. Following attainment of final performance standards, a vegetation mapping effort would be conducted to document the post-project site conditions and be included in the final annual report. At the request of the RWQCB and/or CDFW, a formal jurisdictional wetland delineation may be performed on the mitigations Sites to assist in determination of the mitigation project's fulfillment of its intent.

At the conclusion of the 5-year maintenance and monitoring period, or at such time that the mitigation project has achieved the performance standards, the Project Biologist shall inform the applicant and Resource Agencies and request final sign-off/approval. A site review would be scheduled for all interested parties to review the Mitigation Sites to confirm final conditions. Upon verbal, and/or preferably written confirmation of mitigation project success by the RWQCB and CDFW shall release the project Proponent of all obligations associated with the 5-year maintenance and monitoring program.

15.2 Regulatory Agency Confirmation

Following receipt of the notification of completion, permitting regulatory agencies may visit the mitigation project to confirm the completion of the mitigation effort and to verify compliance with permit conditions. Monitoring and maintenance would continue for 5 years or until performance standards have been met and the RWQCB and CDFW has provided written release via email or letter confirming that the mitigation project may be transferred to the long-term/in-perpetuity manager and that all other permit special conditions are in compliance.

Following the maintenance and monitoring period, construction BMPs and temporary fencing and delineation shall be removed.

At the end of the fifth year, or at such time that the mitigation project has achieved the performance standards, a notification of completion and final monitoring report would be submitted by Green Phair Scripps Partners LLC to the RWQCB and CDFW. The final report would include the evaluation of the success of the mitigation project and make a determination of whether the requirements and performance standards criteria of the mitigation sites have been achieved.

INTENTIONALLY LEFT BLANK

16 Mitigation Site Conveyance and Preservation

Creation, restoration (rehabilitation) and enhancement within mitigation project located within the City of San Diego, would remain in the City of San Diego. The northern wetland mitigation area would be dedicated to the City in fee title as separate lot parcels and would transfer management responsibilities to the City of San Diego. The southern wetland mitigation areas are not allowed within the MHPA or City ownership. These areas will be retained within HOA ownership with a conservation easement, as required by RWQCB and CDFW.

INTENTIONALLY LEFT BLANK

17 Contingency Measures

17.1 Alternative Location for Contingency Contemporary Mitigation

If it is decided that an alternative location is required to complete compensatory mitigation requirements, then the project Permittee shall coordinate with the Resource Agencies to locate an approved site. Alternative locations for mitigation areas may be found within the same watershed or as credits purchased from an approved off-site preservation of intact/semi-intact riparian habitat to the satisfaction of the City and applicable Resource Agencies.

17.2 Funding

Green Phair Scripps Partners LLC would be responsible for providing all necessary funds to cover costs associated with any required contingency compensatory mitigation. Sufficient funds would be provided to cover the implementation of the contingency mitigation plan, associated maintenance and monitoring program, and report preparation.

INTENTIONALLY LEFT BLANK

18 Long-Term Management Plan

The overall goal of long-term management is to promote long-term viability of the restoration area's resources and surrounding habitat. Routine monitoring and minor maintenance tasks are included herein to ensure the viability of the restoration area in perpetuity.

Green Phair Scripps Partners LLC is the initial land owner and responsible for hiring a Restoration Contractor for completion of the 5-year maintenance and monitoring period. Upon successful completion of the 5-year maintenance and monitoring period, and inspection and approval of site conditions to the satisfaction to the City, the northern wetland mitigation area would be dedicated to the City in fee title as separate lot parcels and would transfer management responsibilities to the City of San Diego. The southern wetland mitigation areas are not allowed within the MHPA or City ownership. These areas will be retained within HOA ownership with a conservation easement, as required by RWQCB and CDFW. The Permittee shall provide funding to the City to complete ongoing long-term maintenance and monitoring outlined in the long-term management plan (Dudek 2023b) based on a property analysis record or equivalent analysis for the northern wetland mitigation area. For additional information, see the BTR (Dudek 2023a), the City of San Diego MSCP Subarea Plan (City of San Diego 1997), and the Long-Term Management Plan (Dudek 2023b).

INTENTIONALLY LEFT BLANK

19 References

Bowman, R.H. 1973. *Soil Survey, San Diego Area, California, Part 1*. U.S. Department of Agriculture, Soil Conservation Service and Forest Service. December 1973. http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA638/0/part1.pdf.

Calflora. 2020. *The Calflora Database*. Information on Wild California Plants. Berkeley: Calflora. Accessed September 14, 2020. http://www.calflora.org.

Canfield, R.H. 1941. "Application of the Line Interception Method in Sampling Range Vegetation." *Journal of Forestry* 39:388-394.

City of San Diego. 1997. *City of San Diego MSCP Subarea Plan. Prepared by the City of San Diego Community and Economic Development Department*. March 1997. http://www.sandiego.gov/planning/programs/mscp/docsmaps/index.shtml.

City of San Diego. 2018a. *San Diego Municipal Code, Land Development Code—Biology Guidelines*. Amended February 1, 2018, by Resolution No. R-311507. https://www.sandiego.gov/sites/default/files/amendment_to_the_land_development_manual_biology_guidelines_february_2018_-_clean.pdf.

City of San Diego. 2018b. *The City of San Diego Storm Water Standards*. October 1, 2018. https://www.sandiego.gov/sites/default/files/storm_water_standards_manual_oct_2018.pdf.

CMWM (California Wetlands Monitoring Workgroup). 2013a. *California Rapid Assessment Method (CRAM) for Wetlands, Riverine Wetlands Field Book*. Version 6.1. January 2013.

CMWM (California Wetlands Monitoring Workgroup). 2013b. *California Rapid Assessment Method (CRAM) for Wetlands, Depressional Wetlands Field Book*. Version 6.1. February 2013.

Dudek. 2023a. *Biological Technical Report for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Dudek. 2023b.*Long-term Management Plan for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Hunsaker & Associates. 2023. *Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP)*. October 2023.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County.* March 2008. http://www.sdcanyonlands.org/pdfs/ veg_comm_sdcounty_2008_doc.pdf.

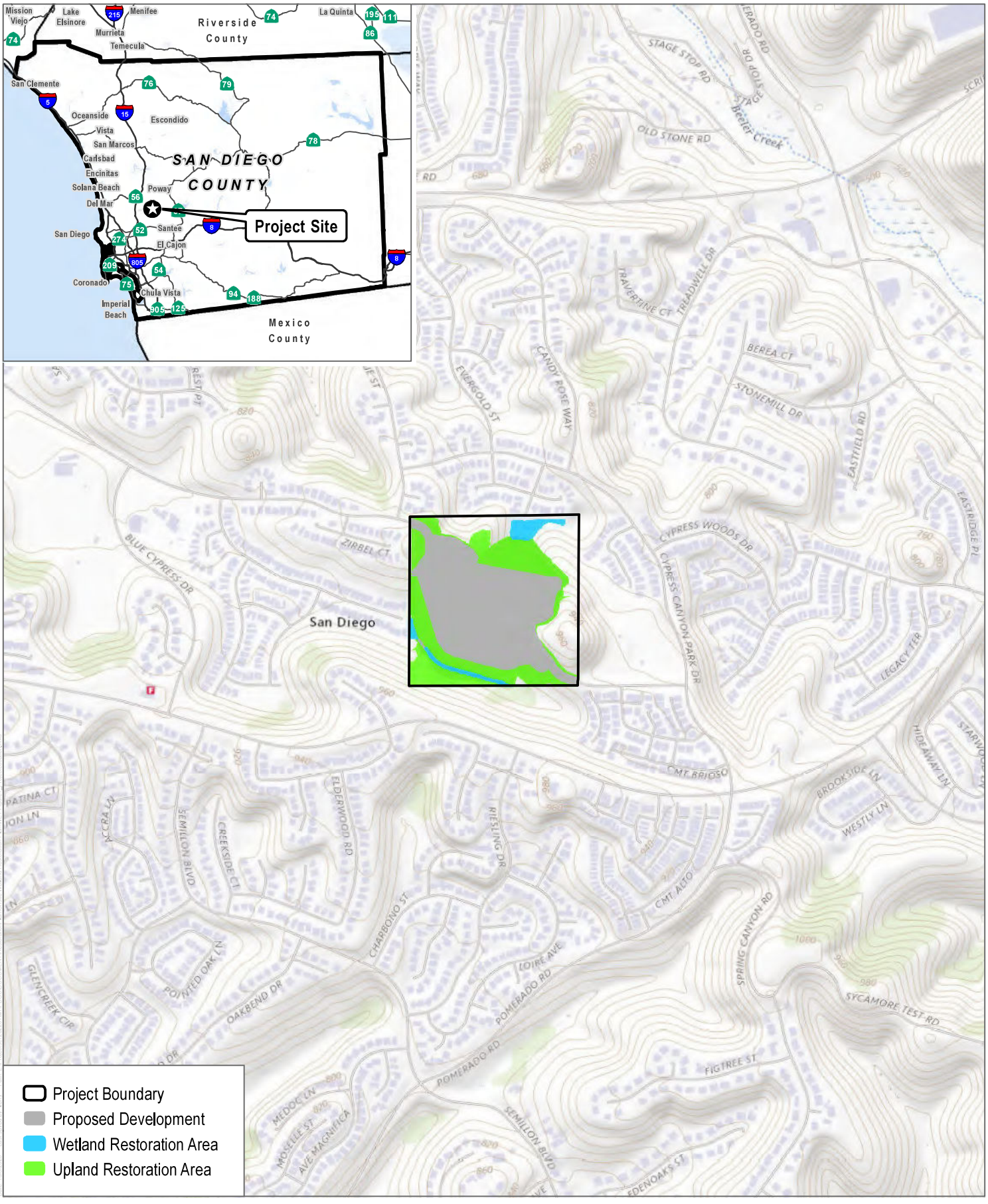
USACE (U.S. Army Corps of Engineers). 2008. *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. http://el.erdc.ACOE.army.mil/elpubs/pdf/trel08-28.pdf.

USDA (U.S. Department of Agriculture). 2020a. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed September 14, 2020. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

USDA. 2020b. "State Soil Data Access (SDA) Hydric Soils List." Accessed March 2021. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1389479.html#reportref.

USGS (United States Geological Survey). 2023. The National Map - Advanced Viewer Accessed April 2023. https://apps.nationalmap.gov/viewer/.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. *California's Wildlife*. Vol. I–III. Updated in the California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento: California Department of Fish and Game. https://www.wildlife.ca.gov/Data/CWHR.



SOURCE: ESRI MAPPING SERVICE; USGS TOPO

DUDEK

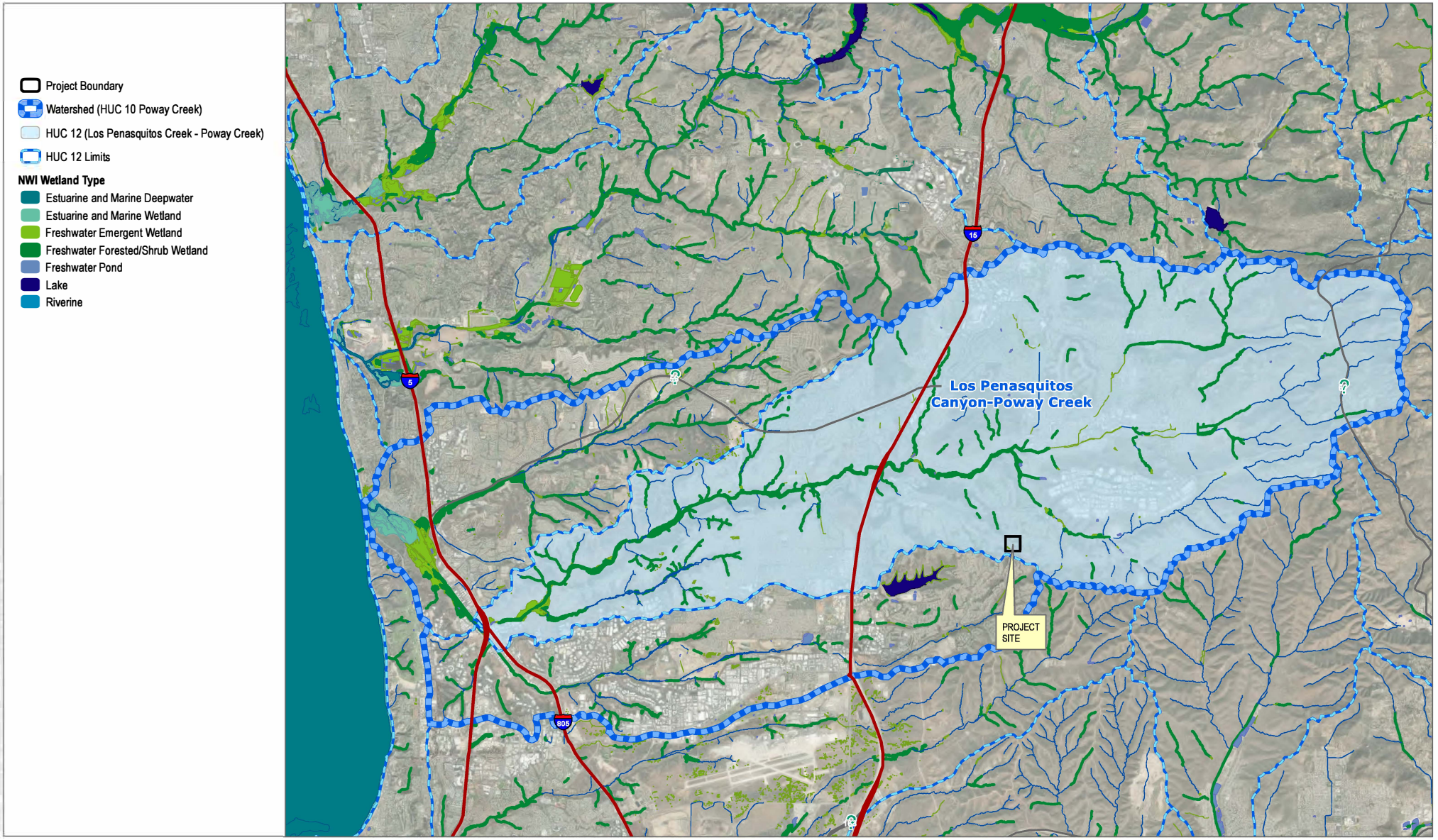
0 500 1,000 Feet
0 250 500 Meters
1:12,000

FIGURE 1

Project Location

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS IMAGERY 2020, SANGIS 2023

DUDEK

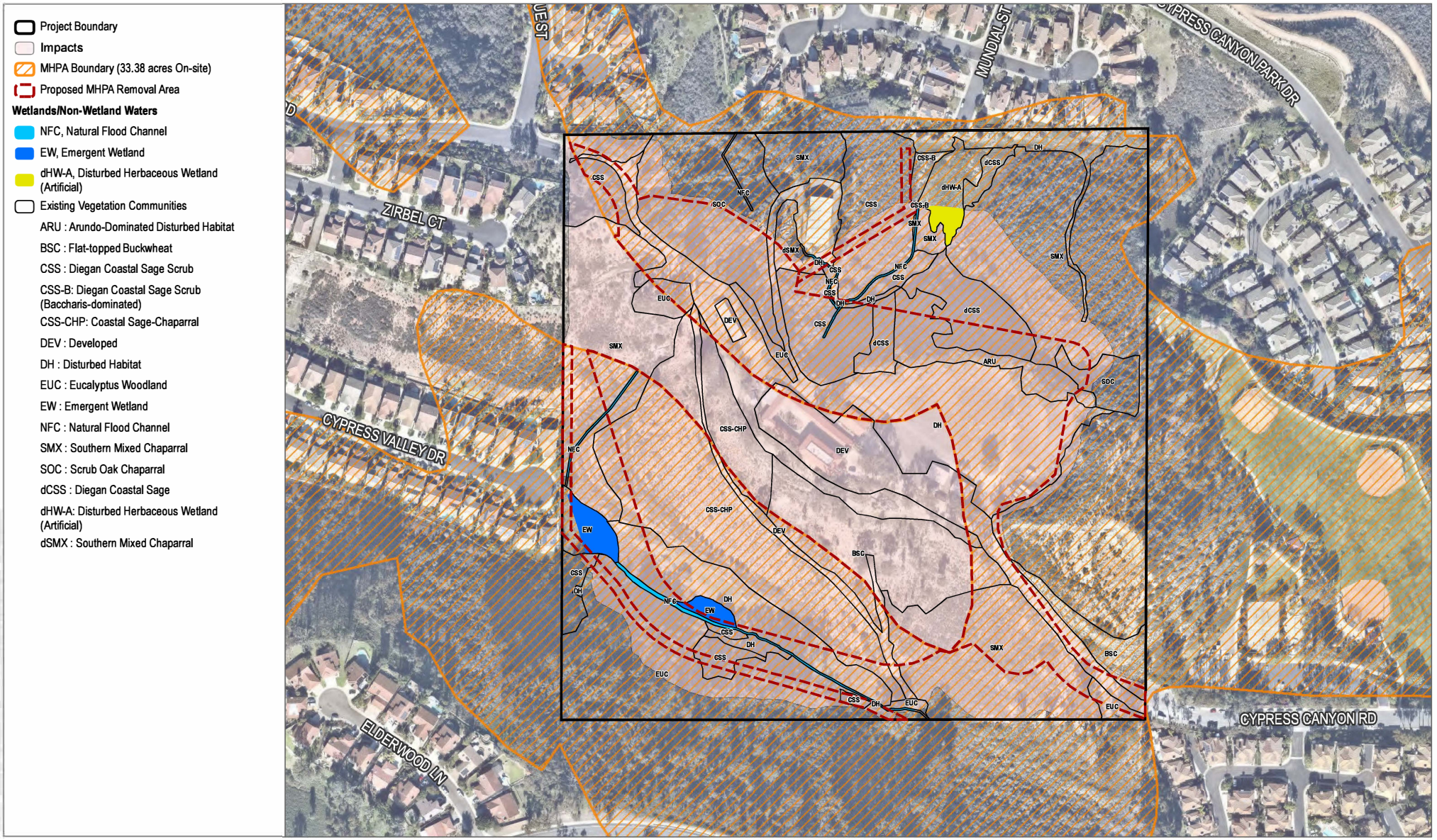
0 4,050 8,100 Feet

FIGURE 2

Watershed and Jurisdictioal Boundaries

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS IMAGERY 2020, SANGIS 2023

DUDEK

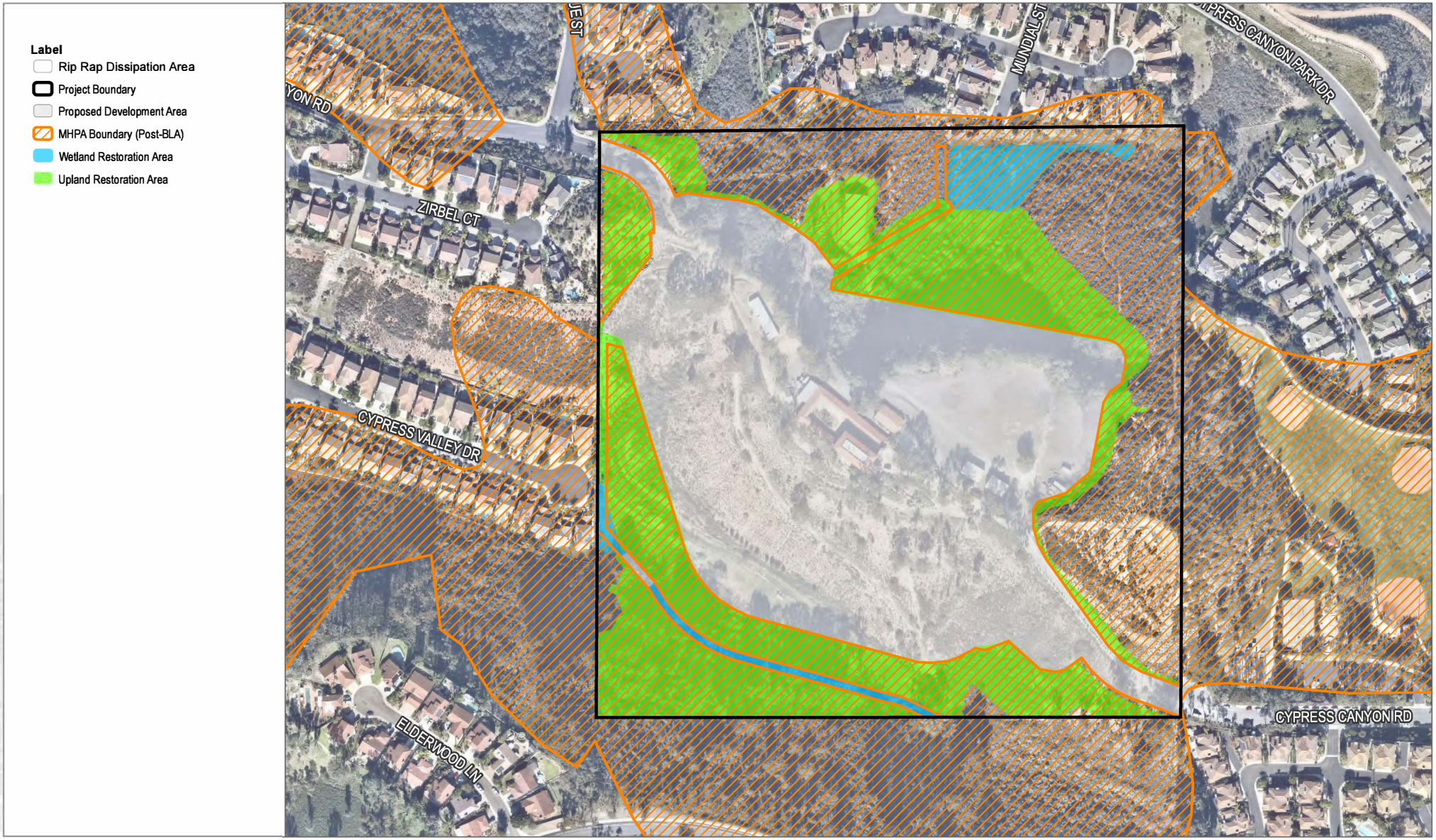
0 100 200 Feet

FIGURE 3

Proposed Project Impacts to Wetlands

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS IMAGERY 2020; SANGIS 2023

DUDEK

0 100 200 Feet

FIGURE 4

On-Site Restoration Areas Post Boundary Line Adjustment

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2021, USDA 2020

DUDEK

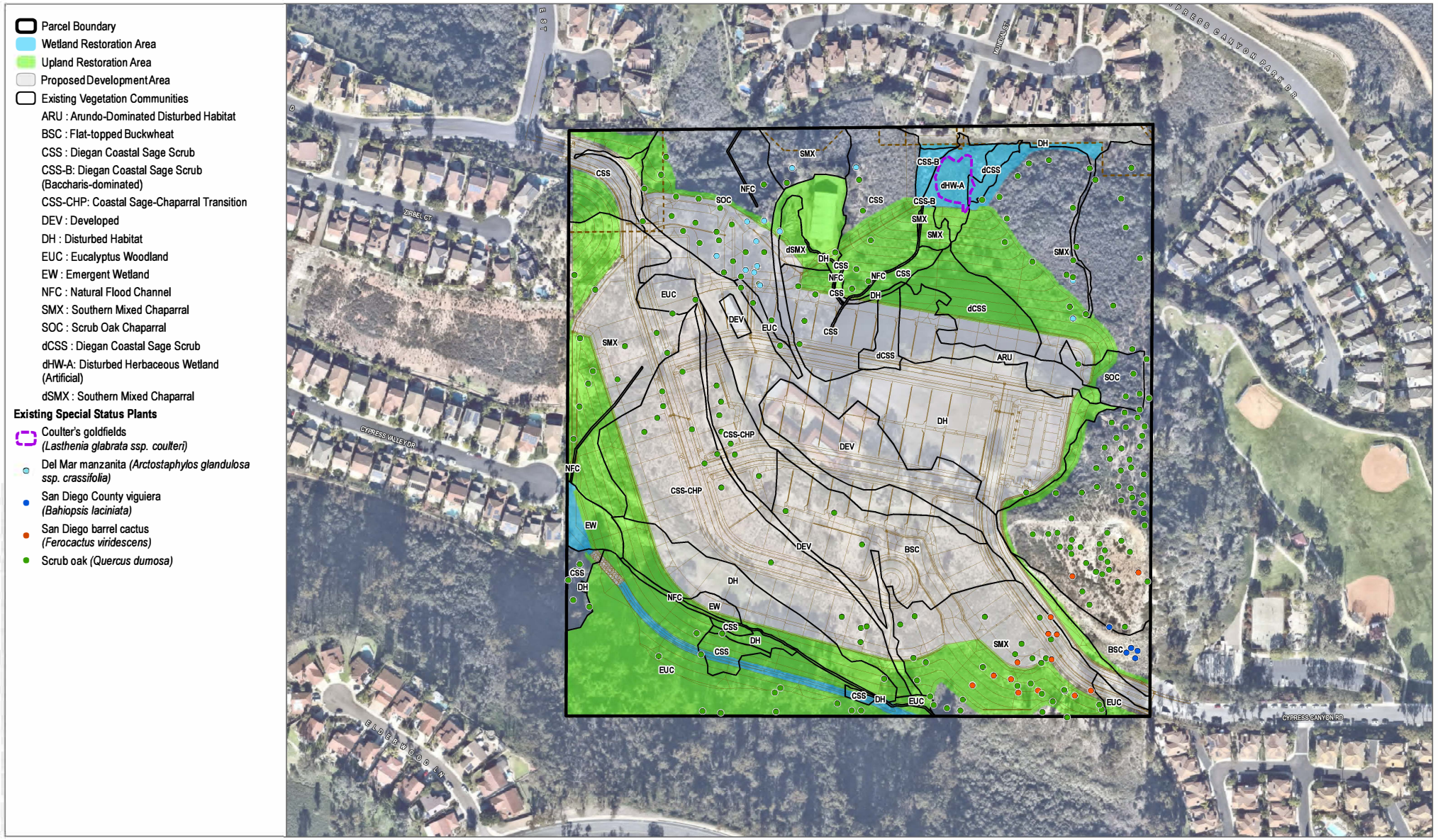
0 250 500 Feet

FIGURE 5

Existing Soils

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS IMAGERY 2022, DEVELOPMENT-HUNSAKER 2023

DUDEK

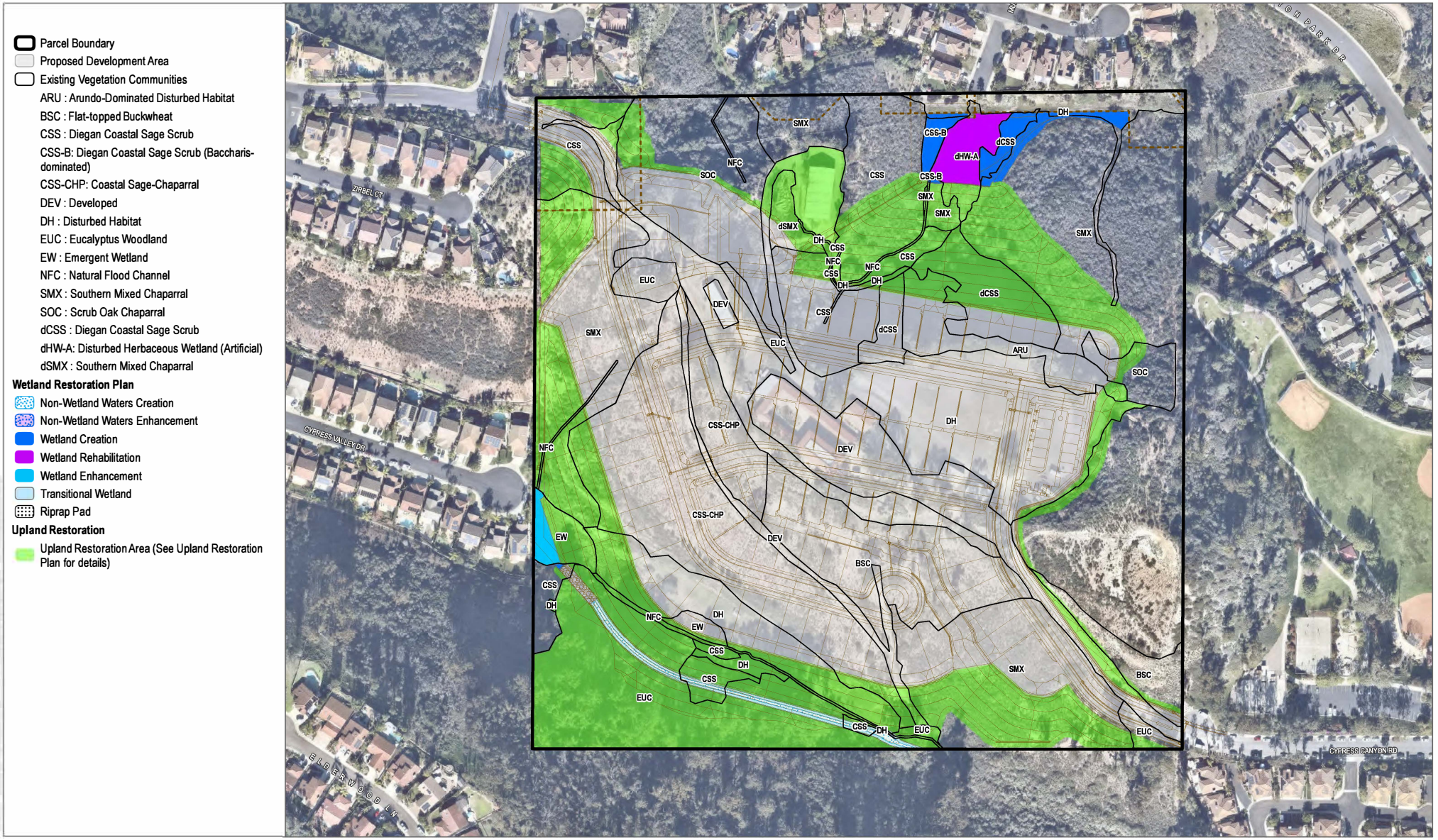
0 80 160 Feet

FIGURE 6

Existing Vegetation Communities and Special Status Plants

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS IMAGERY 2022, DEVELOPMENT-HUNSAKER 2023

DUDEK

FIGURE 7

Conceptual Wetland Restoration Plan

Wetland Restoration Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK

Appendix L

Long Term Management Plan for the
Renzulli Estates Project

Long-Term Management Plan

Renzulli Estates Project
City of San Diego, California
City of San Diego Project Number 664017

AUGUST 2025

Prepared for:

GREEN PHAIR SCRIPPS PARTNERS LLC
945 East J Street
Chula Vista, California 91910
Contact: Austin Dias

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Erin McKinney

Printed on 30% post-consumer recycled material.

Table of Contents

SECTION **PAGE NO.**

Acronyms and Abbreviations iii

1 Introduction 1
- 1.1 Project Background 1
- 1.2 Purpose for Long-Term Management Plan 1

2 Project Site Description 3
- 2.1 Environmental Setting 3
- 2.2 Land Use 3

3 Biological Resources Description 5
- 3.1 Vegetation Communities and Land Cover Types 5
  - 3.1.1 Diegan Coastal Sage Scrub 6
  - 3.1.2 Coastal Sage–Chaparral Transition 6
  - 3.1.3 Flat-Topped Buckwheat Scrub 6
  - 3.1.4 Southern Mixed Chaparral 6
  - 3.1.5 Scrub Oak Chaparral 7
  - 3.1.6 Disturbed Habitat/Land 7
  - 3.1.7 Emergent Wetland 7
  - 3.1.8 Natural Flood Channel 8
- 3.2 Special-Status Plant Species 8
  - 3.2.1 Del Mar Manzanita 8
  - 3.2.2 San Diego Viguiera 9
  - 3.2.3 San Diego Barrel Cactus 9
  - 3.2.4 Coulter's Goldfields 9
  - 3.2.5 Nuttall's Scrub Oak 9
- 3.3 Existing Wildlife 10
  - 3.3.1 Cooper's Hawk 10
  - 3.3.2 San Diegan Tiger Whiptail 10
  - 3.3.3 Coastal California Gnatcatcher 10

4 Threats to the Preserve Area 11
- 4.1 Invasive Species 11
- 4.2 Intrusion by Domestic Animals 11
- 4.3 Trespassing 11
- 4.4 Dumping and Trash 11
- 4.5 Fire 11

5 Management Specifications 13
5.1 Biological Resource Management 14
5.1.1 Vegetation and Invasive Species Mapping 14
5.1.2 Habitat Monitoring 15
5.1.3 Invasive Species Maintenance 15
5.1.4 Exotic Animal Control 17
5.1.5 Photo Documentation 17
5.2 Adaptive Management 18
5.2.1 Vegetation Decline 18
5.2.2 Fire Management Tasks 18
5.3 Security, Safety, and Public Access 19
5.3.1 Trespass Monitoring and Management 19
5.3.2 Trash Monitoring and Management 19
5.4 Reporting and Administration 19
5.4.1 Data Management 20
5.4.2 Communication and Coordination 20
5.4.3 Annual Task Cost Estimates 20
5.4.4 Funding 20
5.5 Task Prioritization 21
5.6 Prohibitions 21
6 References 23

TABLES

1 Vegetation Communities and Land Cover Types in the Preservation Area 5
2 Long-Term Management Tasks 13
3 Weed Control and Treatment for Target Cal-ICP Non-Native Plant Species 16

FIGURES

1 Project Location 25
2 Project Boundary and Post-Development MHPA 27
3 Habitat Preservation and Post-Development MHPA 29

APPENDIX

A Property Analysis Record Equivalent

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
amsl	above mean sea level
Cal-IPC	California Invasive Plant Council
City	City of San Diego
CRPR	California Rare Plant Rank
LTMP	Long-Term Management Plan
MHPA	Multi-Habitat Planning Area
MSCP	Multiple Species Conservation Program
Project	Renzullii Estates Development Project

INTENTIONALLY LEFT BLANK

1 Introduction

1.1 Project Background

This Long-Term Management Plan (LTMP) outlines site protection and long-term management of the Renzullii Estates Development Project's (development project) upland and wetland management areas (preservation area) located approximately 2.5 miles east of Interstate 15, 0.5 miles south of Scripps Poway Parkway, and 0.1 miles north of Spring Canyon Road in the northeast portion of the City of San Diego (Figure 1, Project Location).

The development project construction footprint currently contains an existing single-family residence and several outbuildings and are approximately 40.6 acres in total area. The project would require a vesting tentative map and a site development permit to develop a new 100-unit single-family subdivision and 12 multifamily units as affordable income rentals. All existing buildings will be removed and either developed or restored with native habitat. In addition to the site development permit, the project would also require a community plan land use amendment to change the existing residential designation of 1.1 dwelling units per acre to 2.8 dwelling units per acre. A re-zone is also proposed to change the existing AR-1-1 zone to RX-1-2 , OR-1-2, and RM-2-4. In addition, the project is located in the high fire severity overlay zone. Finally, the project would also require a Multi-Habitat Planning Area (MHPA) Boundary Line Adjustment (BLA)and vacation of a street easement on the proposed MHPA BLA addition site as part of this development proposal (i.e., Lakehurst Avenue – not yet built) (Dudek 2023a).

The project would include infrastructure improvements on the project site, including installation of utilities, a private storm drain system, and internal sidewalks and roads. Impacts would occur from clearing, grading, and manufactured fill and slope creation for development of the residential pads, subdivision and associated features and infrastructure.

Initially, the development project and preservation area will be implemented, monitored, and maintained by Green Phair Scripps Partners LLC to generate compensatory mitigation credit by providing upland restoration and creation and wetland creation, restoration, and enhancement within approximately 20 acres of MHPA. Once the 5-year maintenance and monitoring program has been accepted by the City, the majority of the preservation area would be dedicated to the City of San Diego (City) in fee title as separate lot parcels and management responsibilities will be transferred to the City. Small portions of the MHPA along the northern boundary of the project site will be retained in HOA ownership and are not included in compensatory mitigation credit acreages.

Long-term management, as outlined herein, shall begin following achievement of the final Renzulli upland restoration project success criteria (Dudek 2023b) and Renzulli wetland restoration project success criteria (Dudek 2023c) as approved and accepted by the City. Monitoring and management will take place in accordance with MSCP requirements and the requirements of this LTMP, respectively. The City will be responsible for site protection, in compliance with the MSCP and the associated open space land use designation for sites such as this, within the MHPA. Together, site protection and management of the site in perpetuity supports the long-term sustainability of the functions and services it provides.

1.2 Purpose for Long-Term Management Plan

The preservation area occurs withing City Open Space within the MHPA, as identified by the San Diego MSCP Subarea Plan (Figure 2, Project Boundary and Post-Development MHPA) (City of San Diego 1997). The City will assume long-term management responsibility after acceptance of the 5-year upland and wetland restoration

programs (Dudek 2023a and 2023b) under the MSCP Subarea Plan. The MSCP is a comprehensive conservation planning program that was developed to "preserve a network of habitat and open space, protecting biodiversity, and enhance region's quality of life" in perpetuity (City of San Diego 1997). The U.S. Fish and Wildlife Service and California Department of Fish and Wildlife oversee the biological monitoring program.

The MSCP Implementing Agreement between the City, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife was signed in 1997 and established the MHPA (City of San Diego, USFWS, CDFG 1997). Sections 10.3, 10.4, and 10.5 require the implementation of Preserve guidelines, land use adjacency guidelines, and planning policies and design guidelines. These policies have been incorporated into the City's Land Development Code and serve to protect lands within the MHPA from direct and indirect habitat degradation. Section 21.3 of the Implementing Agreement states that "notwithstanding the stated term as herein set forth, the Parties agree and recognize that once Take of a Covered Species has occurred and/or their habitat modified within the Subarea, such take and habitat modification will be permanent. The Parties, therefore, agree that the preservation and maintenance of the habitat provided for under this Agreement shall likewise be permanent and extend beyond the term of this Agreement." Therefore, although the term of the MSCP is 50 years (1997–2047), the preservation of lands within the MHPA, especially in areas where preserved lands are specifically required due to a permanent impact/take, is explicitly permanent.

The City has established protection for lands in the MHPA in conformance with the Implementing Agreement. Section 143.0101 of the City's Land Development Code (Environmentally Sensitive Lands Regulations) incorporates Sections 1.4.1 and 1.4.2 of the MSCP Subarea Plan (City of San Diego 1997) that restricts uses within the MHPA similar to a conservation easement. The Land Development Code also incorporates Section 1.4.3 of the MSCP Subarea Plan and restricts land uses adjacent to the MHPA (e.g., establishment of potential adverse drainage conditions, toxic chemical uses, invasive species) (City of San Diego 2018). These restrictions provide greater site protection and ensure a higher degree of long-term sustainability than typical conservation easements and/or deed restrictions because they apply to the adjacent areas in addition to the site itself.

The City also developed a Biological Monitoring Plan (Odgen 1996) to implement a comprehensive, efficient, and consistent ongoing biological monitoring and preserve management program in accordance with these documents (e.g., MSCP, MSCP Subarea Plan, Habitat Management Plans). The City has also partnered with other regional agencies responsible for management of lands in accordance with several Natural Communities Conservation Plans and Habitat Conservation Plans and has developed a plan for more efficient management at a regional scale: Management Strategic Plan for Conserved Lands in Western San Diego County (SDMMP 2013). It is expected that this regional approach will guide management and monitoring in the future while maintaining conformance with the MSCP Implementing Agreement.

The City's Parks and Recreation Department will take jurisdiction as land manager and is responsible for perpetual long-term management. A Property Analysis Record was developed to inform annual City budgets for the in-perpetuity management of the Preserve (Appendix A). This LTMP and the Property Analysis Record (Appendix A) were developed in compliance with the requirements outlined in the MSCP and associated Biological Monitoring Plan for the Multiple Species Conservation Program (Ogden 1996). This LTMP outlines in-perpetuity management items, including monitoring (annual vegetation health assessments and patrol visits), habitat maintenance (exotic plant control, erosion control, pest/predators control, access control, and trash removal), adaptive management, overall biological data inventory management, and annual reporting.

2 Project Site Description

2.1 Environmental Setting

The preserve area is located around the Renzulli Estates project construction footprint within the City MHPA open space. The site is bounded by development on all sides. The elevation in the restoration area ranges from approximately 760 feet to 980 feet above mean sea level (amsl). is generally steep and hilly, with lowland canyon bottoms in the southern and northern portion of the project parcel; these areas receive much of the runoff from the surrounding hills and support wetland vegetation or drainages (Figure 2).

2.2 Land Use

Current land uses within and immediately surrounding the preserve area include existing single-family residential development, Cypress Canyon Park, Spring Canyon Road and other neighborhood streets, sidewalks, and traffic (vehicle and pedestrian), as well as native and disturbed habitat in the canyons between developed residential areas (Figure 3, Habitat Preservation and Post-Development MHPA).

INTENTIONALLY LEFT BLANK

3 Biological Resources Description

This section provides a biological description for approximately 18.78 acres of post-project MHPA area that will be owned and managed by the City. An additional approximately 1.64 acres of land will also be in the post-project MHPA but will be owned by the HOA and subject to brush management requirements and therefore is not included in compensatory mitigation credit acreages. A total of 20.42 acres will be in the MHPA following implementation of the project.

3.1 Vegetation Communities and Land Cover Types

The vegetation communities and land covers were mapped according to Holland (1986) and Oberbauer et al. (2008), with a few exceptions. Some vegetation communities were given additional descriptions to identify highly dominant species within the community. These habitats were then cross-walked to their corresponding communities listed in the City's Biology Guidelines (City of San Diego 2018). Five native vegetation communities, one non-native vegetation communities/land cover types, and two wetland communities will be located within the preservation area following upland and wetland restoration activities. These included Diegan coastal sage scrub, coastal sage–chaparral transition, flat-topped buckwheat scrub, southern mixed chaparral, scrub oak chaparral, disturbed habitat, emergent wetland, and natural flood channel.

The vegetation communities and land cover types are described in detail in the following subsections, their acreages are presented in Table 1, and their spatial distributions are presented on the Vegetation Communities and Land Cover Types map (Figure 3). Also included in Table 1 are the sensitivity designations of each vegetation community according to the Tiers described in the City's Biology Guidelines (City of San Diego 2018).

Table 1. Vegetation Communities and Land Cover Types in the Preservation Area

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier[a]	Acreage
Native Vegetation Communities			
Diegan coastal sage scrub	Coastal sage scrub	II	5.28
Coastal sage–chaparral transition	Coastal sage scrub/chaparral	II	4.51
Flat-topped buckwheat scrub	Coastal sage scrub	II	0.37
Southern mixed chaparral	Mixed chaparral	III[a]	6.07
Scrub oak chaparral	Scrub oak chaparral	I	1.64
Non-Native Vegetation Communities and Land Covers			
Disturbed habitat	Disturbed land	IV	0.09
Wetlands, including Non-Wetland Waters of the United States and State			
Emergent wetland	Freshwater marsh	Wetland	0.79
Natural flood channel	Natural flood channel	Wetland	0.02
		Total	**18.78**

[a] City of San Diego 2018a.

3.1.1 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as coastal sagebrush (*Artemisia californica*), California buckwheat, and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Coastal sage scrub within the preserve area consists of coastal sagebrush, black sage (*Salvia mellifera*), and Nuttall's scrub oak (*Quercus dumosa*). Coastal sage scrub is present in moderately sized patches in the north and northwest section of the preserve area and in two small patches in the southern area. Some of the patches in the northern area of the preserve area, north of the existing residence, are considered disturbed due to a relatively high cover of non-native species (specifically giant reed [*Arundo donax*]) and evidence of human alteration. These disturbed areas will be restored along with large areas of manufactured slopes in the northern and southern portions of the project parcel, in accordance with the On-Site Upland Restoration Plan. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018).

3.1.2 Coastal Sage–Chaparral Transition

Coastal sage–chaparral transition is a habitat type composed of a mixture of coastal sage scrub and chaparral species occurring in the transition zone between coastal sage scrub and chaparral. Oberbauer et al. (2008) does not formally recognize this as a vegetation community, but the City acknowledges this vegetation community as coastal sage scrub/chaparral.

Coastal sage–chaparral transition in the preserve area consists of chamise, laurel sumac, and Nuttall's scrub oak. Coastal sage–chaparral transition is present in relatively large patches just southwest of the existing residence in the central area of the preserve area. This vegetation community is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018).

3.1.3 Flat-Topped Buckwheat Scrub

Flat-topped buckwheat scrub is a native vegetation community that, according to Oberbauer et al. (2008), is a nearly monoculture community of California buckwheat, usually resulting from disturbance and transitioning to coastal sage scrub or chaparral. It is often found in disturbed areas in coastal and foothills areas of San Diego County and intergrades frequently with Diegan coastal sage scrub.

Flat-topped buckwheat scrub in the preserve area is dominated by California buckwheat with felt-leaf yerba santa (*Eriodictyon crassifolium*) and coastal goldenbush (*Isocoma menziesii*). Buckwheat scrub is present in the south and southeast portion of the preserve area, southeast of the existing residence. This vegetation community most closely matches coastal sage scrub in the City's Biology Guidelines (City of San Diego 2018). Therefore, it is considered a Tier II habitat.

3.1.4 Southern Mixed Chaparral

Southern mixed chaparral is a drought- and fire-adapted community of woody shrubs that is 1.5 to 3 meters (5 to 10 feet) tall, frequently forming dense, impenetrable stands. It develops primarily on mesic, north-facing slopes and

in canyons and is characterized by crown- or stump-sprouting species that regenerate following burns or other ecological catastrophes. This vegetation community is typically a mixture of chamise, bush-rue (*Cneoridium dumosum*), ceanothus (*Ceanothus* spp.), manzanita species (Eastwood's manzanita [*Arctostaphylos glandulosa*] and mission manzanita), Nuttall's scrub oak, laurel sumac, and black sage.

Southern mixed chaparral in the preserve area is dominated by chamise with coyote brush, black sage, Nuttall's scrub oak, laurel sumac, and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*). Southern mixed chaparral is present in several relatively large patches in the northeast, east, southeast, and western portions of the preserve area. Two smaller patches of southern mixed chaparral exist in the northern area of the preserve area near an existing shed structure. Southern mixed chaparral will be restored on a small portion of the manufactured slope in the northeast portion of the project parcel. This vegetation community is considered a Tier IIIA habitat by the City's Biology Guidelines (City of San Diego 2018).

3.1.5 Scrub Oak Chaparral

Scrub oak chaparral contains a dense, evergreen chaparral up to 20 feet tall, often dominated by Nuttall's scrub oak with considerable mountain-mahogany (*Cercocarpus* spp.). In San Diego County, scrub oak (*Quercus berberidifolia*) is often the dominant species (over 50% cover) and usually occurs in small patches within a variety of other vegetation communities (Oberbauer et al. 2008). Scrub oak chaparral is somewhat more mesic than many chaparrals, and often occurs at slightly higher elevations (to approximately 5,000 feet amsl). These more favorable sites recover from fire more quickly than other chaparrals. Substantial leaf litter accumulates. In San Diego County, this is usually found on north-facing or otherwise mesic slopes and can occur at various elevations (Oberbauer et al. 2008).

Scrub oak chaparral in the study area consists of Nuttall's scrub oak, toyon (*Heteromeles arbutifolia*), and mission manzanita. Scrub oak chaparral is present in a small patch on the central eastern section of the preserve area and will be restored on an east-facing manufactured slope. This vegetation community is considered a Tier I habitat by the City's Biology Guidelines (City of San Diego 2018).

3.1.6 Disturbed Habitat/Land

Disturbed lands are areas which have been subject to extensive physical anthropogenic disturbance and as a result cannot be identified as a native or naturalized vegetation association. However, these areas typically still have a recognizable soil substrate. The existing vegetation is typically composed of non-native ornamental or exotic species (Oberbauer et al. 2008).

Disturbed land, following restoration, will be limited to a dirt road in the northeastern portion of the preserve area. This land cover is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018).

3.1.7 Emergent Wetland

According to Oberbauer et al. (2008), emergent wetland is a generally persistent wetland type dominated by low--growing, perennial wetland species. These can be found in channels, seeps and springs, floodplains, margins of lakes and rivers, and various basins such as pools and ponds, palustrine lakes, montane meadows, and dune

swales. These may be freshwater or alkali wetlands. In San Diego County, these are often in previously disturbed areas where wetlands are emerging but have not yet established a full suite of species; however, disturbance is not a necessary element of this vegetation community.

The areas mapped as emergent wetland in the preserve area are dominated by mariposa rush (*Juncus dubius*), with annual beard grass (*Polypogon monspeliensis*), toad rush (*Juncus bufonius*), grass poly (*Lythrum hyssopifolia*), curly dock (*Rumex crispus*), Boccone's sand-spurrey (*Spergularia bocconi*), and other non-native herbaceous species. It occurs in three patches of lowlands adjacent to a well-defined drainage in the southern portion of the preserve area and in the wetland restoration area in the northern portion of the preserve area. This wetland type most closely matches freshwater marsh in the City's Biology Guidelines (City of San Diego 2018), which is classified as a wetland habitat.

3.1.8 Natural Flood Channel

Natural flood channel, also described as non-vegetated channel or floodway (Oberbauer et al. 2008), is the sandy, gravelly, or rocky fringe of waterways or flood channels that are earthen-bottom, and unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel.

Natural flood channel is limited to a single ephemeral drainage feature in the northwestern portion of the preserve areas that consists of seasonal drainage patterns that do not support wetland dependent vegetation; therefore, this feature would not be considered City wetlands, according to the City's Biology Guidelines (City of San Diego 2018).

3.2 Special-Status Plant Species

Plant species are considered special status if they have been listed or proposed for listing by the federal or state government as rare, endangered, or threatened (listed species); have a California Rare Plant Rank (CRPR) of 1–4; are listed as an MSCP-covered species; and/or have been adopted by the City as narrow endemic. Focused rare plant surveys in June, July, and August 2020 and September 2021 captured most perennial and annual plant species that occur within the preserve area. Five special-status plant species were directly observed in the native habitat during focused rare plant surveys in 2020 and 2021 and are described in detail in Sections 3.2.1 through 3.2.5. The project Biological Technical Report lists all plant species observed in the study area during all surveys (Dudek 2023a).

3.2.1 Del Mar Manzanita

Del Mar manzanita is federally endangered and is a CRPR 1B.1 and an MSCP covered species. Del Mar manzanita is a California native shrub that naturally occurs in a narrow range within coastal San Diego County (Calflora 2020). This species is typically found in chaparral and naturally occurs at an elevation of 0 to 1,200 feet amsl.

A total of 13 Del Mar manzanita individuals were observed in scrub oak chaparral and mixed chaparral in the northern portion of the development project. Impacts to 13 Del Mar manzanita as a result of the development project will be mitigated at a ratio of 2:1 within the coastal sage scrub-chaparral and scrub oak chaparral, restoration areas These restoration areas have the appropriate soils for this species and are located on appropriate north-facing slopes within the development project.

3.2.2 San Diego Viguiera

San Diego Viguiera is a CRPR 4.3 species and is not an MSCP covered species. San Diego Viguiera is a California native shrub that naturally occurs in a somewhat narrow range in coastal Southern California (Calflora 2020). This species is typically found in chaparral and coastal sage scrub and naturally occurs at an elevation of 195 to 2,460 feet amsl.

A total of 30 San Diego Viguiera individuals observed in southern mixed chaparral and flat-topped buckwheat scrub on the eastern boundary of the study area. No San Diego Viguiera were impacted as a result of the development project. All San Diego Viguiera is located within the preserve area.

3.2.3 San Diego Barrel Cactus

San Diego barrel cactus is a CRPR 2B.1 and MSCP covered species. San Diego barrel cactus is a California native shrub (stem succulent) that naturally occurs in a narrow range within coastal San Diego County (Calflora 2020). This species is typically found in chaparral, grassland, coastal sage scrub, and vernal pool habitats and naturally occurs at an elevation of 5 to 1,475 feet amsl.

There were 94 San Diego barrel cactus individuals observed in mixed chaparral in the southeast portion of the study area. The project would impact 92 of these individuals. Impacted barrel cactus will be translocated within the coastal sage scrub mitigation slope in the southern portion of the restoration area. This restoration area has the appropriate soils for this species and are located on appropriate south-facing slopes. The Upland Restoration Plan requires a minimum of 92 individuals (no net loss) at the end of the five-year maintenance and monitoring period.

3.2.4 Coulter's Goldfields

Coulter's goldfields is a CRPR 1B.1 species and is not an MSCP covered species. Coulter's goldfields is a California native annual herb that naturally occurs in Southern and Central California (Calflora 2020). This species is typically found in salt marsh, playa, coastal, and vernal pool habitats and naturally occurs at an elevation of 0 to 4,500 feet amsl.

A large population (approximately 700) of Coulter's goldfields individuals was observed within the herbaceous wetland (artificial) area in the northern portion of the study area. The majority of the population is within a planned wetlands restoration area with a minor area (less than 5% of the population) that may be loss due to grading for a manufactured slope. Impacts to Coulter's goldfields are not considered significant and overall the species is expected to benefit from proposed wetlands restoration and long-term management.

3.2.5 Nuttall's Scrub Oak

Nuttall's scrub oak is a CRPR 1B.1 species and is not an MSCP covered species. Nuttall's scrub oak is a California native shrub that occurs throughout the state near the coast (Calflora 2020). This species is typically found in chaparral and coastal sage scrub habitats and naturally occurs at an elevation of 45 to 1,310 feet amsl.

There were 1,181 Nuttall's scrub oak individuals observed throughout the study area in mixed chaparral, in sage scrub, and in the understory of eucalyptus woodland. The project would impact 520 Nuttall's scrub oak indviduals. Impacts to Nuttall's scrub oak as a result of the development project will be mitigated through restoration (e.g.,

propagation of cuttings and plantings in the preserve area) at a ratio of 1:1 within the coastal sage scrub-chaparral, scrub oak chaparral, and southern mixed chaparral restoration areas. These restoration areas have the appropriate soils for this species and are located on appropriate north-facing slopes within the development project.

3.3 Existing Wildlife

A total of 42 wildlife species were recorded during biological field surveys for the project conducted in 2020, 2021, and 2023 by Dudek biologists. A total of 42 wildlife species were observed, two are considered special status and are described in further detail below. For information on additional special-status wildlife species impacted by the project, refer to the Biological Technical Report for more information (Dudek 2023a).

3.3.1 Cooper's Hawk

Cooper's hawk (*Accipiter Cooperii*) is a state watch list and an MSCP covered species. Cooper's hawks inhabit live oak, riparian deciduous, and other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Nests in deciduous trees are typically located in crotches 20 to 50 feet above the ground; in conifers, nests are on horizontal branches or in the main crotch. Cooper's hawks use patchy woodlands and edges with snags for perching and hunting small birds, small mammals, reptiles, and amphibians (Zeiner et al. 1990). Cooper's hawks are diurnally active and are year-round residents. Breeding occurs from March through August, with peak activity in May through July. Males defend an area of about 330 feet around potential nest sites (Zeiner et al. 1990).

3.3.2 San Diegan Tiger Whiptail

The San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*) is a California species of special concern and is not an MSCP covered species. It is known to occupy hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.

One San Diegan tiger whiptail individual was observed during focused coastal California gnatcatcher surveys. This individual is likely associated with mixed chaparral habitat throughout the proposed project footprint.

3.3.3 Coastal California Gnatcatcher

No coastal California gnatcatcher individuals were detected within the study area during focused protocol surveys in 2020, however, a coastal California gnatcatcher California Natural Diversity Database occurrence has been recorded within 1 mile of the study area to the east and suitable habitat exists on the site. Since more than 24 months has passed since focused surveys were conducted, this species is assumed to be present within suitable habitat both within and adjacent to the project parcel.

Refer to the Biological Technical Report for more information (Dudek 2023a).

4 Threats to the Preserve Area

4.1 Invasive Species

Invasive plant species that thrive in habitat preserves and edge habitats are a well-documented problem in Southern California and throughout the United States. A eucalyptus woodland was located mainly in the southwest portion of the project, Eucalyptus trees will have been removed and controlled as part of the 5-year maintenance and monitoring program. There are numerous adverse effects of non-native species in natural open areas, including, but not limited to, exotic plant competition for light, water, and nutrients, and the formation of thatches that block sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities (Bossard et al. 2000).

4.2 Intrusion by Domestic Animals

Feral animals, off-leash domestic pets, and domestic pets released into the preserve area can cause dramatic declines in native animal wildlife populations and habitat functions and values.

4.3 Trespassing

Human visitation, such as hiking, off-road-vehicle use, mountain biking, and encampments created by people experiencing homelessness can have a negative impact on the natural environment. These activities can lead to habitat fragmentation, invasive species encroachment, and habitat destruction. Trespassing is prohibited within the Preserve Area. Signage will be posted at the edge of the urban interface and within the Preserve Area.

4.4 Dumping and Trash

The proximity to the urban interface increases the potential for dumping of unwanted household items (e.g., refrigerators, couches, chairs, tables), unwanted chemicals (e.g., oil, paint, bleach), landscaping materials, and other anthropogenic trash. Dumping of these types of items can drastically affect the integrity of the natural environment.

4.5 Fire

The onsite MHPA includes zone 2 and 3 brush management areas; however these are retained within HOA-owed lots are not subject to this long-term management plan (Dudek 2023d). All MHPA lands owned by the City would not have any brush management requirements (Dudek 2023d).

San Diego County experiences periodic wildfires on a regular basis. Vegetation communities native to the area are adapted to this periodic fire regime, with plant species possessing the ability to stump, sprout, or otherwise regenerate from underground plant material. Although fire is a co-evolutionary factor, it also presents the possibility for faster-growing, early successional non-natives to out-compete the recovering native species. In the event of fire, the project biologist will assess the post-fire conditions and provide adaptive management recommendations, including an increase in weed control management.

INTENTIONALLY LEFT BLANK

5 Management Specifications

Management activities will focus on five central components: invasive plant species control, control of anthropogenic trash, detection and prevention of unauthorized human visitation, as needed signage repair, and detection and management of environmental stressors that could cause a decline in the integrity of the native vegetation communities.

General site inspections and maintenance activities shall be conducted annually. Tasks shall be completed by qualified staff and activities may be conducted concurrently. Non-native invasive recruitment shall be monitored during annual monitoring visits with focused monitoring of overall vegetation health (including non-native cover) occurring. Non-native invasive control shall be conducted by qualified staff on an annual basis to address recommendations made by the Preserve Manager during the annual monitoring visits.

Specific goals, objectives, and management and maintenance methods are provided in the sections below to address anticipated management requirements including invasive species, site control/trespass, fire, and trash. The Preserve Manager is responsible for directing and/or conducting all long-term monitoring efforts and remedial measures. Table 2 includes a summary of long-term management tasks, responsible staff, and frequency.

Table 2. Long-Term Management Tasks

Management Category	Activity	Staff	Frequency
Biological Resource Management	Vegetation/invasive species mapping	Preserve Manager/Biologist	First spring of the transfer in fee title to the City of San Diego, and every 5 years thereafter
	Habitat monitoring	Preserve Manager/Biologist	Quarterly (4 times per year)
	Invasive species maintenance	Field Staff (Pesticide Applicator)	Quarterly (4 times per year)
	Exotic animal control monitoring	Biologist	Quarterly (4 times per year) concurrent with habitat monitoring
	Exotic animal control management	Field Staff	As needed
	Photo documentation	Biologist	Once annually in the spring
Adaptive Management	Adaptive Management (e.g., pest management, fire remediation, additional maintenance and/or monitoring, remedial seeding or planting, installation of signage or fencing)	To be determined, as needed	As needed
Security, Safety, Public Access	Trespass monitoring	Preserve Manager/Biologist	Quarterly (4 times per year) concurrent with habitat monitoring

Table 2. Long-Term Management Tasks

Management Category	Activity	Staff	Frequency
	Trespass management	Field Staff and/or Emergency Personnel	As needed
	Trash monitoring	Preserve Manager/Biologist	Quarterly (4 times per year) concurrent with habitat monitoring
	Trash management	Field Staff	As needed
Reporting and Administration	Status report on all management activities to summarize site conditions and management actions	Preserve Manager	Once every 5 years by February 1
	Data management (annual report)	Preserve Manager/Biologist	Annually by February 1 of each year
	Communication and coordination	Preserve Manager, Biologist, Field Staff	Following site visits as needed
	Annual task cost estimates	Preserve Manager	Annually by February 1 of each year

5.1 Biological Resource Management

Although it is not anticipated that major management actions will be required during the long-term management and monitoring, an objective of this LTMP is to conduct monitoring to identify any issues that arise and use adaptive management to determine what actions might be appropriate to correct any issues that may arise threatening the restoration and preservation areas. These monitoring surveys should occur annually. Surveys should assess the overall condition, percentage of cover of exotic and/or invasive species, native plant health, cover and diversity, erosion, fire hazard, trespassing issues, and/or other aspects that may warrant management actions.

Recommendations for management and monitoring are included for several categories below. Additional categories and/or tasks may be required. The land manager for the preservation area shall implement the following.

5.1.1 Vegetation and Invasive Species Mapping

Objective: Document the vegetation habitats and land types within the preserve area and invasive species locations to monitor the integrity of the preserve area. Changes to vegetation communities and invasive species locations will drive management and maintenance directives.

Methods: Mapping shall be completed using available tools and technologies such as aerial maps and portable GPS units. An invasive/weed species map shall track the type, distribution, and extent of invasive plants and noxious weed species locations and acreages. The data compiled will be included in the annual report and compared to the data collected 5 years prior. Adaptive management recommendations will be formulated from the analyzed data and implemented within the following 12 months. Vegetation communities and land covers will be mapped using the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the

County of San Diego and noted in Vegetation Communities of San Diego County (Oberbauer et al. 2008) and cross-walked to the City-defined habitats (i.e., upland tiers and wetland types) (City of San Diego 2018).

Schedule: Vegetation and invasive weed species mapping shall be conducted the first spring of the transfer in fee title to the City to provide a baseline, and every 5 years thereafter in perpetuity.

5.1.2 Habitat Monitoring

Objective: Monitor, conserve, and maintain the preserve area's native vegetation communities.

Methods: As part of the preserve area monitoring, the land manager with monitor the habitat and document current condition, changes in habitat and invasive species, exotic animals, vandalism and/or trespassing, anthropogenic trash, status of signage, and any pending maintenance needs that need to be addressed. Any necessary tasks will be identified, prioritized, and implemented. The findings of this task shall be included in annual report.

Schedule: In perpetuity, quarterly.

5.1.3 Invasive Species Maintenance

Objective: All non-native plant species shall be subject to control, with a priority focus on California Invasive Plant Council (Cal-IPC) listed species that are known to be particularly invasive annually, or non-Cal-IPC weed species that are significantly impacting the native vegetation.

Methods: The land manager will locate and map invasive plant species within the Preserve Area and provide this information to the biologist and the field staff. Control may involve hand pulling prior to seed-set (for species where the entire root mass may be removed), herbicide application, cutting, physical removal, or a combination thereof. Biomass from non-native vegetation shall be removed from the site and disposed of in a legal and appropriate manner. Care should be taken to avoid spreading root, shoot, or seed material from non-native plant species around the preserve area which may provide opportunity for dissemination and subsequent colonization. No slash shall be stored on site or within the floodplain where it is in danger of being washed downstream. Control methods for target Cal-IPC-listed species are included in Table 3. Control methods for any non-Cal-IPC weed species that are significantly impacting the native vegetation will be determined by the land manager.

Eucalyptus trees within the preserve area will have been removed and controlled as part of the 5-year maintenance and monitoring program. However, any seedlings that are discovered can be pulled or sprayed with herbicide. Larger trees shall be cut to within 8 inches of the ground. Fresh cut stumps should be treated with an approved herbicide (typically Glyphosate or Garlon) around the circumference where the cambium layer is located. The herbicide should be applied within 1 to 3 minutes after the tree is felled. Left untreated, stumps will resprout, and will need to be cut again. paint brush glyphosate/Garlon within 1 to 3 minutes after cutting and drill.

Eucalyptus trunks and material up to 24 inches in diameter can be chipped and removed from the restoration area. Other larger trees will be felled with chain saws and cut into 4-foot lengths and removed from the restoration area. All remaining debris including branches, leaf litter, and trunks shall be removed from the restoration area. Larger materials may be hauled away to a composting site or a landfill or cut into logs for firewood and removed from the restoration area.

To the maximum extent possible, eucalyptus tree removal should be completed in the fall after nesting bird season (January 15 through September 15). Should the eucalyptus tree removal take place during this time, a nest survey will need to be completed by a certified biologist before the trees can be cut down.

Specific herbicide application rates and methods will be based on manufacturer specifications, and will adhere to the following general guidelines:

- Herbicide treatments must be pre-approved by the land manager and be approved for use within wetland areas.
- Application methods will follow manufacturer specifications regarding application and safety procedures. Herbicide application will comply with state and local regulations. All application tasks will be performed by or under supervision of a licensed applicator with the Pest Control Business License issued by the State of California Department of Pesticide Regulation and registered with the San Diego County Agricultural Commissioner.
- Herbicide application will consist of spot applications to individual plants where weed coverage is sparse and broadcast applications to dense patches of weed species where native species are not establishing. Applications will be uniform and complete. Contact with native species must be avoided; in the event of gusty winds or winds in excess of 5 miles per hour, application work will be temporarily discontinued to protect applicators and adjacent natural resources from herbicide drift. Treatment will not occur if rainfall is predicted within the next 72 hours and will be temporarily discontinued in the event of rainfall since rainfall reduces the effectiveness of the herbicide.
- Sprayed vegetation will be left undisturbed for 7 days to allow the herbicide to be distributed throughout the entire plant. Visible effects of herbicide application consist of wilted foliage, brown foliage, and disintegrated root material.
- Excessive dead weed materials will be removed from the soil surface and disposed of off site.

Treatment and/or removal of non-native plant species that have the potential for occupation by special-status wildlife should be evaluated for absence/presence of wildlife species prior to control, particularly during the nesting/breeding season (generally January 15 through September 15).

Table 3. Weed Control and Treatment for Target Cal-ICP Non-Native Plant Species

Weed Species		Control Methods				
Scientific Name[a]	Common Name	De-Thatch	Herbicide	Hand Pull	Weed Whip/ Mowing	Cut and Treat
Arundo donax	Giant reed	X	X			X
Brassica nigra	Black mustard	X	X	X	X	
Brassica tournefortii	Sahara mustard	X	X	X	X	
Bromus hordeaceus	Softchess brome	X	X	X	X	
Carpobrotus edulis	Hottentot-fig		X	X		X
Centaurea melitensis	Star-thistle	X	X	X	X	
Cortaderia selloana	Pampas grass		X		X	X
Eucalyptus camaldulensis	River red gum		X	X		X
Festuca myuros	Rat-tail fescue	X	X	X	X	
Festuca perennis	Italian rye grass	X	X	X	X	

Table 3. Weed Control and Treatment for Target Cal-ICP Non-Native Plant Species

Weed Species		Control Methods				
Scientific Name[a]	Common Name	De-Thatch	Herbicide	Hand Pull	Weed Whip/ Mowing	Cut and Treat
Foeniculum vulgare	Sweet fennel		X	X		
Helminthotheca echioides	Bristly ox-tongue	X	X	X	X	
Hirschfeldia incana	Short-pod mustard	X	X	X	X	
Mesembryanthemum crystallinum	Crystalline ice plant	X	X	X	X	
Mesembryanthemum nodiflorum	Slender-leaf ice plant	X	X	X		X
Nicotiana glauca	Tree tobacco	X	X	X	X	
Raphanus sativus	Wild radish	X	X	X	X	
Ricinus communis	Castor bean	X	X	X	X	
Rumex crispus	Curly dock	X	X	X	X	
Tamarix ramosissima	Tamarisk		X	X		X

Cal-IPC = California Invasive Plant Council.

[a] Scientific and common names follow the Checklist of the Vascular Plants of San Diego County, 5th Edition (Rebman and Simpson 2014)

The need for invasive species maintenance and monitoring is anticipated to be ongoing, as source populations of multiple invasive non-native plant species exist upstream of the site. Natural movement of seed through wind and water is expected to lead to re-infestation of the site and vegetative fragments (e.g., giant reed) carried downstream by stormflows and deposited on site may also cause reinfestation.

Schedule: In perpetuity, quarterly. During the breeding season (February 1 through September 15), the Project Biologist shall conduct a pre-maintenance survey to determine the presence or absence of nesting birds in the proposed maintenance area.

5.1.4 Exotic Animal Control

Objective: Document and address threats of exotic animal species to the Preserve Area.

Methods: Exotic animal species will be noted in each annual report. Should exotic animal species populations increase such that it threatens to diminish the Preserve Area, a control/eradication program will be developed in coordination with the City as appropriate.

Schedule: Monitoring and documentation of exotic animal species conducted in perpetuity concurrent with habitat monitoring. Control/eradication of exotic animal species shall take place on an as-needed basis following recommendations of the land manager and/or City.

5.1.5 Photo Documentation

Objective: Establish permanent photo-documentation stations to record the Preserve Area over time. Additionally, provide photographs documenting annual management issues (e.g., invasive species, trash) to be resolved as needed.

Methods: Permanent photo-documentation stations will be established to record conditions of the Preserve Area over time. Additionally, photographs will be taken of any significant management issues or biological observations, including photographs of changing conditions. Photos from photo-documentation points and mapped locations will be included in annual reports.

Schedule: In perpetuity, annually in the spring concurrent with the habitat monitoring.

5.2 Adaptive Management

No specific constraints or impacts are identified at this time that would preclude the goal of managing the preservation area to maintain its maximum ecological health and value of the native vegetation communities found therein.

If it is observed that the ecological integrity of the Preserve is not being maintained through the course of the long--term monitoring efforts, the biologist (in consultation with the senior planner, ranger, and field staff) will prepare an analysis of the cause(s) of decline and, if determined to be necessary, propose remedial actions to correct the issues. Adaptive management will be covered using the 20% contingency funds budgeted within the Property Analysis Record or equivalent, which may require phased remedial actions over a period of time.

Adaptive management will be implemented in the event of unforeseen or probable but unpredictable circumstances. Adaptive management is defined, for the purposes of this LTMP, as a flexible, iterative approach to the management of biological resources, directed over time by the results of ongoing monitoring activities and direct observation of environmental stressors producing adverse results within the Preserve. Adaptive management will include the use of regular qualitative assessments gathered in the field to assess the health and vigor of native vegetation within the site. Following an event that causes damage to all or part of the Preserve, these data will be used in part to drive management considerations for restoration of the affected areas. Individual environmental stressors may include fire, drought stress, excessive herbivory, significant increase in encampments for unhoused persons, adverse hydrologic changes, and plant pest infestation.

The biologist is responsible for interpreting the results of site monitoring to determine the ongoing success of the LTMP. If it is necessary to modify the LTMP between regularly scheduled updates, LTMP changes will be submitted to the Wildlife Agencies (i.e., US Fish and Wildlife Service and California Department of Fish and Wildlife) for approval, as required.

5.2.1 Vegetation Decline

Should the biologist determine, based on long-term monitoring, that there is a decline in native cover, thereby threatening the natural functions and services of the target habitat, remedial planting or seeding of native species within bare areas may be implemented using contingency funds.

5.2.2 Fire Management Tasks

San Diego County experiences periodic wildfires. Many vegetation communities native to the area are adapted to this periodic fire regime, with plant species possessing the ability to stump-sprout, or otherwise regenerate from underground plant material. Although fire is a coevolutionary factor, it also presents the possibility for faster-

growing, early successional non-natives to out-compete the recovering native species. The site is within a tidal marsh, which is not a highly flammable vegetation community compared to other local vegetation communities.

In the event of fire affecting the Project site, the City Parks and Recreation biologist, ranger, and senior planner will assess the post-fire conditions and provide adaptive management recommendations. The specific goal for vegetation restoration would be to re-establish the affected vegetation community and appropriate associated native riparian plant species.

5.3 Security, Safety, and Public Access

The preservation area shall have no general public access, nor any regular public or private use. Research and/or other educational programs or efforts will be allowed within the preservation area but are not specifically funded or a part of this LTMP.

5.3.1 Trespass Monitoring and Management

Objective: Install and maintain signage. Signage shall be posted and maintained at the edge preserve area.

Task: During each site visit, the condition of signage and any evidence of trespassing shall be recorded. The location, type, and adaptive management recommendations shall be monitored annually. Any necessary tasks will be identified, prioritized, and implemented as funding becomes available.

5.3.2 Trash Monitoring and Management

Objective: Monitor and Manage sources of trash.

Task: During each site visit, record occurrences of trash. Record type, location, and management mitigation recommendations to avoid, minimize or rectify a trash. This task shall occur annually.

Schedule: In perpetuity, quarterly concurrent with habitat monitoring.

5.4 Reporting and Administration

Objective: Provide a status report on all management tasks conducted and general site conditions to appropriate Wildlife Agencies at least once every 5 years.

Task: Prepare and provide a report and any additional documentation at least once every 5 years to summarize site conditions and management actions. The report will make recommendations with regard to (1) any habitat enhancement measures deemed to be warranted, (2) any problems that need near-term attention (i.e., weed removal, fence repair, erosion control, trash removal), and/or (3) any changes in the monitoring or management program that appear to be warranted based on monitoring results to date.

Schedule: In perpetuity, submitted by February 1 at least once every 5 years.

5.4.1 Data Management

Objective: Collected data shall be digitally stored on a secure server by the preserve manager as applicable.

Methods: Data generated from the monitoring and/or maintenance effort conducted by the land manager shall be documented in an annual report. Data include photos, monitoring observations, focused botanical or wildlife surveys, GPS data, mapping, communications with regulatory agency personnel as appropriate.

Schedule: In perpetuity annually submitted by February 1 of each year. The annual report will document the previous year's monitoring and management tasks conducted and general site conditions.

5.4.2 Communication and Coordination

Objective: communicate and coordinate management activities and observations within the Preserve area.

Methods: Anticipated communication and coordination include the sharing of monitoring results and maintenance conducted by the biologist with the and field. The Wildlife Agencies will be consulted regarding such factors as special-status plant or wildlife species and jurisdictional resources.

Schedule: In perpetuity, following site visits.

5.4.3 Annual Task Cost Estimates

Objective: Provide a status report on all management tasks conducted and general site conditions to the Wildlife Agencies at least once every 5 years.

Methods: Prepare and provide a summary of estimated annual costs associated with the identified long-term management tasks is in development and expected to include, but is not limited to, qualitative monitoring, maintenance, field supplies, trespass and trash monitoring, fence and signage repairs, and annual reporting.

Schedule: In perpetuity, submitted by February 1 at least once every 5 years.

5.4.4 Funding

As a condition of approval and transfer of fee title open space lots to the City, the applicant is expected to provide adequate funding for long-term management, including specific habitat monitoring and management required by the MSCP Implementing Agreement. Additionally, the City Parks and Recreation will provide continued support as discussed in the preceding sections of this LTMP. The Property Analysis Record equivalent (Appendix A) outlines the funds necessary to cover all annual management costs, which was developed to inform annual City budgets for the in-perpetuity management of the Preserve. Expenditures will be analyzed annually, and monitoring data will be used to determine anticipated funding needs. The Property Analysis Record equivalent (Appendix A) is meant to provide a baseline budget; however, annual budgets may increase over time at the discretion of the City to accommodate for increases in bill rates or adaptive management needs.

5.5 Task Prioritization

Due to unforeseen circumstances, prioritization of tasks, including tasks resulting from new requirements, may be necessary if insufficient funding is available to accomplish all tasks. The land manager will assess task priorities and funding available to determine which tasks will be implemented. In general, tasks are prioritized in this order: (1) required by a local, state, or federal agency; (2) tasks necessary to maintain or remediate habitat quality; (3) tasks that monitor resources, particularly if past monitoring has not shown downward trends. Equipment and materials necessary to implement priority tasks will also be considered priorities. Final determination of task priorities in any given year of insufficient funding will be determined be the Wildlife Agencies in writing.

5.6 Prohibitions

The following activities are prohibited with the Preserve area:

- Unseasonal watering, which may adversely affect the wetland and non-wetland waters within and adjacent to the preservation area.
- Use of herbicides, rodenticides, pesticides, or other such chemicals unless applied by a licensed pest advisor in coordination with a project biologist.
- Use of off-road vehicles.
- Grading or surface entry for exploration or extraction of minerals.
- Erecting any building, billboard, or sign (except information signs associated with the preservation area).
- Deposition of soil, trash, waste, or any other material; soil deposition in associated with an approved restoration program is allowed, and/or as an adaptive management strategy in favor of promoting preservation area value and functions is allowed.
- Excavating or removing of soils, rock, sand, or other material; excavation or moving of soil, rock, sand, or other material in association with an approved restoration program is allowed, and/or as an adaptive management strategy in favor of promoting preservation area value and functions is allowed.
- Otherwise altering the general topography except as approved with a restoration program, and/or as an adaptive management strategy in favor of promoting preservation area value and functions.
- The building of roads or any other infrastructure unless otherwise approved by the Wildlife Agencies.
- Removing, destroying, or cutting of vegetation other than for the long-term management weeding requirements.

Table 2 includes a summary of long-term management tasks, responsible staff, and frequency.

INTENTIONALLY LEFT BLANK

6 References

Bossard, C.C., J.M. Randall, and M.C. Hoshovsky, eds. 2000. *Invasive Plants of California's Wildlands*. Berkeley, Los Angeles, and London: University of California Press.

Calflora. 2020. *The Calflora Database. Information on Wild California Plants*. Berkeley: Calflora. Accessed September 14, 2020. http://www.calflora.orgCity of San Diego. 1997. *City of San Diego MSCP Subarea Plan*. Accessed September 2022.http://www.sandiego.gov/planning/programs/mscp/pdf/frameworkplan.pdf.

City of San Diego. 2018. *San Diego Municipal Code Land Development Code, Biology Guidelines*. Adopted September 28, 1999; last amended February 1, 2018. https://www.sandiego.gov/sites/default/files/amendment_to_the_land_development_manual_biology_guidelines_february_2018_-_clean.pdf.

City of San Diego. In Preparation. *Citywide Integrated Pest Management Plan*.

City of San Diego, USFWS, and CDFG (U.S. Fish and Wildlife Service and California Department of Fish and Game). 1997. *Implementing Agreement by and between United States Fish and Wildlife Service, California Department of Fish and Game, and City of San Diego to Establish a Multiple Species Conservation Program ('MSCP') for the Conservation of Threatened, Endangered and Other Species in the Vicinity Of San Diego, California*. Accessed February 2014. http://www.sandiego.gov/planning/programs/mscp/pdf/implagree.pdf.

Dudek. 2023a. *Biological Technical Report for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Dudek. 2023b. *Upland Restoration Plan for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Dudek. 2023c. *Wetland Mitigation Plan for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Dudek. 2023d *Fire Fuel Load Modeling Report for the Renzulli Estates Project City of San Diego, California City of San Diego Project Number 664017*. October 2023.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Nongame-Heritage Program, California Department of Fish and Game. October 1986.

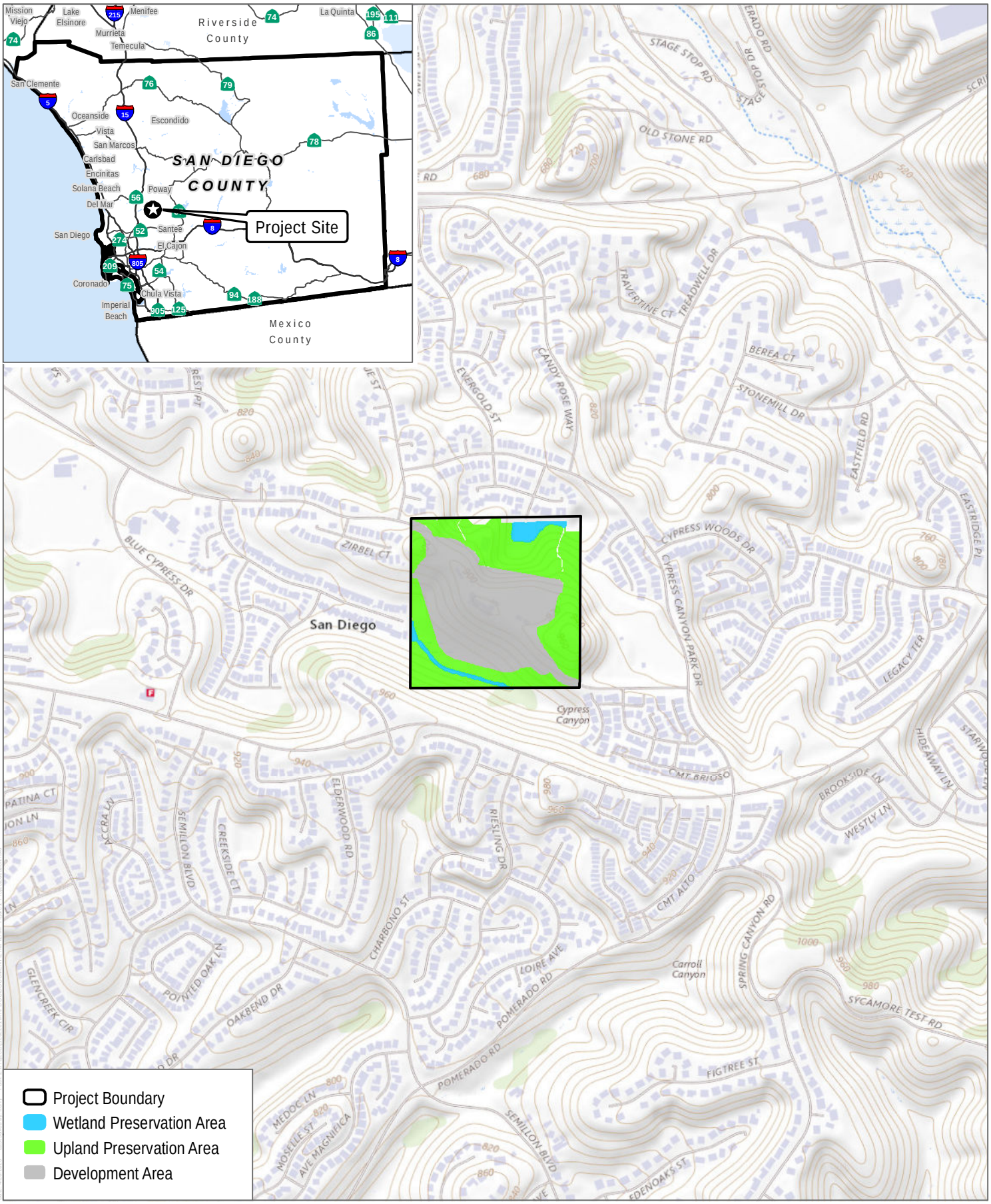
Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California*," by R.F. Holland, PhD, October 1986. March 2008.

Ogden (Ogden Environmental and Energy Services Co. Inc.). 1996. *Biological Monitoring Plan for the Multiple Species Conservation Program*. Prepared for the City of San Diego, California Department of Fish and Game, and U.S. Fish and Wildlife Service. San Diego, California: Ogden. January 25, 1996; revised April 23, 1996. Accessed September 2022. http://www.sandiego.gov/planning/programs/mscp/pdf/monitor/biomntrgplan1996.pdf.

Rebman, J.P., and M.G. Simpson. 2014. *Checklist of the Vascular Plants of San Diego County*. 5th Edition. San Diego Natural History Museum and San Diego State University.

SDMMP (San Diego Management and Monitoring Program). 2013. *Management Strategic Plan for Conserved Lands in Western San Diego County*. 3 vols. Prepared for San Diego Association of Governments (SANDAG). August 27, 2013. Accessed September 2022. http://www.sdmmp.com/reports_and_products/Management_Strategic_Plan.aspx.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. California's Wildlife. Vol. I–III. *Updated in the California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento: California Department of Fish and Game*. https://www.wildlife.ca.gov/Data/CWHR.



SOURCE: ESRI MAPPING SERVICE; USGS TOPO

DUDEK

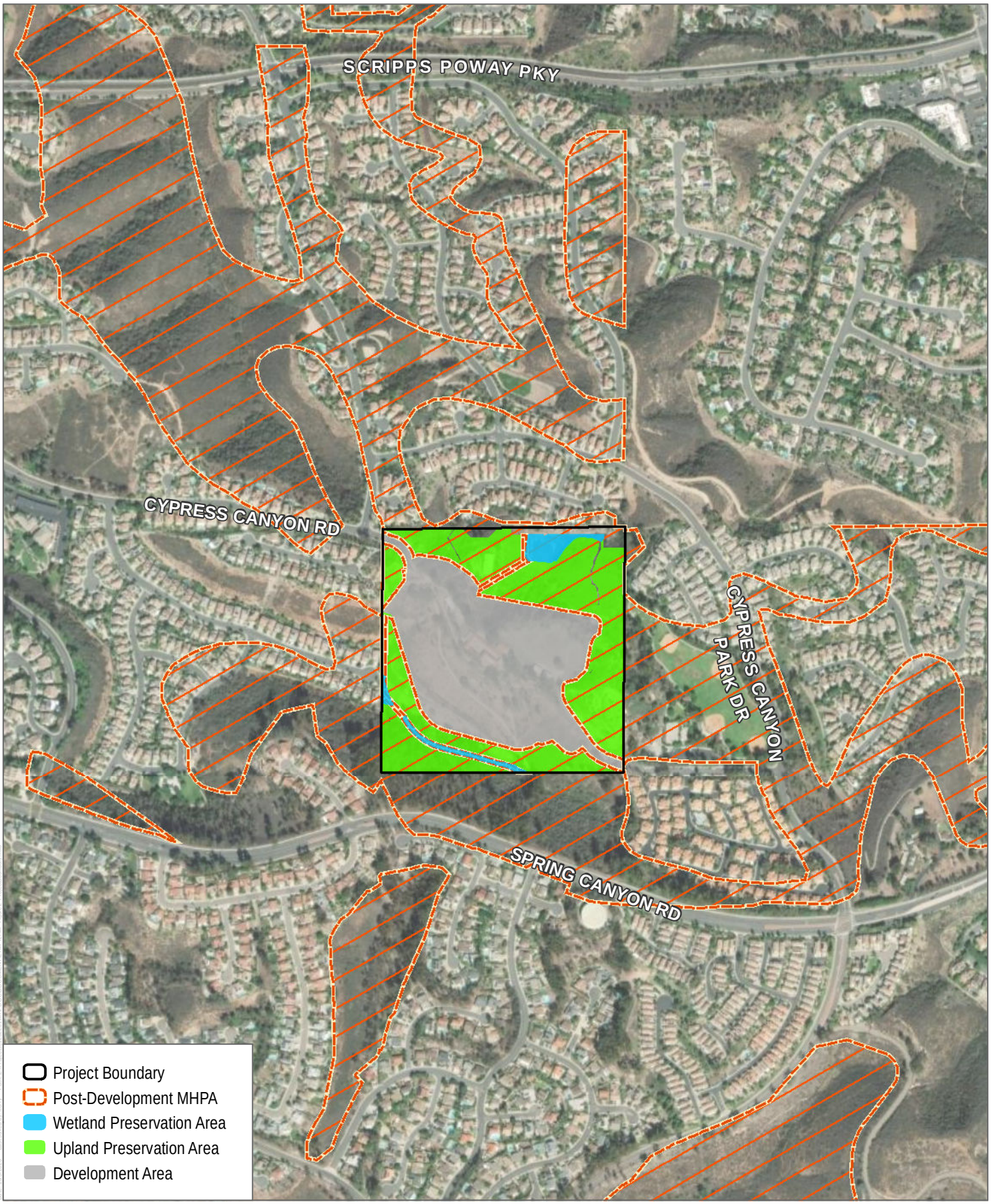
0 500 1,000 Feet
0 250 500 Meters
1:12,000

FIGURE 1

Project Location

Long Term Management Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK



SOURCE: ESRI IMAGERY SERVICE

DUDEK

0 400 800 Feet
0 125 250 Meters
1:8,400

FIGURE 2

Project Boundary and Post-Development MHPA

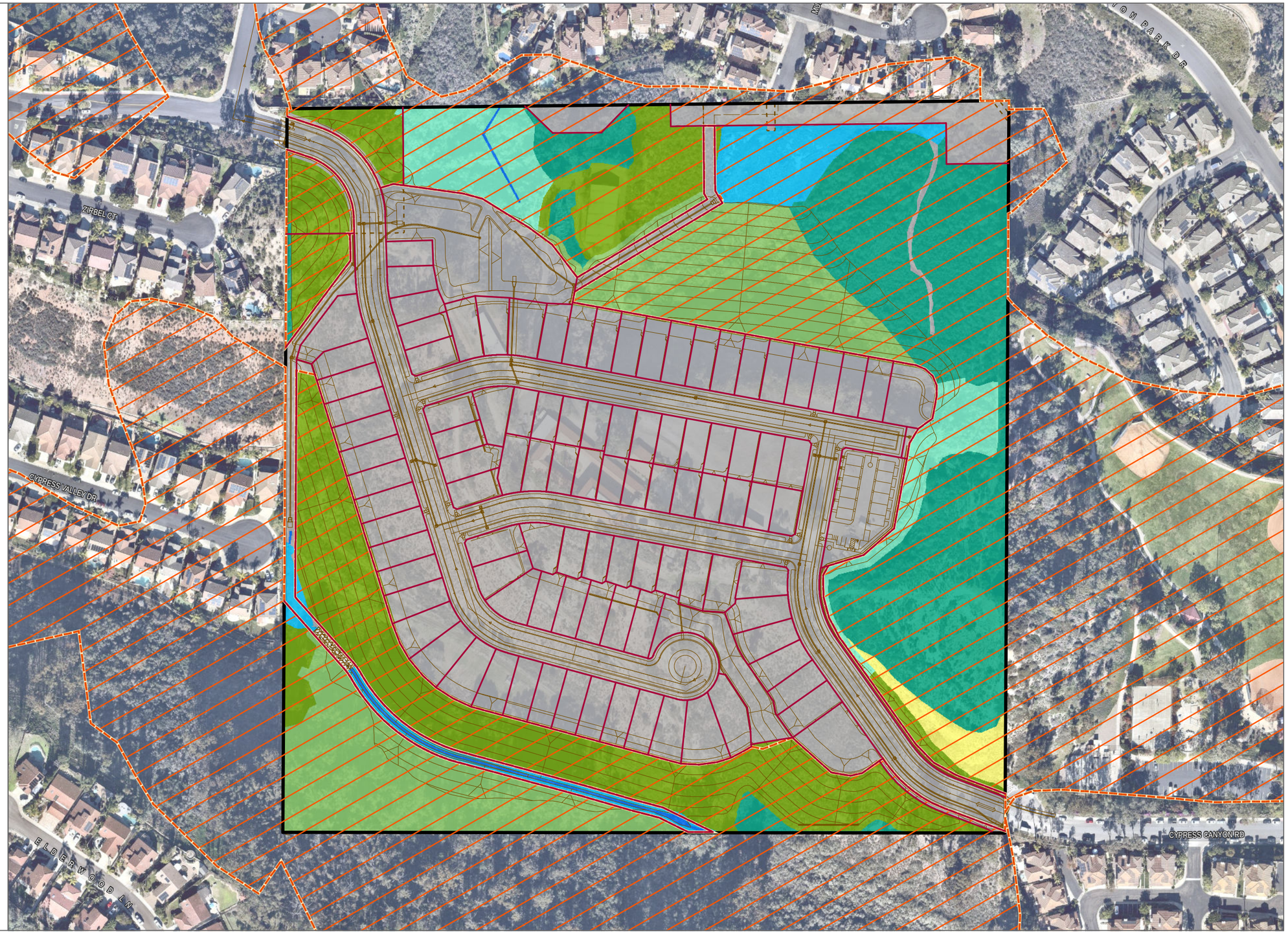
Long Term Management Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK

- Parcel Boundary
- Post-Development MHPA

Preservation Area

- Coastal Sage Scrub Preservation
- Coastal Sage Scrub-Chaparral Preservation
- Southern Mixed Chaparral Preservation
- Scrub Oak Chaparral Preservation
- Flat-topped Buckwheat Preservation
- Non-Wetland Waters Preservation
- Wetland Preservation
- Riprap Pad
- Not A Part



SOURCE: SANGIS IMAGERY 2022, DEVELOPMENT-HUNSAKER 2023

DUDEK

0 90 180 Feet

FIGURE 3

Habitat Preservation and Post-Development MHPA

Long Term management Plan for the Renzulli Estates Project

INTENTIONALLY LEFT BLANK

Appendix A

Property Analysis Record Equivalent

Table A-1. Cost Summary

Initial and Capital Costs	
Total Initial and Capital Costs for 2 Year Period	$112,563
Annual (Ongoing) Costs	
Annual Costs after Initial & Capital Period	$30,099
Endowment Amount for Annual (Ongoing) Costs at 4.0% Rate	$752,482
Total Cost	
Initial and Capital Costs (2 Year Period) + Endowment	$865,045

INTENTIONALLY LEFT BLANK

Table A-2. Initial and Capital Tasks and Costs (Years 1-2)

Frequency	Task/Activity	Staff	Unit	Total Qty.	Unit Cost	Times Years	Total Cost (+10% Contingency)	Assumptions/Comments
Biotic Surveys								
Once	Update Baseline Inventory of Resources	Biologist III	Hours	68	$135	1	$10,098	Update to the baseline inventory of resources (if original inventory is over 5 years old)
4x/yr	Quarterly Monitoring Visits (vegetation health assessments)	Project Manager IV	Hours	16	$156	8	$21,965	Quarterly preserve manager monitoring visits to monitor for trash, unauthorized access, erosion issues, invasive non-native plant issues, and overall health of the native vegetation communities. Land manager will assess the overall health of native vegetation communities, identify threats, update biological database and provide maintenance and management recommendations.
Field Equipment								
Annually	Field equipment and habitat maintenance supplies allowance	NA	Each	1	$1,000	2	$2,200	Standard provision to account for field supplies. Includes herbicide, person protective equipment, flagging, fuel and equipment (e.g., backpack sprayers, line trimmers, hand tools) repair and replacement.
Annually	Mileage	NA	Miles	636	$0.655	2	$916	See worksheet for assumptions.
Annually	Habitat maintenance hauling allowance	NA	Each	4	$366	2	$3,221	Fixed annual allowance for exotic species removal and trash removal hauling expenses (exotic debris, trash, etc.). Four (4) dump trailer loads per year.
Habitat Restoration								
Once	Habitat Restoration Planning/Installation/Maint/Mon	NA	NA	NA	NA	NA	—	Habitat restoration costs not included here; costed/funded separately.
Habitat Maintenance								
4x/yr	Quarterly Habitat Maintenance (Exotic plant control; erosion control, pest/predators, access control, encampments, trash) including one (1) annual fuel modification within the brush management zone for any areas within 100 feet of a structure.	Field Staff	Hours	64	$70.50	8	$39,706	64 hrs/yr for field staff (crew of 2) control of exotic plants and vegetation management, erosion, unauthorized access control, pests/predators, encampments, and trash. Quarterly as determined necessary from quarterly monitoring visits. At least one of the quarterly visits will include a fuel modification visit where the Brush Management Zone (BMZ) is to be maintained within 100 feet of any structures.
Office Maintenance								
Annually	Office supplies and equipment allowance	N/A	Each	1	$50	2	$110	Standard provision to account for office administration.
Operations								
Annually	Budgeting, administration, coordination	Project Manager IV	Hours	24	$156	2	$8,237	Standard provision for preserve management coordination, administration and budgeting coordination, GIS database maintenance, coordination with HOA and public, and coordination with police and fire agencies.
Public Services								
Annually	Perimeter signage	NA	Item	5	$45	2	$495	Assumes 5 signs replaced annually following the first year (Years 2-3).

Table A-2. Initial and Capital Tasks and Costs (Years 1-2)

Frequency	Task/Activity	Staff	Unit	Total Qty.	Unit Cost	Times Years	Total Cost (+10% Contingency)	Assumptions/Comments
Reporting								
Annually	Annual Report	Project Manager IV	Hours	24	$156	2	$8,237	24 hrs/yr for Preserve Manager to prepare an annual report to document monitoring results, maintenance activities, recommendations, biological data inventory, and annual work plan for the upcoming year.
Annually	Prepare annual work plan	Project Manager IV	Hours	8	$156	2	$2,746	8 hrs/yr for Preserve Manager to plan for the upcoming year.
Site Construction/Maintenance								
Annually	Fencing Repairs	NA	Item	2	$1,000.00	2	$4,400	Assumes two barrier/fencing replacement or repair per years.
Subtotals and Total								
						Subtotal of Initial & Capital Costs for Years 1-2	*$102,330*	—
						Administration, Insurance, Legal (10%)	*$10,233*	—
						Total	**$112,563**	—

Table A-3. Ongoing Annual Tasks and Costs (Year 3+)

Frequency	Task/Activity	Staff	Unit	Total Qty.	Unit Cost	Divide Years	Total Annual Cost (+10% Contingency)	Assumptions/Comments
Biotic Surveys								
1x/5 yrs	Resource Inventory and Mapping Update	Biologist III	Hours	68	$135	5	$2,020	Biologist update of the resource inventory and mapping, including special-status species. 1x/5yrs.
4x/yr	Quarterly Monitoring Visits (vegetation health assessments)	Project Manager IV	Hours	32	$156	1	$5,491	Quarterly preserve manager monitoring visits to monitor for invasive non-native plant issues, pests/predators, preserve integrity, erosion issues, unauthorized acces, , vandalism, trash, and ground disturbing activities. The land manager will assess the overall health of native vegetation communities, identify status and any change to sensitive species, identify threats, update biological database and provide maintenance and management recommendations.
Field Equipment								
Annually	Field equipment and habitat maintenance supplies allowance	NA	Each	1	$1,000	1	$1,100	Standard provision to account for field supplies.
Annually	Mileage	NA	Miles	848	$0.655	1	$611	See worksheet for assumptions.
Annually	Habitat maintenance hauling allowance	NA	Each	4	$366	1	$1,610	Fixed annual allowance for exotic species removal and trash removal hauling expenses (exotic debris, trash, etc.). Four (4) dump trailer loads per year.
Habitat Maintenance								
4x/yr	Quarterly Habitat Maintenance (Exotic plant control; erosion control, pest/predators, access control, encampments, trash) including one (1) annual fuel modification within the brush managegement zone for any areas within 100 feet of a structure.	Filed Staff	Hours	80	$70.50	1	$6,204	80 hrs/yr for field staff (crew of 2) control of exotic plants and vegetation management, erosion, unauthorized access control, pests/predators, encampments, and trash. Quarterly as determined necessary from quarterly monitoring visits. At least one of the quarterly visits will include a fuel modification visit where the Brush Management Zone (BMZ) is to be maintained within 100 feet of any structures.
Office Maintenance								
Annually	Office supplies and equipment allowance	N/A	Each	1	$50	1	$55	Standard provision to account for office administration.
Operations								
Annually	Budgeting, administration, coordination	Project Manager IV	Hours	30	$156	1	$5,148	Standard provision for preserve management coordination, administration and budgeting coordination, GIS database maintenance, coordination with HOA and public, and coordination with police and fire agencies.
Public Services								
Annually	Perimeter signage	NA	Item	2	$45	1	$99	Assumes 2 signs replaced annually.
Reporting								
Annually	Annual Report	Project Manager IV	Hours	24	$156	1	$4,118	12 hrs/yr for Preserve Manager to prepare an annual report to document monitoring results, maintenance

Table A-3. Ongoing Annual Tasks and Costs (Year 3+)

Frequency	Task/Activity	Staff	Unit	Total Qty.	Unit Cost	Divide Years	Total Annual Cost (+10% Contingency)	Assumptions/Comments
								activities, recommendations, biological data inventory, and annual work plan for the upcoming year.
Annually	Prepare annual work plan	Project Manager IV	Hours	4	$156	1	$686	4 hrs/yr for Preserve Manager to plan for the upcoming year.
Site Construction/Maintenance								
Annually	Fencing Repairs	NA	Item	1	$1,000.00	5	$220	Assumes one barrier/fencing replacement or repair per 5 years.
Subtotals and Total								
					Subtotal of Ongoing Annual Costs for Years 3+		*$27,363*	
					Administration, Insurance, Legal (10%)		*$2,736*	
					Total Annual Cost		**$30,099**	
					Total Endowment Amount at 4.0% Capitilization Rate		**$752,482**	

Appendix M
Historic Aerial Imagery



50m
300f

1980 aerial photograph
USGS (1980-11-01 - 1980-12-30)



prepared November 10, 2020 -- Historic Aerial imagery © 2020 , NETRonline, LLC.



50m
300f

1993 aerial photograph
Landis Cor (1993-01-26 - 1993-03-06)



prepared November 10, 2020 -- Historic Aerial imagery © 2020 , NETRonline, LLC.



50m
300f





1995 aerial photograph
Landis Cor (1995-02-19 - 1995-03-31)

prepared November 10, 2020 -- Historic Aerial imagery © 2020 , NETRonline, LLC.



50m
300f

1996 aerial photograph
USGS DOQQ (1996-06-04 - 1996-10-10)
Landiscor (1996-01-04 - 1996-01-04)



prepared November 10, 2020 -- Historic Aerial imagery © 2020 , NETRonline, LLC.



Google Earth - Imagery Date 4/3/2002

Appendix N

Report to Hearing Officer – Scripps Ranch Reservoir Slope Repair (October 2013)

THE CITY OF SAN DIEGO

REPORT TO THE HEARING OFFICER

HEARING DATE: October 16, 2013 REPORT NO. HO 13-090

ATTENTION: Hearing Officer

SUBJECT: SCRIPPS RANCH RESERVOIR SLOPE REPAIR
PTS PROJECT NUMBER: 215568

LOCATION: City-owned property across the street from 12225 Spring Canyon Road between Riesling Drive and Cypress Canyon Park Drive

APPLICANT: City Of San Diego, Engineering and Capital Projects Department

SUMMARY

Issue(s): Should the Hearing Officer approve the Scripps Ranch Reservoir Slope Repair project to stabilize the adjacent eroded slope and remove and replace new pipeline in the same location, City-owned property, in the Scripps Miramar Ranch Community Plan area?

Staff Recommendation(s):

Certify Mitigated Negative Declaration (MND) No. 215568 and **Adopt** the Mitigation Monitoring and Reporting Program; and

Approve Site Development Permit No. 1188609.

Community Planning Group Recommendation: On August 2, 2012, the Scripps Miramar Ranch Community Planning Group heard the project as an informational item and no vote was taken (Attachment 6).

Environmental Review**:** Mitigated Negative Declaration No. 215568 has been prepared for the project in accordance with State of California Environmental Quality Act (CEQA) Guidelines. A Mitigation Monitoring and Reporting Program (MMRP) has been prepared and would be implemented which would reduce, to a level of insignificance, any potential impacts identified in the environmental review process (Attachment 5).

BACKGROUND

The proposed Scripps Ranch Reservoir Slope Repair Project is located on City-owned property across the street from 12225 Spring Canyon Road between Riesling Drive and Cypress Canyon Park Drive in the RS-1-8 zone and city-fee owned open space in the Scripps Miramar Ranch Community Planning area (Attachments 1 & 2). The emergency project is required to repair the slope eroded from the release of treated water from the reservoir and to prevent any further erosion to the hillside.

The project site is also located within the Multi-Habitat Planning Area (MHPA) and will affect sensitive biological resources and Land Use Adjacency guidelines which were addressed and minimized to below a significant effect in the Mitigation Monitoring and Reporting Program (MMRP) (Attachment 5).

DISCUSSION

The Scripps Ranch Reservoir Slope Repair project will improve and replace the existing drain pipe that serves the reservoir, repair and revegetate the eroded slope in order to stabilize it, which prevents an unsafe situation to nearby residences in the community.

The project scope includes demolishing the existing dissipater and excavate at least three feet into the hillside in order to connect 300 feet of new 18-inch RCP to the existing drain line with headwalls every 20 feet. A new energy dissipater structure will be constructed at the bottom of the hill with rip-rap placed downstream to further aid in energy dissipation. Once the installation is complete, the project will re-grade the slope to repair the previous erosion problems and to revegetate the disturbed project area.

Although the majority of the project will be constructed within City open space, it is also surrounded by residentially zoned properties. These zones allow for the use of water facilities and the related ancillary improvements identified in this project. The site is partially located within biologically sensitive areas, and would require mitigation and construction monitoring. The proposed project will proceed in accordance with all applicable regulations as conditioned within the Site Development Permit and the Environmental MMRP to maintain the integrity of the habitat (Attachments 3 & 5).

The proposed project is also located within the Multi Habitat Planning Area (MHPA) and includes sensitive vegetation. There are uplands that would be minimally affected by this project, due to the installation of the 300 foot pipeline within the existing open space slope. The project proposes impacts to (0.31) acres of Southern Mixed Chaparral which is located both inside and outside of the MHPA and therefore, mitigation is required in the form of payment to the Habitat Acquisition Fund.

A revegetation plan will be implemented to restore the area to the appropriate plant palette once construction is completed. These measures will ensure that any impacts to environmentally sensitive lands will be restored upon completion of construction. The revegetation plan would restore the habitat that existed on the slope and the construction area. Appropriate erosion control measures will be applied for slope recontouring and revegetation, which will protect against future erosional forces.

On August 2, 2012, the Scripps Miramar Ranch Community Planning Group heard the project as an informational item. The site plans, associated drawings, and project materials were distributed. The planning group did not vote on this project and no comments or concerns were recorded in the minutes.

CONCLUSION

Staff has reviewed the project and the applicable regulations of the Land Development Code (LDC) would allow the proposed replacement/realignment of the existing drain pipe and associated improvements. The project as proposed complies with the City Green Book, Landscape Manual, Historical Resources Guidelines, the California Environmental Quality Act Guidelines, and all other applicable regulations of the LDC.

ALTERNATIVE

1. **Certify** Mitigated Negative Declaration No. 215568 and **Approve** Site Development Permit No. 1188609, with modifications or;

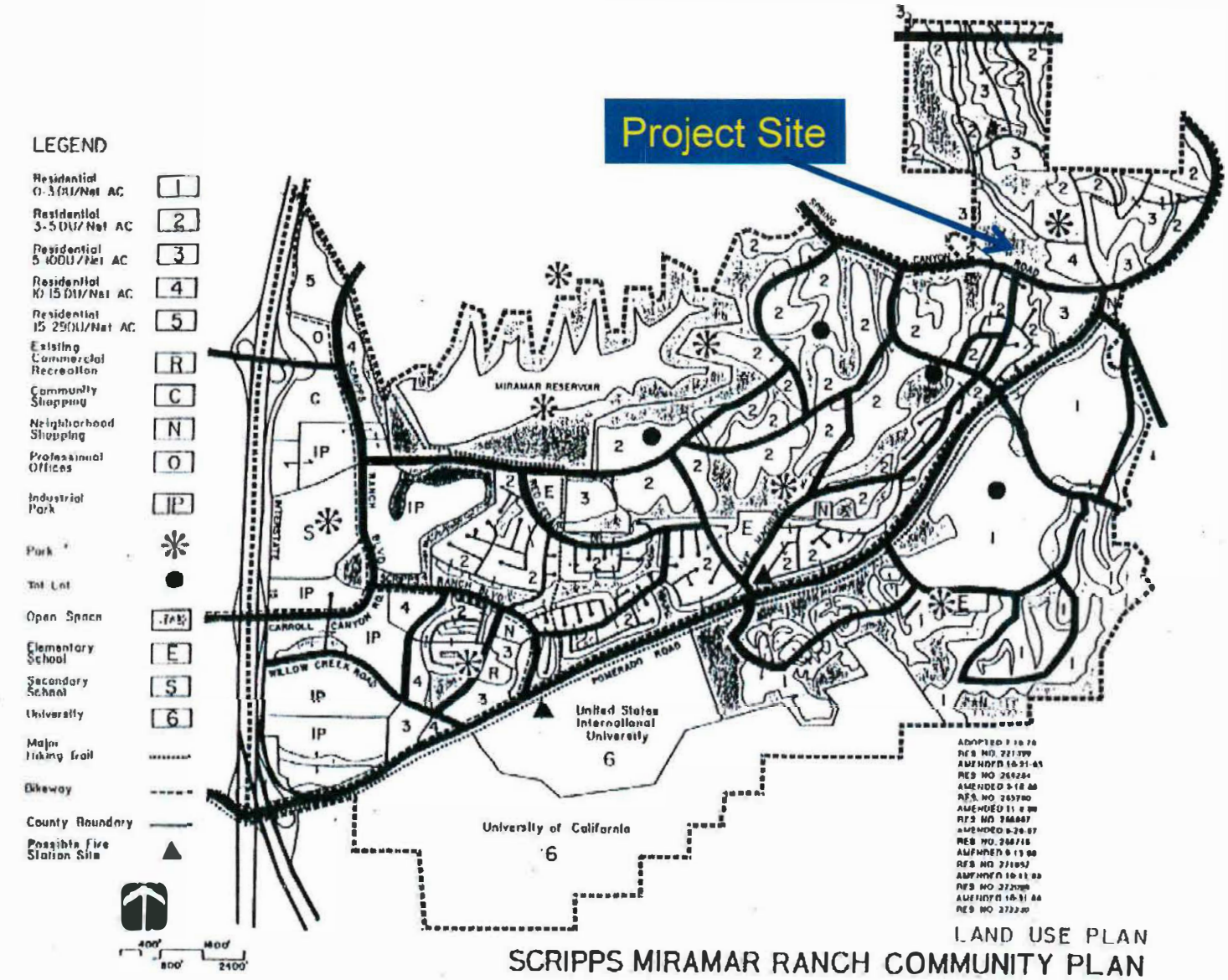
2. **Deny** Site Development Permit No. 1188609, if the findings required to approve the project cannot be affirmed.

Respectfully submitted,

Helene Deisher, Development Project Manager

Attachments:

1. Community Plan Land Use Map
2. Project Location Map & Aerial Map
3. Draft Permit with Conditions
4. Draft Permit Resolution with Findings
5. Draft Environmental Resolution with MMRP
6. Community Planning Group Recommendation
7. Project Site Plan(s)

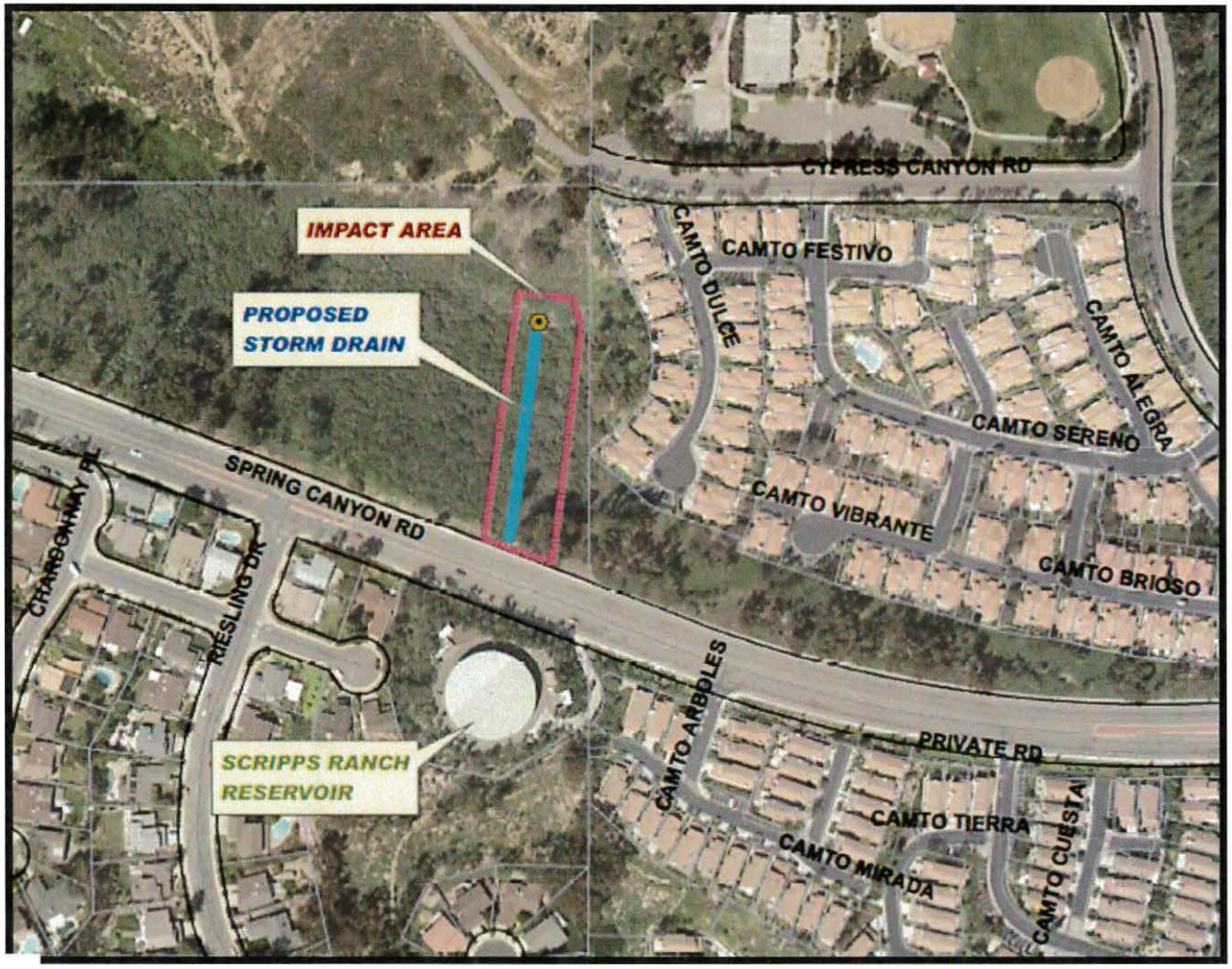


Land Use Map

SCRIPPS RANCH SLOPE REPAIR
PROJECT NO. 215568

North

ATTACHMENT 1



Project Location Map

PROJECT NAME – SCRIPPS RANCH SLOPE REPAIR
PROJECT NO. 215568

North

ATTACHMENT 2

RECORDING REQUESTED BY
CITY OF SAN DIEGO
DEVELOPMENT SERVICES
PERMIT INTAKE, MAIL STATION 501

WHEN RECORDED MAIL TO:

PROJECT MANAGEMENT
PERMIT CLERK
MAIL STATION 501

SPACE ABOVE THIS LINE FOR RECORDER'S USE

WBS No. B-10165.02.06

SITE DEVELOPMENT PERMIT NO. 1188609
SCRIPPS RANCH RESERVOIR SLOPE REPAIR - PROJECT NO. 215568 [MMRP]
Hearing Officer

This Site Development Permit No. 1188609 is granted by the Hearing Officer of the City of San Diego to City of San Diego, Owner, and Engineering and Capital Projects Department, Permittee, pursuant to San Diego Municipal Code [SDMC] section 126.0502. The project site is located on city –owned property on the north side of Spring Canyon Road, between Riesling Drive and Cypress Canyon Park Drive, across the street from 12225 Spring Canyon Road. The site is zoned RS-1-8 and designated as open space zone in Scripps Miramar Ranch Community Planning area.

Subject to the terms and conditions set forth in this Permit, permission is granted to Owner and Permittee to demolish the existing dissipater, excavate at least three feet into the hillside to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line with headwalls, and re-grade and repair the slope as described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated October 16, 2013, on file in the Development Services Department.

The project shall include:

a. Demolition of the existing dissipater; and

b. Excavate at least three feet into the hillside to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line with headwalls; and

c. Re-grade and repair the slope; and

d. Landscape/re-vegetation (planting, irrigation and landscape related improvements).

STANDARD REQUIREMENTS:

1. This permit must be utilized within thirty-six (36) months after the date on which all rights of appeal have expired. If this permit is not utilized in accordance with Chapter 12, Article 6, Division 1 of the SDMC within the 36 month period, this permit shall be void unless an Extension of Time has been granted. Any such Extension of Time must meet all SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision maker. This permit must be utilized by October 16, 2016.

2. No permit for the construction, occupancy, or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:

   a. The Owner/Permittee signs and returns the Permit to the Development Services Department; and

   b. The Permit is recorded in the Office of the San Diego County Recorder.

3. While this Permit is in effect, the subject property shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the appropriate City decision maker.

4. This Permit is a covenant running with the subject property and all of the requirements and conditions of this Permit and related documents shall be binding upon the Owner/Permittee and any successor(s) in interest.

5. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.

6. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this Permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).

7. Construction plans shall be in substantial conformity to Exhibit "A." Changes, modifications, or alterations to the construction plans are prohibited unless appropriate application(s) or amendment(s) to this Permit have been granted.

8. All of the conditions contained in this Permit have been considered and were determined-necessary to make the findings required for approval of this Permit. The Permit holder is required to comply with each and every condition in order to maintain the entitlements that are granted by this Permit.

If any condition of this Permit, on a legal challenge by the Owner/Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" conditions(s) back to the discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo, and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.

ENVIRONMENTAL/MITIGATION REQUIREMENTS:

9. Mitigation requirements in the Mitigation, Monitoring, and Reporting Program [MMRP] shall apply to this Permit. These MMRP conditions are hereby incorporated into this Permit by reference.

10. The mitigation measures specified in the MMRP and outlined in Mitigated Negative Declaration (MND) NO. 215568 shall be noted on the construction plans and specifications under the heading ENVIRONMENTAL MITIGATION REQUIREMENTS.

11. The Owner/Permittee shall comply with the MMRP as specified in Mitigated Negative Declaration (MND) NO. 215568, to the satisfaction of the Development Services Department and the City Engineer. Prior to the issuance of the "Notice to Proceed" with construction, all conditions of the MMRP shall be adhered to and shall be implemented in the following issue areas: **Biological Resources and Land Use (MHPA Land Use Adjacency).**

LANDSCAPE REQUIREMENTS:

12. Prior to issuance of any engineering permits for grading, construction documents for the revegetation and hydro-seeding of all disturbed land shall be submitted in accordance with the Landscape Standards and to the satisfaction of the Development Services Department. All plans shall be in substantial conformance to this permit (including Environmental conditions) and Exhibit 'A,' on file in the Office of the Development Services Department.

13. Construction Documents for grading shall include the following note: "Installation of landscaping associated with these construction documents shall require a minimum short-term establishment period of 120 days for all native/naturalized slope restoration and a minimum long-term establishment/maintenance period of 25 months. Final approval of the required landscaping shall be to the satisfaction of the Mitigation Monitoring Coordination section of the Development Services Department.

14. The Permittee or subsequent Owner(s) shall be responsible for the installation and maintenance of all landscape improvements consistent with the Land Development Code: Landscape Regulations and the Land Development Manual: Landscape Standards. Invasive species are prohibited from being planted adjacent to any canyon, water course, wet land or

native habitats within the city limits of San Diego. Invasive plants are those which rapidly self propagate by air born seeds or trailing as noted in section 1.3 of the Landscape Standards.

15. The Permittee or subsequent owner(s) shall be responsible to ensure that irrigation drainage run off shall be directed away from the Multiple Habitat Preserve Area (MHPA) or from the transitional areas to ensure that no impacts occur from runoff in any of these areas.

16. If any required landscape (including existing or new plantings) indicated on the approved construction document plans is damaged or removed during construction, it shall be repaired and/or replaced in kind and equivalent size per the approved documents to the satisfaction of the Development Services Department within 30 days of damage or Certificate of Occupancy.

INFORMATION ONLY:

- The issuance of this discretionary use permit alone does not allow the immediate commencement or continued operation of the proposed use on site. The operation allowed by this discretionary use permit may only begin or recommence after all conditions listed on this permit are fully completed and all required ministerial permits have been issued and received final inspection.

- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this Permit, may protest the imposition within ninety days of the approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code-section 66020.

- This development may be subject to impact fees at the time of construction permit issuance.

APPROVED by the Hearing Officer of the City of San Diego on October 16, 2013 and Resolution No. XXXX.

Site Development Permit No. 1188609
Date of Approval: October 16, 2013

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT

_____
Helene Deisher
Development Project Manager

NOTE: Notary acknowledgment must be attached per Civil Code section 1189 et seq.

The undersigned Owner/Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

City of San Diego, Engineering and Capital Projects Department
Owner/Permittee

By _____
NAME
TITLE

NOTE: Notary acknowledgments must be attached per Civil Code section 1189 et seq.

HEARING OFFICER RESOLUTION NO. XXXX
SITE DEVELOPMENT PERMIT (SDP) NO. 1188609
SCRIPPS RANCH RESERVOIR SLOPE REPAIR, PROJECT NO. 215568 – [MMRP]

WHEREAS, CITY OF SAN DIEGO/ENGINEERING AND CAPITAL PROJECTS, Owner/Permittee, filed an application with the City of San Diego for a permit to demolish the existing dissipater, excavate at least three feet into the hillside to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line with headwalls, and re-grade and repair the slope located on City-owned property across the street from 12225 Spring Canyon Road (as described in and by reference to the approved Exhibits "A" and corresponding conditions of approval for the associated Site Development Permit No. 1188609);

WHEREAS, the project site is located on City-owned property across the street from 12225 Spring Canyon Road between Riesling Drive and Cypress Canyon Park Drive in the RS-1-8 and Open Space zones in the Scripps Miramar Ranch Community Planning area;

WHEREAS, on October 16, 2013, the Hearing Officer of the City of San Diego considered Site Development Permit No. 1188609 pursuant to the Land Development Code of the City of San Diego;

NOW, THEREFORE, BE IT RESOLVED by the Hearing Officer of the City of San Diego as follows:

That the Hearing Officer adopts the following written Findings, dated October 16, 2013:

Site Development Permit - Section 126.0504

A. Findings for all Site Development Permits

1. **The proposed development will not adversely affect the applicable land use plan.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   Although the majority of the project will be constructed within City open space located across the street from the reservoir, it is also surrounded by residentially zoned properties. These zones allow for the use of water facilities and the related ancillary improvements identified in this project. Because of the erosion which has occurred to the slope from the draining of the reservoir, replacement of a longer drain pipe and repair of the slope is needed. In this case, the existing drain pipe would be removed and a new one installed with a new energy dissipater structure at the bottom of the hill. The reservoir serves the existing/surrounding community.

The community plan stresses the importance of preservation and enhancement of the valued natural resources of the Scripps Miramar Ranch community and maintaining the integrity of the Reservoir while providing suitable access for maintenance.

The eroded slope from the discharge will be repaired and the impacted area will be re-vegetated with similar and compatible habitat. Therefore the proposed project would support the objectives of the community plan and not adversely affect the applicable land use plan.

2. **The proposed development will not be detrimental to the public health, safety, and welfare.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   The reservoir serves the existing/surrounding community. The work proposed will improve and replace the existing drain pipe that serves the reservoir and will repair and revegetate the eroded slope in order to stabilize it. This will provide proper drainage to nearby residences in the community. The overall scope of this project is the repair and maintenance of an existing public facility. Maintenance of the existing infrastructure will promote the public health, welfare, and safety and therefore not be detrimental.

3. **The proposed development will comply with the applicable regulations of the Land Development Code (LDC), including any allowable deviations pursuant to the Land Development Code.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   The majority of the project will be constructed within City open space. It is surrounded by residentially zoned properties. These zones allows for water facilities and related ancillary improvements identified for this project. The site is partially located within biologically sensitive areas, and would require a Site Development Permit, as well as mitigation and construction monitoring. Applicable regulations of the Land Development Code (LDC) would allow the proposed replacement and/or realignment of the existing drain pipe and associated improvements. The project as proposed complies with the City Green Book, Landscape Manual, Historical Resources Guidelines, the California Environmental Quality Act Guidelines, and all other applicable regulations of the LDC regarding replacement of an existing drain pipe and repairing an eroded slope.

The proposed development would proceed in accordance with all applicable regulations as conditioned within Site Development Permit and would therefore comply with all the applicable regulations of the Land Development Code.

B. Supplemental Findings--Environmentally Sensitive Lands

1. **The site is physically suitable for the design and siting of the proposed development and the development will result in minimum disturbance to environmentally sensitive lands.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   The current design meets the goals of the project which is to provide a new drain pipe which will extend to the bottom of the slope to prevent further slope erosion when the reservoir is drained. It also repairs damage created and restores the natural vegetation. The proposed scope provides the least impact to environmentally sensitive lands (ESL) which occurs on the slope, in the form of sensitive biological resources. As such, the overall design considers the balance between the limited impacts to the environment, while at the same time provides the necessary improvements to prevent further erosion to the open space slope in the project area.

2. **The proposed development will minimize the alteration of natural land forms and will not result in undue risk from geologic and erosional forces, flood hazards, or fire hazards.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope to control the flow. The existing dissipater would be demolished.

   The project will install approximately 300 lineal feet of pipeline and repair the previously eroded slope. Erosion control measures for construction BMPs as well as post construction slope re-contouring and implementation of a re-vegetation plan, would restore the habitat that existed on the slope. These measures would protect against future erosion forces. In addition, a geotechnical investigation and report has been prepared for the project. No hazards have been identified with implementation of the proposed project. No flood hazards occur in the project area. Therefore, the proposed project will minimize the alteration of natural land forms and will not result in undue risk from geologic and erosional forces, flood hazards, or fire hazards.

3. **The proposed development will be sited and designed to prevent adverse impacts on any adjacent environmentally sensitive lands.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   The installation of the new pipeline would be located entirely within environmentally sensitive lands. However, it remedies an existing situation with a superior design. A biology report was prepared that identified impacts to upland habitat (Southern Mixed Chaparral) consisting of 0.31 of an acre. Therefore mitigation is required in the form of payment to the City's Habitat Acquisition Fund. In addition, a re-vegetation plan will be implemented to restore the area once construction is completed. These measures will ensure that any impacts to environmentally sensitive lands will be restored upon completion of construction. Long term or continued adverse impacts are not anticipated on adjacent environmentally sensitive lands. Therefore, the proposed development will be sited and designed to prevent adverse impacts on any adjacent environmentally sensitive lands.

4. **The proposed development will be consistent with the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   There are uplands that would be minimally affected by this project, due to the installation of the 300 foot pipeline within the existing open space slope. The proposed project is located almost entirely within the City's Multi Habitat Planning Area (MHPA). The project will impact (0.31) acres of Southern Mixed Chaparral which is located both inside and outside of the MHPA and therefore, mitigation is required. Mitigation shall be accomplished in the form of payment to the Habitat Acquisition Fund (HAF), as well as, a revegetation plan for restoration of the upland areas which would install Southern Mixed Chaparral habitat and appropriate non-invasive species. The restoration plan will be implemented to restore the area once construction is completed. These measures will ensure that any impacts to environmentally sensitive lands will be restored and additional impacts will be mitigated via payment into the (HAF) upon completion of construction.

Natural drainage patterns shall be maintained as much as possible during construction and would conform to the City's adopted Best Management Practices (BMP's) to address erosion control. The environmental document also includes Biological and Land Use Adjacency mitigation measures to ensure consistency with the MHPA and therefore, the proposed project would be consistent with the MSCP Subarea plan.

5. **The proposed development will not contribute to the erosion of public beaches or adversely impact local shoreline sand supply.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   The proposed project is not located in close proximity to the beach or shoreline and will not adversely impact local shoreline sand supply. Improvements are minimal and the land would be returned back to its pre-construction stage. Erosion control shall be implemented in order to prevent inappropriate runoff, and the project will have no adverse impacts to such resources.

6. **The nature and extent of mitigation required as a condition of the permit is reasonably related to, and calculated to alleviate, negative impacts created by the proposed development.** The Scripps Ranch Reservoir Slope Repair project proposes to demolish the existing dissipater, excavate at least 3 feet into the hillside in order to connect 300 feet of new 18-inch reinforced concrete pipe (RCP) to the existing drain line, and re-grade the eroded slope (hillside).

   Every two years the reservoir is drained and inspected. During the draining process, the City's water operations division uses an 18 inch RCP drain line to drain some of the water. That water exits at a head wall structure near the top of the slope and as the water flows down the canyon, it picks up velocity and has eroded the hillside. A new energy dissipater and rip-rap would be installed at the bottom of the slope. The existing dissipater would be demolished.

   The mitigation developed for this project is for Biological Resources and Land Use Adjacency (MSCP), and the extent of such mitigation is typical for a project of this nature. The project proposes impacts to (0.31) acres of Southern Mixed Chaparral which is located both inside and outside of the MHPA and therefore, mitigation is required in the form of payment to the Habitat Acquisition Fund (HAF). Additionally, a revegetation plan will be implemented to restore the area with the appropriate plant palette once construction is completed. These measures will ensure that any impacts to environmentally sensitive lands will be restored and additional impacts will be mitigated via payment into the (HAF) upon completion of construction. The revegetation plan would restore the habitat that existed on the slope and the construction area. Appropriate erosion control measures will be applied for slope recontouring and revegetation, which will protect against future erosional forces.

As a result, the mitigation is directly related to the project impacts and the need to construct the project, while at the same time alleviating any negative impacts that may occur as a result. All mitigation and project requirements are calculated to alleviate, negative impacts created by the proposed development.

BE IT FURTHER RESOLVED that, based on the findings hereinbefore adopted by the Hearing Officer for the Site Development Permit No. 1188609 is hereby GRANTED by the Hearing Officer to the referenced Owner/Permittee, in the form, exhibits, terms and conditions as set forth in Permit No. 1188609, a copy of which is attached hereto and made a part hereof.

_____

Helene Deisher
Development Project Manager
Development Services

Adopted on: October 16, 2013
WBS No. B-10165.02.06

RESOLUTION NUMBER R- XXX

ADOPTED ON OCTOBER 16, 2013

WHEREAS, on November 29, 2011, Engineering and Capital Projects Department submitted an application to Development Services Department for a Site Development Permit for the: Scripps Ranch Reservoir Slope Repair (Project); and

WHEREAS, the matter was set for a public hearing to be conducted by the Hearing Officer of the City of San Diego; and

WHEREAS, the issue was heard by the Hearing Officer on October 16, 2013; and

WHEREAS, the Hearing Officer considered the issues discussed in Mitigated Negative Declaration No. 215568 (Declaration) prepared for this Project; NOW THEREFORE,

BE IT RESOLVED, by the Hearing Officer that it is certified that the Declaration has been completed in compliance with the California Environmental Quality Act of 1970 (CEQA) (Public Resources Code Section 21000 et seq.), as amended, and the State CEQA Guidelines thereto (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.), that the Declaration reflects the independent judgment of the City of San Diego as Lead Agency and that the information contained in said Declaration, together with any comments received during the public review process, has been reviewed and considered by the Hearing Officer in connection with the approval of the Project.

BE IT FURTHER RESOLVED, that the Hearing Officer finds on the basis of the entire record that project revisions now mitigate potentially significant effects on the environment previously identified in the Initial Study, that there is no substantial evidence that the Project will have a significant effect on the environment, and therefore, that said Declaration is hereby adopted.

BE IT FURTHER RESOLVED, that pursuant to CEQA Section 21081.6, the Hearing Officer hereby adopts the Mitigation Monitoring and Reporting Program, or alterations to implement the changes to the Project as required by this Hearing Officer in order to mitigate or avoid significant effects on the environment, which is attached hereto as Exhibit A.

BE IT FURTHER RESOLVED, that the Declaration and other documents constituting the record of proceedings upon which the approval is based are available to the public at the office of the DEVELOPMENT SERVICES DEPARTMENT, 1222 FIRST AVENUE, SAN DIEGO, CA 92101

BE IT FURTHER RESOLVED, that DEVELOPMENT SERVICES STAFF is directed to file a Notice of Determination with the Clerk of the Board of Supervisors for the County of San Diego regarding the Project.

APPROVED:

By: _____
Helene Deisher, Development Project Manager

ATTACHMENT(S): Exhibit A, Mitigation Monitoring and Reporting Program

EXHIBIT A
Scripps Ranch Reservoir Slope Repair
MITIGATION MONITORING AND REPORTING PROGRAM
Site Development Permit

PROJECT NO. 215568

This Mitigation Monitoring and Reporting Program is designed to ensure compliance with Public Resources Code Section 21081.6 during implementation of mitigation measures. This program identifies at a minimum: the department responsible for the monitoring, what is to be monitored, how the monitoring shall be accomplished, the monitoring and reporting schedule, and completion requirements. A record of the Mitigation Monitoring and Reporting Program will be maintained at the offices of the Entitlements Division, 1222 First Avenue, Fifth Floor, San Diego, CA, 92101. All mitigation measures contained in the Mitigated Negative Declaration No. 230429 shall be made conditions of Site Development Permit as may be further described below.

A. GENERAL REQUIREMENTS – PART I

Plan Check Phase (prior to permit issuance)

1. Prior to Bid Opening/Bid Award or beginning any construction related activity on-site, the Development Services Department (DSD) Director's Environmental Designee (ED) shall review and approve all Construction Documents (CD) (plans, specification, details, etc.) to ensure the MMRP requirements have been incorporated.

2. In addition, the ED shall verify that the MMRP Conditions/Notes that apply ONLY to the construction phases of this project are included VERBATIM, under the heading, "**ENVIRONMENTAL/MITIGATION REQUIREMENTS**."

3. These notes must be shown within the first three (3) sheets of the construction documents in the format specified for engineering construction document templates as shown on the City website:

   http://www.sandiego.gov/development-services/industry/standtemp.shtml

4. The **TITLE INDEX SHEET** must also show on which pages the "Environmental/Mitigation Requirements" notes are provided.

B. GENERAL REQUIREMENTS – PART II

Post Plan Check (Prior to start of construction)

1. **PRE CONSTRUCTION MEETING IS REQUIRED TEN (10) WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.** The PERMIT HOLDER/OWNER is responsible to arrange and perform this meeting by contacting the City staff from MITIGATION MONITORING COORDINATION (MMC). Attendees must also include the Permit holder's Representative(s), Job Site Superintendent and the following consultants: **Biologist**

DRAFT

Note: Failure of all responsible Permit Holder's representatives and consultants to attend shall require an additional meeting with all parties present.

CONTACT INFORMATION:

a) The PRIMARY POINT OF CONTACT is the **RE** at the **Field Engineering Division 858-627-3200**

b) For Clarification of ENVIRONMENTAL REQUIREMENTS, it is required to call **MMC at 858-627-3360**

2. **MMRP COMPLIANCE:** This Project, Project Tracking System (PTS) No. 215568, shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of the DSD's ED, and MMC. The requirements may not be reduced or changed but may be annotated (i.e. to explain when and how compliance is being met and location of verifying proof, etc.). Additional clarifying information may also be added to other relevant plan sheets and/or specifications as appropriate (i.e., specific locations, times of monitoring, methodology, etc

   Note:
   Permit Holder's Representatives must alert MMC if there are any discrepancies in the plans or notes, or any changes due to field conditions. All conflicts must be approved by MMC BEFORE the work is performed.

3. **OTHER AGENCY REQUIREMENTS:** Evidence that any other agency requirements or permits have been obtained or are in process shall be submitted to MMC for review and acceptance prior to the beginning of work or within one week of the Permit Holder obtaining documentation of those permits or requirements. Evidence shall include copies of permits, letters of resolution or other documentation issued by the responsible agency.
   None required.

4. **MONITORING EXHIBITS:** All consultants (City Biologist) are required to submit, to MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.

DRAFT

5. **OTHER SUBMITTALS AND INSPECTIONS:** The Permit Holder/Owner's representative shall submit all required documentation, verification letters, and requests for all associated inspections to MMC for approval per the following schedule:

Document Submittal/Inspection Checklist

Issue Area	*Document submittal*	*Associated Inspection/Approvals/Note*
General	Consultant Qualification Letters	Prior to Pre-construction Meeting
General	Consultant Const. Monitoring	Prior to or at the Pre-Construction Meeting
Biology	Monitoring Report	Prior to Construction
Biology	Active Raptor & Migratory Bird Survey	Prior to Pre-construction

SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS:

A. LAND USE – MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP)

I. Prior to Preconstruction Meeting:

a. Prior to Permit Issuance or Bid Opening/Bid Award, the ADD Environmental Designee shall verify that all Multi-Habitat Planning Area (MHPA) boundaries and limits of work have been delineated on all construction documents.

b. Prior to the first pre-construction meeting, the Applicant Department shall provide a letter of verification to the Mitigation Monitoring Coordination (MMC) Section stating that a qualified Biologist, as defined in the City of San Diego Biology Guidelines, has been retained to implement the project's MSCP Monitoring Program. The letter shall include the names and contact information of all persons involved in the Biological Monitoring of the project.

c. At least 30 days prior to the pre-construction meeting, the qualified Biologist shall submit all required documentation to MMC, verifying that any special reports, maps, plans and time lines, such as, but not limited to, revegetation plans, plant relocation requirements and timing, MSCP requirements, avian or

DRAFT

other wildlife protocol surveys, impact avoidance areas or other such information has been completed and updated.

II. Prior to Bid Opening/Bid Award:

a. The qualified biologist (project biologist) shall attend the first preconstruction meeting and discuss the projects biological monitoring program.

b. The limits of work shall be clearly delineated by a survey crew prior to brushing, clearing or grading. The limits of work, as shown on the approved Exhibit A, shall be defined with silt fencing or orange constriction fencing and checked by the biological monitor before initiation of construction grading. All native plants or species of special concern, as identified in the biological technical report, shall be staked, flagged and avoided within Brush Management Zone 2, if applicable.

III. During Construction:

a. The Biological Monitor shall be present full-time during grading/excavation/trenching activities, which could result in impacts to biological resources as identified on the Biological Monitoring Exhibit.

b. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the RE to MMC the first day of monitoring, the last day of monitoring, monthly.

c. The Biological Monitor shall immediately notify MMC by phone of any unanticipated impacts outside the approved limits of work, and shall also submit written documentation to MMC within 24 hours by fax or e-mail with photos of the impacts to biological resources in context, if possible.

In addition the following mitigation measures related to the MHPA Land Use Adjacency Guidelines shall be implemented during construction:

d. Prior to initiation of any demolition and/or construction-related grading, the project biologist shall discuss the sensitive nature of the adjacent habitat with the crew and subcontractor.

e. The limits of work shall be clearly delineated by a survey crew prior to brushing, clearing or grading. The limits of work, as shown on the approved Exhibit A, shall be defined with silt fencing or orange construction fencing and checked by the biological monitor before initiation of construction grading. All native plants or species of special concern, as identified in the Biological Survey Letter Report, shall be staked, flagged and avoided within Brush Management Zone 2, if applicable.

f. Invasive non-native plant species shall not be introduced into areas adjacent to the MHPA. Landscape plans shall contain non-invasive native species adjacent to sensitive biological areas as shown on the approved Exhibit A.

DRAFT

g. All lighting adjacent to the MHPA shall be shielded, unidirectional, low pressure sodium illumination (or similar) and directed away from preserve areas using appropriate placement and shields. If lighting adjacent to the MHPA is required for nighttime construction, it shall be directed away from the preserve and the tops of adjacent trees with potentially nesting raptors, using appropriate placement and shielding.

h. All construction activities (including staging areas and/or storage areas) shall be restricted to the development area as shown on the approved Exhibit A. No equipment maintenance shall be conducted within or near the adjacent open space and/or sensitive areas and shall be restricted to the development area, as shown on the approved Exhibit A. All construction activities shall not encroach into sensitive biological areas within either the open-space and/or MHPA areas. The project biologist shall monitor construction activities, as needed, to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of work as shown on the approved Exhibit A.

i. Natural drainage patterns shall be maintained as much as possible during construction. Erosion control techniques, including the use of sandbags, hay bales and/or installation of sediment traps, shall be used to control erosion and deter drainage during construction activities into the adjacent open space. Drainage from all development areas adjacent to the MHPA shall be directed away from the MHPA, or if not possible, must not drain directly into the MHPA, but instead into sedimentation basins, grassy swales, and/or mechanical trapping devices as specified by the City Engineer.

j. No trash, oil, parking or other construction related activities shall be allowed outside the established limits of grading, as shown on the approved Exhibit A. All construction related debris shall be removed off-site to an approved disposal facility.

<u>LEAST BELL'S VIREO (State Endangered/Federally Endangered)</u>

Prior to the preconstruction meeting the City Manager (or appointed designee) shall verify that the following project requirements regarding the least Bell's vireo are shown on the construction plans:

NO CLEARING, GRUBBING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR BETWEEN MARCH 15 AND SEPTEMBER 15, THE BREEDING SEASON OF THE LEAST BELL'S VIREO, UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE CITY MANAGER:

A. A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) RECOVERY PERMIT) SHALL

SURVEY THOSE WETLAND AREAS THAT WOULD BE SUBJECT TO CONSTRUCTION NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE LEAST BELL'S VIREO. SURVEYS FOR THE THIS SPECIES SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE U.S. FISH AND WILDLIFE SERVICE WITHIN THE BREEDING SEASON PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF THE LEAST BELL'S VIREO IS PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

1. BETWEEN MARCH 15 AND SEPTEMBER 15, NO CLEARING, GRUBBING, OR GRADING OF OCCUPIED LEAST BELL'S VIREO HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND

2. BETWEEN MARCH 15 AND SEPTEMBER 15, NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED LEAST BELL'S VIREO OR HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY CONSTRUCTION ACTIVITIES WOULD NOT EXCEED 60 dB (A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE CITY MANAGER AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. PRIOR TO THE COMMENCEMENT OF ANY OF CONSTRUCTION ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR

3. AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, NOISE ATTENUATION MEASURES (e.g., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM CONSTRUCTION ACTIVITIES WILL NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE LEAST BELL'S VIREO. CONCURRENT WITH THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND THE CONSTRUCTION OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE MONITORING* SHALL BE CONDUCTED AT THE EDGE OF THE

OCCUPIED HABITAT AREA TO ENSURE THAT NOISE LEVELS DO NOT EXCEED 60 dB (A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (SEPTEMBER 16).

* Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB (A) hourly average or to the ambient noise level if it already exceeds 60 dB (A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. IF LEAST BELL'S VIREO ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY MANAGER AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MARCH 15 AND SEPTEMBER 15 AS FOLLOWS:

I. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR LEAST BELL'S VIREO TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.

II. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

SOUTHWESTERN WILLOW FLYCATCHER (Federally Endangered)

Prior to the preconstruction meeting, the City Manager (or appointed designee) shall verify that the following project requirements regarding the southwestern willow flycatcher are shown on the construction plans:

NO CLEARING, GRUBBING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR BETWEEN MAY 1 AND SEPTEMBER 1, THE BREEDING SEASON OF THE SOUTHWESTERN WILLOW FLYCATCHER, UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE CITY MANAGER:

A. A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) RECOVERY PERMIT) SHALL SURVEY THOSE WETLAND AREAS THAT WOULD BE SUBJECT TO CONSTRUCTION NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE SOUTHWESTERN WILLOW FLYCATCHER. SURVEYS FOR THIS SPECIES SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE U.S. FISH AND WILDLIFE SERVICE WITHIN THE BREEDING SEASON PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. IF THE SOUTHWESTERN WILLOW FLYCATCHER IS PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

BETWEEN MAY 1 AND SEPTEMBER 1, NO CLEARING, GRUBBING, OR GRADING OF OCCUPIED SOUTHWESTERN WILLOW FLYCATCHER HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND

BETWEEN MAY 1 AND SEPTEMBER 1, NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 dB (A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED SOUTHWESTERN WILLOW FLYCATCHER HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY CONSTRUCTION ACTIVITIES WOULD NOT EXCEED 60 dB (A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE CITY MANAGER AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, NOISE ATTENUATION MEASURES (e.g., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM CONSTRUCTION ACTIVITIES WILL NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE SOUTHWESTERN WILLOW FLYCATCHER. CONCURRENT WITH THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND THE CONSTRUCTION OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE

MONITORING* SHALL BE CONDUCTED AT THE EDGE OF THE OCCUPIED HABITAT AREA TO ENSURE THAT NOISE LEVELS DO NOT EXCEED 60 dB (A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (SEPTEMBER 1).

* Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB (A) hourly average or to the ambient noise level if it already exceeds 60 dB (A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. IF SOUTHWESTERN WILLOW FLYCATCHER ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY MANAGER AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MAY 1 AND SEPTEMBER 1 AS FOLLOWS:

I. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR SOUTHWESTERN WILLOW FLYCATCHER TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.

II. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

C. **BIOLOGICAL RESOURCES**

I. Prior to Permit Issuance or Bid Opening/Bid Award:

a. The project shall mitigate for impacts to 0.31 acres of southern mixed chaparral habitat (0.28 acre inside the MHPA, 0.03 acre outside of the MHPA). The project proposes to mitigate for impacts to southern mixed chaparral through payment into the City's Habitat Acquisition Fund (HAF). Based upon the mitigation ratios in the City's Biological Guidelines (1:1 for impacts within the MHPA and .5:1 for impacts outside the MHPA) the total required mitigation would be .30 acres.

b. Biological Monitoring Requirements: All biological monitoring in or adjacent to wetlands (buffer) shall be conducted by a qualified wetland biologist knowledgeable of upland and wetland biology and ecology. The biologist shall conduct construction monitoring during all phases of the project. Orange flagging shall be used to protect sensitive habitat. Construction related activity shall be limited to the construction corridor areas as identified on the construction plans.

II. Bird Mitigation:

a. If project grading is proposed in or adjacent to native habitat during the typical bird breeding season (i.e., Feb. 1-Sept. 15), or an active nest is noted, the project biologist shall conduct a pre-grading survey for active nests in the development area and within 300 feet of it, and submit a letter report to MMC prior to preconstruction meeting.

b. If active nests are detected, or considered likely, the report shall include mitigation in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) to the satisfaction of the Assistant Deputy Director (ADD) of the Entitlements Division. Mitigation requirements determined by the project biologist and the ADD shall be incorporated into the project's Biological Construction Monitoring Exhibit (BCME) and monitoring results incorporated in to the final biological construction monitoring report.

c. If construction would occur within the avian and raptor breeding season (generally defined as ~~January 15th~~ February 1st through September 15th), a pre-construction survey for active raptor and migratory bird nests should be conducted within approximately 48 hours prior to the start of construction. The results of the survey should be submitted to the City in the form of a written report, and should include the date(s) of the survey, the name(s) of the investigator(s), the total field time of the survey efforts, a description of the survey area(s), and if any active nests were found. If an active bird next were found, then all construction activities undertaken for the project shall comply with the regulatory requirements of the federal MTBA and CDFG Codes Sections 3503 and 3513.

d. If no nesting birds are detected per III.a. above, mitigation under III a. is not required.

DRAFT

Scripps Ranch Planning Group

http://www.scrippsranchplanning.blogspot.com

DRAFT MEETING MINUTES

Thursday, August 2, 2012 at 7:00 p.m.
Scripps Ranch Community Library - Community Room
10301 Scripps Lake Drive, San Diego, CA 92131
(858) 538-8158

I. Welcome!
   A. Call to order: 7:05pm
      Roll Call- Julie Ellis, Scott Hilberg, Wally Wulfeck, Paul Vaughan, Todd Philips, Gordon Boerner, Bob Petering, John Lowe, Tamar Silverstein, Marvin Miles, John Gardner, John Lyons, Marc Sorensen, Jennifer Wilson
      Absent – Karen Ringel, Michael Butcher, Elizabeth Hansen, Dan Buell
   B. Modifications to Agenda: None

II. Non-Agenda Public Comment: SDUSD District E School Board Candidate Marne Foster with handout.

III. Announcements
   A. Councilman Carl DeMaio (T. Vinson)
      i. Passed City budget in June 2012 : Added 8 additional hours for Library and 5hrs for Rec Center, additional recruits added for Fire Science Academies
      ii. Prop B can now be implemented per Court decision.
      iii. City Council is currently in annual in legislative recess; Tiffany still available.
      iiii. No updates on Slurry Seal location additions; contact Tiffany for any updates.
   B. Assemblymember Nathan Fletcher (S. Benton) Not present
   C. Miramar Ranch North Planning Committee (D. Steiner) Not present
   D. MCAS Miramar Update (K. Camper)
      i.Welcome Colonel Barnham and a new Commander General to MCAS Miramar.
      ii. The MCAS Air show is post-Columbus Day weekend, the Blue Angels are expected to return this year.
   E. CalTrans Update (G. Fong) Not present

IV. Information Reports, Presentations & Discussion
   A. Chairperson's Report (T. Philips)
      i. Speed limit increase proposal letter on Aviary Drive given to Council Office; SRPG straw poll not in favor of raising speed limit on street where Stop Sign was just installed and Middle School pick-up/drop-offs occur regularly during school season.
   B. Scripps Lake Pump Station Update (A. Nguyen)
      i. Aerial and Ground simulations of future pump station displayed; the project takes water from Miramar Reservoir and pumps it to 2 Scripps Ranch Reservoirs, exclusively for Scripps Ranch, using portable generators. Current permit process includes attempts to keep the existing large boulder and trees on site (also checking re: equipment needed to move boulder).
      ii. This is in an MHPA area (multi-habitat) therefore needs tree screening. The project will use 3 large and 6 small pumps, but should be quiet due to new cooler system vs prior compressor.
      iii. Street work required for discharge pipe; will be performed primarily at night to minimize impact.
      iv. Will be back next month to request an SRPG Action on the project.

   C. Scripps Ranch Reservoir Slope Repair Update (D. Abbey)
      i. Requesting SRPG feedback re: project and extension of existing drain pipe from the SR Reservoir; water release is causing slope erosion. Hand-outs/drawings distributed.
      ii. Going through Environmental Review at this time, hope to complete by December 2012 and start work March 2013 (3-6 months to install the required 18-inch pipe); hydrology study in process to ensure no downstream canyon damage.

D. Sudberry Site Update for Northeast Corner of I-15 and Carrol Cyn Road (Jeff Rogers)
   i. City Scoping letter due next Wednesday; submitted 2nd round design drawings, continuing to work on Full EIR.
   ii. Traffic Analysis is separate document feeding into the full EIR document; not ready at this time to share details of this study other than that 3 intersections have been identified as being impacted; not ready to comment on potential impacts of City's street Community Plan designation correction.
   iii. Project generically targeted to include Retailer(s), Restaurant(s), Coffee shop(s) and a Bank; no tenant discussions that can be disclosed at this time.
   iv. Agenda Action item next month to discuss the Scoping Letter.

E. Scripps Ranch Brush Management (Boerner/Ilko/Sorensen)
   i. City agreed to Orange pre-tagging process with 48hr notice and SRCA has begun posting notices on the SRCA website as received from City Park/Rec Dept.
   ii. Members of SRPG/SRCA met with city staff and reviewed the intended process and viewed the range finders; however, virtually every cutting has continued to generate a disagreement or dispute re: habitable vs unhabitable structures, measurements of clearance on slopes and angular/rounded canyon areas with differences from as little as 5 ft to as much as 40ft (Hoyt Park East).
   iii. A request from SOSRT citizen for the City to Cease and Desist was supported by SRPG attendees at the initial meeting.
   iv. Council Office reported that meeting set for tomorrow Aug 3rd at 10am in Hoyt Park to review the Range Finders calibration and again review measuring and implementation process. There are many questions needing to be answered concerning this project between residents and the city.
   v. It was agreed that increased transparency is necessary to help community understand the current criteria for cutting down trees; example cited was change from "Eucalyptus" to "all non-native" in 2010 code without any notification to stakeholder communities.

V. Action Items
A. Scripps Ranch Public Facilities Financing Plan (A. Abeyta/ Boerner)
   i. SRPG ad hoc committee has held 2 meetings to review the plans with City Staff.
   ii. 4 Projects have been completed since the last update in 2007, and 4 new projects in the plan as well.
   iii. Community approximately 93 – 96% built out; these %'s used for FBA funding allocations.
   iv. Timeline post-SRPG approval includes City LU&H and City Council, with approval in late 2012.
   v. Committee recommended SR Public Facilities Financing Plan approval.

   Motion/2nd: Petering/Sorenson; Approved 15-0-0.

B. San Diego Bible Church Conditional Use Permit Request (F. Maestas)
   i. Existing CUP, Parking Permit and Rental Agreement copies given to T Philips.
   ii. Property Address is 10635 SR Blvd, Suite F (at Scripps Lake Dr near Pump Station)
   iii. CUP modification increases square footage from 6900 to 14,000 square feet.
   iv. No changes to parking (150 spaces); signage will be consistent with current CUP signage.
   v. Hours of Operation are Sunday 8-2, Mon-Thurs Office Hours 8-4:30 with 2 staff on duty, Fri 8-1 and Saturday 9-1.

   Motion/2nd: Lyons/Sorenson; Approved 14-0-0

C. Road "Lumps" for Forestview Lane Between Scripps Lake Drive and Lake Rim Drive (T. Philips)
   i. 65 Signatures gathered to install 6 road lumps on Forestview (between Lake Rim to Arbor Park).
   ii. Appears to represent approximately 50 of 57 homes in the area, however, none in the alternative route area potentially impacted by this action.
   iii. Questions were raised concerning the standards of installing speed lumps, precedent it would set, grade of street and Tot Lot location.
   iv. All in agreement with speed issue, however, need more specifics and resident feedback from other areas where the "speed lumps" have been in place due to concerns others have heard of.
   v. SRPG would like to know more about Speed Lumps from the city, for suggestions for reasonable traffic calming measures, when, where and what type of measures suggested for the type of road/street.
   vi. This topic has not yet been vetted in writing in the SRCA newsletter for community input.

vii. Request of Council Office for Traffic Engineering to attend a SRPG meeting to present and discuss traffic calming measures, standards and specifics; item deferred.

VI. Approval of Minutes

A. June 7, 2012 Minutes

Motion/2nd: Boerner/Vaugh; Approved 11-0-2

VII. Committee Reports

A. SR LMD-MAD (M. Sorensen) – Update

i. Parks are closed for the summer for maintenance; MAD is going OK

B. MCAS Miramar (J. Lyons) – Update

i. July field trip was held

ii. Noise complaints during the last two months have been 0 and 1, respectively.

C. CPC (T. Silverstein) – Update

i. Attended a LU&H meeting with Telephone, SDG&E, Cable Providers to encourage cooperation of underground utility box location to be installed in a mutually agreeable space.

ii. The City Budget Development Office is inviting CPC members to attend meetings on the budget process for more community input on Capital Projects. See Tamar for more info.

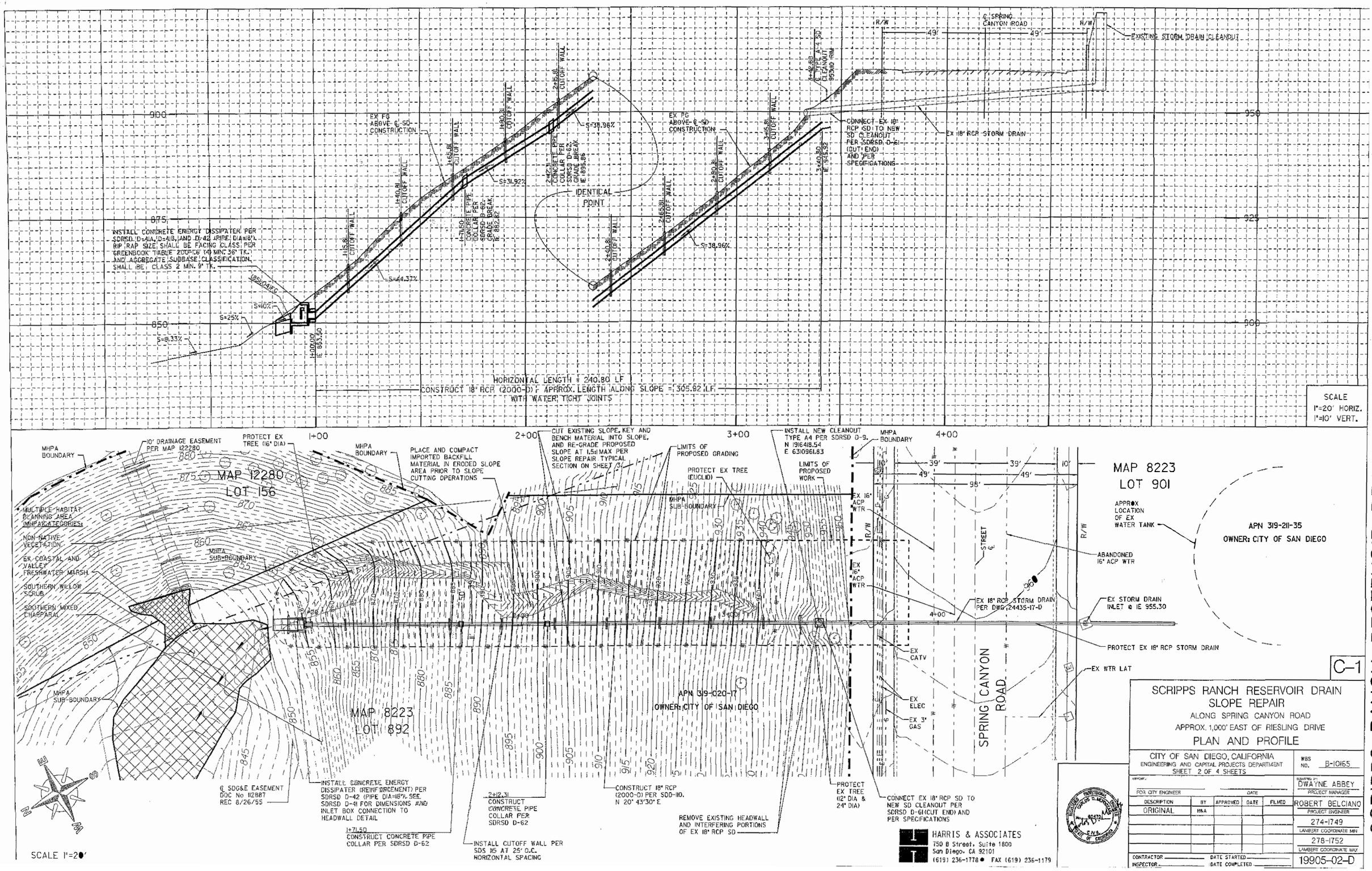
Note: Alliant University has listed their property for sale. More news to come next month.

VIII. Adjournment: 9:31pm

**Note time-specific items.*

ATTACHMENT 7

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR 100% DESIGN SUBMITTAL



C-1

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR

ALONG SPRING CANYON ROAD

APPROX. 1,000' EAST OF RIESLING DRIVE

PLAN AND PROFILE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 2 OF 4 SHEETS

WBS NO. B-10165

FOR CITY ENGINEER _____ DATE _____

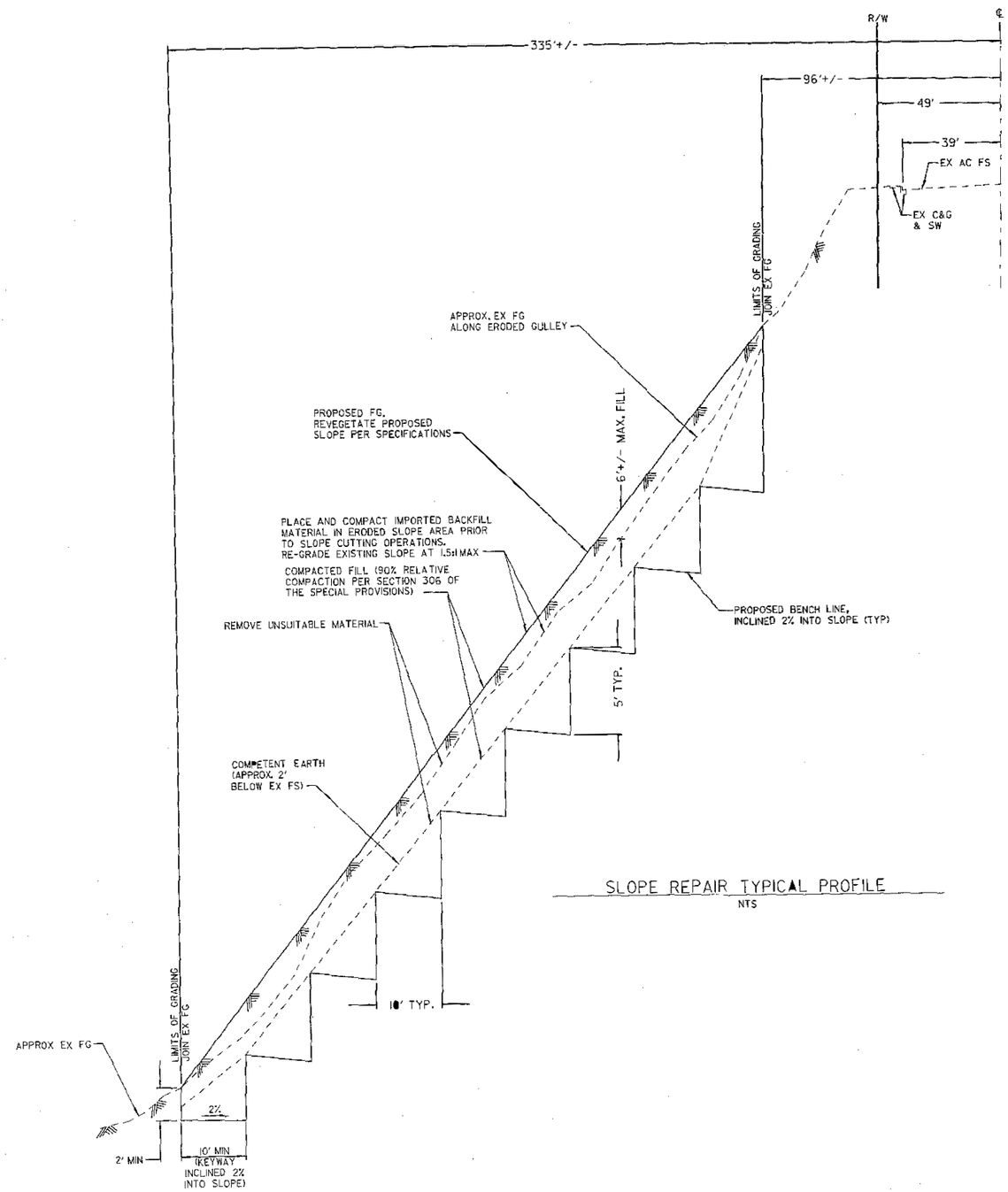
SUBMITTED BY: DWAYNE ABBEY, PROJECT MANAGER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	M&A			

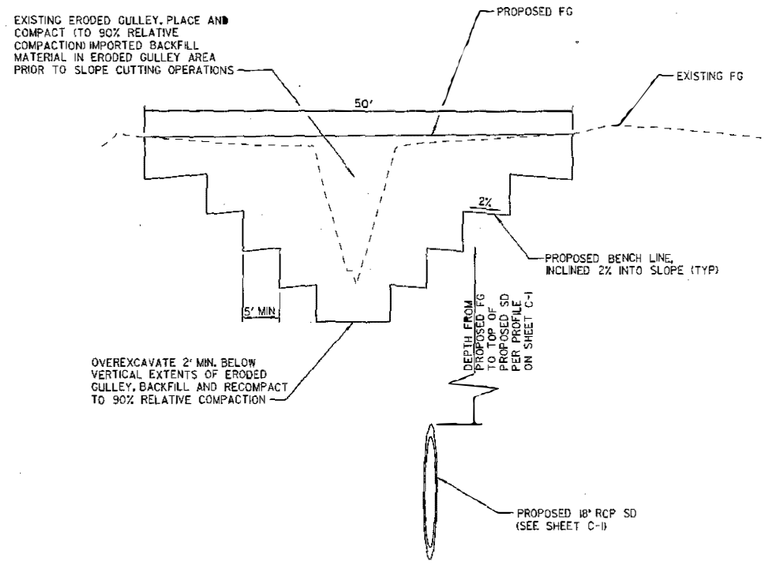
ROBERT BELCIANO, PROJECT ENGINEER
274-1749
LAMBERT COORDINATE MIN
278-1752
LAMBERT COORDINATE MAX
19905-02-D

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

HARRIS & ASSOCIATES
750 B Street, Suite 1800
San Diego, CA 92101
(619) 236-1778 • FAX (619) 236-1179



SLOPE REPAIR TYPICAL PROFILE
NTS



SLOPE REPAIR TYPICAL CROSS SECTION
NTS

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR 100% DESIGN SUBMITTAL

C-2

SCRIPPS RANCH RESERVOIR DRAIN
SLOPE REPAIR

SLOPE REPAIR TYPICAL SECTION AND DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 3 OF 4 SHEETS

WBS NO. B-10165

APPROVED: FOR CITY ENGINEER — DATE

SUBMITTED BY: DWAYNE ABBEY, PROJECT MANAGER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	H&A			

ROBERT BELCIANO, PROJECT ENGINEER

274-1749 LAMBERT COORDINATE MIN

278-1752 LAMBERT COORDINATE MAX

CONTRACTOR — DATE STARTED —
INSPECTOR — DATE COMPLETED —

19905-03-D

HARRIS & ASSOCIATES
750 B Street, Suite 1800
San Diego, CA 92101
(619) 236-1778 • FAX (619) 236-1179

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR

UNDERGROUND UTILITIES

AT LEAST THREE (3) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST A MARKOUT OF UNDERGROUND UTILITIES BY CALLING THE BELOW LISTED REGIONAL NOTIFICATION CENTER FOR AN INQUIRY IDENTIFICATION NUMBER:
UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-422-4133

CONTRACTOR'S RESPONSIBILITIES

1. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING: SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
2. CONTRACTOR SHALL FOLLOW ENVIRONMENTAL RESTRICTIONS AS INDICATED IN THE CONTRACT SPECIFICATIONS, INCLUDING PART 8 OF THE SPECIAL PROVISIONS.
3. INSTALLATION OF LANDSCAPING ASSOCIATED WITH THESE CONSTRUCTION DOCUMENTS SHALL REQUIRE A MINIMUM SHORT-TERM ESTABLISHMENT PERIOD OF 120 DAYS FOR ALL NATIVE/NATURALIZED SLOP RESTORATION AND A MINIMUM LONG-TERM ESTABLISHMENT/MAINTENANCE PERIOD OF 25 MONTHS. FINAL APPROVAL OF THE REQUIRED LANDSCAPING SHALL BE TO THE SATISFACTION OF THE MITIGATION MONITORING COORDINATION SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT.

SHEET INDEX

SHEET NO.	DISCIPLINE CODE	TITLE
1	G-1	TITLE SHEET
2	C-1	PLAN AND PROFILE
3	C-2	SECTIONS AND DETAILS
4	L-1	REVEGETATION PLAN
-	WP-1	WATER POLLUTION CONTROL PLAN

DISCIPLINE CODE

G GENERAL
C CIVIL
L LANDSCAPING
WP WATER POLLUTION

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE STANDARD SPECIFICATIONS AND THE STANDARD DRAWINGS OF THE CITY OF SAN DIEGO:

REPAIR APPROXIMATELY 2,600 SF OF ERODED SLOPE.

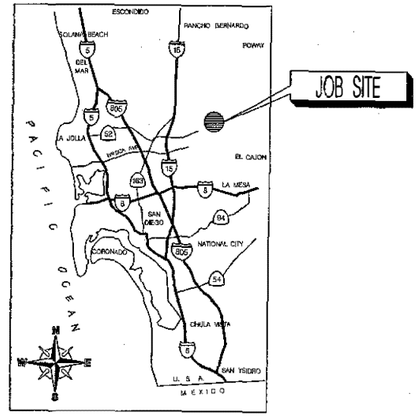
DEMOLISH AND REMOVE APPROXIMATELY 110 SF OF EXISTING 18" STORM DRAIN AND HEADWALL.

INSTALL 18" RCP STORM DRAIN AND APPURTENANCES WITH ENERGY DISSIPATER AT RELEASE POINT FOR DE-CHLORINATED POTABLE RESERVOIR WATER.

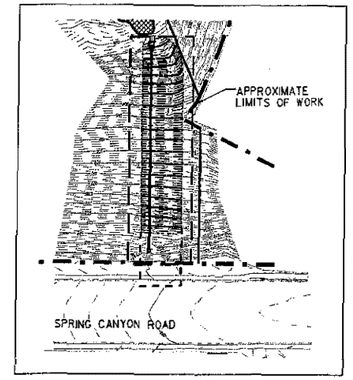
REVEGETATE SLOPE.

LEGEND

IMPROVEMENTS	STANDARD DRAWINGS	SYMBOL
STORM DRAIN CLEANOUT	TYPE "A-4" PER D-9, D-11	
CONCRETE PIPE COLLAR	D-62	
CUTOFF WALL	SDS-115	
CONCRETE ENERGY DISSIPATER	D-42	



VICINITY MAP
NOT TO SCALE



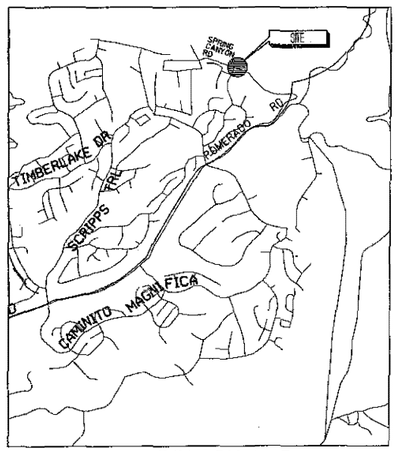
WORK ZONE MAP
NOT TO SCALE

ABBREVIATIONS

AC	ASPHALT CONCRETE	IE	INVERT ELEVATION
ACP	ASBESTOS CEMENT PIPE	LAT	LATERAL
APPROX	APPROXIMATE	MAX	MAXIMUM
AVG	AVERAGE	O.C.	ON CENTER
℄	CENTERLINE	RCP	REINFORCED CONCRETE PIPE
CATV	CABLE TELEVISION	R/W	RIGHT OF WAY
CFS	CUBIC FEET PER SECOND	S=	SLOPE EQUALS
DIA	DIAMETER	SD	STORM DRAIN
ELEC	ELECTRIC	SDS	CITY OF SAN DIEGO STANDARD DRAWING
EX	EXISTING	SDRSD	SAN DIEGO REGIONAL STANDARD DRAWINGS
FG	FINISHED GROUND	VERT	VERTICAL
FPS	FEET PER SECOND	WTR	WATER
FS	FINISHED SURFACE		
HORIZ	HORIZONTAL		

EXISTING IMPROVEMENTS

EX SIGN
EX CABLE RISER
EX TRANSFORMER
EX WATER VALVE
EX WATER METER
EX FIRE HYDRANT
EX SEWER MAIN & MANHOLES
EX DRAINS
EX PAVEMENT (PROFILE)
EX GROUND LINE (PROFILE)
EX TRAFFIC SIGNAL (TS)
EX STREET LIGHT (SL)
EX VEGETATION
EX WATER METER & LATERAL
EX GAS MAIN
EX WATER MAIN
EX ELEC. COND., TEL. COND., CATV



LOCATION MAP
NO SCALE

* I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

Carlos Mendoza — 11-05-2012

CARLOS MENDOZA R.C.E. 60470 — DATE

ENVIRONMENTAL REPORT

PLEASE REFER TO APPENDIX "A" OF THE CONTRACT SPECIFICATIONS.

STREET CLASSIFICATION

STREET NAME: SPRING CANYON ROAD
STREET CLASSIFICATION, ADT=12,000

REFERENCE:

MAP NO. & DRAWING NO. 16286-1-8-D, 24435-15&17-D

FIELD DATA

BENCHMARK: NEBP SPRING CANYON AND WATERTON RD.
ELEV.=703.694 MSL
FIELD NOTES:
BASIS OF BEARINGS / COORDINATES:
GPS 615 TO GPS 17 N34 19'42"W, NAD 83 FT
CCS 83 (EPOCH 91.35 FEET)
DATUM: NGVD 29 FEET
REFERENCES: THE CITY OF SAN DIEGO BENCH BOOK
MAPS 8223, 12252, 12554, 12280

TRAFFIC CONTROL NOTES:

THE CONTRACTOR SHALL, PER SECTION 7-10.2 OF THE CONTRACT SPECIAL PROVISIONS, PREPARE TRAFFIC CONTROL SHOP DRAWINGS AND SUBMIT THEM TO THE RESIDENT ENGINEER. THE SHOP DRAWINGS WILL BE SENT TO THE ENGINEERING TRAFFIC CONTROL SECTION FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL ALLOW A MINIMUM OF TWENTY (20) WORKING DAYS FOR REVIEW OF THE SHOP DRAWINGS. UPON APPROVAL OF THE TRAFFIC CONTROL PLAN, THE ENGINEERING TRAFFIC CONTROL SECTION WILL ISSUE A TRAFFIC CONTROL PLAN (TCP) PERMIT. WORK SHALL NOT BEGIN IN THE PUBLIC RIGHT OF WAY WITHOUT THE APPROVED TCP PERMIT.

WATER POLLUTION CONTRL NOTES:

THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS NOTED IN THE GREENBOOK 2012 CITY SUPPLEMENT SEC 801 - WATER POLLUTION CONTROL.

G-1

PLANS FOR THE CONSTRUCTION OF
SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR
COVER SHEET

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 1 OF 4 SHEETS

WBS NO. B-10165

APPROVED: FOR CITY ENGINEER — DATE

SUBMITTED BY: DWAYNE ABBEY, PROJECT MANAGER
ROBERT BELCIANO, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	H&A			

274-1749 LAMBERT COORDINATE MIN
278-1752 LAMBERT COORDINATE MAX
19905-01-D

CONTRACTOR ____ DATE STARTED ____
INSPECTOR ____ DATE COMPLETED ____

TEMPORARY BMP CONSTRUCTION SITE STORM WATER PRIORITY: HIGH ____ MEDIUM ____ LOW ____

SPEC. NO.

CONSULTANT

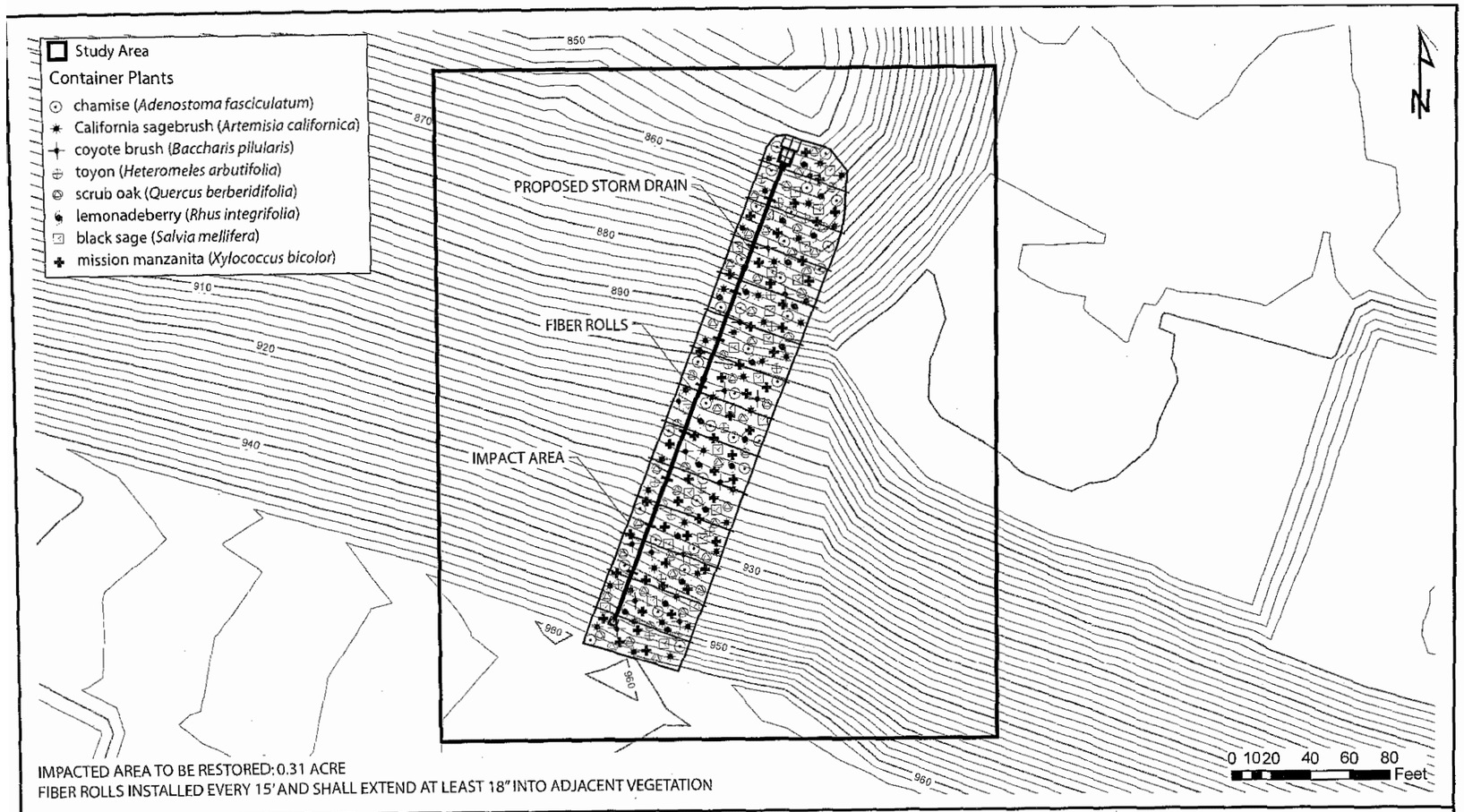
HARRIS & ASSOCIATES
750 B Street, Suite 1800
San Diego, CA 92101
(619) 236-1778 ● FAX (619) 236-1179

CONSTRUCTION CHANGE / ADDENDUM			
CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR 100% DESIGN SUBMITTAL



IMPACTED AREA TO BE RESTORED: 0.31 ACRE
FIBER ROLLS INSTALLED EVERY 15' AND SHALL EXTEND AT LEAST 18" INTO ADJACENT VEGETATION

NOTES COMMON TO PLANTING AREAS

- CONTAINER PLANT TAGS SHALL BE SUBMITTED TO THE PROJECT BIOLOGIST PRIOR TO INSTALLATION OF CONTAINER STOCK.
- CONTAINER PLANTS SHALL BE PLACED WITHIN REVEGETATION CORRIDOR AT THE LOCATIONS RECOMMENDED AND UNDER THE DIRECTION OF THE PROJECT BIOLOGIST.
- ** SEED TAGS SHALL BE SUBMITTED TO THE PROJECT BIOLOGIST PRIOR TO APPLICATION OF SEED.
- ** THE SEED MIX IS COMPRISED OF NATIVE PLANT SPECIES. ANY POTENTIAL SUBSTITUTIONS MUST BE APPROVED BY THE PROJECT BIOLOGIST PRIOR TO APPLICATION OF SEED.
- *** % PLS IS THE MINIMUM PERCENT PURE LIVE SEED PER POUND OF SEED. THE PERCENTAGE IS CALCULATED BY MULTIPLYING THE PERCENT SEED PURITY BY PERCENT SEED GERMINATION, WHICH SHALL BE THE METHOD USED BY THE PROJECT BIOLOGIST TO DETERMINE SEED QUALITY, UNLESS THE BIOLOGIST SPECIFICALLY REQUEST THE %PLS METHOD TO BE USED.

CONTAINER PLANT MATERIALS

Species	Common Name	Unit Size	Quantity
Adenostoma fasciculatum	chamise	1-gallon	35
Artemisia californica	California sagebrush	1-gallon	40
Baccharis pilularis	coyotebrush	1-gallon	15
Heteromeles arbutifolia	toyon	1-gallon	15
Quercus berberidifolia	scrub oak	1-gallon	50
Rhus integrifolia	lemonadeberry	1-gallon	20
Salvia mellifera	blacksage	1-gallon	25
Xylococcus bicolor	mission manzanita	1-gallon	50
Total:			250

HYDROSEED SLURRY COMPONENTS

Product	Lbs/Acre
Cellulose Fiber Mulch	2,000
Hydrosol Compost	2,000
Humate Tri-C Organic Soil Conditioner	500
SoilBuster Pelletized Calcium Sulfate Gypsum-Alternative	1,200
Super Tack	150

HYDROSEED SEED PALETTE (0.31 ACRE)

Species	Common Name	Density Lbs/Acre	Minimum % PLS*	Lbs PLS/Acre	Total Lbs. PLS for 0.31 Acre
Artemisia californica	California sagebrush	2	75	0.15	0.05
Bromus carinatus "Cucamonga"	Cucamonga brome	5	85	4.25	1.32
Salvia mellifera	blacksage	2	35	0.70	0.22
Trifolium tridentatum	tomcat clover	5	85	4.25	1.32
Vulpia microstachys	small fescue	4	85	3.40	1.06
Total:		18 Lbs/Acre		2.75 Lbs/Acre	3.95 Lbs/Acre

* PURE LIVE SEED

TABLE 1: SUCCESS CRITERIA*

PARAMETER	PERCENT VEGETATION COVER		PLANT SURVIVAL	
	HYDROSEED		CONTAINER PLANTS**	
PERFORMANCE STANDARD - IMPACT AREA	YEAR 1: 25 MONTHS:	50 PERCENT 100 PERCENT	YEAR 1: 25 MONTHS:	100 PERCENT 80 PERCENT

* SEE GENERAL REVEGETATION NOTE #4 IF LOWER PERCENT APPROVED BY PROJECT BIOLOGIST.
** CONTAINER PLANTS NOT MEETING PLANT SURVIVAL SUCCESS CRITERIA, AS VERIFIED AND RECOMMENDED BY THE PROJECT BIOLOGIST, SHALL BE REPLACED AND MAINTAINED AT CONTRACTOR'S EXPENSE UNTIL THE SUCCESS CRITERIA HAS BEEN MET.

TABLE 2: SUMMARY AND SCHEDULE FOR MAINTENANCE, MONITORING, AND REPORTING FOR PROJECT

PERIOD	ACTIVITY FOR PROJECT BIOLOGIST/CONTRACTOR	BIOLOGIST SITE VISIT FREQUENCY	SUBMITTALS/ CHECKLIST	REPORTING FREQUENCY
REVEGETATION INSTALLATION	PROJECT BIOLOGIST WILL BE RESPONSIBLE FOR MONITORING/ LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE.	AS NEEDED OR AT LEAST ONCE EVERY TWO WEEKS.	SITE OBSERVATION REPORTS (S.O.R.) PREPARED BY THE BIOLOGIST (BASED ON THE REVEGETATION PLAN CRITERIA)	AT SUCCESSFUL INSTALLATION (AS DETERMINED BY THE PROJECT BIOLOGIST)
120 DAY PEP	PROJECT BIOLOGIST WILL BE RESPONSIBLE FOR MONITORING/ LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE.	MONTHS 1 & 2 - BIWEEKLY, MONTHS 3 & 4 - AT LEAST ONCE A MONTH	S.O.R.'S PREPARED BY THE BIOLOGIST (BASED ON THE REVEGETATION PLAN CRITERIA)	AT THE END OF PEP**
25-MONTH LONG TERM MAINTENANCE & MONITORING	PROJECT BIOLOGIST WILL BE RESPONSIBLE FOR MONITORING/ LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE.	EVERY 3 MONTHS	S.O.R.'S PREPARED BY THE BIOLOGIST (BASED ON THE REVEGETATION PLAN CRITERIA)	EVERY 3 MONTHS YEAR 1** 25 MONTHS**

NOTE: IF 25 MONTH SUCCESS CRITERIA ARE NOT MET, THE M&M PROGRAM WILL BE EXTENDED AS REQUIRED, QUARTERLY MAINTENANCE AND MONITORING WITH YEARLY REPORTING SHALL CONTINUE AS NEEDED.
** PEP, 1 YEAR AND 25 MONTH FINAL REPORT(S) REQUIRED TO INCLUDE ABOVE INFORMATION.

GENERAL REVEGETATION NOTES:

1. REVEGETATION OF THE PROJECT AREA SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF SAN DIEGO LANDSCAPE STANDARDS.
2. REVEGETATION OF THE SITE IS TO BE PERFORMED WITH A COMBINATION OF A LIMITED QUANTITY OF NATIVE CONTAINER PLANTINGS AND AN APPLICATION OF A NATIVE SEED MIX HYDROSEED SLURRY.
3. THESE PLANS ARE TO BE USED AS A GENERAL GUIDE WITH THE FINAL PLANT LAYOUT TO BE DETERMINED ON-SITE BY THE PROJECT BIOLOGIST.
4. SEED MIX USED FOR EROSION CONTROL SHALL ACHIEVE 50 PERCENT (OR AS APPROVED BY THE PROJECT BIOLOGIST AND CITY REPRESENTATIVE BASED ON SITE CONDITIONS IF LESSER % COVERAGE) SOIL COVERAGE WITHIN 25 MONTHS OF BEING INSTALLED AFTER THE 120 DAY PLANT ESTABLISHMENT PERIOD (PEP). AT THE END OF YEAR 1, PLANT COVERAGE SHALL MEET 100 PERCENT COVERAGE, AS VERIFIED BY THE PROJECT BIOLOGIST (TABLE 1).
5. INVASIVE PLANT SPECIES INCLUDING BUT NOT LIMITED TO THOSE LISTED IN THE CITY'S LANDSCAPE STANDARDS ARE PROHIBITED; AND NATIVE PLANT SPECIES SHALL BE USED IN NATURALIZED AREAS.
6. REVEGETATION AND EROSION CONTROL TIMING – ALL REQUIRED REVEGETATION AND EROSION CONTROL SHALL BE COMPLETED WITHIN 30 DAYS OF THE COMPLETION OF GRADING OR DISTURBANCE TO AVOID POTENTIAL IMPACTS TO NESTING BIRD SPECIES AND TO TAKE ADVANTAGE OF COOLER SEASONAL TEMPERATURES AND INCREASED PRECIPITATION.
7. CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL ABOVE GROUND EROSION CONTROL BMPS DAMAGED DURING THE 120 PEP AND 25 MONTH MAINTENANCE AND MONITORING PERIOD. ANY ABOVE GRADE EROSION CONTROL MEASURES SUCH AS BUT NOT LIMITED TO SILT FENCING, GRAVEL BAGS AND/OR FIBER ROLLS SHALL BE REMOVED BY THE CONTRACTOR AND AS DIRECTED BY THE PROJECT BIOLOGIST FOLLOWING ACCEPTANCE OF THE 25 MONTH MAINTENANCE AND MONITORING PERIOD BY CITY REPRESENATIVE AND PROJECT BIOLOGIST.
8. CONTRACTOR SHALL REMOVE ALL TRASH AND/OR DEBRIS FROM THE REVEGETATION SITE PRIOR TO AND FOLLOWING THE REVEGETATION INSTALLATION, AND UNTIL THE END OF THE 25 MONTH MAINTENANCE AND MONITORING PERIOD.

SITE PREPARATION:

1. NON-NATIVE HERBACEOUS, SHRUB, AND TREE SPECIES CURRENTLY OCCUPYING AREAS OF THE PROJECT AREA THAT WERE PREVIOUSLY DISTURBED, SHALL BE REMOVED OR TREATED WITH HERBICIDE.
2. NON-NATIVE SPECIES WITH VEGETATION THAT OVERHANGS POTENTIAL RESTORATION AREAS MAY BE TRIMMED OR PRUNED TO PROVIDE INCREASED LIGHT AND LIMIT SEED-DROP ONTO NEARBY AREAS. ALL TRIMMING OF NON-NATIVE VEGETATION SHALL BE PERFORMED IN THE PRESENCE OF THE PROJECT BIOLOGIST TO ENSURE THAT THERE ARE NO IMPACTS TO NESTING BIRDS IF TRIMMING IS PERFORMED BETWEEN THE MONTHS OF FEBRUARY AND SEPTEMBER.
3. ALL NON-NATIVE SPECIES TO BE TREATED, REMOVED, TRIMMED, OR PRUNED WILL BE FLAGGED IN ADVANCE BY THE PROJECT BIOLOGIST. THE APPLICANT'S LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE PROJECT BIOLOGIST REGARDING IDENTIFICATION OF EXOTIC WEED SPECIES TO BE REMOVED/TREATED.
4. IF EROSION CONTROL MATERIALS SUCH AS SILT FENCING AND FIBER ROLLS REMAIN ON SITE PRIOR TO PLANTING, THEY MUST BE IN A SERVICEABLE CONDITION PRIOR TO THE RESTORATION IMPLEMENTATION AND SHOULD REMAIN IN PLACE. IF THEY ARE DEGRADED HOWEVER, THEY SHOULD BE REPLACED PRIOR TO PLANTING AND HYDROSEEDING THE AREA, AND SHALL REMAIN UNTIL VEGETATION HAS BEEN ESTABLISHED.
5. IF NO EROSION CONTROL MATERIALS ARE IN PLACE FOLLOWING CONSTRUCTION, FIBER ROLLS SHOULD BE INSTALLED AT 15-FOOT INTERVALS ALONG THE SLOPE AND EXTEND AT LEAST 18 INCHES INTO ADJACENT VEGETATION.

TEMPORARY IRRIGATION:

1. AT THE DISCRETION OF THE BIOLOGIST, TEMPORARY IRRIGATION WILL BE APPLIED AS FOLLOWS.
2. TEMPORARY IRRIGATION VIA TRUCK WATERING (HAND WATERING OR ALTERNATE METHOD SUCH AS DRI-WATER GEL PACS APPROVED BY BIOLOGIST) SHALL BE PROVIDED FOR A PERIOD SUFFICIENT TO ESTABLISH PLANT MATERIAL AND TO PROVIDE VEGETATIVE COVER THAT PREVENTS SOIL EROSION. THE AMOUNT OF IRRIGATION MUST BE ADJUSTED WHEN WARRANTED BY SITE CONDITIONS. PROJECT BIOLOGIST AND LANDSCAPE CONTRACTOR SHALL MONITOR TO DETERMINE SUCCESS AND ADDED REQUIREMENT FOR TEMPORARY IRRIGATION.
3. IRRIGATION SHALL BE PERFORMED IN A MANNER THAT AVOIDS RUNOFF, SEAPAGE, AND OVERSPRAY ONTO ADJACENT PROPERTIES, NON-IRRIGATED AREAS, WALLS, ROADWAYS, OR STRUCTURES.
4. THE WATER DELIVERY RATE SHALL BE MATCHED TO THE SLOPE GRADIENT AND THE PERCOLATION RATE OF SOIL.
5. IRRIGATION SHALL DELIVER WATER SUFFICIENTLY AND UNIFORMLY AND SHALL BE APPROPRIATE TO THE NEEDS OF THE PLANT MATERIALS. RECOMMENDED REFERENCE MATERIALS FOR IRRIGATION SYSTEMS DESIGN ARE LISTED IN THE APPENDIX "A" OF THE CITY'S LANDSCAPE STANDARDS.
6. OVERWATERING AS EVIDENCED BY SOGGY SOILS, CONTINUALLY WET PAVEMENT, STANDING WATER, RUNOFF IN STREET GUTTERS AND OTHER SIMILAR CONDITIONS SHALL BE PREVENTED.
7. DURING TRUCK WATERING OF THE SITE, THE TRUCK SHALL STAY ON THE PERMANENT ACCESS PATH AT THE TOP OF THE SLOPE AND SHALL NOT IRRIGATE BEYOND THE REVEGETATION BOUNDARY.
8. IF DRIWATER GEL-PACS ARE USED, 3 GEL-PACS SHOULD BE UTILIZED FOR EACH PLANTING. GEL-PACS SHOULD BE REPLENISHED EVERY 60-90 DAYS FOR THE FIRST YEAR THAT IMMEDIATELY FOLLOWS THE 120-DAY PEP.

SEED MIXES:

1. THE SEED MIX IN TABLES IDENTIFIED SHALL BE APPLIED IN ALL NON HARDSCAPED AREAS DISTURBED BY THE PROJECT. THE SEED SHALL BE INSTALLED VIA HYDROSEED METHODS, UNLESS OTHERWISE DIRECTED BY THE PROJECT BIOLOGIST.
2. ALL SEEDS SHALL MEET THE MINIMUM % PURE LIVE SEED AS NOTED IN TABLES. IF MINIMUM % PURE LIVE SEED COUNT CANNOT BE MET CONTRACTOR TO COORDINATE AND OBTAIN WRITTEN APPROVAL FROM THE PROJECT BIOLOGIST FOR ALTERNATIVE COMPLIANCE.
3. ALL SEEDS SHALL ORIGINATE FROM WITHIN A 25 MILE RADIUS OF THE PROJECT SITE OR CONTRACTOR TO PROVIDE EVIDENCE THAT THE SEED IS NOT AVAILABLE AND NOTIFY THE CITY REPRESENTATIVE AND THE PROJECT BIOLOGIST FOR ALTERNATIVE COMPLIANCE.

HYDROSEEDING PROCEDURES:

1. AREAS TO BE HYDROSEEDED SHALL INCLUDE ACCESS PATHS, WORK AREAS ADJACENT TO WATER PIPELINE AND STAGING AREA AND ALL OTHER AREAS DEVOID OF VEGETATION WITHIN THE LIMITS OF THE PROJECT. AN AREA APPROXIMATELY 0.22-ACRE IN SIZE HAS BEEN IDENTIFIED FOR HYDROSEEDING.
2. HYDROSEEDING SHALL BE PERFORMED AFTER ALL CONTAINER PLANTINGS HAVE BEEN INSTALLED IN ORDER TO LIMIT DISTURBANCE OF THE INTACT HYDROSEED MATRIX
3. SEEDING SHALL OCCUR ONLY AFTER THE PROJECT BIOLOGIST HAS OBSERVED AND APPROVED THAT THE SITE HAS BEEN PROPERLY PREPARED.
4. CELLULOSE FIBER MULCH SHALL BE APPLIED AT THE MINIMUM RATE OF 2,000 POUNDS PER ACRE OR AS DIRECTED BY THE PROJECT BIOLOGIST.
5. HYDROPOST COMPOST SHALL BE APPLIED AT THE MINIMUM RATE OF 2,000 POUNDS PER ACRE, OR AS DIRECTED BY THE PROJECT BIOLOGIST.
6. HUMATE TRI-C ORGANIC SOIL CONDITIONER SHALL BE APPLIED AT THE MINIMUM RATE OF 500 POUNDS PER ACRE, OR AS DIRECTED BY THE PROJECT BIOLOGIST.
7. SOILBUSTER PELLETIZED CALCIUM SULFATE GYPSUM ALTERNATIVE SHALL BE APPLIED AT THE MINIMUM RATE OF 1,200 POUNDS PER ACRE, OR AS DIRECTED BY THE PROJECT BIOLOGIST.
8. SUPER TACK SHALL BE APPLIED AT THE MINIMUM RATE OF 150 POUNDS PER ACRE OR AS DIRECTED BY THE PROJECT BIOLOGIST.
9. EQUIPMENT USED FOR THE APPLICATION OF SLURRY SHALL HAVE A BUILT-IN AGITATION SYSTEM TO SUSPEND AND HOMOGENEOUSLY MIX THE SLURRY. THE SLURRY MIX SHALL BE DYED GREEN. THE EQUIPMENT MUST HAVE A PUMP CAPABLE OF APPLYING SLURRY UNIFORMLY.
10. HYDROSEED SHALL BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 1, PRIOR TO THE RAINY SEASON.

CONTAINER PLANT PROCEDURES:

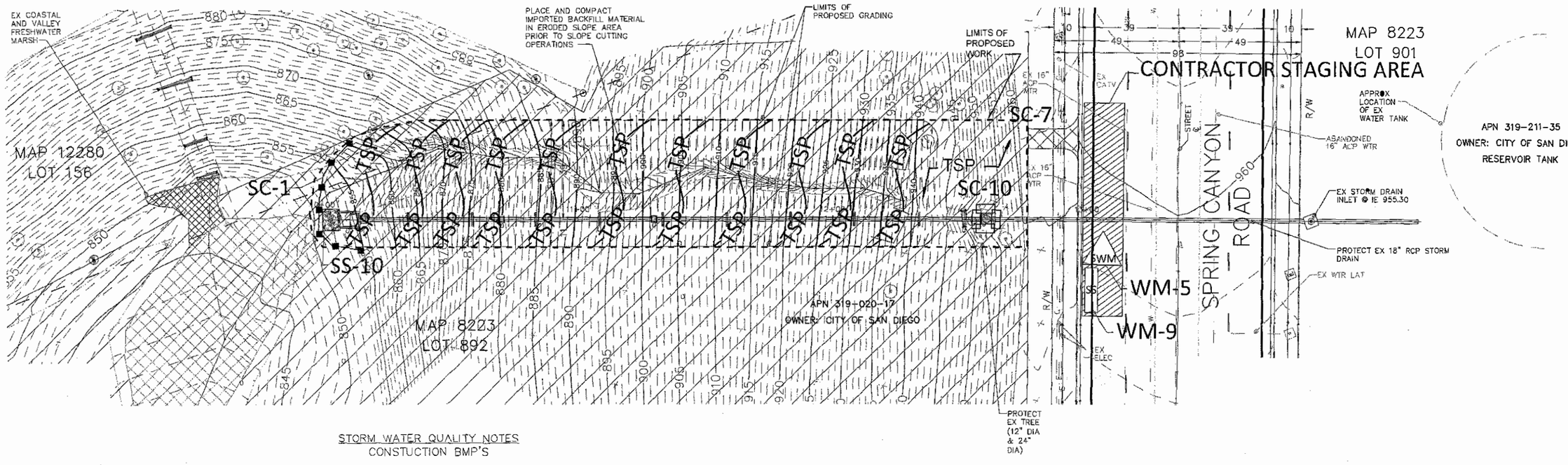
1. IN ADDITION TO HYDROSEED IN THE TABLES, CONTRACTOR SHALL SUPPLY AND PLANT UP TO 250 (1) GALLON CONTAINER PLANTS PER ACRE OF NATIVE PLANTS AS SHOWN IN THE CONTAINER PLANT TABLE AT THE RECOMMENDATION AND UNDER THE DIRECTION OF THE PROJECT BIOLOGIST. PROJECT BIOLOGIST SHALL CONSIDER THE 120 PER 25 MONTH MAINTENANCE AND MONITORING PERIOD SUCCESS CRITERIA, IN THE EVENT THAT ADDITIONAL CONTAINER PLANTS ARE RECOMMENDED BY THE BIOLOGIST FOR INSTALLATION.
2. CONTAINER PLANTS SHALL BE PROCURED FROM A NURSERY QUALIFIED TO PROPAGATE AND CARE FOR PLANT SPECIES. SOURCE FOR ANY NATIVE CONTAINER PLANT MATERIALS SHALL ORIGINATE WITHIN 25 MILES FROM THE COAST WITHIN SAN DIEGO COUNTY TO THE EXTENT PRACTICAL, OR AS DETERMINED BY THE PROJECT BIOLOGIST.
3. CONTAINER PLANT MATERIAL MUST BE DELIVERED TO THE PROJECT SITE AT THE APPROPRIATE TIME AND IN A HEALTHY AND VIGOROUS CONDITION. THE PROJECT BIOLOGIST WILL REJECT PLANT MATERIAL DELIVERED PRIOR TO ITS PLANTING DATE. SPECIMENS SHOWING EVIDENCE OF DISEASE, MISHANDLING, DEFECTS OR DAMAGE, OVER OR UNDERWATERING, OR OTHER DEFICIENCY AT THE TIME OF DELIVERY WILL BE REJECTED.
4. CONTAINER PLANTS WILL BE PLACED FOR PLANTING BY THE PROJECT BIOLOGIST IN THE REVEGETATION AREAS. THE SUGGESTED CONTAINER PLANT INSTALLATION PROCEDURE SHALL BE AS DIRECTED BY THE PROJECT BIOLOGIST.
5. EACH PLANTING HOLE WILL BE EXCAVATED TO A WIDTH THAT IS TWICE THE SIZE OF THE CONTAINER. THE DEPTH OF EACH HOLE SHALL BE EQUAL TO THE DEPTH OF THE ROOTBALL. APPROXIMATELY ONE GALLON OF WEED-FREE TOPSOIL SHOULD BE DEPOSITED INTO THE PIT, FOLLOWED BY TWO DRIWATER DELIVERY TUBES, AND CONTAINER PLANTING. THE PLANT SHALL THEN BE POSITIONED SO THAT THE SURFACE OF THE ROOTBALL IS AT GROUND LEVEL.
6. THE HOLE SHALL BE BACKFILLED WITH AN EQUAL COMBINATION OF NATIVE SOIL AND WEED-FREE TOPSOIL, AND AN EARTHEN WATERING BASIN SHALL BE CREATED IN A TWO FOOT DIAMETER AROUND EACH ROOTBALL. THE PLANT SHALL THEN BE WATERED IN BY HAND IMMEDIATELY AFTER PLANTING.
7. IF DRIWATERS ARE TO BE USED, THREE 90-DAY GEL-PACS SHOULD IMMEDIATELY BE INSTALLED INTO THE DELIVERY TUBE AND CAPPED TO PREVENT DISTURBANCE BY ANIMALS IN THE CANYON.

MAINTENANCE REQUIREMENTS:

1. REVEGETATION AREA SHALL BE MAINTAINED FOR A PERIOD OF NOT LESS THAN 25 MONTHS (TABLE 2). ALL REVEGETATED AREAS SHALL BE MAINTAINED BY THE PERMITTEE UNTIL FINAL APPROVAL BY THE CITY. THE MAINTENANCE PERIOD BEGINS ON THE FIRST DAY FOLLOWING ACCEPTANCE (AT END OF 120 DAY PEP) AND MAY BE EXTENDED AT THE DETERMINATION OF THE CITY REPRESENTATIVE.
2. PRIOR TO FINAL APPROVAL, THE CITY REPRESENTATIVE MAY REQUIRE CORRECTIVE ACTION INCLUDING BUT NOT LIMITED TO REPLANTING AND THE REPAIR OF ANY SOIL EROSION OR SLOPE SLIPPAGE, IN CONSULTATION WITH THE PROJECT BIOLOGIST.
3. THE 120 PEP FOLLOWS HYDROSEED APPLICATION. THE PEP AND START OF 25 MONTHS MAINTENANCE AS WELL AS ACCEPTANCE FOLLOWING THE MAINTENANCE PERIOD IS DETERMINED BY CITY REPRESENTATIVE IN CONSULTATION WITH PROJECT BIOLOGIST.
4. ALL PLANTS WILL BE GUARANTEED THROUGHOUT A 120-DAY PEP. WHERE MICRO-HABITAT CONDITIONS ARE MORE FAVORABLE FOR GROWTH OF A DIFFERENT NATIVE SPECIES OF SIMILAR CHARACTER, PLANT SUBSTITUTIONS, AS DIRECTED BY THE PROJECT BIOLOGIST, MAY BE MADE FROM THE LIST OF PLANTS ORIGINALLY SELECTED FOR ON-SITE PLANTING.
5. WEEDING AND/OR HERBICIDE APPLICATION SHALL BE DONE REGULARLY BY THE CONTRACTOR. WEEDING SHALL BE DONE AT A MINIMUM OF BIWEEKLY UNTIL THE END OF THE 120 DAY PEP, AND MONTHLY THROUGHOUT THE 25 MONTHS OF MAINTENANCE. CONTRACTOR SHALL OBTAIN APPROVAL FROM CITY REPRESENTATIVE AND PROJECT BIOLOGIST PRIOR TO HERBICIDE APPLICATION, AND APPLY HERBICIDE PER MANUFACTURER'S RECOMMENDATION AND ANY STATE OF CALIFORNIA GUIDELINES. HERBICIDE SHALL BE SUPERVISED OR APPLIED BY A PERSON POSSESSING A PESTICIDE APPLICATORS LICENSE ISSUED BY THE CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION. HERBICIDE SHALL BE USED ONLY FOR HARD TO CONTROL WEEDS INCLUDING, BUT NOT LIMITED TO HOTTENTOT FIG (*CARPOBROTUS EDULIS*), GIANT REED (*ARUNDO DONAX*), TAMARISK (*TAMARIX SPP*), BERMUDA GRASS (*CYNODON DACTYLON*), AND PAMPAS GRASS (*CORTADERIA SELLOANA*).
6. CONTRACTOR SHALL CONTROL WEEDS AS IDENTIFIED BY THE PROJECT BIOLOGIST SUCH THAT NO WEED COVER EXCEEDS 5% OF THE PROJECT SITE, BEFORE THEY EXCEED TWELVE INCHES (12") IN HEIGHT, AND BEFORE THEY SET SEED.

SCRIPPS RANCH RESERVOIR SLOPE REPAIR PROJECT (#WBS B-10165.02.06)

REVEGETATION PLAN



SCALE 1"=20'

STORM WATER QUALITY NOTES
CONSTUCTION BMP'S

THIS PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF THE CALIFORNIA NPDES PERMIT; "STATE WATER RESOURCES CONTROL BOARD, SAN DIEGO REGION, ORDER NO. 2009-0009-DWQ AND THE CITY OF SAN DIEGO LAND DEVELOPMENT CODE"

NOTES 1-6 BELOW REPRESENT KEY MINIMUM REQUIREMENTS FOR CONSTRUCTION BMP'S.

1. SUFFICIENT BMP'S MUST BE INSTALLED TO PREVENT SILT, MUD OR OTHER CONSTRUCTION DEBRIS FROM BEING TRACKED INTO THE ADJACENT STREET(S) OR STORM WATER CONVEYANCE SYSTEMS DUE TO CONSTRUCTION VEHICLES OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY SUCH DEBRIS THAT MAY BE IN THE STREET AT THE END OF EACH WORK DAY OR AFTER A STORM EVENT THAT CAUSES A BREECH IN THE INSTALLED CONSTUCTION BMP'S

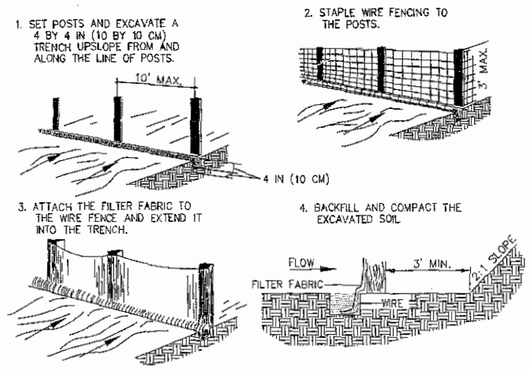
2. ALL STOCKPILES OF UNCOMPACTED SOIL AND/OR BUILDING MATERIALS THAT ARE INTENDED TO BE LEFT UNPROTECTED FOR A PERIOD GREATER THAN SEVEN CALENDAR DAYS ARE TO BE PROVIDED WITH EROSION AND SEDIMENT CONTROLS. SUCH SOIL MUST BE PROTECTED EACH DAY WHEN THE PROBABILITY OF RAIN IS 40% OR GREATER.

3. A CONCRETE WASHOUT SHALL BE PROVIDED ON ALL PROJECTS WHICH PROPOSE THE CONSTRUCTION OF ANY CONCRETE IMPROVEMENTS THAT ARE TO BE POURED IN PLACE ON THE SITE

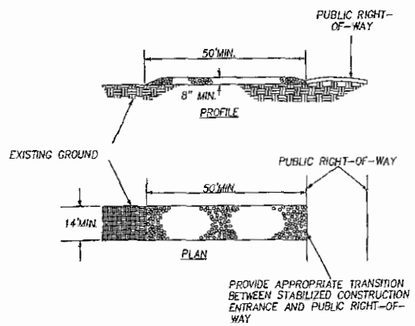
4. ALL EROSION/SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN WORKING ORDER AT ALL TIMES.

5. ALL SLOPES THAT ARE CREATED OR DISTURBED BY CONSTRUCTION ACTIVITY MUST BE PROTECTED AGAINST EROSION AND SEDIMENT TRANSPORT AT ALL TIMES.

6. THE STORAGE OF ALL CONSTRUCTION MATERIALS AND EQUIPMENT MUST BE PROTECTED AGAINST ANY POTENTIAL RELEASE OF POLLUTANTS INTO THE ENVIRONMENT.



SC-1 SILT FENCE



SC-7 STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION BMP LEGEND

DESCRIPTION	SYMBOL
SC-7 STABILIZED CONSTRUCTION ENTRANCE	
SC-1 SILT FENCE	
SC-10 STORM DRAIN INLET PROTECTION	
WM-5 SOLID WASTE MANAGEMENT	SWM
WM-9 SANITARY/SEPTIC WASTE MANAGEMENT	SS
SS-10 OUTLET PROTECTION/VELOCITY DISSIPATOR	
SS-5 HYDROSEEDING (W/SOIL BINDER AS NEEDED)	TSP

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR
ALONG SPRING CANYON ROAD
APPROX. 1,000' EAST OF RIESLING DRIVE
WATER POLLUTION CONTROL DRAWING

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 4 OF 4

WBS NO. B-10165

APPROVED FOR CITY ENGINEER _____ DATE _____

SUBMITTED BY
DWAYNE ABBEY
PROJECT MANAGER

ROBERT BELCIANO
PROJECT ENGINEER

274-1749
LAMBERT COORDINATE MIN

278-1752
LAMBERT COORDINATE MAX

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	H&A			

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

SCRIPPS RANCH RESERVOIR DRAIN SLOPE REPAIR 100% DESIGN SUBMITTAL

Appendix O

US Fish and Wildlife Service and California Department of Fish and Wildlife Joint Letter Regarding Boundary Line Adjustment for the Renzulli Estates Project

April 3, 2024

DocuSign Envelope ID: 947328CE-69A9-4012-9B4A-769871298C35

U.S. FISH AND WILDLIFE SERVICE
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

CALIFORNIA DEPARTMENT OF
FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, California 92123

In Reply Refer to:
2024-0069880-HCP-BLA-SD

April 3, 2024
Sent Electronically

Kristen Forburger
City of San Diego, Planning Department
Multiple Species Conservation Program
202 C Street, M.S. 413
San Diego, California 92101

Subject: Boundary Line Adjustment for the Renzulli Estates Project

Dear Kristen Forburger,

The City of San Diego (City), project applicant, the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service (Service; collectively the Wildlife Agencies), have been working on a boundary line adjustment (BLA) for the Renzulli Estates Project (Project) pursuant to the City's Multiple Species Conservation Program Subarea Plan since it was first brought to us as an informational item at a meeting in April 2021. In subsequent meetings and during a site visit to the Project site, the Wildlife Agencies emphasized the importance of designing the Project to maintain the function of the onsite Multi-Habitat Planning Area (MHPA) as a stepping-stone linkage for wildlife movement. In response to comments from the Wildlife Agencies, the applicant and City presented revised draft project impact maps and tables at a BLA meeting on December 16, 2022. The revised Project provided a wider corridor across the northern portion of the site and avoided impacts to the eastern and western knolls of the site. After several email questions and clarifications, the Service concurred with draft project impact maps and tables in a February 2, 2023 email, with the conditions that: (1) the City will manage the onsite MHPA preserve including manufactured slopes; (2) all manufactured slopes and Tier IV habitats will be restored to appropriate native habitats in the onsite MHPA preserve; (3) all impacted Del Mar manzanita (*Arctostaphylos glandulosa* subsp. *crassifolia*) will be salvaged and translocated into the onsite MHPA preserve; and (4) an offsite 18.7-acre parcel contiguous with the Marian Bear Natural Park will be added to the MHPA and managed by the City.

At a BLA meeting on December 15, 2023, the applicant and City presented final revised project impact maps and tables, confirmed that the previous conditions will be implemented, and requested concurrence from the Wildlife Agencies on a BLA for the proposed Project. Following several email questions and clarifications regarding the revised project impact maps and tables, the Wildlife Agencies concur with the proposed BLA for the Project as shown on the enclosed figures (Enclosure) and subject to the previously agreed to conditions.

DocuSign Envelope ID: 947328CE-69A9-4012-9B4A-769871298C35

We appreciate the City's and applicant's efforts to reduce the Project and restore and manage the remaining habitat to maintain the function of the onsite MHPA preserve as a stepping-stone linkage for wildlife movement. To coordinate with the Wildlife Agencies on this project, please contact Heather Schmalbach[1] of CDFW or Anita Eng[2] of the Service.

Sincerely,

DAVID ZOUTENDYK
Digitally signed by DAVID ZOUTENDYK
Date: 2024.04.03 10:46:43 -07'00'

for Jonathan D. Snyder
Assistant Field Supervisor
U.S. Fish and Wildlife Service

DocuSigned by:
Melanie Burlaza
3D01B6DE84234FE...
4/3/2024

for David Mayer
Environmental Program Manager
California Department of Fish and Wildlife

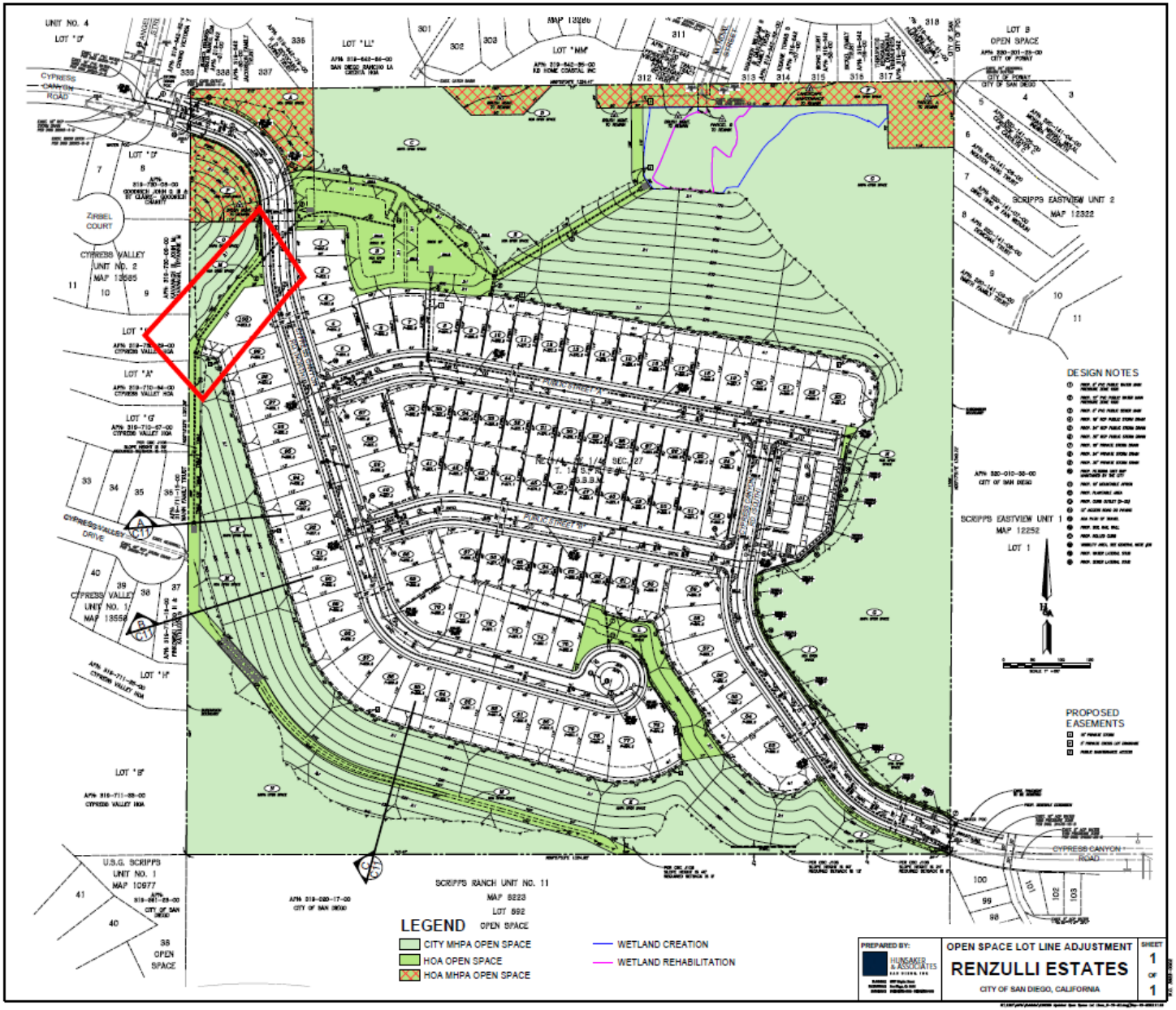
Enclosure

[1] Heather.Schmalbach@wildlife.ca.gov.
[2] Anita_Eng@fws.gov.

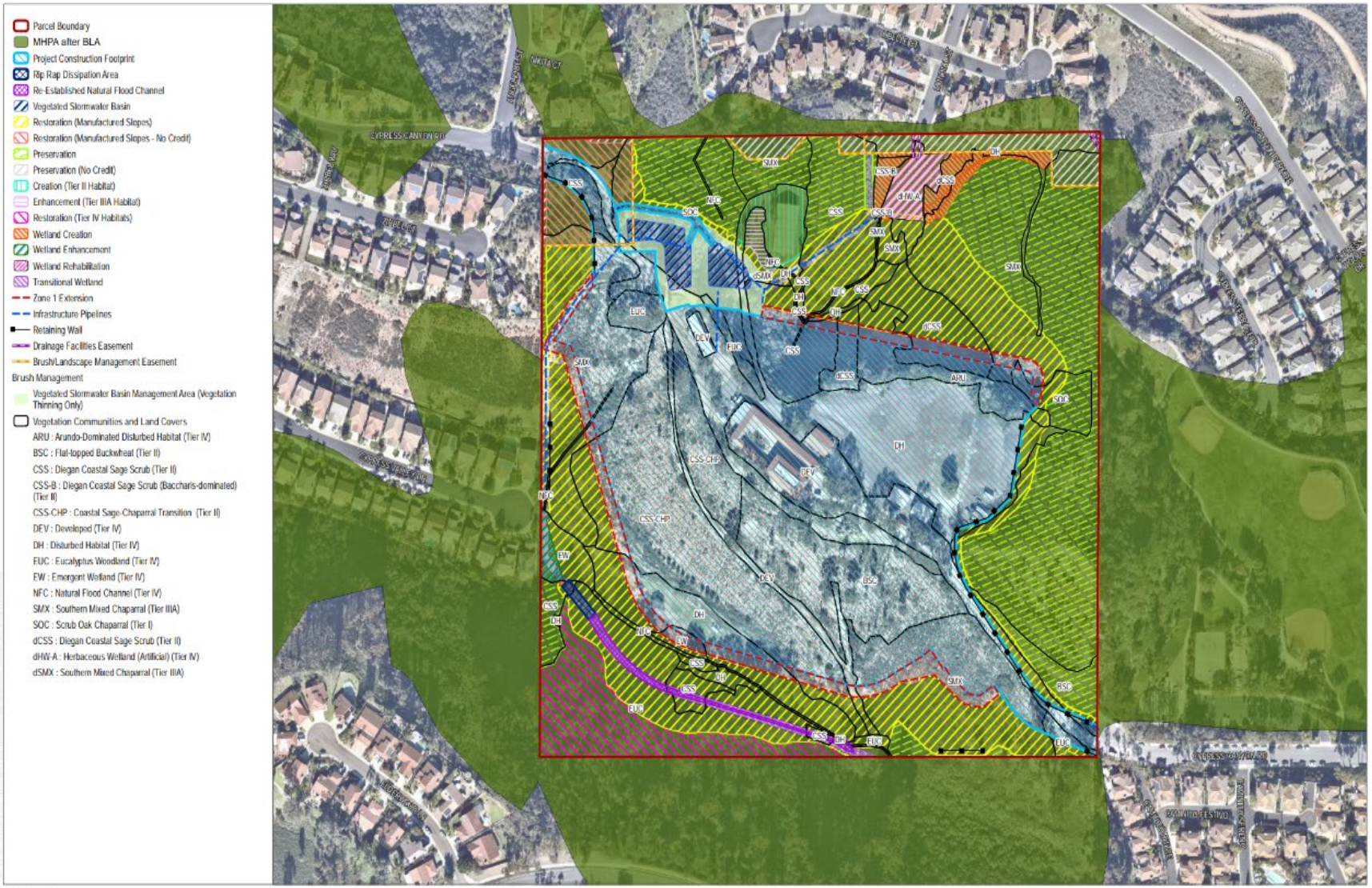
DocuSign Envelope ID: 947328CE-69A9-4012-9B4A-769871298C35

ENCLOSURE

DocuSign Envelope ID: 947328CE-69A9-4012-9B4A-769871298C35



DocuSign Envelope ID: 947328CE-69A9-4012-9B4A-769871298C35


Parcel Boundary
MHPA after BLA
Project Construction Footprint
Rip Rap Dissipation Area
Re-Established Natural Flood Channel
Vegetated Stormwater Basin
Restoration (Manufactured Slopes)
Restoration (Manufactured Slopes - No Credit)
Preservation
Preservation (No Credit)
Creation (Tier II Habitat)
Enhancement (Tier IIIA Habitat)
Restoration (Tier IV Habitats)
Wetland Creation
Wetland Enhancement
Wetland Rehabilitation
Transitional Wetland
Zone 1 Extension
Infrastructure Pipelines
Retaining Wall
Drainage Facilities Easement
Brush/Landscape Management Easement
Brush Management
Vegetated Stormwater Basin Management Area (Vegetation Thinning Only)
Vegetation Communities and Land Covers
ARU : Arundo-Dominated Disturbed Habitat (Tier IV)
BSC : Flat-topped Buckwheat (Tier II)
CSS : Diegan Coastal Sage Scrub (Tier II)
CSS-B : Diegan Coastal Sage Scrub (Baccharis-dominated) (Tier II)
CSS-CHP : Coastal Sage-Chaparral Transition (Tier II)
DEV : Developed (Tier IV)
DH : Disturbed Habitat (Tier IV)
EUC : Eucalyptus Woodland (Tier IV)
EW : Emergent Wetland (Tier IV)
NFC : Natural Flood Channel (Tier IV)
SMX : Southern Mixed Chaparral (Tier IIIA)
SOC : Scrub Oak Chaparral (Tier I)
dCSS : Diegan Coastal Sage Scrub (Tier II)
dHW-A : Herbaceous Wetland (Artificial) (Tier IV)
dSMX : Southern Mixed Chaparral (Tier IIIA)
CYPRESS CANYON RD
CYPRESS CANYON PARK
CYPRESS CANYON PARK
CYPRESS CANYON PARK