Biological Technical Report for the All Peoples Church Project in the City of San Diego, California

July 21, 2021

Prepared for:

All Peoples Church 6122 El Cajon Boulevard El Cajon, CA 92115

Prepared by:

Alden Environmental, Inc. 3245 University Avenue, #1188 San Diego, CA 92104

Principal Investigator:

Greg Mason, Senior Biologist



All Peoples Church Biological Technical Report

TABLE OF CONTENTS

Section	<u>Title</u> <u>Page</u>
MANAGEN	MENT SUMMARY/EXTRACT iv
1.0	INTRODUCTION11.1 Project Location11.2 Project Description1
2.0	METHODS2.1 Literature Review12.2 Biological Surveys12.2.1 Vegetation Mapping22.2.2 Jurisdictional Delineation22.2.3 Sensitive Plant Species22.2.4 Survey Limitations32.2.5 Nomenclature3
3.0	SURVEY RESULTS33.1 Physical Characteristics33.2 Vegetation Communities43.2.1 Upland Vegetation Communities53.2.2 Other Uplands53.2.3 Developed63.2.4 Wetland/Riparian Vegetation Communities63.3 Jurisdictional Features63.3.1 Corps Jurisdictional Features63.3.2 CDFW Jurisdictional Features63.3.3 City Wetlands73.4 Plant Species Observed73.5 Animal Species Observed7
4.0	SENSITIVE RESOURCES74.1 Sensitive Vegetation Communities74.2 Sensitive Species74.2.1 Sensitive Plant Species Observed84.2.2 Sensitive Plant Species Not Observed and Their Potential to Occur.84.2.3 Sensitive Animal Species Observed or Detected124.2.4 Sensitive Animal Species Not Observed and Their Potential to Occur.134.2.5 Wildlife Corridors and Nursery Sites214.2.6 Nesting Birds21

All Peoples Church Biological Technical Report

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Title</u>	Page
5.0	REGULATORY CONTEXT	21
	5.1 Federal	
	5.2 State of California	
	5.3 City of San Diego	
6.0	REGIONAL CONTEXT	23
	6.1 MSCP Evaluation	
	6.1.1 Multi-Habitat Planning Area	
	6.1.2 MHPA Adjacency Guidelines	
	6.1.3 Specific Management Directives	
	6.1.4 Overall Management Policies and Directives	
7.0	PROJECT IMPACT ANALYSIS	24
	7.1 Direct Impacts	
	7.1.1 Vegetation Communities	
	7.1.2 Sensitive Plant Species	
	7.1.3 Sensitive Animal Species	
	7.1.4 Sensitive Plant and Animal Species Not Observed	
	7.2 Indirect Impacts	
8.0	MITIGATION MEASURES	
	8.1 Sensitive Vegetation Communities	
	8.2 Biological Resource Protection During Construction	
9.0	REFERENCES	

All Peoples Church Biological Technical Report

TABLE OF CONTENTS (continued)

LIST OF FIGURES

<u>Number</u>	<u>Title</u>	Page
1	Regional Location	2
2	Project Location	2
3	Vegetation and Sensitive Species/Impacts	

LIST OF TABLES

<u>Number</u> **Title**

1	Survey Information	2
2	Existing Vegetation Communities On and Off Site	
3	MSCP Narrow Endemic Plant Species Potential to Occur	
4	Other Sensitive Plant Species and Their Potential to Occur	
5	Sensitive Animal Species and Their Potential to Occur	13
6	Impacts to Vegetation Communities	26
7	Mitigation for Impacts to Sensitive Vegetation Communities	

LIST OF APPENDICES

<u>Letter</u>	<u>Title</u>
А	Plant Species Observed
В	Animal Species Observed or Detected
С	Explanation of Listing/Sensitivity Codes for Plant and Animal Species

Page

Follows

MANAGEMENT SUMMARY/ABSTRACT

All Peoples Church is a proposed project on a six-acre site in the City of San Diego (City) that is north of Interstate 8 and east of College Avenue. The site is not within, nor is it adjacent to, the City's Multiple Species Conservation Program (MSCP) preserve, the Multi-habitat Planning Area. The proposed project would include a 900-seat church with accessory uses (Sunday School classrooms, offices, and a multi-purpose room/gym), a parking structure and surface parking, site improvements, and off-site improvements to College Avenue, as well as an off-site sewer connection. The project would also include on-site water quality basins to treat storm water runoff and a sewer/storm water connection to existing City facilities.

Vegetation communities including Diegan coastal sage scrub, non-native grassland, disturbed habitat, eucalyptus woodland, and ornamental are present on the site. Diegan coastal sage scrub and non-native grassland are considered sensitive. Three sensitive plant species and one sensitive animal species were found on site: ashy spike-moss (*Selaginella cinerascens*), graceful tarplant (*Holocarpha virgata* ssp. *elongata*), San Diego County sunflower (*Bahiopsis laciniata*), and orange-throated whiptail (*Aspidoscelis hyperythra beldingi*). No waters of the U.S., waters of the State, or City wetlands are present on site.

Development of the site would significantly impact 3.1 acres of Diegan coastal sage scrub (including -disturbed) and 0.8 acre of non-native grassland through removal. Mitigation for these impacts is proposed to be in the form of payment into the City's Habitat Acquisition Fund.

Development of the site would impact all three sensitive plant species through removal, but this impact would be less than significant because each of these species has a California Rare Plant Rank of 4 (i.e., a very low level of sensitivity); no mitigation would be required. Development of the site would also impact the orange-throated whiptail, perhaps directly through injury or mortality and/or through habitat loss, but the impacts would be less than significant, and no mitigation would be required because the orange-throated whiptail is a Covered Species under the City's MSCP Subarea Plan.

1.0 INTRODUCTION

This report describes the existing biological conditions on the All Peoples Church project site and provides the City of San Diego (City), resources agencies, and project applicant with information necessary to assess impacts to biological resources under the California Environmental Quality Act (CEQA), City's Biology Guidelines (City 2018), and applicable federal and State of California (State) regulations.

1.1 PROJECT LOCATION

The project is located on an approximately six-acre parcel (APN 463-010-10) north of Interstate 8 and east of College Avenue in the City. The project site is located on the U.S. Geological Survey (USGS) La Mesa Quadrangle in Township 16S, Range 2W. Marne Avenue and residential development lie east of the site (Figures 1 and 2).

1.2 PROJECT DESCRIPTION

The project consists of the development of a sanctuary/multi-purpose building (under one roof) and a two level parking garage on a six-acre undeveloped site in the City. The undeveloped site is outside the City's Multiple Species Conservation Program (MSCP) preserve, the Multi-habitat Planning Area (MHPA). The proposed project would include a 900-seat church with accessory uses (i.e., Sunday school classrooms, offices, and a multi-purpose room/gym), a parking structure, and surface parking, site improvements, and off-site improvements to College Avenue. The project would also include on-site water quality basins (BMP basins) to treat storm water runoff and a sewer/storm water connections to existing City facilities (Figure 3).

2.0 METHODS

2.1 LITERATURE REVIEW

Prior to conducting field investigations, Alden Environmental, Inc. (Alden) performed a search of the California Natural Diversity Database and the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2019) for information regarding sensitive species known to occur within the project vicinity. Additional sources of information include that compiled as part of the Multiple Species Conservation Program (MSCP).

2.2 BIOLOGICAL SURVEYS

Vegetation mapping and a jurisdictional delineation were conducted on site on October 14, 2014. Vegetation mapping was confirmed on April 3, 2019. Sensitive plant surveys were conducted on April 9, 2015 and April 3, 2019. No other focused surveys are required for the project site according to the Biology Guidelines (City 2018) nor were any conducted. Incidental plant and animal observations were noted during each survey. During the sensitive plant survey, special attention was given to MSCP Narrow Endemic species potentially occurring on site. Table 1 lists the survey dates, types, and personnel. The survey methods used are presented in the sections following the table.



	Table 1 SURVEY INFORMATION					
Survey Date	Survey Type	Personnel				
10/14/14 Vegetation mapping/ jurisdictional delineation		Lee Ripma				
04/09/15 Sensitive plant species survey		Greg Mason				
04/03/19	Vegetation mapping confirmation and sensitive plant species survey	Greg Mason				

2.2.1 Vegetation Mapping

Vegetation communities were mapped according to Oberbauer et al. (2008) on recent aerial photography at a scale of one inch equals 150 feet.

2.2.2 Jurisdictional Delineation

A delineation of potential jurisdictional areas on the project site was performed on October 14, 2014 (Table 1). All on-site areas with depressions or drainage channels were evaluated for the presence of U.S. Army Corps of Engineers (Corps), California Department of Fish and Wildlife (CDFW), and City wetlands, as well as non-wetland waters of the U.S. (WUS) and non-wetland waters of the State (WS). Corps wetlands were determined/delineated using the Wetlands Delineation Manual (Environmental Laboratory 1987) and the Arid West Supplement (Corps 2008). Corps non-wetland WUS (e.g., ephemeral drainages) were determined/delineated by the presence of bed and bank within unvegetated drainage courses. CDFW jurisdiction (wetland and non-wetland WS) was determined by the presence of streambeds, channels, and wetland/riparian vegetation.

2.2.3 Sensitive Plant Species

Sensitive plant species surveys were conducted on April 9, 2015 and April 3, 2019, which are during the blooming period of sensitive species with potential to occur on site. The entire site was walked, and sensitive plant species observed were mapped.

Sensitive plant species are those that are considered federal, State, or CNPS rare, threatened, or endangered (i.e., CNPS Rare Plant Rank 1 or 2); MSCP Covered Species; or MSCP Narrow Endemic species. More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):









υEN

ENVIRONMENTAL, INC

150

Feet

0

75

Biological Resources/Impacts

ALL PEOPLES CHURCH

- (a) A species or subspecies is listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;
- (b) A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2018); and/or
- (c) A species is a Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2018).

A species may also be considered sensitive if it is included in the CNPS Inventory of Rare and Endangered Plants (CNPS 2019).

Sensitive plant status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exists naturally in small populations.

2.2.4 Survey Limitations

While 2015 was a drought year, 2019 was a year with ample precipitation, and the only sensitive plant species not found were those with low or no potential to occur (see Section 4.2.2).

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the animal species observed or detected do not necessarily represent a comprehensive account of all species that utilize the site because species that are nocturnal, secretive, or seasonally restricted may not have been observed/detected. Those species that are sensitive and have potential to occur are addressed in this report in Section 4.2.3.

2.2.5 <u>Nomenclature</u>

Nomenclature used in this report is from the following sources: City Biology Guidelines (City 2018) and the MSCP (City 1997a); Oberbauer, et al. (2008); Hickman, ed. (1993); CNPS (2019); Crother (2008); American Ornithological Society (2019); Jones, et al. (1992); and CDFW (2019).



3.0 SURVEY RESULTS

3.1 PHYSICAL CHARACTERISTICS

The project site is irregularly shaped with variable topography. Elevation on site ranges from 354 to 452 feet above mean sea level. The soil types on site consist of Escondido very fine sandy loam (9 to 15 percent slopes, eroded), Diablo urban land complex (15 to 50 percent slopes), and Friant rocky fine sandy loam (9 to 30 percent slopes; Bowman 1973). The site is bounded to the north by commercial development, to the west by College Avenue, to the south by Interstate 8, and to the east by residential development (Figure 2).

3.2 VEGETATION COMMUNITIES

Six vegetation communities (three upland and three other upland) occur on the project site and in the off-site impact area for the sewer connection. Developed occurs in the off-site improvement area for College Avenue (Figure 3). Table 2 presents a list of these communities and their respective acreage totals.

Table 2 EXISTING VEGETATION COMMUNITI	IES ON AND	OFF SITE ²
Vegetation Community ¹	On Site (acres)	Off Site (acres)
Upland		-
Diegan coastal sage scrub (Tier II)	2.3	
Diegan coastal sage scrub-disturbed (Tier II)	0.9	0.06
Non-native grassland (Tier IIIB)	0.8	
Other Upland (Tier IV)		-
Disturbed habitat	1.2	0.01
Eucalyptus woodland	0.3	0.01
Ornamental	0.6	0.03
No Tier		
Developed		0.6
Total	6.0	0.7

¹Upland vegetation communities are divided into five tiers of sensitivity (the first includes the most sensitive, the fifth the least sensitive) based on rarity and ecological importance (City 2018). Tier I includes rare uplands. Tier II includes uncommon uplands. Tiers IIIA and IIIB include common uplands. Tier IV includes other uplands.

²Totals reflects rounding.



3.2.1 Upland Vegetation Communities

Diegan Coastal Sage Scrub (including -disturbed; Tier II)

Coastal sage scrub is one of two major shrub types that occur in California. This community occupies xeric sites characterized by shallow soils. Coastal sage scrub is dominated by subshrubs whose leaves abscise during drought. This adaptation allows these species to better withstand the prolonged dry period in the summer and fall. Coastal sage scrub species have relatively shallow root systems and open canopies, which may allow for the occurrence of a substantial herbaceous component. Four floristic associations are recognized within the coastal sage scrub plant formation, and these occur in distinct geographic areas along the California coast with the Diegan association occupying the area from Orange County to northwestern coastal Baja California, Mexico (O'Leary 1990).

Diegan coastal sage scrub on site contains a diverse suite of plant species including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), lemonadeberry (*Rhus integrifolia*), and laurel sumac (*Malosma laurina*). This community on site also supports small patches of mule fat (*Baccharis salicifolia*) in an entirely upland situation. Diegan coastal sage scrub-disturbed contains many of the same shrub species as the undisturbed community but is more sparse, has a higher proportion of non-native species (principally non-native grasses), and shows signs of previous disturbance. Diegan coastal sage scrub (including – disturbed) is a Tier II (uncommon upland) community (City 2018). Approximately 3.2 acres of this community occurs on the project site (Table 2; Figure 3).

Non-Native Grassland (Tier IIIB)

Non-native grassland is comprised of a dense to sparse cover of non-native grasses, sometimes associated with species of showy-flowered, native, annual forbs (Holland 1986). This community characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species on site include oats (*Avena* spp.), filaree (*Erodium* spp.), red brome (*Bromus madritensis* ssp. *rubens*), and ripgut grass (*Bromus diandrus*). Most of the annual, introduced species that comprise the majority of species and biomass within non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These two factors, in addition to intensive grazing and agricultural practices in conjunction with droughts, contributed to the successful invasion and establishment of these species and the replacement of native grasses with annual-dominated, non-native grassland (Jackson 1985). Non-native grassland is a Tier IIIB upland vegetation community (common upland; City 2018). Approximately 0.8 acre of non-native grassland occurs on site (Table 2; Figure 3).

3.2.2 Other Uplands

Disturbed Habitat (Tier IV)

Disturbed habitat includes land cleared of vegetation, land containing a preponderance of nonnative plant species, or land showing signs of past or present usage that removes its capability of providing viable wildlife habitat. Such areas include dirt roads, graded areas, and dump sites where no native or naturalized species remain. Approximately 1.2 acres of disturbed habitat occurs on site (Table 2; Figure 3). Disturbed habitat is a Tier IV other upland (City 2018).

All Peoples Church Biological Technical Report – July 21, 2021



Eucalyptus Woodland (Tier IV)

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* spp.), an introduced genus that has been planted for wind blocking, ornamental, or hardwood production purposes. The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. The sparse understory offers only limited wildlife habitat; however, as a wildlife habitat, these woodlands can provide nesting sites for raptors. During winter migrations, a variety of warblers may be found feeding on the insects that are attracted to the eucalyptus flowers. Approximately 0.3 acre of eucalyptus woodland occurs on site (Table 2; Figure 3). Eucalyptus woodland is a Tier IV other upland (City 2018).

Ornamental (Tier IV)

Ornamental is where non-native landscaping has been planted. Ornamental landscaping occurs on approximately 0.6 acre of the project site (Table 2; Figure 3) and includes species such as pine (*Pinus* sp.) and pepper (*Schinus* spp.) trees. Ornamental is a Tier IV other upland (City 2018).

3.2.3 Developed

Developed land, which occurs in an off-site improvement area, is comprised of College Avenue.

3.2.4 Wetland/Riparian Vegetation Communities

There are no wetland/riparian vegetation communities on the site.

3.3 JURISDICTIONAL FEATURES

3.3.1 Corps Jurisdictional Features

No Corps jurisdictional wetland or non-wetland WUS occur on the site. A non-historic, constructed, drainage channel does occur along the western border of the site and runs parallel to College Avenue (Figure 3), but this channel serves as an above-ground component of the City's storm water system and does not support wetland vegetation. Storm water exits an existing outfall on the northern end of the site, runs through the channel, and re-enters the City's piped system at the southern end of the site. A review of historic aerial photographs and USGS topographic maps shows that there was no channel in this location prior to the construction of College Avenue.

3.3.2 CDFW Jurisdictional Features

For the same reasons outlined in Section 3.3.1, there are no CDFW wetland or non-wetland WS on site.



3.3.3 <u>City Wetlands</u>

The City's Municipal Code Land Development Procedures (§113.0101) define wetlands as areas that are characterized by any of the following summarized conditions. The boundaries of City wetlands are determined following these conditions.

- 1. All areas persistently or periodically containing naturally occurring wetland vegetation communities;
- 2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities;
- 3. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands;
- 4. Areas mapped as wetlands on Map No. C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).

Based on the absence of these conditions, the project site does not support City wetlands.

3.4 PLANT SPECIES OBSERVED

Eighty-seven plant species were observed on the project site. A list of these species is presented in Appendix A.

3.5 ANIMAL SPECIES OBSERVED

Seventeen animal species were observed or detected on the project site. A list these species is presented in Appendix B.

4.0 SENSITIVE RESOURCES

4.1 SENSITIVE VEGETATION COMMUNITIES

Sensitive vegetation communities are considered rare within the region or sensitive by CDFW (Holland 1986) or the City (2018). These communities in any form (including, for example, -disturbed) are considered sensitive because they have been historically depleted, are naturally uncommon, or support sensitive species. The project site supports two sensitive vegetation communities: Diegan coastal sage scrub (including -disturbed; Tier II; City 2018) and non-native grassland (Tier IIIB; City 2018).

4.2 SENSITIVE SPECIES

This section addresses sensitive plant and animal species observed on site and those evaluated for their potential to occur.

4.2.1 Sensitive Plant Species Observed

Three sensitive plant species were observed on site (Figure 3). They include graceful tarplant (*Holocarpha virgata* ssp. *elongata*), San Diego County sunflower (*Bahiopsis laciniata*), and ashy spike-moss (*Selaginella cinerascens*) as described below.

Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)
Sensitivity: CNPS Rare Plant Rank 4.2 (a watch list species; Appendix C)
Distribution: Orange, Riverside, and San Diego counties.
Habitat(s): Chaparral, valley grassland, foothill woodland, coastal sage scrub.
Presence on site: Scattered individuals were found within non-native grassland on site.

San Diego County sunflower (Bahiopsis laciniata)

Sensitivity: CNPS Rare Plant Rank 4.2 (a watch list species; Appendix C)
Distribution: San Diego and Orange counties; Baja California, Mexico.
Habitat(s): Diegan coastal sage scrub is the habitat of this perennial shrub.
Presence on site: Eight individuals of this species were found in Diegan coastal sage scrubdisturbed on site.

Ashy spike moss (Selaginella cinerascens)

Sensitivity: CNPS Rare Plant Rank 4.1 (a watch list species; Appendix C)
Distribution: Orange and San Diego counties; northwestern Baja California, Mexico.
Habitat(s): Open areas on flat mesas in coastal sage scrub and chaparral.
Presence on site: A small patch of this species was found in Diegan coastal sage scrub on site.

4.2.2 Sensitive Plant Species Not Observed and Their Potential to Occur

All City Narrow Endemic plant species were evaluated for their potential to occur on site as described in Table 3 and were looked for during the sensitive plant survey. Additional sensitive plant species that were not observed but that may have potential to occur on site based on the literature review of the project vicinity are addressed in Table 4.



Table 3 MSCP NARROW ENDEMIC PLANT SPECIES POTENTIAL TO OCCUR				
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State CNPS	HABITAT(S)	BLOOM PERIOD	POTENTIAL TO OCCUR
San Diego thornmint (<i>Acanthomintha</i> <i>ilicifolia</i>)	FT/SE CNPS Rare Plant Rank 1B.1	Occurs on clay lenses in grassy openings in chaparral or sage scrub. Prefers friable or broken, clay soils. Range limited to coastal areas of San Diego County and Baja California, Mexico.	April to June	Very low. Soils not suitable.
Shaw's agave (<i>Agave shawii</i>)	/ CNPS Rare Plant Rank 2B.1	Occurs in coastal sage scrub and coastal bluff scrub. Range limited to coastal areas of San Diego County and Baja California, Mexico.	September to May	Very low. A perennial leaf succulent that would have been observed if present.
San Diego ambrosia (Ambrosia pumila)	FE/ CNPS Rare Plant Rank 1B.1	Found in disturbed areas within chaparral, coastal sage scrub, and grasslands. Range includes San Diego and Riverside counties south to Baja California, Mexico.	June to September	Very low. Not known from project vicinity.
Aphanisma (Aphanisma blitoides)	/ CNPS Rare Plant Rank 1B.2	Occurs in sandy areas along the coast. Range includes islands off the southern California coast from San Onofre to Imperial Beach in San Diego County.	April to May	Very low. No known populations in MSCP Plan Area (City 1997a).
Coastal dunes milk-vetch (<i>Astragalus tener</i> var. <i>titi</i>)	FE/SE CNPS Rare Plant Rank 1B.1	Occurs in sandy places along the coast, including coastal dunes. Range includes coastal areas of Monterey, Los Angeles, and San Diego counties.	March to May	Very low. Occurs on coastal dunes, and range does not include the project area.

MSCP NA		Table 3 (continued)C PLANT SPECIES PC	OTENTIAL	TO OCCUR
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State CNPS	HABITAT(S)	BLOOM PERIOD	POTENTIAL TO OCCUR
Snake cholla (Cylindropuntia californica var. californica)	/ CNPS Rare Plant Rank 1B.1	Found in open patches in coastal sage scrub, primarily in southern portion of San Diego County and in Florida Canyon.	April to June	Very low. A perennial stem succulent that would have been observed if present.
Otay tarplant (Deinandra conjugens)	FT/SE CNPS Rare Plant Rank 1B.1	Occurs in disturbed areas and patches of coastal sage scrub in the Otay Mesa area.	June to August	Very low. Occurs in Otay Mesa; not known from project vicinity.
Short-leaved dudleya (Dudleya blochmaniae ssp. brevifolia)	/SE CNPS Rare Plant Rank 1B.1	Occurs on Torrey sandstone soils in chaparral and coastal scrub.	April	None. Suitable soils not present.
Variegated dudleya (<i>Dudleya</i> <i>variegata</i>)	/ CNPS Rare Plant Rank 1B.2	Occurs on dry hillsides and mesas in chaparral, coastal sage scrub, grasslands, and near vernal pools. Ranges from San Diego County south to Baja California, Mexico.	May to June	Very low. Not known from project vicinity.
Spreading navarretia (Navarretia fossalis)	FT/ CNPS Rare Plant Rank 1B.1	Occurs in marshes and swamps (assorted freshwater habitats), playas, and vernal pools.	April to June	None. No suitable habitat present.
California Orcutt grass (Orcuttia californica)	FT/SE CNPS Rare Plant Rank 1B.1	Occurs within and adjacent to vernal pools.	April to June	None. No suitable habitat present.
San Diego mesa mint (Pogogyne abramsii)	FE/SE CNPS Rare Plant Rank 1B.1	Occurs within and adjacent to vernal pools.	March to July	None. No suitable habitat present.
Otay Mesa mint (Pogogyne nudiuscula)	FE/SE CNPS Rare Plant Rank 1B.1 explanation of listing/sens	Occurs within and adjacent to vernal pools on Otay Mesa.	March to July	None. No suitable habitat present. Not known from project vicinity.

¹See Appendix C for an explanation of listing/sensitivity codes.

Table 4 OTHER SENSITIVE PLANT SPECIES AND THEIR POTENTIAL TO OCCUR				
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State CNPS City	HABITAT(S)	BLOOM PERIOD	POTENTIAL TO OCCUR
California adolphia (<i>Adolphia</i> <i>californica</i>)	/ CNPS Rare Plant Rank 2B.1 	Occurs in chaparral, valley grassland, and coastal sage scrub in Los Angeles and San Diego counties.	December to May	None. A perennial shrub that would have been observed if present.
San Diego goldenstar (<i>Bloomeria</i> <i>clevelandii</i>)	/ CNPS Rare Plant Rank 1B.1 Covered Species	Found on clay soils in chaparral, coastal scrub, vernal pools, and valley and foothill grassland in Riverside and San Diego counties	April to May	Very low. Suitable habitat and soils not present.
Palmer's goldenbush (Ericameria palmeri var. palmeri)	/ CNPS Rare Plant Rank 1B.1 Covered Species	Associated with coastal sage scrub and chaparral habitats.	September to November	None. A perennial, evergreen shrub that would have been observed if present.
San Diego barrel cactus (<i>Ferocactus</i> <i>viridescens</i>)	/ CNPS Rare Plant Rank 2B.1 Covered Species	Associated with coastal sage scrub and chaparral habitats.	May to June	None. A perennial stem succulent that would have been observed if present.
Robinson's pepper-grass (<i>Lepidium</i> <i>virginicum</i> var. <i>robinsonii</i>)	/ CNPS Rare Plant Rank 4.3 	Associated with coastal sage scrub and chaparral habitats.	January to July	Low. Survey was conducted at the middle of the bloom period; therefore, it is expected it would have been found if present.



OTHER SEN	SENSITIVITY ¹ Federal/State CNPS City	HABITAT(S)	BLOOM PERIOD	POTENTIAL TO OCCUR
Golden-rayed pentachaeta (Pentachaeta aurea ssp. aurea)	/ CNPS Rare Plant Rank 4.2 	Found in mesic montane grasslands and sage scrub in Riverside, San Bernardino, Orange, Los Angeles, and San Diego counties; Baja California, Mexico.	March to July	Low. Survey was conducted during the bloom period; therefore, it is expected it would have been found if present.
Purple stemodia (Stemodia durantifolia)	/ CNPS Rare Plant Rank 2B.1 	Associated with wetland/riparian habitats.	January to December	None. Suitable habitat not present
Oil neststraw (Stylocline citroleum)	/ CNPS Rare Plant Rank 1B.1 	Associated with coastal sage scrub, chenopod scrub, and grasslands in clay soils.	March to April	Very low. Soils on site not suitable.

¹See Appendix C for an explanation of listing/sensitivity codes.

4.2.3 Sensitive Animal Species Observed or Detected

One sensitive animal species, orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), was observed on site (Figure 3). This species is described below.

Orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)

Sensitivity: State Species of Special Concern; MSCP Covered Species (Appendix C) **Distribution**: Southern Orange and San Bernardino counties, south to the cape of Baja California, Mexico.

Habitat(s): Coastal sage scrub, chaparral, edges of riparian woodlands and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant invertebrate prey base, particularly termites (*Reticulitermes* sp.).

Presence on site: This species was observed within Diegan coastal sage scrub/disturbed habitat on site.



4.2.4 Sensitive Animal Species Not Observed and Their Potential to Occur

Sensitive animal species that were not observed or detected but that may have potential to occur on site based on the literature review for the project vicinity are listed in Table 5. In general, the potential for many sensitive animal species to occur on site is limited due to the site's small size, its isolation (i.e., surrounded by development), and its location in an urban environment.

Table 5 SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	ENSITIVITY1HABITAT(S)Federal/StateHABITAT(S)	
		INVERTEBRATES	
San Diego fairy shrimp (Branchinecta sandiegonensis)	FE/ VPHCP	Found in shallow vernal pools and ephemeral wetlands in southern coastal California and northern Baja California, Mexico.	None. No suitable habitat on site.
Quino checkerspot butterfly (<i>Euphydryas</i> <i>editha quino</i>)	FE/ 	The primary larval host plant of this species in San Diego is dwarf plantain (<i>Plantago erecta</i>). Owl's clover (<i>Castilleja exserta</i>) may serve as host plant if primary host plants have senesced. Potential habitat includes areas of low-growing and sparse vegetation. Exists only as several, probably isolated, colonies in southwestern Riverside County, southern San Diego County, and northern Baja California, Mexico.	Very low. Host plant not observed on site. Site is outside the recommended survey area for the species (USFWS 2014).
Hermes copper butterfly (<i>Lycaena hermes</i>)	FC/ 	Occurs in southern mixed chaparral and coastal sage scrub with mature specimens of its larval host plant, spiny redberry (<i>Rhamnus crocea</i>). Range is San Diego County, south of Fallbrook, to northern Baja California, Mexico.	Very low due to site's small size and location in an urban setting.
Salt marsh skipper (<i>Panoquina</i> <i>errans</i>)	/ Covered Species	Found in coastal salt and brackish marshes, occasionally nearby fields and wood edges.	None. No suitable habitat on site.
Riverside fairy shrimp (Streptocephalus woottoni)	FE/ VPHCP	Found in moderate to deep (generally ranging from 10 inches to 5-10 feet in depth), longer-lived vernal pools and ephemeral wetlands in southern coastal California and northern Baja California, Mexico.	None. No suitable habitat on site.



Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
		VERTEBRATES	
Amphibians and	Reptiles		
Silvery legless lizard (Anniella pulchra pulchra)	/SSC 	Occurs in areas with loose, sandy soil. Generally found in leaf litter, under rocks, logs, or driftwood in oak woodland, chaparral, and desert scrub. Occurs from the Bay Area south through the Coast and Peninsular ranges to northern Baja California, Mexico.	Low due to site's small size and location in an urban setting.
Arroyo toad (Anaxyrus californicus)	FE/SSC Covered Species	Found in washes, streams, and arroyos in semiarid areas. Prefer shallow pools and open, sandy stream terraces or sand bars with cottonwoods (<i>Populus</i> spp.), willows (<i>Salix</i> spp.), or sycamores (<i>Platanus</i> spp.). Breeds in shallow pools along stream edges with sand/gravel flats between March and June. Adults use sage scrub, mixed chaparral, and oak woodland habitats up to within one mile of breeding sites.	None. No suitable habitat on site.
Western pond turtle (<i>Emys</i> <i>marmorata</i>)	/SSC Covered Species	Found in both permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes throughout Oregon, California, and Baja California, Mexico.	None. No suitable habitat on site.
Red-diamond rattlesnake (Crotalus ruber)	/SSC 	Found in chaparral, coastal sage scrub, and along creek banks, particularly among rock outcrops or piles of debris supporting rodents. Ranges from extreme southeastern Los Angeles County (Diamond Bar) into southern San Bernardino County, and south into southern Baja California, Mexico.	Low due to site's small size and location in an urban setting.

Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
		TEBRATES (continued)	
Amphibians and H	Reptiles (continued	1)	
Coast horned lizard (<i>Phrynosoma</i> <i>blainvillii</i>)	/SSC Covered Species	Occurs in scrubland, grassland, coniferous woods, and broadleaf woodlands, typically in area with sandy soil, scattered shrubs, and native ant colonies.	Low due to the presence of Argentine ants that out-compete the species' native ant prey and the site's location.
Coronado skink (Plestiodon skiltonianus interparietalis)	/SSC 	Inhabits grasslands, coastal sage scrub, open chaparral, pine oak woodland and coniferous forests. Prefers areas where there is abundant leaf litter or low, herbaceous growth. Occurs in inland southern California south through the north Pacific coast region of northern Baja California Norte, Mexico.	Low due to site's small size and location in an urban setting.
Western spadefoot toad (Spea hammondii)	/SSC 	Inhabits floodplains, washes, and low hills. Southern California habitats include coastal sage scrub, chaparral and grassland. Important habitat components include temporary pools (which form during winter and spring rains) for breeding and friable soils for burrowing.	None. No suitable habitat present.
Two-striped garter snake (<i>Thamnophis</i> <i>hammondii</i>)	/SSC 	Found in permanent fresh water, inhabiting streams, ponds, and vernal pools. Occupies adjacent coastal sage scrub and grasslands during the winter.	None. No suitable habitat present.



Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
	•	TEBRATES (continued)	
Birds			
Cooper's hawk (Accipiter cooperii)	/WL Covered Species	Occurs throughout the continental U.S. (excluding Alaska) and parts of both Montana and the Dakotas. Winters south to Mexico and Honduras. In San Diego County, tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrubland or fields. Unitt (2004) noted, however, that in the 1980s Cooper's hawks began adapting to urban environments in San Diego County and nesting in eucalyptus trees and other urban trees.	Low potential to forage and nest on site due to the site's location in an urban setting adjacent to a College Avenue and Interstate 8.
Tri-colored blackbird (Agelaius tricolor)	BCC/SC, SSC 	Occurs mostly in coastal lowland grasslands and wetlands, as well as freshwater marshes agricultural areas, lakeshores, parks.	None. No suitable habitat present.
Southern California rufous-crowned sparrow (Aimophila ruficeps canescens)	/WL Covered Species	Inhabits coastal sage scrub and open chaparral as well as shrubby grasslands. Occur throughout the coastal lowlands and foothills of San Diego County.	Low due to site's small size and location in an urban setting adjacent to a College Avenue and Interstate 8.
Grasshopper sparrow (Ammodramus savannarum)	/SSC 	Open grasslands in the eastern U.S. and plains areas as well as coastal California. Typical habitat is dense grasslands that have little or no shrub cover.	Very low due to site's small size and location in an urban setting adjacent to a College Avenue and Interstate 8.
Bell's sage sparrow (Artemesiospiza belli belli)	BCC/WL 	Found in chaparral and sage scrub with modest leaf litter. Patchy distribution throughout San Diego County, which often shifts to include partially recovered burned areas.	Low due to site's small size and location in an urban setting adjacent to a College Avenue and Interstate 8.



Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
	VER	TEBRATES (continued)	
Birds (continued)			
Golden eagle (Aquila chrysaetos)	BCC/FP, WL Covered Species	Requires vast foraging areas in grassland, broken chaparral, or sage scrub. Nest in cliffs and boulders.	None due to site's small size and location in an urban setting. Golden eagles are sensitive to anthropogenic presence (Palmer 1988 <i>in</i> USFWS 2010).
Burrowing owl (Athene cunicularia)	BCC/SSC Covered Species	Declining species occurring in grassland or open scrub habitats. In 2003, there were an estimated 25 to 30 resident pairs of in San Diego County located primarily in the southern quarter of the county and on North Island (Lincer and Bloom 2007).	Very low. Not known from project vicinity but is typically addressed at City's request.
Ferruginous hawk (Buteo regalis)	BCC/WL 	Found in arid and semiarid regions of North America. Grasslands, rock outcrops, shallow canyons, and gullies may characterize some habitats.	None. Suitable habitat does not occur on site.
Coastal cactus wren (Campylorhynchus brunneicapillus sandiegonensis)	BCC/SSC Covered Species	Occurs in arid and semiarid regions from the southwestern U.S. to southern Mexico. Occurs in coastal sage scrub with large cacti for nesting.	Very low. No cacti suitable for nesting are present.
Western snowy plover (Charadrius alexandrinus nivosus)	FT/SSC Covered Species	Found on sandy coasts and in brackish inland lakes up the Pacific coastline. Utilizes sandy beaches, dried mudflats, and saltpans.	None. No suitable habitat present.



Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
L. L	· ·	TEBRATES (continued)	1
Birds (continued)			
Northern harrier (Circus cyaneus)	/SSC Covered Species	Utilizes coastal, salt, and freshwater marshlands; grasslands; and prairies. Widespread throughout the temperate regions of North America and Eurasia. The species winters and migrates throughout California from below sea level in Death Valley to an elevation of 9,800 feet. Known breeding areas in San Diego County include Torrey Pines, the Tijuana River Valley, and Camp Pendleton.	Very low due to site's small size and location in an urban setting adjacent to a College Avenue and Interstate 8.
White-tailed kite (Elanus leucurus)	/FP 	Occurs in riparian woodlands and oak or sycamore groves and adjacent grasslands on coastal slopes in San Diego County. Nests in the crowns of trees, especially coast live oak (<i>Quercus agrifolia</i>).	None. Suitable habitat not present.
Southwestern willow flycatcher (Empidonax traillii extimus)	FE/SE Covered Species	This flycatcher typically breeds in patchy to dense, well-developed riparian woodlands along streams, rivers, lakes, or other wetlands, composed of native riparian species such as willows and mule fat.	None. No suitable habitat present.
California horned lark (<i>Eremophila</i> <i>alpestris actia</i>)	/WL 	Inhabits sandy beaches, agricultural fields, grasslands and open areas on coastal slopes, and in lowlands from Sonoma County to northern Baja California, Mexico.	Low due to due to limited habitat and location in an urban setting adjacent to a College Avenue and Interstate 8.
American peregrine falcon (<i>Falco peregrinus</i>)	BCC/FP Covered Species	Found in coastal sage scrub and chaparral with rock outcrops. Ranges from San Luis Obispo south through Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego counties and into Baja California, Mexico.	Very low. Rare fall and winter visitor. Prefers various coastal habitats for foraging and breeding.



Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
	VER'	TEBRATES (continued)	
Birds (continued)			
Loggerhead shrike (Lanius ludovicianus)	BCC/SSC 	Found in grassland, open sage scrub, chaparral, and desert scrub. Uncommon year-round resident observed in lower elevations of San Diego County.	Very low due to site's small size and location in an urban setting adjacent to a College Avenue and Interstate 8.
Long-billed curlew (Numenius americanus)	BCC/WL Covered Species	Occurs on tidal mudflats and open coastal grassland.	None. No suitable habitat present.
Coastal California gnatcatcher (Polioptila californica californica)	FT/SSC Covered Species	Occurs in coastal sage scrub and very open chaparral.	Low. Would likely have been observed if present.
Ridgeway's rail (<i>Rallus obsoletus</i>) formerly light- footed clapper rail (<i>Rallus longirostris</i> <i>levipes</i>)	FE/SE, FP Covered Species	Occurs in the lower littoral zone of coastal salt marshes where cordgrass (<i>Spartina</i> sp.) is present; however, all marsh habitats and adjacent uplands are used to some extent.	None. No suitable habitat present.
California least tern (Sterna antillarum browni)	FE/SE, FP Covered Species	Occurs on open sand, salt pans, or dried mudflats near lagoons or estuaries along the coast.	None. No suitable habitat present.
Least Bell's vireo (Vireo bellii pusillus)	FE/SE Covered Species	Occurs where there is dense, stratified canopy within willow-dominated woodland or scrub, baccharis scrub, mixed oak/willow woodland, mesquite woodland, or elderberry scrub in riparian habitat.	None. No suitable habitat present.
Mammals			
Dulzura pocket mouse (Chaetodipus californicus femoralis)	/SSC 	Primarily associated with mature chaparral. It has, however, been trapped in mule fat scrub and is known to occur in coastal sage scrub. Has been reported from the mouth of the Santa Margarita River south into northern Baja California, Mexico. In San Diego County, it ranges eastward to the desert transition zone.	Low due to site's small size and location in an urban setting.



Table 5 (continued) SENSITIVE ANIMAL SPECIES AND THEIR POTENTIAL TO OCCUR			
SPECIES	LISTING OR SENSITIVITY ¹ Federal/State City	HABITAT(S)	POTENTIAL TO OCCUR
	VER'	TEBRATES (continued)	
Mammals (continu	ied)		
Northwestern San Diego pocket mouse (<i>Chaetodipus fallax</i> <i>fallax</i>)	/SSC 	Occurs in open areas of coastal sage scrub and weedy growth, often on sandy substrates. Ranges from Los Angeles County and southern San Bernardino County south into west- central Baja California, Mexico.	Low due to site's small size and location in an urban setting.
Western mastiff bat (Eumops perotis californicus)	/SSC 	Occurs in chaparral, coastal and desert scrub, coniferous and deciduous forest, and woodland habitats. Most roost sites are in crevices in cliffs.	Low to forage on site; unlikely to roost due to the site's small size, location in an urban setting, and absence of cliffs.
San Diego desert woodrat (<i>Neotoma lepida</i> <i>intermedia</i>)	/SSC 	Occurs in open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca. Occurs along the coastal slope of southern California from San Luis Obispo County south into coastal northwestern Baja California, Mexico.	Low. Nests likely would have been observed if present.
Southern grasshopper mouse (Onychomys torridus ramona)	/SSC 	Generally found in desert habitats with loose, friable soils.	Very low due to site's small size and location in an urban setting.
Pacific pocket mouse (Perognathus longimembris pacificus)	FE/SSC 	Endemic to the immediate coast (within approximately 2.5 to 3.7 miles of the Pacific coast; Spencer 2005) of southern California from Marina del Rey and El Segundo in Los Angeles County, south to the vicinity of the Mexican border in San Diego County. Found in coastal sage scrub but more often in sandy washes.	None. Site is too far inland. Known currently from one location in Orange County and three on Camp Pendleton. Site is also outside of species' current range.
American badger (<i>Taxidea taxus</i>)	/SSC Covered Species	Occurs in drier, open stages of shrub steppes, agricultural fields, open woodland forests, and large grass and sagebrush meadows and valleys with friable soils.	None. Suitable habitat not present.

¹See Appendix C for an explanation of listing and sensitivity codes.



4.2.5 Wildlife Corridors and Nursery Sites

Wildlife corridors represent areas where wildlife movement is concentrated due to natural or anthropogenic constraints. Wildlife corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Local corridors provide access to resources such as food, water, and shelter. Animals use local corridors, which are often hillsides or tributary drainages, to move between different habitats. Regional corridors provide these functions but also link two or more large habitat areas. Regional corridors provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations. The project site is located in an urbanized area of the City and is not located within or adjacent to any wildlife corridor areas, including the MHPA.

A wildlife nursery site is a specific, established location often used repeatedly for breeding purposes, such as a heron rookery or bat maternal colony roost. No such wildlife nursery sites were observed, and due to the small size of the project site and its urbanized location, none is expected to occur.

4.2.6 Nesting Birds

Eight resident bird species were observed on the project site, and several have potential to nest there. Nesting birds are protected by federal and State law (see Sections 5.1 and 5.2).

5.0 REGULATORY CONTEXT

Biological resources on the project site are subject to regulatory administration by the federal government and State as follows.

5.1 FEDERAL

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S. Code Sections 703-711) includes provisions for protection of migratory birds, including the non-permitted take of migratory birds. The MBTA regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations Section 10.13. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many others. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country, and is enforced in the United States by the USFWS. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). Avian species protected by the MBTA are present on the project site. As a general/standard condition, the project must comply with the MBTA.

5.2 STATE OF CALIFORNIA

California Environmental Quality Act

Primary environmental legislation in California is found in the CEQA and its implementing guidelines (State CEQA Guidelines), requiring that projects with potential adverse effects or impacts on the environment undergo environmental review. Adverse impacts to the environment are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Fish and Game Code

Pursuant to California Fish and Game Code 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. Raptors and owls and their active nests are protected by California Fish and Game Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed. As a general/standard condition, the project must comply with California Fish and Game Code.

5.3 CITY OF SAN DIEGO

Environmentally Sensitive Lands Regulations

Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2018) as outlined in the City's Municipal Code Environmentally Sensitive Lands (ESL) Regulations (Chapter 14, Article 3, Division 1). ESL Regulations serve as standards for the determination of biological impacts and mitigation under CEQA in the City. ESL include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs and 100-year floodplains (San Diego Municipal Code [SDMC] 143.0110).

The purpose of the ESL Regulations is to, "protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands" (SDMC 143.0101). The ESL regulations specify development requirements inside and outside of the MHPA. Inside the MHPA, development must be located in the least sensitive portion of a given site; outside of the MHPA, development must avoid wetlands and non-Covered Species (City 2018). The ESL regulations further require that impacts to sensitive biological resources must be assessed and mitigation provided where necessary, as required by Section III of the City's Biology Guidelines. The MSCP and MHPA are further discussed in Section 6.0.


Biology Guidelines

The City's Biology Guidelines (2018) have been formulated by the Development Services Department to aid in the implementation and interpretation of the ESL Regulations; San Diego Land Development Code, 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. Section III of the Biology Guidelines (Biological Impact Analysis and Mitigation Procedures) also serves as standards for the determination of impact and mitigation under CEQA and the Coastal Act. The Biology Guidelines are the baseline biological standards for processing Neighborhood Development Permits, Site Development Permits, and Coastal Development Permits issued pursuant to ESL Regulations.

6.0 REGIONAL CONTEXT

6.1 MSCP EVALUATION

The City's MSCP Subarea Plan (City 1997a) was prepared to meet the requirements of the California Natural Communities Conservation Planning (NCCP) Act of 1992. The City's Subarea Plan forms the basis for the MSCP Implementing Agreement (City 1997b), which is the contract between the City, USFWS, and CDFW. The Implementing Agreement ensures implementation of the City's Subarea Plan and thereby allows the City to issue "take" permits under the federal and State Endangered Species acts to address impacts at the local level.

Pursuant to its MSCP permit, the City has incidental "take" authority over 85 rare, threatened, and endangered species including regionally sensitive species that it aims to conserve (i.e., "Covered Species"). "Covered" refers to species that are covered by the City's Incidental Take Permit, and most are considered to be adequately protected within the MHPA. Special conditions apply to Covered Species that would be potentially impacted by a project including designing a project to avoid impacts to Covered Species in the MHPA where feasible. Outside the MHPA, projects must incorporate measures (i.e., Area Specific Management Directives) for the protection of Covered Species as identified in Appendix A of the City's Subarea Plan. There is one Covered Species, the orange-throated whiptail, on the project site.

In addition to identifying preserve areas within the City (and guiding implementation of the MSCP within its corporate boundaries), the City's Subarea Plan also regulates effects on natural communities throughout the City. Additional discussion of the MHPA as it relates to the project is provided in Section 6.1.1.

6.1.1 Multi-Habitat Planning Area

The MHPA was developed by the City in cooperation with the USFWS, CDFW, property owners, developers, and environmental groups using the Preserve Design Criteria contained in the Final MSCP Plan and the City Council-adopted criteria for the creation of the MHPA.



MHPA lands are large blocks of native habitat that have the ability to support a diversity of plant and animal life and, therefore, have been included within the City's Subarea Plan for conservation. The MHPA also delineates core biological resource areas and corridors targeted for conservation as these lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. The project site is not within or adjacent to the MHPA.

6.1.2 MHPA Land Use Adjacency Guidelines

Development adjacent to the MHPA is subject to special conditions to ensure that indirect impacts to the MHPA are minimized. Section 1.4.3 of the City's Subarea Plan outlines the requirements to address indirect effects related to drainage and toxics, lighting, noise, public access, invasive plant species, brush management, and grading/land development. The project site is not adjacent to the MHPA, however, so these adjacency guidelines would not apply.

6.1.3 Specific Management Directives

Section 1.5.7 of the City's Subarea Plan contains specific requirements for certain areas within the MHPA. The project site is not within the MHPA; therefore, there are no specific management directives for the project site.

6.1.4 Overall Management Policies and Directives

Section 1.5.7 of the City's Subarea Plan also contains requirements and goals for all MHPA areas. The project site is not within the MHPA; therefore, there are no overall management policies and directives for the project site.

7.0 PROJECT IMPACT ANALYSIS

This section analyzes the project's effects on the sensitive biological resources. The City's CEQA Significance Determination Thresholds (City 2018) are used to establish whether or not there is a significant effect. A significant effect is defined as a "substantial or potentially substantial adverse change in the environment." Appendix G of the CEQA Guidelines further indicate that there may be a significant effect on biological resources if a project will:

- A. Substantially affect an endangered, rare, or threatened species of animal or plant or the habitat of the species;
- B. Interfere substantially with the movement of any resident or migratory fish or wildlife species; or
- C. Substantially diminish habitat for fish, wildlife, or plants.

Impacts to biological resources are evaluated by City staff through the CEQA review process, the ESL Regulations and Biology Guidelines, and through the review of a project's consistency with the City's MSCP Subarea Plan.



For projects within the City or carried out by the City which may affect sensitive biological resources, potential impacts to such sensitive biological resources must be evaluated using the following significance criteria:

- 1. Would the project result in substantial adverse impacts, either directly or through habitat modifications, to any species identified as a candidate, sensitive or special status species in the MSCP or other local or regional plans, policies or regulations, of by the CDFW or USFWS?
- 2. Would the project result in a substantial adverse impacts on any Tier I, Tier II, Tier IIIA or Tier IIIB habitats as identified in the Biology Guidelines of the Land Development Code or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?
- 3. Would the project result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pools, riparian areas, etc.) through direct removal, filling, hydrological interruption, or other means?

There are no wetlands (or non-wetlands) on the project site; therefore, there would be no impacts to these features, and this significance criterion is not addressed further.

4. Would the project substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?

There are no wildlife movement corridors or habitat linkages on, or adjacent to, the project site, and there are no native wildlife nursery sites on the project site. Therefore, the project would not interfere with wildlife or impede the use of native wildlife nursery sites, and this significance criterion is not addressed further.

- 5. Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Conservation Community Plan (NCCP) or other approved local, regional or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?
- 6. Would the project introduce a land use within an area adjacent to the MHPA that would result in adverse edge effects?

The project site is not adjacent to the MHPA, so it would not result in edge effects to the MHPA, and this significance criterion is not addressed further.

- 7. Would the project conflict with any local policies or ordinances protecting biological resources?
- 8. Would the project introduce invasive species of plants into natural open space?

The project site is surrounded by existing urban development, so it would not introduce invasive species of plants into natural open space, and this significance criterion is not addressed further.



7.1 DIRECT IMPACTS

7.1.1 Vegetation Communities

Approximately 6.0 acres of vegetation on site would be directly impacted through removal upon implementation of project construction as presented in Table 6. Additionally, 0.7 acre off site would be impacted for improvements to College Avenue and for a new sewer connection (Figure 3).

Table 6IMPACTS TO VEGETATION COMMUNITIES		
	Impacts ¹	
Vegetation Community	On Site	Off Site
Upland		·
Diegan coastal sage scrub (Tier II)	2.2	
Diegan coastal sage scrub (disturbed) (Tier II)	0.9	0.06
Non-native grassland (Tier IIIB)	0.8	
Other Upland (Tier IV)		·
Disturbed habitat	1.2	0.01
Eucalyptus woodland	0.3	0.01
Ornamental	0.6	0.03
No Tier		
Developed		0.6
Total	6.0	0.7

¹In acres, and total may reflect rounding.

Upland Vegetation Communities

Diegan Coastal Sage Scrub (including -disturbed; Tier II)

Approximately 3.2 acres of Diegan coastal sage scrub (including -disturbed) would be directly impacted through removal during project construction on and off site. Since Diegan coastal sage scrub (including –disturbed) is a Tier II community, the impact would be substantial and adverse (Significance Criterion 2) and, therefore, significant. Mitigation would be required. The mitigation (see Section 8.1) would be consistent with Section III of the City's Biology Guidelines (2018), so the project would not conflict with any local policies or ordinances (ESL Regulations) protecting biological resources (Significance Criterion 7).

Non-native Grassland (Tier IIIB)

Approximately 0.8 acre of non-native grassland would be directly impacted through removal during project construction. Since non-native grassland is a Tier IIIB community, the impact would be substantial and adverse (Significance Criterion 2) and, therefore, significant. Mitigation would be required. The mitigation (see Section 8.1) would be consistent with Section III of the City's Biology Guidelines (2018), so the project would not conflict with any local policies or ordinances (ESL Regulations) protecting biological resources (Significance Criterion 7).



Other Uplands (Tier IV)

Disturbed Habitat, Eucalyptus Woodland, and Ornamental

Approximately 1.2 acres of disturbed habitat, 0.3 acre of eucalyptus woodland, and 0.6 acre of ornamental landscaping would be directly impacted through removal during project construction. Since these communities are not Tier I, Tier II, Tier IIIA or Tier IIIB habitats, and they are not sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFW or USFWS, impacts to these communities would be less than significant (Significance Criterion 2). No mitigation would be required.

No Tier

Developed

Approximately 0.6 acre of College Avenue off site would be directly impacted to make improvements to the roadway. Since developed is not assigned a Tier, and it is not a sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS, impacts to developed would be less than significant (Significance Criterion 2). No mitigation would be required.

7.1.2 Sensitive Plant Species

Construction of the project would result in the direct removal of CNPS Rare Plant Rank 4 (Watch List) graceful tarplant, San Diego sunflower, and ashy spike-moss. Since none of these species is federal or State Listed, a Narrow Endemic, a CNPS Rare Plant Rank 1 or 2 species, or an MSCP Covered Species (i.e., each has a very low level of sensitivity), the impact would be less than significant (Significance Criterion 1). No mitigation would be required.

7.1.3 Sensitive Animal Species

Orange-throated Whiptail

Construction of the project could result in direct injury or mortality to the orange-throated whiptail and would result in direct loss of its habitat. Although the orange-throated whiptail is a State Species of Special Concern (Appendix C), it is also an MSCP Covered Species, which means that the City has take authority for it, and it is adequately conserved in the MHPA.

As stated in Section 6.1, outside the MHPA, projects must incorporate measures (i.e., Area Specific Management Directives) for the protection of Covered Species as identified in Appendix A of the City's Subarea Plan. Area Specific Management Directives for the orange-throated whiptail must address edge effects. Since the project is surrounded by existing urban development, however, there would be no edge effects to address.

Therefore, impacts to the orange-throated whiptail (which would occur outside the MHPA) would be less than significant (Significance Criterion 1) and would not conflict with the provisions of the MSCP (Significance Criterion 5), and no mitigation would be required.



Nesting Birds

Potential impacts to protected nesting birds could result if clearing of vegetation or construction occurs during the breeding season (February 1 to September 15). Clearing of vegetation or construction activities could cause destruction or abandonment of active nests or mortality of adults, young, or eggs.

Impacts to protected nesting birds would be considered significant according to Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to special status species). Mitigation would be required.

7.1.4 Sensitive Plant and Animal Species Not Observed

As shown in Tables 6 and 7, the potential for additional sensitive plant and animal species to occur on site is none to low. Therefore, these species are not expected to be present on site or impacted by the project. Therefore, no mitigation would be required.

7.2 INDIRECT IMPACTS

Potential indirect impacts consist of secondary effects of a project such as habitat insularization, drainage/water quality issues, lighting, noise, and nuisance animals. The magnitude of an indirect impact can be the same as a direct impact, but the effect usually takes a longer time to become apparent.

Habitat Insularization

Habitat insularization is the fragmentation of large habitat areas into smaller "islands" effectively isolated from one another. Such fragmentation presents barriers to wildlife movement and breeding, splits animal and plant populations, and increases edge effects. The project site is surrounded by development in an urbanized portion of the City. Development of the site would not, therefore, increase habitat insularization, and no mitigation would be required.

Drainage/Water Quality

Landscaping and irrigation associated with proposed development may result in increased runoff. Runoff due to irrigation is often associated with increased erosion, sedimentation, and pollution, which can significantly impact water quality. However, all runoff water from the project would be collected and treated on site in water quality (BMP) basins and discharged into the City storm water system (Figure 3). Based on the project's drainage and water quality design features, no significant impacts resulting from drainage or impaired water quality would occur, and no mitigation would be required.

Lighting

Night lighting exposes adjacent wildlife species to an unnatural light regime, may alter their behavior patterns, and consequently result in a loss of species diversity. The project's surrounding landscape consists of existing development in an urban setting. As such, no significant lighting impacts to wildlife would occur, and no mitigation would be required.



Noise

The project's surrounding landscape consists of existing development in an urban setting. As such, construction-related noise from such sources as clearing, grading, and vehicular traffic associated with project construction would not result in a significant impact to wildlife. No mitigation would be required.

8.0 MITIGATION MEASURES

This section includes the proposed measures to mitigate for significant impacts that would occur from the project to sensitive vegetation communities. There are no other significant direct or indirect impacts associated with the project.

8.1 SENSITIVE VEGETATION COMMUNITIES

The following mitigation measures have been formulated to satisfy the requirements of the City's Subarea Plan (City 1997a), ESL Regulations, and Biology Guidelines (City 2018). The mitigation ratios used in this report follow the City's ESL categorized five-tier system for impacts to sensitive upland communities as outlined in the Biology Guidelines:

- Tier I: There are no Tier I communities on site.
- Tier II: Coastal sage scrub and coastal sage scrub/chaparral ecotone (1:1 to 1.5:1)
- **Tier IIIA**: There are no Tier IIIA communities on site.
- **Tier IIIB**: Non-native grasslands (0.5:1 to 1:1)
- **Tier IV**: Disturbed, agricultural, and eucalyptus (0:1) While there are Tier IV communities on site, mitigation is not required for impacts to them.

Mitigation for impacts to Diegan coastal sage scrub and Diegan coastal sage scrub-disturbed are proposed to be mitigated at a ratio of 1:1 where the impact occurs outside the MHPA, and the mitigation occurs inside the MHPA. Mitigation for impacts to non-native grassland are proposed to be mitigated at a ratio of 0.5:1 (for habitat not occupied by the burrowing owl) where the impact occurs outside the MHPA, and the mitigation occurs inside the MHPA.

The project proposes to provide 3.6 acres of mitigation (Table 7) and would accomplish this through payment into the City's Habitat Acquisition Fund, which the City uses to acquire habitat critical for biodiversity preservation and the success of the MSCP. According to the Biology Guidelines (City 2018), the Habitat Acquisition Fund is intended to be used for the mitigation of impacts to small (generally less than five acres), isolated sites with lower long-term conservation value. The project's on- and off-site impacts that require mitigation total 4.0 acres, and the site is surrounded by existing urban development (i.e., it has low long-term conservation value).



Table 7 MITIGATION FOR IMPACTS TO SENSITIVE VEGETATION COMMUNITIES			
Vegetation Community	Impact (acres)	Ratio	Mitigation (acres)
Diegan coastal sage scrub (including disturbed) (Tier II)	3.2^{1}	1:1	3.2
Non-native grassland (Tier IIIB)	0.8	$0.5:1^2$	0.4
TOTAL	4.0		3.6

¹Impacts on and off site

²Non-burrowing owl occupied

On-site preservation of the remaining 0.1 acre of Diegan coastal sage scrub–disturbed on site would not be a feasible partial mitigation option. The remaining sage scrub would occur in a small patch in the southeastern portion of the site adjacent to eucalyptus woodland behind existing residences in an area that is already urbanized. Coupled with the proposed development immediately adjacent to it reduces its already low long-term conservation value.

The measures outlined in Section 8.2 below are also required to ensure that the project's impacts do not exceed the limits analyzed in this report.

8.2 BIOLOGICAL RESOURCE PROTECTION DURING CONSTRUCTION

I. Prior to Construction

- A. **Biologist Verification** –The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego's Biological Guidelines (2018), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.
- B. **Preconstruction Meeting** The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.
- C. Biological Documents The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.



- D. BCME The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.
- E. Avian Protection Requirements To avoid any direct impacts to raptors and/or any native/migratory birds, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to City Development Services Department for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan 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.) 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. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section or Resident Engineer, 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.
- F. **Resource Delineation -** Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.
- G. **Education** –Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).



II. During Construction

- A. Monitoring- All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.
- B. **Subsequent Resource Identification -** The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna onsite (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.



9.0 REFERENCES

- American Ornithological Society. 2019. Chesser, R.T., K.J. Burns, C. Cicero, J.L. Dunn, A.W. Kratter, I.J. Lovette, P.C. Rasmussen, J.V. Remsen, Jr., D.F Stotz, and K Winker. 2019. Check-list of North American Birds (online). http://checklist.aou.org/taxa
- Bowman, R. 1973. Soil Survey of the San Diego Area. U.S. Department of Agriculture in cooperation with the USDI, UC Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.
- California Department of Fish and Wildlife. 2019. Special Animals List. Periodic publication. 67 pp. August.
- California Native Plant Society. 2019. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org

City of San Diego

1997a. Multiple Species Conservation Program. City of San Diego MSCP Subarea Plan. March.

1997b. City of San Diego MSCP Implementing Agreement Documents

2018. Land Development Code Biology Guidelines. Adopted September 1999. Last amended February 1, 2018 by Resolution No. R-311507.

- Crother, B.I. 2008. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding. Sixth Edition. Society for the Study of Amphibians and Reptiles. Herpetological Circular # 37. January.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. with Appendices.
- Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, 1400 pp.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency. 156 pp.
- Jackson, L. 1985. Ecological origins of California's Mediterranean grasses. *Journal of Biogeography* 12: 349-361.
- Jones, J.K., 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, Texas Tech University 80: 1-22.



- Lincer, Jeffrey L. and Peter H. Bloom. 2007. The Status of the Burrowing Owl in San Diego County, California. Proceedings of the Burrowing Owl Symposium 90-102. URL: http://www.elkhornsloughctp.org/uploads/files/1408722365Lincer,%20Bloom.%202007. %20The%20status%20of%20Burrowing%20Owls%20in%20San%20Diego%20County, %20California..pdf
- Oberbauer, T., M. Kelly, and J. Buegge. 2008. Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," R.F. Holland, 1986. 73 pp.
- O'Leary, J. 1990. Californian coastal sage scrub: General characteristics and considerations for biological conservation. Endangered Plant Communities of Southern California. Ed. A. Schoenherr. Proceedings of the 15th Annual Symposium. Southern California Botanists. Special Publication 3, pp. 24-41.
- Spencer, Wayne D. 2005. Recovery Research for the Endangered Pacific Pocket Mouse: An Overview of Collaborative Studies. USDA Forest Service Gen. Tech. Rep. PSW-GTR-195.
- Unitt, Philip. 2004. San Diego County Bird Atlas. No. 39. Proceedings of the San Diego Society of Natural History. October 31.
- U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Eds. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service. 2010. Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations. February.

2014. Quino Checkerspot Butterfly Survey Guidelines. December 15. http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/Quino%20Survey%20G uidelines_version%2015DEC2014.pdf



Appendix A Plant Species Observed

Appendix A PLANT SPECIES OBSERVED

SCIENTIFIC NAME

COMMON NAME

VEGETATION COMMUNITY

ANGIOSPERMAE – DICOTYLEDONEAE

Adoxaceae – Elderberry Family		
Sambucus nigra ssp. caerulea	blue elderberry	DCSS
Aizoaceae – Ice Plant Family		
Carpobrotus edulis ³	hottentot fig	DH
Anacardiaceae – Sumac Family		
Malosma laurina	laurel sumac	DCSS
Rhus integrifolia	lemonadeberry	DCSS
Schinus molle ³	Peruvian pepper tree	DH, ORN
Schinus terebinthifolius ³	Brazilian pepper tree	DH, ORN
Toxicodendron diversilobum	poison oak	DCSS
Apiaceae – Parsley Family		
Foeniculum vulgare ³	sweet fennel	DH, NNG
Apocynaceae – Milkweed Family		
Asclepias sp.	milkweed	DCSS, NNG
Astornoona (Composita) Sunflower	Family	
Asteraceae (Compositae) – Sunflower	•	NNG
Ambrosia psilostachya	western ragweed	
Artemisia californica	coastal sagebrush	DCSS
Baccharis pilularis	coyote brush	DCSS
Baccharis salicifolia	mule fat	DCSS
Baccharis sarothroides	broom baccharis	DCSS
Bahiopsis laciniata ²	San Diego County sunflower	DCSS
Centaurea melitensis ³	tocalote	DH, NNG
Corethrogyne filaginifolia)
e	sand-aster	DCSS
Cynara cardunculus ssp.		DCSS
Cynara cardunculus ssp. flavescens ³	artichoke thistle, cardoon	DCSS DH, NNG
Cynara cardunculus ssp. flavescens ³ Deinandra fasciculata	artichoke thistle, cardoon tarweed	DCSS DH, NNG DCSS, NNG
Cynara cardunculus ssp. flavescens ³ Deinandra fasciculata Encelia californica	artichoke thistle, cardoon	DCSS DH, NNG
Cynara cardunculus ssp. flavescens ³ Deinandra fasciculata Encelia californica Eriophyllum confertiflorum var.	artichoke thistle, cardoon tarweed California encelia	DCSS DH, NNG DCSS, NNG DCSS
Cynara cardunculus ssp. flavescens ³ Deinandra fasciculata Encelia californica Eriophyllum confertiflorum var. confertiflorum	artichoke thistle, cardoon tarweed California encelia long-stem golden-yarrow	DCSS DH, NNG DCSS, NNG DCSS, NNG
Cynara cardunculus ssp. flavescens ³ Deinandra fasciculata Encelia californica Eriophyllum confertiflorum var. confertiflorum Gutierrezia californica	artichoke thistle, cardoon tarweed California encelia long-stem golden-yarrow California matchweed	DCSS DH, NNG DCSS, NNG DCSS
Cynara cardunculus ssp. flavescens ³ Deinandra fasciculata Encelia californica Eriophyllum confertiflorum var. confertiflorum	artichoke thistle, cardoon tarweed California encelia long-stem golden-yarrow	DCSS DH, NNG DCSS, NNG DCSS, NNG

SCIENTIFIC NAME

COMMON NAME

VEGETATION

Hedypnois rhagadioloides ³ Helminthotheca echioides ³ Helo camba vino eta 200	Crete hedypnois bristly ox-tongue	DH, ORN DCSS-D
Holocarpha virgata ssp. elongata ² Isocoma menziesii var. menziesii Lactuca serriola ³ Logfia arizonica Pseudognaphalium californicum Psilocarphus tenellus Sonchus asper ssp. asper ³ Xanthium strumarium	graceful tarplant spreading goldenbush prickly lettuce Arizona filago California everlasting slender wooly-heads prickly sow-thistle cocklebur	NNG DCSS DH DH, NNG DCSS DCSS DH DH
Boraginaceae – Borage Family Amsinckia intermedia Phacelia sp.	rancher's fiddleneck phacelia	NNG DH, NNG
Brassicaceae – Mustard Family Brassica nigra ³ Hirschfeldia incana ³ Lepidium nitidum ³ Raphanus sativus ³	black mustard perennial mustard peppergrass wild radish	DH, DCSS DH, NNG DCSS DH, NNG
Cactaceae – Cactus Family Ferocactus viridescens Opuntia littoralis Opuntia proliferia	barrel cactus coastal prickly pear cholla	DCSS NNG, DCSS DCSS
Capparaceae – Caper Family <i>Cleome arborea</i>	bladderpod	DH
Chenopodiaceae – Goosefoot Family Salsola australis ³	Russian thistle	DH, NNG
Convolvulaceae – Morning Glory Fam Calystegia macrostegia ssp. tenuifolia	nily San Diego morning glory	DCSS, NNG
Crassulaceae – Stonecrop Family Crassula connata Crassula ovata ³	pygmyweed jade plant	DCSS, DH DH, ORN

SCIENTIFIC NAME	COMMON NAME	VEGETATION
Cucurbitaceae – Gourd Family Marah macrocarpa	chilicothe	DCSS
Euphorbiaceae – Spurge Family Euphorbia maculata ³	spotted spurge	DH
Fabaceae – Legume Family Acmispon glaber var. glaber Medicago polymorpha ³	deerweed burclover	DCSS DH
Geraniaceae – Geranium Family Erodium botrys ³ Erodium cicutarium ³	storksbill red-stem filaree	DH, DCSS DH
Lamiaceae – Mint Family <i>Marrubium vulgare³</i> Salvia mellifera	horehound black sage	DH DCSS
Myrtaceae – Myrtle Family Eucalyptus globulus ³ Eucalyptus sideroxylon ³	Tasmanian bluegum red ironbark	EW, ORN EW
Nyctaginaceae – Four O'Clock Fami Bougainvillea sp. ³ Mirabilis laevis var. crassifolia	ly bougainvillea coastal wishbone plant	ORN DCSS
Oxalidaceae – Wood Sorrel Family Oxalis pes-caprae ³	Bermuda buttercup	DH, ORN
Phyrmaceae – Lopseed Family Mimulus aurantiacus	monkey flower bush	DCSS
Polemoniaceae – Flox Family Navarretia hamata	skunk weed	DCSS
Polygonaceae - Buckwheat Family Eriogonum fasciculatum ssp. fasciculatum Polygonum aviculare ³	California buckwheat knotweed	DCSS DH

SCIENTIFIC NAME	COMMON NAME	VEGETATION
Primulaceae – Primrose Family Anagallis arvensis ³	scarlet pimpernel	DH
Rhamnaceae – Buckthorn Family <i>Rhamnus crocea</i>	spiny redberry	DCSS
Rosaceae – Buckthorn Family Heteromeles arbutifolia	toyon, Christmas berry	DCSS
Solanaceae – Nightshade Family Nicotiana glauca ³ Solanum parishii	tree tobacco Parish's nightshade	DH DCSS
Tamaricaceae – Tamarisk Family Tamarix ramosissima ³	saltcedar	DH

ANGIOSPERMAE – MONOCOTYLEDONEAE

Arecaceae – Palm Family Washingtonia robusta ³ Phoenix canariensis ³	Mexican fan palm Canary Island date palm	ORN ORN
Association Alos Family		
Asphodelaceae – Aloe Family		
Aloe vera ³	aloe vera	ORN
Cyperaceae – Sedge Family		
Cyperus papyrus ³	papyrus sedge	ORN
Poaceae – Grass Family		
Avena barbata ³	slender wild oat	NNG, DCSS
Avena fatua ³	wild oat	NNG, DCSS
Bromus diandrus ³	ripgut grass	NNG
Bromus madritensis ssp. rubens ³	foxtail chess, red brome	NNG
Cortaderia selloana ³	selloa pampas grass	NNG, DH
Cynodon dactylon ³	Bermuda grass	NNG
Lamarckia aurea ³	goldentop	NNG, DH, DCSS
Paspalum dilatatum ³	dallis grass	NNG, DH
Pennisetum setaceum ³	crimson fountain grass	NNG, DCSS
Schismus barbatus ³	Mediterranean schismus	NNG
Stipa pulchra	purple needlegrass	DCSS

SCIENTIFIC NAME	COMMON NAME	VEGETATION
GYMNOSPERMAE		
Pinaceae – Pine Family Pinus sp. ³	ornamental pine	ORN
LYCOPODIAE		
Selaginellaceae – Spike-Moss Family Selaginella cinerascens ²	ashy spike-moss	DCSS

¹DH=disturbed habitat; DCSS=Diegan coastal sage scrub; DCSS-D=Diegan coastal sage scrub-disturbed; EW=eucalyptus woodland; NNG=non-native grassland; ORN=ornamental

² Sensitive species

³ Non-native species

Appendix B Animal Species Observed or Detected

Appendix B ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME

COMMON NAME

WHERE OBSERVED¹

INVERTEBRATES

Hymenoptera – Ants, Bees, Wasps, Sawflies		
Linepithema humile	Argentine ant	DH, DCSS
Apis mellifera	honey bee	DCSS, DH, ORN
Bombus sp.	bumble bee	DCSS
Lepidoptera - Butterflies and Moths		
Pieris rapae	common white butterfly	NNG
Nymphalis antiopa	mourning cloak butterfly	DH

VERTEBRATES

<u>Herpetofauna</u>

Phrynosomatidae - Lizards		
Aspidoscelis hyperythra		
beldingi ²	orange-throated whiptail	DCSS/DH
Sceloporus occidentalis	western fence lizard	DH, DCSS

<u>Birds</u>

Aegithalidae - Bushtits Psaltriparus minimus	bushtit	DCSS	
Corvidae -Jays, Magpies, Crows, R	avens		
Corvus corax	common raven	ORN	
Emberizidae - Sparrows, Longspurs	, Emberiza Buntings		
Melospiza melodia	song sparrow	DCSS	
Pipilo crissalis	California towhee	DCSS	
Fringillidae- Finches			
Carpodacus mexicanus	house finch	ORN, DCSS	
Carduelis psaltria	lesser goldfinch	ORN	
Mimidae- Thrashers, Mockingbirds, Tremblers, Catbirds			
Mimus polyglottos	northern mockingbird	ORN	

Appendix B (continued) ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME COMMON NAME WHERE OBSERVED¹ <u>Birds</u> Trochilidae- Hummingbirds Calypte anna Anna's hummingbird DCSS Mammals Canidae - Dogs, Wolves, Foxes, Jackals Canis latrans coyote (scat) DH Leporidae - Rabbits and Hares DCSS, NNG, DH Sylvilagus auduboni desert cottontail

¹DH=disturbed habitat; DCSS=Diegan coastal sage scrub; NNG=non-native grassland; ORN=ornamental ²Sensitive species

Appendix C Explanation of Listing/Sensitivity Codes for Plant and Animal Species

Appendix C

EXPLANATION OF LISTING/SENSITIVITY CODES FOR PLANT AND ANIMAL SPECIES

U.S. Fish and Wildlife Service (USFWS)

- FE Federally Listed Endangered
- FT Federally Listed Threatened
- FC Candidate for Federal Endangered Species Act Protection
- BCC Bird of Conservation Concern—Represents USFWS' highest conservation priorities and draw attention to species in need of conservation action.

California Department of Fish and Wildlife (CDFW)

- SE State Listed Endangered
- SC Candidate for State Endangered Species Act Protection
- SSC State Species of Special Concern—Declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
- WL Watch List—Birds that are/were: a) not on the current list of species of special concern but were on previous lists and have not been State listed under the California Endangered Species Act; b) previously State or federally listed and now are on neither list; or c) on the list of "Fully Protected" species.
- FP Fully Protected refers to all vertebrate and invertebrate taxa of concern to the California Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.

City of San Diego

MSCP Covered Species - Covered Species are those species included in the Incidental Take Authorization issued to the City by the USFWS and CDFW as part of the City's MSCP Subarea Plan.

MSCP Narrow Endemic Species - A species that is confined to a specific geographic region, soil type, and/or habitat. Narrow Endemic species are a subset of Covered Species.

VPHCP - The Vernal Pool Habitat Conservation Plan is a conservation plan for vernal pools and seven threatened and endangered species that do not have federal coverage under the City's MSCP Subarea Plan. This plan was developed using the requirements of a Habitat Conservation Plan under Section 10(a)(1)(B) of the federal Endangered Species Act as the basis for take authorization for the seven covered vernal pools species (i.e., covered species).

Appendix C (continued)

EXPLANATION OF LISTING OR STATUS CODES FOR PLANT AND ANIMAL SPECIES

California Native Plant Society (CNPS)

California Rare Plant Rank

- 1A = Presumed extirpated in California and either rare or extinct elsewhere.
- 1B = Rare, threatened, or endangered in California and elsewhere.
- 2A= Presumed extirpated in California but more common elsewhere.
- 2B= Rare, threatened, or endangered in California but more common elsewhere.
- 3 = More information is needed.
- 4 = A watch list for species of limited distribution.

Threat Rank

- .1 = Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- .2 = Moderately endangered in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat)
- .3 = Not very threatened in California (less than 20 percent of occurrences threatened/ low degree and immediacy of threat or no current threats known)