

APPENDIX I

Biological Resources Technical Report

Biological Technical Report for Trails at Carmel Mountain Ranch Project

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Executive Summary

The proposed Trails at Carmel Mountain Ranch Project (project) occupies approximately 164.5 acres in northeastern San Diego County, north of Ted Williams Parkway, south of Carmel Mountain Road, west of Pomerado Road, and just east of the California Interstate 15 Expressway (I-15). The project is within the City of San Diego's Subarea Plan (City of San Diego 1997). The project site boundary is defined by the old Carmel Mountain Ranch Country Club property.

The 164.5-acre project would consist of 1,200 multi-family homes with a mix of open space and recreational uses. Residential land uses would compose approximately 52.9 acres and would range in density from ~~12.94~~ 13 to ~~37~~ 37.43 dwelling units per acre. Open space uses would be composed of approximately 111.0 acres, which includes approximately ~~6~~ 5 miles of publicly accessible trails and ~~7.86~~ 7.87 acres of publicly accessible parkland. The proposed project has been designed to avoid all direct impacts to biological resources. Specifically, the project would place development within the limits of the previous golf course and would avoid all jurisdictional resources.

HELIX biologists conducted preliminary biological surveys of the project site in July 2018 (HELIX 2018). Dudek biologists conducted project related surveys in July and August 2019. The 2019 surveys included vegetation mapping, jurisdictional resource delineation, and a habitat assessment for special-status plant and wildlife species. The purpose of this biological technical report is to provide the extents of existing vegetation communities and jurisdictional resources. The report will also identify those plant and wildlife species within the project site recognized as sensitive by local, state, or federal wildlife agencies and/or environmental organizations that have a moderate to high potential to occur in the project site based on habitats present.

Based on species composition and general physiognomy, 13 vegetation communities (or habitat types) were identified within the project site: coastal sage scrub, coastal sage scrub (disturbed), coastal sage scrub (*Baccharis*-dominated), coastal and valley freshwater marsh, disturbed wetland, eucalyptus woodland, southern arroyo willow riparian forest, southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern sycamore–alder riparian woodland, southern willow scrub (disturbed), southern willow scrub, and undifferentiated open woodland. In addition, 2 land covers are located within the project site: developed land/disturbed habitat and unvegetated channel.

The majority of the proposed project site was previously a golf course and consists primarily of disturbed habitat. The ~~majority of extent of~~ native habitat within the project site is associated with Chicarita Creek along the western boundary of the project site, and along the eastern boundary adjacent to a parcel owned by the City of Poway. The proposed project development area does not support suitable habitat or substrate for special-status plant species and they are not expected to occur within the impact area. However, there is native habitat outside of the development area which may support special-status plant species. Impacts to areas of natural vegetation and potential habitat for special-status plant species would be avoided. The results of the jurisdictional delineation concluded that there are locations within the project that meet the definition of waters of the United States and/or State, including wetlands, subject to review and regulation by the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and the City of San Diego (City). There was a total of 5.12 acres of ACOE wetlands and 0.43 acres of ACOE non-wetland waters, ~~5.93~~ 5.21 acres of RWQCB wetlands and 0.51 acres of RWQCB non-wetland waters, ~~5.93~~ 5.21 acres of CDFW riparian habitat and 0.51 of CDFW streambed, and ~~5.48~~ 5.57 acres of City Wetlands.

The proposed project would not result in indirect or direct impacts to sensitive upland or wetland habitats or special-status plant species. Implementation of the proposed project would result in direct, long-term impacts to 70.88

acres of developed land/disturbed habitat (Tier IV), which would not require mitigation, per the City's Biology Guidelines (City of San Diego 2018a).

The project would avoid all direct impacts to City sensitive habitat or jurisdictional areas regulated by the ACOE, RWQCB, CDFW, or City. Implementation of the project would require the spanning of one concrete-lined brow ditch under the jurisdiction of RWQCB and CDFW characterized as a non-wetland water with an arched culvert. No impacts to City jurisdictional areas would result. ~~The proposed project would repair a partially collapsed pedestrian bridge located over Chicarita Creek. Repairs to portions of the bridge include removal, replacement, or patching of cracked concrete. However, collapsed bridge segments would remain undisturbed and such that no impacts to the creek would result.~~

Currently, the project site consists of a golf course with no established buffers between the City designated wetlands and development. The project would provide wetland buffers varying in width from 20 feet to 100 feet. Buffers bordering open space would be landscaped with native tree plantings supplemented with a hydroseed mix composed of native species. ~~Maintenance of existing pathways within the buffers would be required.~~

Overlap between brush management zones (Zone 2 and the extended protective brush thinning zone) and the wetland buffers are anticipated; in some places brush management would encompass the entire wetland buffer. The extended protective brush thinning zone would be provided to accomplish alternative compliance in accordance with San Diego Municipal Code 142.0142 Landscape Regulations. This extended zone would overlap areas mapped as coastal sage scrub along the western edge of Chicarita Creek. Brush management aActivities in these areas would be considered impact neutral. Neither the landscaping nor the brush management would result in impacts to jurisdictional resources. The brush management zones would largely encompass portions of the golf greens that are no longer managed and overgrown with non-native plants.

Project construction and implementation of the brush management activities could indirectly impact special-status bird species with a potential to nest within the project site: coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*) and the Cooper's hawk (*Accipiter cooperii*), as well as yellow warbler (*Setophaga petechia*). Mitigation has been provided to avoid impacts to these species.

1 Introduction

This technical report provides an analysis of potential biological resource impacts associated with the proposed project located in the Carmel Mountain Ranch Community Plan area, Council District 5, within the City of San Diego (City), California.

In accordance with the current San Diego Land Development Code Biology Guidelines (City of San Diego 2018a), this report provides an introduction, a project description, a summary of the pertinent biological resource regulations, the project setting, survey methods, existing biological resources, special-status biological resources, project impacts (direct and indirect), and project mitigation. The project impacts, avoidance, and mitigation measures (MMs) are discussed in accordance with the California Environmental Quality Act (CEQA), Clean Water Act (CWA), California Fish and Game Code, the City of San Diego Final Multiple Species Conservation Program (MSCP) Subarea Plan (Subarea Plan), and the City of San Diego's Environmentally Sensitive Lands (ESLs) regulations.

1.1 Project Location

The proposed project site consists of approximately 164.5 acres of land within the previous Carmel Mountain Ranch Country Club property located in northeast San Diego County, in the Carmel Mountain Ranch community within the City of San Diego (Figure 1, Project Location). The project site, while interspersed between sections of existing residential development, is generally located north of Ted Williams Parkway, south of Carmel Mountain Road, east of Pomerado Road, and is bounded by the California Interstate 15 Expressway (I-15) on the west. The approximate centroid of the project site is within Section 10 of Township 14 South, Range 2 West, of the Poway, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle.

1.2 Project Description

The project proposes to redevelop the Carmel Mountain Ranch Country Club and associated 18-hole golf course. The project, which totals 164.5 acres, includes development of 1,200 multi-family homes and a mix of open space and recreational uses. Residential land uses would compose approximately 53.2 acres and would range in density from 12.94 to 37.43 dwelling units per acre. All proposed new residential construction would be set back 50 feet from existing residential developments in the vicinity. Open space uses would be composed of approximately 111 acres, which includes approximately 6 miles of publicly accessible trails and 7.86 acres of publicly accessible parkland. This Community Plan Land Use proposed is Multiple Use – Neighborhood Village. It would be rezoned to be CC-2-1.

The proposed project would place development within the limits of the previous golf course and would avoid all jurisdictional resources. ~~The existing pedestrian crossings over Chicarita Creek would be repaired and maintained to provide continued access throughout the site. This would include removal, replacement, or patching of cracked concrete bridge segments of an existing pedestrian bridge over Chicarita Creek. If needed, bridge footings would be placed outside of wetlands and waters associated with the creek. Portions of the bridge that have collapsed into the creek would remain undisturbed. An~~ In addition, an arched culvert would be installed over a concrete-line brow ditch delineated as a non-wetland waters (see Section 3.2.2, Jurisdictional Resources, and Section 5.2.2, Impacts to Jurisdictional Resources).

New trails (golf cart path improvements), maintenance and repair of trails and associated access are proposed within developed golf course areas currently existing on-site. The maintenance and repair of trails throughout the project site would involve the placement of pre-cast concrete slabs or pouring of new concrete on site. It is anticipated that such activities would occur where trails are accessible through existing developed areas. The project does not propose any new trails, or maintenance, repair, or access to existing trails within areas with sensitive biological resources such as sensitive plant species, vegetation, or wetlands. The trails, both existing and those proposed within the development footprint, are shown on Figures 2a–2m.

Brush Management

Project specific brush management zones (BMZs) were determined based on the Project development footprint, off-site adjacent fuels, and the area's fire history and weather. The BMZs provided for the Trails at Carmel Mountain Ranch Project include a modified BMZ approach with an existing irrigated rear yard, and/or in some cases, side yard Zone 1 condition area (minimum 10 feet in width) and Zone 2 area that varies from 50 to 90 feet in width.

Because ~~the a~~ standard BMZ 2 would typically encompass City wetlands where thinning cannot occur, an extended protective brush thinning zone is proposed beyond these riparian areas to serve as alternative compliance in accordance with ~~San Diego Municipal Code 142.0412 the Land Development Manual, Section 3, and Fire Protection Bulletin 18-01~~ SDMC 142.0412, the Landscape Standard of the Land Development Manual, and Fire Prevention Bureau Policy 18-01 and 08-1. Maintenance standards within the extended protective brush thinning zone would be the same as those required for the standard BMZ 2 and allows for an additional 20 feet to 50 feet of brush management beyond the limits of City wetlands and the 5-foot-wide “no touch” zone. The extended protective brush thinning zone would involve removal of dead, dying, and established plantings that do not meet the criteria for Zone 2 ~~thinning areas~~. Portions of the extended protective brush thinning zone would include naturally occurring areas of coastal sage scrub along the western edge of Chicarita Creek. The BMZ largely encompasses portions of the golf greens that are no longer managed and have overgrown with non-native plants such as tocalote, tumbleweed and common sow-thistle. These areas would be landscaped with native upland species.

Per San Diego Municipal Code 142.0412(a), brush management activity is permitted within environmentally sensitive lands (except for wetlands) that are located within 100 feet of an existing structure. San Diego Municipal Code 142.0412(d), further states that brush management activities are prohibited within coastal sage scrub, maritime succulent scrub, and coastal sage-chaparral habitats from March 1 through August 15, except where documented to the satisfaction of the City Manager that the thinning would be consistent with conditions of species coverage described in the City of San Diego's MSCP Subarea Plan. Although brush management would occur within native habitat on-site, activities in Brush Management Zone 2 would be considered impact neutral. Specifically, brush management would comply with City of San Diego Brush Management Policy.

Wetland Buffers

Currently, the project site consists of a golf course with no established buffers between the City designated wetlands and development. There are existing pedestrian/golf cart trails that are located throughout the project site. These trails are located adjacent to many of the City wetlands and in some cases include bridges over the wetlands. The proposed project would provide for wetland buffers for all City wetlands delineated within the project site. The width of wetland buffers vary depending on location and existing development constraints; however, the buffers would protect the function and value of the adjacent wetland. Additional discussion is provided in Section 3.2.2.2, Wetland Buffers, and Section 4, Proposed Wetland Buffers.

Within the proposed buffers, the following activities would take place during project construction: ~~repair existing trails where needed; repair the damaged bridge segments outside of wetland areas; landscape the buffer with low-growing, native, drought tolerant species and installation of temporary irrigation as needed;~~ brush management as described above; and a 5-foot “no touch” zone from wetland that would be staked and demarcated with signage to direct public access away from the wetlands. ~~Ongoing maintenance within the buffers may consist of as needed maintenance for the trails, brush management; and maintenance of native and naturalized landscaping.~~

1.3 Regional Resource Planning Context

Migratory Bird Treaty Act

The MBTA prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, “take” is defined as pursue, hunt, shoot, wound, kill trap, capture, or collect, or any attempt to carry out these activities (16 USC 703 et seq.). Additionally, Executive Order 13186, “Responsibilities of Federal Agencies to Protect Migratory Birds,” requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 Federal Register [FR] 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species. Currently, birds are considered to be nesting under the MBTA only when there are eggs or chicks, which are dependent on the nest. This project would comply with all requirements of the MBTA.

San Diego Multiple Species Conservation Program

The City of San Diego (City) is a participant in the San Diego MSCP Plan, a comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP Plan addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County (County of San Diego 1998). It serves as an approved habitat conservation plan pursuant to an approved Natural Communities Conservation Plan in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998).

The MSCP Plan establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value that are delineated into Multiple Habitat Planning Areas (MHPAs). The City’s MHPA is a “hard line” preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP Plan identifies 85 plants and animals to be “covered” under the plan (“Covered Species”). Many of these Covered Species are subject to one or more protective designations under state and/or federal law, and some are endemic to San Diego. The MSCP Plan seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species while also allowing participating landowners “take” of Covered Species on lands located outside of the preserve. The purpose of the MSCP Plan is to address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

City of San Diego MSCP Subarea Plan

The Subarea Plan (1997) encompasses 206,124 acres within the MSCP Plan area. The project site is located within the Northern Area of the MSCP Subarea Plan (City of San Diego 1997) (Figure 1). The Subarea Plan is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. As mentioned previously, the City MHPA is a “hard line” preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). The MHPA is considered an urban preserve that is constrained by existing or approved development, and is comprised of habitat linkages connecting several large core areas of habitat. The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core areas are conserved in a functional manner with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997). The proposed project site is located outside of these habitat linkages and core areas, with the nearest MHPA being approximately 0.25 miles from the project site.

City of San Diego Wetlands Definition

The extent of City wetland jurisdiction is determined based on the City definition of “wetland” provided in LDC Section 113.0103 that are regulated by the City under the ESL Regulations (Section 143.0141[b]), which state the following:

“Wetlands” are defined as areas which are characterized by any of the following conditions:

1. All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;
2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats;
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).

It is intended for this definition to differentiate for the purposes of delineating wetlands, between naturally occurring wetlands and wetlands intentionally created by human actions, from areas with wetlands characteristics unintentionally resulting from human activities in historically non-wetland areas. With the exception of wetlands created for the purpose of providing wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating wetland characteristics, which are artificially created are not considered wetlands by this definition. Taking into account regional precipitation cycles, all adopted scientific, regulator, and technological information available from the State and Federal resource agencies shall be used for guidance on the identification of hydrophytic vegetation, hydric soils and wetland hydrology.

Under the definition, an area is considered wetland based on the presence at least one of three physical criteria (vegetation, hydrology, soils) or based on “Map No. C-713 as shown in Chapter 13, Article 2, Division 6” (LDC Section 113.0103). The same code section defines wetland buffers as additional “areas or feature(s) that protects functions and values of the adjacent wetland” where the functions and values include, “absorption and slowing of flood waters for flood and erosion control, sediment filtration, water purification, [and] ground water recharge.”

The City uses the criteria listed in Section 320.4(b)(2) of the ACOE General Regulatory Policies (33 CFR 320 – 330) to apply an appropriate buffer around wetlands that serves to protect the function and value of the wetland. According to the City’s Biology Guidelines, a wetland buffer is an area surrounding a wetland that helps protect the function and value of the adjacent wetland by reducing physical disturbance; provides a transition zone where one habitat phases into another; and acts to slow flood waters for flood and erosion control, sediment filtration, water purification, and groundwater recharge (City of San Diego 2018a). The width of the buffer is determined by factors such as type and size of development, sensitivity of the wetland resource to edge effects, topography, and the need for upland transition (City of San Diego 2018a). There are no set buffer widths required for wetlands delineated outside of the coastal zone.

City of San Diego Biology Guidelines

The City’s Development Services Department developed the Biology Guidelines presented in the Land Development Manual “to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations (ESL), San Diego Land Development Code (LDC), Chapter 14, Article 3, Division 1, Section 143.0101 et seq., and the Open Space Residential (OP-1-1) Zone, Chapter 13, Article 1, Division 2, Section 131.0201 et seq.” (City of San Diego 2018a). The guidelines also provide standards for the determination of impact and mitigation under CEQA and the California Coastal Act. Sensitive biological resources, as defined by the ESL Regulations, include lands within the MHPA as well as other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA, or IIIB; habitat for rare, endangered, or threatened species; or narrow endemic species. The most sensitive habitats are classified as Tier I with the least sensitive classified as Tier IV, and varying mitigation ratios and requirements that mitigation be in tier or in kind are based on the sensitivity of the habitat being affected.

In addition, the location of impact inside or outside of the City’s MHPA also determines where and how much mitigation is required, with the highest ratios being required for mitigation outside of the MHPA when project impacts occur within the MHPA (City of San Diego 2018a). Habitat mitigation requirements, along with seasonal grading restrictions, provide protections for sensitive species, with additional species-specific mitigation required for significant impacts to narrow endemic species. Limitations on development in the MHPA also protect wildlife movement corridors (e.g., linear areas of the MHPA less than 1,000 feet wide (City of San Diego 2018a).

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2 Survey Methods and Limitations

Data regarding biological resources present within the project site were obtained through a review of pertinent literature and field reconnaissance, both of which are described in detail as follows. Survey areas were determined based on suitable habitat for the resource for which the survey was conducted.

2.1 Literature Review

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

- Biological Resources Constraints Assessment for the Carmel Mountain Ranch Golf Course Property (HELIX 2018)
- U.S. Department of Agriculture Web Soil Survey (USDA 2019a)
- CDFW California Natural Diversity Database – Special Animals List (CDFW 2019a)
- CDFW California Natural Diversity Database – RareFind, Version 5 (CDFW 2019b)
- The Calflora Database (Calflora 2019)
- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2019)
- MSCP Subarea Plan (City of San Diego 1997)
- San Diego Municipal Code, Land Development Code—Biology Guidelines (City of San Diego 2018a)
- USFWS Species Occurrence Data (USFWS 2019)
- San Diego Geographic Information Source (SanGIS) database (SanGIS 2019)
- San Diego Natural History Museum (SDNHM 2012)
- Aerial maps from the San Diego Association of Governments (SANDAG 2014) and Bing (Microsoft 2019)
- Topographic maps (Google Earth 2019)
- Draft Trails at Carmel Mountain Ranch Project Fire Fuel Load Modeling Report (Dudek 2020)

2.2 Field Reconnaissance

Biological field surveys for the proposed project were conducted in July and August 2019, by Dudek biologists Patricia Schuyler, Tricia Wotipka, and Olivia Koziel. Field surveys included vegetation and land cover mapping, habitat quality assessment, and jurisdictional resource delineation. Table 1 lists the survey dates, times, surveying biologists, and weather conditions during the survey.

All biological surveys were conducted in accordance with the City's Guidelines for Conducting Biological Surveys (Appendix II in City of San Diego 2018a).

Table 1. Schedule of Surveys

Date	Time	Personnel	Purpose	Conditions
7/8/2019	08:00 a.m.–03:30 p.m.	Patricia Schuyler, Tricia Wotipka, Olivia Koziel	Jurisdictional delineation, vegetation mapping, and habitat assessment	62° F–77° F; 10%–80% cloud cover; 0–8 mph wind

Table 1. Schedule of Surveys

Date	Time	Personnel	Purpose	Conditions
7/19/2019	08:30 a.m.–12:30 p.m.	Tricia Wotipka, Olivia Koziel	Jurisdictional delineation	70°F–79°F; 0%–100% cloud cover; 0–5 mph wind
8/8/2019	02:21 p.m.–3:23 p.m.	Olivia Koziel	Jurisdictional delineation and vegetation mapping	85°F–85°F; 0% cloud cover; 3–10 mph wind
8/22/2019	09:30 a.m.– 11:30 p.m.	Tricia Wotipka	Jurisdictional delineation	87°F; 0% cc; 1–4 mph wind

2.2.1 Resource Mapping

Vegetation communities and land uses on and within the survey area were mapped in the field directly onto a 100-foot-scale (1 inch = 100 feet), aerial photograph–based field map with overlay of the project survey area. Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS, and a geographic information system (GIS) coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present within the project site was determined.

Pursuant to the Biology Guidelines (City of San Diego 2018a) the vegetation community and land cover mapping follows the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), which is based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). These habitats were then cross-walked to their corresponding community in the City's Biology Guidelines (City of San Diego 2018a). Areas within the project site supporting less than 30% native plant species cover were mapped as disturbed land, and areas supporting at least 20% native plant species, but fewer than 50% native cover, were mapped as a disturbed native vegetation community (e.g., disturbed coastal sage scrub).

2.2.2 Flora and Fauna

The plant species encountered during the field survey were identified and recorded directly into a field notebook. Plant species that could not be identified immediately were brought into the laboratory for further investigation. A compiled list of plant species observed in the proposed project site is presented in Appendix A, Plant Compendium. Latin and common names follow the Checklist of the Vascular Plants of San Diego County, 5th Edition (Rebman and Simpson 2014). Where the scientific name listed in Rebman and Simpson (2014) differs from the name currently recognized by the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2018) or that listed in the California Native Plant Society's Inventory of Rare and Endangered Plants (CNPS 2019), the synonym is included in brackets following the name listed in Rebman and Simpson (2014).

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly onto a field notebook. Latin and common names of any animals detected follow Crother (2012) for reptiles and amphibians, American Ornithologists' Union (AOU) (2017) for birds, Wilson and Reeder (2005) for mammals, and North American Butterfly Association (NABA) (2016) or SDNHM (2002) for butterflies. In addition to species actually detected during the surveys, expected wildlife use of the project site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. A list of wildlife species observed in the project site is presented in Appendix B, Wildlife Compendium.

2.2.3 Jurisdictional Resource Delineation

Dudek biologists completed a formal jurisdictional resource delineation in July 2019, which delineated the extent of jurisdictional features in the project site. The delineation defined areas under the jurisdiction of the CDFW pursuant to Sections 1600–1603 of the California Fish and Game Code; under the jurisdiction of the ACOE pursuant to Section 404 of the federal CWA; under the jurisdiction of RWQCB pursuant to CWA Section 401 and the Porter–Cologne Act; and wetlands defined under the Biology Guidelines (City of San Diego 2018a). Collectively, areas under the jurisdiction of one or all of the resource agencies (ACOE, RWQCB, and CDFW), and/or the City are termed jurisdictional resources.

Specifically, the methodology used for each jurisdiction or regulating agency, including the ACOE, CDFW, RWQCB, and the City is described as follows. The ACOE wetlands delineation was performed in accordance with the 1987 ACOE Wetlands Delineation Manual (ACOE 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ACOE 2008), the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (ACOE 2010), and guidance provided by the ACOE and U.S. Environmental Protection Agency on the geographic extent of jurisdiction based on the U.S. Supreme Court’s interpretation of the CWA (ACOE and EPA 2008).

Pursuant to Section 404 of the CWA, ACOE regulates the discharge of dredged and/or fill material into “waters of the United States.” The term “wetlands” (a subset of waters of the United States) is defined in 33 Code of Federal Regulations (CFR) 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the “ordinary high water mark,” which is defined in 33 CFR 328.3(e).

The ACOE and RWQCB, pursuant to the federal CWA, regulate all areas supporting all three wetlands criteria as “wetlands” described in the ACOE manual: hydric soils, hydrology, and hydrophytic vegetation. Wetland statuses of plant species to assist in determining if hydrophytic vegetation is present is outlined in The National Wetland Plant List: 2016 wetland ratings (Lichvar et al. 2016). The RWQCB may also take jurisdiction over surface waters lacking ACOE regulation pursuant to the state Porter–Cologne Water Quality Control Act. These areas generally include areas with at least one of the three wetlands indicators but that are isolated from a tributary of navigable water through lack of evidence of surface water hydrology.

A predominance of hydrophytic vegetation, usually associated with a stream channel, was used to determine CDFW-regulated riparian areas. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology).

The City’s definition of wetlands is broader than the definition applied by the ACOE. Under the City’s definition, wetlands can include vegetation communities such as freshwater marsh, riparian forest, riparian scrub, or vernal pools. They may also include areas that have hydric soil or wetland hydrology, but human activities have resulted in a lack of hydrophytic vegetation (e.g., channelized streambeds) or recurring natural events (City of San Diego 2018a). However, “seasonal drainage patterns that are sufficient enough to etch the landscape (i.e., ephemeral/intermittent drainages) may not be sufficient enough to support wetland dependent vegetation. These types of drainages would not satisfy the City’s wetland definition unless wetland dependent vegetation is either

present in the drainage or lacking due to past human activities. Accordingly, the City's Land Development Guidelines does not require the regulation of artificially created wetlands in historically non-wetland areas.

To assist in the determination of jurisdictional areas within the project site, data was collected at four locations (i.e., data stations) using wetland determination data forms (Appendix E, Jurisdictional Delineation Report for the Trails at Carmel Mountain Ranch Project). Hydrology, vegetation, and soils were assessed and data were collected and captured on approved ACOE forms. The location of data stations was collected using a Trimble GeoXT handheld GPS unit with sub-meter accuracy. Potential jurisdictional areas were digitized in GIS based on the GPS data collected in the field and data collected directly onto field maps into a project-specific GIS using ArcGIS software. An Aquatic Resource Delineation Report is provided in Appendix E.

2.3 Survey Limitations

Site visits were conducted during daylight hours. The proposed project would not result in direct impacts to habitat supporting special-status plant and wildlife species, therefore focused plant or wildlife surveys were not conducted. There were no incidental sightings of special-status plant species during the 2018 (HELIX) or 2019 site visits and no special-status plant species are expected to occur within the proposed impact area due to the level of habitat disturbance on the former golf course. A list of plant and wildlife species observed by Dudek during the 2019 site visits is included in this report (Appendix A and Appendix B). Complete inventories of biological resources present on a site often require numerous focused surveys at different times of day during different seasons. Some species such as annual plants are present in only spring or summer, and nocturnal animals are difficult to detect during the day. Other species may be present in such low numbers that they could be missed. Due to such timing and seasonal variations, survey results are not an absolute list of all species that the project site may support. Sensitive species with potential to occur are described in Section 3.2.5, Special-Status Plants, and Section 3.2.6, Sensitive Wildlife, of this report, and in Appendices C and D, respectively.

3 Results

3.1 Physical Characteristics

The proposed project site encompasses the previous Carmel Mountain Ranch Country Club property located in northeast San Diego County. Current land uses immediately surrounding the proposed project include single-family residential development, neighborhood streets, a community park, and freeways. Portions of Chicarita Creek (a north-south-trending tributary to Los Peñasquitos Creek) are located within the southwestern corner of the project site (Figures 2a and 2b). An unnamed north-south-trending tributary to Los Peñasquitos Creek is located in the northeast corner of the project site (Figure 2i, 2j, and 2k). These two features were discernible in historic aerial imagery dating as far back as 1953 (NETR 2019). Two additional wetland features are located within the project site. These features include one centrally located wetland feature (Figure 2f) and two isolated ponded features located in the southeast corner of the project site (Figure 2m).

The elevations in the project site range from approximately 532 feet above mean sea level (AMSL) in the southwest of the project site near I-15 Freeway to approximately 810 feet AMSL near the estate clubhouse near the center of the project site.

According to the Natural Resources Conservation Service, Soil Survey, 10 soil types were mapped in the project site (Table 2) (USDA 2019a):

Table 2. Soils within the Project site

Soil Category	Soil Description	Hydric Rating	Acreage
Altamont clay	Altamont clay, 15% to 30% slopes	No	7.12
Cieneba coarse sandy loam	Cieneba coarse sandy loam, 15 to 30% slopes, eroded	No	3.38
Cieneba rocky coarse sandy loam	Cieneba rocky coarse sandy loam, 9 to 30% slopes, eroded	No	11.02
Diablo clay	Diablo clay, 2% to 9% slopes	No	3.77
	Diablo clay, 9% to 15% slopes	No	32.92
	Diablo clay, 15% to 30% slopes, eroded	No	3.02
Diablo-Olivenhain complex	Diablo-Olivenhain, 9% to 30% slopes	No	24.65
Escondido	Escondido very fine sandy loam, 5 to 9% slopes	No	8.92
Fallbrook	Fallbrook rock sandy loam, 9 to 30% slopes	No	1.34
Linne clay	Linne clay loam, 9% to 30% slopes	No	12.72
Olivenhain cobbly loam	Olivenhain cobbly loam, 2% to 9% slopes	Yes	15.88
	Olivenhain cobbly loam, 9% to 30% slopes	Yes	13.33
Ramona sandy loam	Ramona sandy loam, 2 to 5% slopes	No	10.37
	Ramona sandy loam, 5 to 9% slopes	No	4.80
Salinas clay loam	Salinas clay loam, 2 to 9% slopes	No	2.89
San Miguel-Exchequer rocky silt loams	San Miguel-Exchequer rocky silt loams, 9% to 70% slopes	No	4.29
Wyman loam	Wyman loam, 2 to 5% slopes	No	0.0002
	Wyman loam, 5 to 9% slopes	No	4.07
Total			164.5

Note: The hydric soils are indicated by shading (USDA 2018b).

3.2 Biological Resources

The following discussion describes the existing biological conditions within the proposed project site, provided as biological resource descriptions.

3.2.1 Vegetation Communities and Land Cover Types

The vegetation communities and land covers were mapped according to Oberbauer et al. (2008). These habitats were then identified by their corresponding community as listed the City Biology Guidelines (City of San Diego 2018a). A total of 13 vegetation communities (11 native and 2 non-native) and 2 land cover types were identified within the project site: coastal sage scrub, coastal sage scrub (disturbed), coastal sage scrub (*Baccharis*-dominated), coastal and valley freshwater marsh, disturbed habitat, disturbed wetland, eucalyptus woodland, southern arroyo willow riparian forest, southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern sycamore–alder riparian woodland, southern willow scrub (disturbed), southern willow scrub, and undifferentiated open woodland (Tables 3a and 3b).

In addition, 2 land covers are located within the project site: developed land/disturbed habitat and unvegetated channel (Tables 3a and 3b). The golf course contains areas of hardscape such as golf cart pathways, along with areas of landscaping and native habitat. The areas associated with the golf course (planted trees and other landscaping, fallowed greens, and hardscape) are all grouped under the category developed/disturbed habitat. Any area with native habitat was mapped according to Oberbauer et al. (2008).

The vegetation communities and land cover types recorded in the project site acreages are presented in Table 3a and Table 3b and their spatial distributions are presented on Figure 2. Biological Resources Overview Map, and Figures 2a–2m, Biological Resources. Table 3a summarizes the acreages of upland vegetation communities while Table 3b summarizes wetland vegetation acreages. Acreages shown in Tables 3a and 3b account for the entire project site, which encompasses 164.52 acres. Also included in Table 3a are the sensitivity designations of each vegetation community according to the tiers described in the City's Biology Guidelines (City of San Diego 2018a).

Table 3a. Upland Vegetation Communities and Land Cover Types in the Project Site

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier	Acreage
<i>Native Vegetation Communities</i>			
Coastal Sage Scrub	Coastal Sage Scrub	II	3.35
Disturbed Coastal Sage Scrub	Coastal Sage Scrub	II	0.48
Coastal Sage Scrub (<i>Baccharis</i> -dominated)	Coastal Sage Scrub	II	1.79
Undifferentiated Open Woodland	Oak Woodland	I	0.42
Southern Sycamore–Alder Riparian Woodland ^b	Ornamental Plantings	IV	0.16
<i>Non-Native Vegetation Communities and Land Covers</i>			
Developed Land/Disturbed Habitat	Disturbed Land	N/A–IV ^a	151.76
Eucalyptus Woodland	Eucalyptus Woodland	IV	0.27
Total^c			158.22

Note:

- ^a Disturbed habitat is considered a Tier IV habitat per the City's Biology Guidelines and developed land does not have a habitat tier.

- ^b This habitat type would normally be considered a Wetland in the City's Biology Guidelines (City of San Diego 2018a); however, this is an artificially created wetland in a historically non-wetland area.
- ^c Total may not sum precisely due to rounding.

Table 3b. Wetland Vegetation Communities and Land Cover Types in the Project Site

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Designation ^a	Acreage
Native Vegetation Communities			
Coastal and Valley Freshwater Marsh	Freshwater Marsh	Wetland	1.48
Southern Arroyo Willow Riparian Forest	Riparian Forest or Woodland	Wetland	2.24
Southern Coast Live Oak Riparian Forest	Riparian Forest or Woodland	Wetland	0.08
Southern Cottonwood–Willow Riparian Forest	Riparian Forest or Woodland	Wetland	1.38
Disturbed Southern Willow Scrub	Riparian Scrub	Wetland	0.19
Southern Willow Scrub	Riparian Scrub	Wetland	0.47
Unvegetated Channel	Natural Flood Channel	Wetland	0.36
Non-Native Vegetation Communities and Land Covers			
Disturbed Wetland	Disturbed Wetlands	Wetland	0.09
Total			6.29

Note:

^a Source: City of San Diego 2018a.

3.2.1.1 Coastal Sage Scrub (including disturbed variety)

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

Coastal sage scrub occupies a total of 3.83 acres within the project site (Figures 2a, 2b, 2i, and 2j). This vegetation community occurs primarily on the western side of the project site adjacent to riparian areas along Chicarita Creek. One area of disturbed coastal sage scrub was mapped along the southern boundary of the project site, and is largely comprised of coastal deerweed (*Acmispon glaber* var. *glaber*), California buckwheat, and heavy cover of black mustard (*Brassica nigra*). Coastal sage scrub (including disturbed forms) is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.2 Coastal Sage Scrub (Baccharis-dominated)

Coastal sage scrub (*Baccharis*-dominated) is a native vegetation community that, according to Oberbauer et al. (2008), typically occurs in nutrient-poor soils and is composed primarily of broom baccharis (*Baccharis sarothroides*) or coyote bush (*Baccharis pilularis*). Other drought-deciduous species may also be sparsely intermixed—such as California sagebrush, California buckwheat, and saw toothed goldenbush (*Hazardia squarrosa*).

Coastal sage scrub (*Baccharis*-dominated) occupies a total of 1.79 acres within the project site (Figures 2a, 2b, 2c, 2j, and 2k). This community is found in patches along Chicarita Creek and a small area is mapped on the eastern edge of the project site and is associated with a larger area of coastal sage scrub located off site. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between this variety and general coastal sage scrub, therefore it is considered a Tier II habitat.

3.2.1.3 Undifferentiated Open Woodland

According to Oberbauer et al. (2008), undifferentiated open woodland is characterized by a fairly open canopy including oak trees (*Quercus spp.*) and other plant species, where species composition is generally unknown but the structural characteristics of the vegetation is known.

Undifferentiated open woodland was mapped along a disturbed portion of Chicarita Creek and occupies 0.42 acres within the project site (Figure 2a). The community contained coast live oaks, ornamental pines, California bay, eucalyptus trees and laurel sumac. The area could be a remnant of native habitat associated with Chicarita Creek and was therefore not included in the developed land/disturbed category. Undifferentiated open woodland is not included in the City's Biology Guidelines. However, due to the presence of oak trees within this vegetation community, this area could be considered a Tier I habitat by the City's Biology Guidelines.

3.2.1.4 Developed Land/Disturbed Habitat

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

Areas mapped as developed land/disturbed habitat occupy 151.76 acres of the project site. These areas occupy a majority of the project site (92%), and consist of all graded and previously maintained areas of the golf course as well as ornamental plantings and landscaping associated with the golf course ~~and fuel modification zones between the golf course and adjacent housing~~. Since these two land covers overlap frequently throughout the project site they, developed land and disturbed habitat, were not mapped separately. Figures 2a through 2m only show habitat other than developed land/disturbed habitat. Disturbed habitat is considered a Tier IV habitat per the City's Biology Guidelines (City of San Diego 2018a) and development lands (ornamental plantings) does not have a habitat tier.

3.2.1.5 Eucalyptus Woodland

According to Oberbauer et al. (2008), eucalyptus woodland is a "naturalized" vegetation community that is fairly widespread in Southern California. It typically consists of monotypic stands of introduced Australian-introduced trees from the genus *Eucalyptus* that might consist of a variety of subspecies. The understory is either depauperate or absent due to high leaf litter, which restricts growth in understory as a result of high levels of allelochemicals. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Areas mapped as eucalyptus woodland occupy 0.27 acres within the project site and are mapped in the western portion of the project site along Chicarita Creek (Figures 2a–2c). These stands of eucalyptus woodland were mapped because they are directly associated with Chicarita Creek. Eucalyptus trees also occur within the golf course but area mapped as developed/disturbed. Eucalyptus woodland is considered a Tier IV habitat per the City's Biology Guidelines (City of San Diego 2018a).

3.2.1.6 Coastal and Valley Freshwater Marsh

According to Oberbauer et al. (2008), coastal and Valley freshwater marsh is a wetland habitat type that develops where the water table is at or just above the ground surface, such as around the margins of lakes, ponds, slow-moving streams, ditches, and seepages. Due to being permanently flooded by fresh water, there is an accumulation of deep, peaty soils. It typically is dominated by species such as cattail (*Typha* spp.), sedge (*Carex* spp.), and bulrush (*Scirpus* sp.).

The areas mapped as coastal and valley freshwater marsh occupy 1.48 acres within the project site and are mapped along Chicarita Creek, and also in the east and southeast portions of the project site associated with unnamed stream channels (Figures 2a–2c, 2i, 2j, 2l, and 2m). These areas are described in detail in the Aquatic Resource Delineation Report provided in Appendix E. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between coastal and valley freshwater marsh and general freshwater marsh, therefore all marsh land is are classified as a wetland habitat if they meet the wetland criteria identified in the City's Biology Guidelines.

3.2.1.7 Disturbed Wetland

Disturbed wetlands are areas permanently or periodically inundated by water that have been substantially modified by human activity. Disturbed wetland (Palm-dominated) refers to a vegetation community that often consists of monotypic stands of palm species (*Arecaceae*) such as Washington fan palm (*Washingtonia robusta*) or canary date palm (*Phoenix canariensis*). Some other characteristic non-native species may also be sparsely intermixed including giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), pampas grass (*Cortaderia* spp.), and Bermuda grass (*Cynodon dactylon*).

The areas mapped as disturbed wetland occupy 0.09 acres within the project site and occur as a small pocket located on the eastern edge of the project site (Figure 2k). This area is described in detail in the Aquatic Resource Delineation Report provided in Appendix E. Per the City's Biology Guidelines (City of San Diego 2018a), disturbed wetland is classified as a wetland habitat.

3.2.1.8 Southern Willow Riparian Forest

Southern willow riparian forest is a vegetation community dominated by broad-leafed willow trees, often tall, with a closed or nearly closed canopy, which may have an understory of shrubby willows (Oberbauer et al. 2008). Dominant species are often arroyo willow (*Salix lasiolepis*) and Goodding's black willow (*Salix gooddingii*). Other species besides willows that might also found in southern willow riparian forest communities include Douglas' sagewort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia*), manroot (*Marah macrocarpus*), western sycamore, Fremont cottonwood, black cottonwood (*Populus trichocarpa*), and narrowleaf willow (*Salix exigua*), (Oberbauer et al. 2008).

The area mapped as southern willow riparian forest occupies 2.24 acres within the project site and occurs primarily along Chicarita Creek (Figures 2a–2c) but also occurs along a small developing channel (Figures 2e and 2f), and in isolated patches at Units 12 and 13 (Figure 2m). Within the project site, this vegetation community is dominated by arroyo willow and is mapped as southern arroyo willow riparian forest. This area is described in detail in the

Aquatic Resource Delineation Report is provided in Appendix E. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between southern willow riparian forest and general riparian forest, therefore all riparian forest is classified as a wetland habitat.

3.2.1.9 Southern Coast Live Oak Riparian Forest

Southern coast live oak riparian forest is characterized as locally dense evergreen sclerophyllous riparian woodland dominated by coast live oak (*Quercus agrifolia*). This community is typically richer in herbaceous plants and poorer in shrubs than other riparian communities. Some other characteristic species that may occur include Douglas' sagewort, toyon (*Heteromeles arbutifolia*), manroot, and poison oak (*Toxicodendron diversilobum*), (Oberbauer et al. 2008).

The area mapped as southern coast live oak riparian forest occupies 0.08 acres within the project site and occurs in only one small area along the stretch of Chicarita Creek in the western section of the project site (Figure 2b). This area is described in detail in the Aquatic Resource Delineation Report provided in Appendix E. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish southern coast live oak riparian forest and general riparian forest, therefore all forest land is classified as a wetland habitat.

3.2.1.10 Southern Cottonwood–Willow Riparian Forest

Southern cottonwood–willow riparian forest is characterized as an open, broad-leafed, winter-deciduous riparian forest dominated by Fremont's cottonwood (*Populus fremontii*), and several tree willows. The understory is usually shrubby willows (Oberbauer et al. 2008). Other species that might also found in southern cottonwood–willow riparian forest communities include Douglas' sagewort, mulefat, manroot, western sycamore (*Platanus racemosa*), Gooding's willow, and arroyo willow (Oberbauer et al. 2008).

The area mapped as southern cottonwood–willow riparian forest occupies 1.38 acres within the project site and occurs in two areas, one associated with Chicarita Creek (Figures 2a–2c) and the other associated with the unnamed channel along the eastern boundary of the project site (Figure 2j). These areas are described in detail in the Aquatic Resource Delineation Report provided in Appendix E. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between southern cottonwood–willow riparian forest and general riparian forest, therefore all forest land is classified as a wetland habitat.

3.2.1.11 Southern Sycamore–Alder Riparian Woodland

Southern sycamore–alder riparian woodland is described by Oberbauer et al. (2008) as a tall, open, broad-leafed, winter-deciduous streamside woodland dominated by well-spaced western sycamore and often also white alder (*Alnus rhombifolia*). Seldom forming closed canopy forests, these stands may appear as trees scattered in a shrubby thicket of sclerophyllous and deciduous species and are subject to seasonally high-intensity flooding. Characteristic species of this habitat type include California mugwort, coast live oak, California blackberry (*Rubus ursinus*), California laurel (*Umbellularia californica*), and stinging nettle (*Urtica dioica*).

The area mapped as southern sycamore–alder riparian woodland occupies 0.16 acres within the project site and occurs within the eastern portion of the project site (Figure 2k). This area consists primarily of western sycamore, is not associated with hydrologic indicators, and appears to have been planted as ornamental plantings in association with the golf course. The intent of the City's Biology Guidelines (City of San Diego 2018a) is not to regulate artificially created wetlands in historically non-wetland areas. Therefore, since the area mapped as sycamore–alder riparian

woodland has not been delineated as a wetland by ACOE or CDFW and was artificially created, it would not be considered a City wetland.

3.2.1.12 Southern Willow Scrub (including disturbed variety)

According to Oberbauer et al. (2008), southern willow scrub has been described as a dense, broad-leafed, winter-deciduous riparian thicket dominated by several species of willow (*Salix spp.*), with scattered emergent Fremont cottonwood and western sycamore. Most stands are too dense to allow much understory development. This habitat is considered seral due to repeated disturbance/flooding and is therefore unable to develop into the taller southern cottonwood willow riparian forest.

The areas mapped as southern willow scrub, including disturbed southern willow scrub, occupy 0.19 acres within the project site and occur in the southern portion (Figure 2l and 2m) and in one small drainage in the central portion of the project site (Figure 2e and 2f). These areas are described in detail in the Aquatic Resource Delineation Report provided in Appendix E. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between this variety and general riparian scrub, therefore all categories of riparian scrub ~~is~~are classified as a wetland habitat if they meet the wetland criteria identified in the City's Biology Guidelines.

3.2.1.13 Unvegetated Channel

According to Oberbauer et al. (2008), unvegetated channel (or stream channel) refers to ephemeral and intermittent stream channels that are barren or sparsely vegetated, and thus do not fit into other wetland habitat categories. The lack of vegetation may be due to the scouring effects of floods, or man-caused vegetation removal for flood control, access, or other purposes.

The area mapped as unvegetated channel occupies 0.36 acres within the project site and includes one channel in the northwestern section of the project site; it is a part of Chicarita Creek, which occurs within the golf course (Figure 2a). According to the City's Biology Guidelines (City of San Diego 2018a), since this channel appears to have been disturbed by golf course development and is likely lacking wetland dependent vegetation due to these activities, the channel would be considered a City wetland.

3.2.2 Jurisdictional Resources

Hydrology, vegetation, and soils were examined at four geographically distinct sampling locations, and results were recorded on wetland determination data forms to determine the presence or absence of wetland field indicators. The overall project site was assessed for evidence of an ordinary high water mark, hydrology indicators, wetland vegetation, and nexus to Traditional Navigable Waters of the United States. The extent of jurisdictional features was determined in the field by collecting data using a GPS unit and aerial field maps; these shapes were transferred to topographic base, and a GIS coverage was created. A detailed explanation of the jurisdictional resources recorded within the project site is provided in Appendix E, Aquatic Resource Delineation Report. Figure 2 shows the extent of these jurisdictional boundaries within the project site and in relation to the proposed project impact area.

3.2.2.1 Results of the Jurisdictional Resource Delineation

A total of 5.72 ~~6.44~~ acres of jurisdictional resources (i.e., features) were mapped during the formal delineation conducted within the project site, and are summarized in Table 4. Section 2.2.3 describes how the features were

defined and how jurisdiction between the agencies was determined. One vegetation community mapped on site, southern sycamore–alder riparian woodland would typically be classified through the City’s Biological Guidelines as a wetland habitat since it would fall under the general category of riparian woodland; however, the sycamore trees within this community are rooted far upslope from the adjacent disturbed wetland and unnamed stream channel, and appear to have been planted as landscaping for the golf course. Thus, this area of southern sycamore–alder riparian woodland would have been artificially created and is not a jurisdictional wetland nor is it included in the 6.44 acres of jurisdictional resources within the project site.

Table 4 presents jurisdictional resources presented by jurisdiction (Figures 2 and 2a–2m), and includes the Feature ID’s of each delineated jurisdictional resource. These jurisdictional resources include a total of 5.12 acres of ACOE wetlands and 0.43 acres of ACOE non-wetland waters, ~~5.93~~ 5.21 acres of RWQCB wetlands and 0.51 acres of RWQCB non-wetland waters, ~~5.93~~ 5.21 acres of CDFW wetlands and 0.51 of CDFW non-wetland waters, and ~~6.29~~ 5.57 acres of City Wetlands (Table 4).

ACOE, RWQCB, CDFW, and City regulated wetland waters are comprised of freshwater marsh (coastal and valley freshwater marsh), disturbed wetland, disturbed southern willow scrub, and riparian forest (southern arroyo willow forest, southern coast live oak forest, and southern cottonwood–willow riparian forest). ~~Isolated wetland waters regulated by RWQCB, CDFW and City include freshwater marsh (coastal and valley freshwater marsh) and riparian scrub (southern willow scrub and disturbed southern willow scrub). These areas generally include areas with at least one of the three wetlands indicators but that are isolated from a tributary of navigable water through lack of evidence of surface water hydrology (see Section 1.3, Regional Resource Planning Context, for the definition of City wetlands).~~

Non-wetland waters within the project site under the jurisdiction of all three resource agencies (CDFW, RWQCB, and ACOE) and the City include an unvegetated stream channel associated with Chicarita Creek. Chicarita Creek is regulated by the City as a wetland due to the presence of wetland vegetation and year-round water flow. There are earthen and concrete-lined non-wetland waters located throughout the project site that are under the jurisdiction of ACOE, RWQCB, and CDFW only. In addition, there are isolated earthen and concrete-lined non-wetland waters under the jurisdiction of RWQCB and CDFW. None of these features are regulated by the City as wetlands.

Table 4. Jurisdictional Resources Mapped within the Project Site

Jurisdictional Resource Feature ID	Vegetation Communities/ Land Cover Types	City of San Diego Biology Guidelines Vegetation Community	Acreage
ACOE			
Wetland Waters			
Features A, I, J, M, N, O	Coastal and Valley Freshwater Marsh	Freshwater Marsh	1.33
	Southern Arroyo Willow Riparian Forest	Riparian Forest or Woodland	2.24
	Southern Coast Live Oak Riparian Forest	Riparian Forest or Woodland	0.08
	Southern Cottonwood–Willow Riparian Forest	Riparian Forest or Woodland	1.38
	Disturbed Wetland	Disturbed Wetlands	0.09
<i>Wetland Waters Subtotal</i>			5.12

Jurisdictional Resource Feature ID	Vegetation Communities/ Land Cover Types	City of San Diego Biology Guidelines Vegetation Community	Acreage
Non-wetland Waters			
Features A, H, K, L, P	Disturbed habitat	Disturbed Habitat	0.07
	Unvegetated channel	Natural Flood Channel	0.36
<i>Non-wetland Waters Subtotal</i>			<i>0.43</i>
ACOE Total			5.55
RWQCB			
Wetland Waters			
Features A, E, I, J, M, N, O, Q, R	Coastal and Valley Freshwater Marsh	Freshwater Marsh	1.48 <u>1.33</u>
	Southern Arroyo Willow Riparian Forest	Riparian Forest or Woodland	2.24
	Southern Coast Live Oak Riparian Forest	Riparian Forest or Woodland	0.08
	Southern Cottonwood-Willow Riparian Forest	Riparian Forest or Woodland	1.38
	Southern Willow Scrub	Riparian Scrub	0.47
	Disturbed Southern Willow Scrub	Riparian Scrub	0.19 <u>0.09</u>
	Disturbed Wetland	Disturbed Wetlands	0.09
<i>Wetland Waters Subtotal</i>			5.93 <u>5.21</u>
Non-wetland Waters			
Features A, B, C, D, F, G, H, K, L, P	Disturbed habitat	Disturbed Habitat	0.15
	Unvegetated channel	Natural Flood Channel	0.36
<i>Non-wetland Waters Subtotal</i>			<i>0.51</i>
RWQCB Total			6.44
			<u>5.72</u>
CDFW			
Riparian Habitat			
Features A, E, I, J, M, N, O, Q, R	Coastal and Valley Freshwater Marsh	Freshwater Marsh	1.48 <u>1.33</u>
	Southern Arroyo Willow Riparian Forest	Riparian Forest or Woodland	2.24
	Southern Coast Live Oak Riparian Forest	Riparian Forest or Woodland	0.08
	Southern Cottonwood-Willow Riparian Forest	Riparian Forest or Woodland	1.38
	Southern Willow Scrub	Riparian Scrub	0.47
	Disturbed Southern Willow Scrub	Riparian Scrub	0.19 <u>0.09</u>
	Disturbed Wetland	Disturbed Wetlands	0.09
<i>Riparian Habitat Subtotal</i>			5.93 <u>5.21</u>

Jurisdictional Resource Feature ID	Vegetation Communities/ Land Cover Types	City of San Diego Biology Guidelines Vegetation Community	Acreage
Streambed			
Features A, B, C, D, F, G, H, K, L, P	Disturbed habitat	Disturbed Habitat	0.15
	Unvegetated channel	Natural Flood Channel	0.36
<i>Streambed Subtotal</i>			<i>0.51</i>
			6.44
<i>CDFW Total</i>			5.72
City			
Wetlands			
Features A, E, I, J, M, N, O, Q, R	Coastal and Valley Freshwater Marsh	Freshwater Marsh	<u>1.33</u>
			1.48
	Southern Arroyo Willow Riparian Forest	Riparian Forest or Woodland	2.24
	Southern Coast Live Oak Riparian Forest	Riparian Forest or Woodland	0.08
	Southern Cottonwood–Willow Riparian Forest	Riparian Forest or Woodland	1.38
	Southern Willow Scrub	Riparian Scrub	0.47
	Disturbed Southern Willow Scrub	Riparian Scrub	<u>0.09</u>
			0.19
Disturbed Wetland			0.09
Unvegetated channel			0.36
<i>Wetlands</i>			<i>5.57</i>
			6.29
<i>City Total</i>			5.57
			6.29

3.2.2.2 City Wetlands

Wetlands regulated by the City of San Diego occur throughout the project site. This section provides additional detail regarding the City wetlands within the project site. City regulated wetlands are identified as Features A, E, I, J, M, N, O, Q, and R on Figures 2 and 2a–2m. The delineation of these features are described in Appendix E.

Chicarita Creek - Feature A

Feature A refers to Chicarita Creek as shown on Figures 2a and 2b. Chicarita Creek is a north–south trending perennial blue-line stream that connects with Los Peñasquitos Creek and eventually on to Los Peñasquitos Lagoon, where flows discharge directly into the Pacific Ocean, a traditional navigable water, approximately 13 river miles downstream and southwest of the project site. Chicarita Creek supports a combination of perennial and intermittent surface flows within a well-defined, riparian-vegetated streambed. Historical imagery suggests that the reach was modified in the late 1980s as part of the golf course development, but it is still meandering along the general same historic alignment seen as far back as 1953 (NETR 2019). Chicarita Creek supports areas mapped as southern willow riparian forest, freshwater marsh and southern sycamore–alder riparian woodland. See Section 3.2.1 for descriptions of each of these vegetation

communities. The entire span of Chicarita Creek is a City wetlands, including the portion mapped as unvegetated channel. According to the City's Biology Guidelines (City of San Diego 2018a), since this channel appears to have been disturbed by golf course development and is likely lacking wetland dependent vegetation due to these activities, the channel would be considered a City wetland.

Central Wetland Feature (Feature E)

Feature E refers to a narrow, meandering channel that originates from a small, 6- to 8-inch-diameter pipe and winds through former playing holes until it reaches a remnant golf cart path (See Figure 2e). Once the channel reaches the golf cart path, any flows that remain likely dissipate through evaporation. Feature E supports recently developed southern willow scrub vegetation with arroyo willow, Goodding's black willow, and narrow-leaved willow saplings coupled with a disturbed understory comprised of pampas grass (*Cortaderia selloana*) and bristly ox-tongue. The presence of wetland vegetation within the channel make this feature a City regulated wetland.

Unnamed tributary to Los Peñasquitos Creek (Features I, J, M, N and O)

Features I, J, and M comprise an unnamed tributary to Los Peñasquitos Creek that was visible on historic aerial imagery dating as far back as 1953 (NETR 2019). Historical imagery suggests that this drainage was modified in the late 1980s as part of the golf course construction and residential subdivision development. Carmel Ridge Road bisects the tributary. The segments of the drainage that remain open continue to meander along the same general historic alignment. This feature is now fed solely by stormwater runoff and discharges from pipe culverts. Features I, J, and M are dominated by dense, nearly impassable stands of emergent hydrophytic vegetation, including cattail (*Typha longifolia*), tamarisk (*Tamarix* sp.), and pale spikerush (*Eleocharis macrostachya*).

Features I, J, and M comprise portions of the drainage system that flows across three holes of the former golf course before flowing off site and southeast toward Los Peñasquitos Creek (Figures 2I, 2J and 2K). These features support perennial surface flows within a well-defined, highly incised, densely vegetated wetland streambed. These three features are City of San Diego regulated wetlands.

Feature N is the downstream extension of Feature M (Figure 2j). Feature N supports a dense, mature stand of southern cottonwood willow riparian forest within an incised, well-defined streambed that flows off site to Los Peñasquitos Creek. Feature N tested positive for hydrophytic vegetation and hydrology (i.e., bed and bank and drift lines); hydric soils were not evaluated due to access constraints. However, hydric soils are assumed to be present.

Feature O refers to a small pocket of disturbed wetlands vegetation dominated by Washington fan palm (*Washingtonia robusta*) and canary date palm (*Phoenix canariensis*). Some other characteristic non-native species include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), pampas grass (*Cortaderia selloana*), and Bermuda grass (*Cynodon dactylon*). This wetland is associated with the unnamed tributary to Los Peñasquitos Creek.

3.2.2.3 ~~Isolated Wetlands~~ Non-Jurisdictional Features (Features Q, ~~and R~~, S and T)

There are four man-made ponds within the golf course, identified as Features Q, R, S and T. Based on the site visit and research conducted in support of the Draft EIR, two of the ponds are either devoid of vegetation and do not support water (Feature S; Figure 2H) or the existing vegetation (small patches of freshwater marsh) has shrunk over time due to the lack of golf course irrigation, which was the main source of water for this area (Feature T; Figure

2K). Based on historic aerials, the ponds did not modify a natural water feature when they were created and they are therefore considered artificial features excavated in uplands.

Features Q and R refer to two other man-made, earthen ponds that are situated near the southeast corner of the golf course at two former playing holes (Figure 2m). While a culvert exists connecting these two features to each other, there is no visible outlet to convey flows off site to downstream tributaries. Therefore, Features Q and R are considered to be isolated, artificially constructed ~~wetlands~~ features. Historical imagery suggests that Feature Q was constructed as part of the initial golf course development in the late 1980s, while Feature R was constructed sometime between 1996 and 2002 as part of continued golf course modifications/improvements (HELIX 2018). Feature Q is dominated by a combination of freshwater emergent wetlands and disturbed southern willow scrub vegetation. Feature R is dominated solely by southern willow scrub vegetation. ~~These features are considered City wetlands.~~

As explained herein, none of these features would be regulated by any agency, nor the City. The ACOE does not regulate artificially created ponds excavated in uplands per the Navigable Waters Protection Rule and CDFW does not regulate artificially created features. These ponds would not be considered jurisdictional by the RWQCB as they were created to contain site runoff from golf course irrigation. These artificial features are less than an acre in size and thus are not considered “waters of the state” per the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

Moreover, as the ponds are basins excavated in uplands. Per the City’s Land Development Guidelines: “Areas that contain wetland vegetation, soils or hydrology created by human activities in historically non-wetland areas do not qualify as wetlands under this definition unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Wildlife”. Therefore, the City does not regulate these features as they are: (a) considered artificial wetlands and artificially irrigated areas that would revert to uplands if the irrigation ceased, (b) they are dry and do not support any vegetation. In addition, Features Q, R, S and T are isolated features that were created by human activities in historically non-wetland areas.

3.2.2.4 Wetland Buffers

Currently, the project site consists of a golf course with no established avoidance buffers between the City designated wetlands and development. The golf course greens, pathways and/or landscaping directly abut the central wetlands, the unnamed tributary to Los Peñasquitos Creek and the ~~isolated-central~~ wetland features described in Section 3.2.2.2. Therefore, there are no protection or transitional zones between development and these wetlands.

Small pockets of native upland habitat comprise the wetland buffer along Chicarita Creek. These areas occur between the creek and I-15. However, these patches of native vegetation are not continuous along the creek due to the presence of golf greens and associated landscaping and trails. Residential development exists to the north and east of Chicarita Creek; no protection or transitional vegetation exists between development and wetlands in these areas.

3.2.3 Floral Diversity

A total of 40 species of native or naturalized plants, 22 native (55%) and 18 non-native (45%), were recorded during the biological reconnaissance survey for the project. A cumulative list of all common and sensitive plant species observed in the project site is provided in Appendix A of this report.

3.2.4 Wildlife Diversity

The project site supports habitat primarily for upland species within coastal sage scrub and disturbed habitat. These upland habitats also provide foraging and nesting habitat for migratory and resident bird species and other wildlife species. Suitable habitat for sensitive riparian species is present within riparian scrub (southern willow scrub and disturbed southern willow scrub), riparian forest (southern arroyo willow forest, southern coast live oak forest, southern cottonwood–willow forest, southern willow forest), and riparian woodland (southern sycamore–alder woodland) habitats. Wetland and freshwater marsh habitats (disturbed wetland, coastal and valley freshwater marsh) are also present within the project site and may support sensitive wetland species. The majority of riparian or wetland habitat suitable for supporting wildlife including sensitive riparian bird species occurs in the western portion of the project site associated with Chicarita Creek (Figure 2). Some of these riparian or wetland habitats are limited to narrow areas following drainages near the eastern boundary of the project site (Figure 2). The range of vegetated communities within primarily the western and eastern sections of the project site also likely provides cover and foraging opportunities for wildlife species, including reptiles and mammals.

A total of 18 wildlife species, including 15 birds, 2 butterflies, and 1 mammal, were recorded during the biological reconnaissance surveys for the project site. Of the total 18 wildlife species observed during the reconnaissance survey, 1 special-status and MSCP-covered species was observed: the coastal California gnatcatcher (*Poliophtila californica californica*). A cumulative list of all common and sensitive wildlife species observed in the project site during the 2019 surveys is provided in Appendix B of this report.

3.2.5 Special-Status Plants

Plant species are considered sensitive if they have been listed or proposed for listing by the federal or state government as rare, endangered, or threatened (“listed species”); have a California Rare Plant Rank (CRPR) of 1–4; are listed as a MSCP-covered species; and/or have been adopted by the City as narrow endemic. An evaluation of known records in the Poway quadrangle, and the surrounding quadrangles including Del Mar, Rancho Santa Fe, San Vicente Reservoir, La Jolla, El Cajon, La Mesa, San Pasqual, and Escondido (CDFW 2019a, 2019b; CNPS 2019; USFWS 2019) was conducted to determine which species have been recorded in the project vicinity. In addition, Dudek’s knowledge of biological resources and regional distribution of each species, as well as elevation, habitat, and soils present within the project site were evaluated to determine the potential for various special-status species to occur.

The project footprint will avoid all areas of natural habitat and sensitive vegetation communities where the species listed below could occur. Therefore, focused rare plant surveys were not conducted. There is a potential for special-status plant species to occur within habitat adjacent to the development footprint.

The potential for sensitive plant species to occur within the native habitat associated with the project site are described in Appendix C. Appendix C provides the primary habitat association, life form, blooming period and elevation range for each species that could occur within areas of native vegetation. Sensitive plant species that were determined to have moderate to high potential to occur within the project site include the following (none of which are federally or state-listed species): California adolphia (*Adolphia californica*), San Diego sagewort (*Artemisia palmeri*), Coulter’s saltbush (*Atriplex coulteri*), San Diego County viguiera (*Bahiopsis laciniata*), San Diego barrel cactus (*Ferocactus viridescens*), graceful tarplant (*Holocarpha virgata* ssp. *elongata*), San Diego marsh-elder (*Iva hayesiana*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), Brewer’s calandrinia (*Calandrinia breweri*), small-flowered morning glory (*Convolvulus simulans*), snake cholla (*Cylindropuntia californica* var. *californica*), western dichondra (*Dichondra occidentalis*), Palmer’s grapplinghook (*Harpagonella palmeri*), Robinson’s

peppergrass (*Lepidium virginicum* var. *robinsonii*), golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*), Nuttall's scrub oak (*Quercus dumosa*), chaparral ragwort (*Senecio aphanactis*), San Diego County needle grass (*Stipa diegoensis*), and rush-like bristleweed (*Xanthisma junceum*).

3.2.6 Sensitive Wildlife

Sensitive wildlife species are those listed as federal/state endangered or threatened, proposed for listing, fully protected by CDFW, California Watch List (WL), California species of special concern (SSC), or MSCP-covered species. An evaluation of known records in the Poway quadrangle, and the surrounding quadrangles including Del Mar, Rancho Santa Fe, San Vicente Reservoir, La Jolla, El Cajon, La Mesa, San Pasqual, and Escondido (CDFW 2019a, 2019b; CNPS 2019; USFWS 2019) was conducted. In addition, Dudek's knowledge of biological resources and regional distribution of each species, as well as elevation, habitat, and soils present within the project site were evaluated to determine the potential for various special-status species to occur.

As previous stated, all impacts would be concentrated in already developed/disturbed lands and the project would not impact native habitat that could support special-status wildlife species. As such, protocol level wildlife surveys have not been conducted; however sensitive wildlife species known to occur in the surrounding region, and those which have a potential to occur within the project site, are described in Appendix D. Sensitive wildlife species determined to have moderate to high potential to occur within the project site include the following: Cooper's hawk (*Accipiter cooperii*), San Diego desert woodrat (*Neotoma lepida intermedia*), southern California legless lizard (*Anniella stebbinsi*), orange-throated whiptail (*Aspidoscelis hyperythra*), Blainville's horned lizard (*Phrynosoma blainvillii*), Coronado skink (*Plestiodon skiltonianus interparietalis*), two-striped gartersnake (*Thamnophis hammondi*), white-tailed kite (*Elanus leucurus*), yellow-breasted chat (*Icteria virens*), coastal California gnatcatcher, _yellow warbler (*Setophaga petechia*), western bluebird (*Sialia mexicana*), least Bell's vireo (*Vireo bellii pusillus*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), and Townsend's big-eared bat (*Corynorhinus townsendii*). A description of species with moderate to high potential to occur, or known to occur, is provided as follows.

Cooper's Hawk

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

Cooper's hawk could utilize any of the riparian woodlands in the project site for foraging or potentially for nesting during the breeding season.

San Diego Desert Woodrat

The San Diego desert woodrat is a California SSC. Desert woodrats are found in a variety of shrub and desert habitats and are primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth (Bleich 1973; Bleich and Schwartz 1975; Brown et al. 1972; Cameron and Rainey 1972; Thompson 1982). Desert woodrats are noted for their opportunistic and flexible behavior in using various materials, such as twigs and other debris (sticks,

rocks, dung), to build elaborate dens or middens, which typically include several chambers for nesting and food as well as several entrances. Middens may be used by several generations of woodrats (Cameron and Rainey 1972).

San Diego desert woodrat would most likely inhabit coastal sage scrub habitat within the project site.

Southern California Legless Lizard

Southern California legless lizard is a SSC species. Southern California legless lizard inhabits coastal scrub, coastal dune, valley-foothill, and chaparral habitat types (Zeiner et al. 1988). This species ranges from Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties west of the Peninsular ranges. Southern California legless lizard occurs in moist warm loose soil with plant cover and uses leaf litter or rocks for cover.

Southern California legless lizard has moderate potential to occur in suitable sparse coastal sage scrub or woodland habitats within the project site.

Orange-Throated Whiptail

Orange-throated whiptail is a state Watch List and a MSCP covered species. Orange-throated whiptail inhabits low-elevation coastal scrub, chamise-redshank chaparral, and valley-foothill hardwood habitats (Zeiner et al. 1988). This species ranges from Orange, Riverside, San Bernardino, and San Diego counties west of the Peninsular Ranges. The orange-throated whiptail ranges in elevation from sea level to 3,410 feet (Jennings and Hayes 1994). This species uses dense vegetation, or other surface objects such as rocks, logs, decaying vegetation, and boards as cover.

Orange-throated whiptail has moderate potential to occur in suitable coastal sage scrub habitat within the project site.

Blainville's Horned Lizard

Blainville's horned lizard is a SSC, and MSCP covered species. It is found from the Sierra Nevada foothills and central California to coastal Southern California. It is often associated with coastal sage scrub, especially areas of level to gently sloping ground with well-drained loose or sandy soil, but it can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 and 7,030 feet AMSL (Jennings and Hayes 1994). This reptile typically avoids dense vegetation, preferring 20% to 40% bare ground in its habitat. Blainville's horned lizard can be locally abundant in areas where it occurs, with densities of near 20 adults per acre. Adults are active from late March through late August, and young are active from August through November or December.

Blainville's horned lizard has moderate potential to occur in suitable coastal sage scrub habitat where soil is sandy within the project site.

Coronado Skink

Coronado skink is a Watch List species. This species is common within grassland, woodlands, pine forests, chaparral, especially open sunny areas (e.g., clearings, edges of creeks), and rocky areas near streams with lots of vegetation. However, this species may also be found in areas away from water. Coronado skink is found in inland Southern California south through the north Pacific coast region of northern Baja California (Nafis 2014).

Coronado skink has moderate potential to occur within riparian woodland along Chicarita Creek.

Two-Striped Gartersnake

Two-striped gartersnake is a SSC species. Two-striped gartersnake's distribution extends from the southeastern slope of the Diablo Range and the Salinas Valley south along South Coast and Transverse ranges to the Mexican border (Jennings and Hayes 1994). This species is associated with permanent or semi-permanent bodies of water in habitats from sea level to 2,400 meters (7,874 feet). During the day, the two-striped gartersnake often basks on streamside rocks or on densely vegetated stream banks. This nocturnal species inhabits holes, including mammal burrows, crevices, and surface objects (Rathburn et al. 1993).

Two-striped gartersnake has moderate potential to occur within riparian woodland along Chicarita Creek.

White-Tailed Kite

White-tailed kite is a state Fully Protected species. White-tailed kite occurs mainly in lowlands of southern and northwestern cismontane California in savannah, open woodland, marshes, cultivated fields, and partially cleared lands (Zeiner et al. 1990a). White-tailed kite hunts in the morning and late afternoon for voles and mice, usually near farmlands. It is non-migratory but can be nomadic and dispersive in its movements, and often occurs in communal roosts (Unitt 2004). Nests are made of piled sticks and twigs and placed near the tops of oak, willow, or other trees near marshes and foraging areas (Zeiner et al. 1990a).

White-tailed kite has moderate potential to forage in suitable coastal sage scrub or disturbed habitat within the project site.

Yellow-Breasted Chat

Yellow-breasted chat is a SSC species. Yellow-breasted chat inhabits valley foothill riparian habitats 1,450 meters (4,757 feet) in elevation and desert riparian habitats 2,050 meters (6,726 feet) in elevation (Zeiner et al. 1988-1990). The yellow-breasted chat is a summer resident and migrant in coastal California and in the foothills of the Sierra Nevada. This species occurs along the coast of Northern California east to Cascades and locally south of Mendocino County (McCaskie et al. 1979). In Southern California, the yellow-breasted chat breeds on the coast and inland (Garrett and Dunn 1981). The yellow-breasted chat requires riparian thickets of willow and other brush near water for cover.

Yellow-breasted chat has moderate potential to occur within riparian woodland along Chicarita Creek.

Coastal California Gnatcatcher

Coastal California gnatcatcher is federally listed threatened, a SSC, and MSCP covered species. Coastal California gnatcatcher breeds in lower elevations (less than 500 meters or 1,640 feet) south and west of the Transverse and Peninsular Ranges (Atwood and Bolsinger 1992). Higher densities of this species occur in coastal San Diego and Orange counties, and lower densities are found in Los Angeles, Orange, western Riverside, southwestern San Bernardino, and inland San Diego counties (Atwood 1993; Preston et al. 1998). The coastal California gnatcatcher primarily occupies open coastal sage scrub habitat that is dominated by California sagebrush. This species is relatively absent from coastal sage scrub habitats dominated by black sage (*Salvia mellifera*), white sage, or sugar sumac (*Rhus ovata*).

Coastal California gnatcatcher was observed by call in the coastal sage scrub habitat located off site along the eastern edge of the project site and then again within the project site (Figure 2). Suitable habitat located on the outer edges of the golf course within the project site has the potential to support the federally threatened coastal California gnatcatcher (Figures 2a, 2b, 2l and 2j). Good quality, well-diversified, and well-structured coastal sage

scrub habitat mapped on the site was limited to small areas and is primarily associated with off-site habitat along the western and eastern edges of the project site.

Yellow Warbler

Yellow warbler is a USFWS Bird of Conservation Concern and SCC species. Yellow warbler inhabits riparian woodland in coastal and desert lowlands, montane chaparral, open ponderosa pine, and mixed conifer habitats (Zeiner et al. 1990a). This species breeds along the coast of California west of the Sierra Nevada, and eastern California from Lake Tahoe south to Inyo County. Yellow warbler occurs in medium-density woodlands and forests with heavy brush understory, and migrates to sparse to dense woodland and forest habitats.

Yellow warbler has moderate potential to occur within riparian woodland along Chicarita Creek.

Western Bluebird

Western bluebird is a MSCP covered species. It is a common resident bird in San Diego County, where it prefers montane coniferous and oak woodlands (Unitt 2004). It nests in old-growth red fir, mixed conifer, and lodgepole pine habitats near wet meadows used for foraging. Because this species is not considered special status by state or federal agencies, it is not tracked in the CDFW California Natural Diversity Database (CDFW 2019b).

Western bluebird has a moderate potential to forage within riparian woodland along Chicarita Creek, however it is not expected to nest in the area due to a lack of suitable nesting habitat.

Least Bell's Vireo

Least Bell's vireo is federally listed endangered, state listed endangered, and MSCP covered species. The breeding range of least Bell's vireo includes coastal and inland Southern California (including the western edge of Southern California's southern deserts), a small area within California's Central Valley, and extreme northern Baja California, Mexico. Least Bell's vireo overwinters primarily along southern Baja California (Kus 2002). Least Bell's vireo primarily occupy riverine riparian habitats along water, including dry portions of intermittent streams that typically provide dense cover within 1 to 2 meters (3.3 to 6.6 feet) off the ground, often adjacent to a complex, stratified canopy. Least Bell's vireo nesting habitats in cismontane and coastal areas include southern willow scrub; mulefat scrub; arroyo willow riparian forest edge; wild blackberry thickets; and more rarely, cottonwood forest, sycamore alluvial woodland, and southern coast live oak riparian forest.

Least Bell's vireo has moderate potential to occur within riparian habitat along Chicarita Creek.

Northwestern San Diego Pocket Mouse

Northwestern San Diego pocket mouse is a SSC species. Northwestern San Diego pocket mouse is a subspecies and inhabits sandy herbaceous areas in association with rocks and coarse gravel (Grinnell 1933; Miller and Stebbins 1964). This subspecies occurs in arid coastal and desert border areas in southwestern California (Zeiner et al. 1990b). Typical habitats for the northwestern San Diego pocket mouse include coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland.

Northwestern San Diego pocket mouse has moderate potential to occur in suitable coastal sage scrub habitat within the project site.

Townsend's Big-Eared Bat

Townsend's big-eared bat is a SSC, and MSCP covered species. Townsend's big-eared bat inhabits mesic and riparian habitats throughout California (Zeiner et al. 1990b). This species requires caves, tunnels, buildings, or other built structures for roosting. This species hibernates in cold habitats. Townsend's big-eared bat roosts in relatively warm site and in small clusters or groups of females and young, usually fewer than 100 individuals.

Townsend's big-eared bat has low-to-moderate potential to occur within man-made structures and riparian habitat within the project site.

3.2.7 Wildlife Corridors and Habitat Linkages

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

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Although individual animals may not move through a habitat linkage, the linkage does represent a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both habitat and avenues of gene flow for small animals such as reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as stepping stones for dispersal.

Of the 164.5-acre project site, only 12.5 acres are comprised of native vegetation communities. These areas are primarily associated with Chicarita Creek, patches of upland habitat west of the creek, and the unnamed tributary to Los Peñasquitos Creek located in the eastern portion of the project site. There is very little native vegetation within the remainder of the project site. Outside of these two areas, the project site likely provides limited refuge and cover for wildlife species and their movements. It is unlikely to be a wildlife corridor due to the disturbed condition of the majority of land throughout the project site as a former golf course, and the fact that the project site consists of sections of land surrounded by chain-link fencing and interwoven throughout a residential neighborhood.

Chicarita Creek provides wildlife habitat and may support wildlife species movement; however, the upper limit of the creek and its associated habitat ends at the project site's northern boundary and therefore this part of the project site would be a dead end for wildlife movement. Wildlife could move between the habitat along the eastern boundary of the project site and the adjacent land just east of the project site, however this natural habitat is bounded on all sides by roads and residential development and therefore movement would be restricted.

The portions of the unnamed tributary to Los Peñasquitos Creek that occur within the project site are encroached upon by residential development located just outside of the project site. Carmel Ridge Road bisects the channel as it flows from the northern portion of the project site to the south (Figure 2J). Modification to the tributary have resulted in disjointed patches of habitat intertwined with golf greens and trails. Smaller urban wildlife could potentially use these areas of the tributary for live-in habitat and foraging, but movement would be constrained by development and lack of vegetation coverage.

The MHPA of the MSCP was designed to include key biological core and linkage areas within the City (City of San Diego 1997). The proposed project site is not within the designated MHPA and is determined not to be a biological core or linkage area. The MHPA boundary occurs approximately 0.25 miles southeast of the proposed project site and is not adjacent to the project site (Figure 1).

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4 Proposed Wetland Buffers

The project would adhere to the City's Biology Guidelines (City of San Diego 2018a), and provide wetland avoidance buffers for all City designated wetlands to protect these features from proposed development. Buffers and buffer dimensions are depicted in Figures 2 and 2a-2m. The width of the buffer is determined by factors such as type and size of development, sensitivity of the wetland resource to edge effects, topography, and the need for upland transition (City of San Diego 2018a). There are no set buffer widths required for wetlands delineated outside of the coastal zone. This section provides additional detail regarding the wetland buffers for each of the City regulated wetlands within the project site, including proposed activities within the buffers. City regulated wetlands are identified as Features A, E, I, J, M, N, and O, Q, and R and are discussed in detail in Section 3.2.2.2.

Activities within the Buffers

Within the proposed buffers, the following activities would take place during project construction: ~~repair existing trails where needed; repair portions of damaged bridge located outside of wetland habitat;~~ landscape of the buffer with low-growing, native, drought tolerant species and temporary irrigation as needed; brush management; and a 5-foot "no touch" zone from the wetland edge would be staked and demarcated with signage to delineate the wetlands and direct public access away from the wetlands. Ongoing maintenance within the buffers may consist of ~~as-needed maintenance for the trails;~~ brush management; and maintenance of native and locally-indigenous naturalized landscaping.

Functions and Values of the Buffers

Although the width of wetland buffers vary depending on location, the buffers would protect the function and value of the adjacent wetland. As described in Section 3.2.7, Wildlife Corridors and Habitat Linkages, the wetland areas on site currently provide limited function for wildlife habitat and movement. The limited functionality of the wetlands are a direct result of the surrounding development, which has manipulated the natural features within the site and constrained any potential wildlife movement. As described in Section 3.2.2.3, Wetland Buffers, the area surrounding the majority of the wetlands consists of fallowed golf greens, existing trails/pathways and landscaping.

~~The wetland buffers would be enhanced by replacing non-native invasive species associated with the golf greens with native plant species through project landscaping efforts. Specifically, landscaping with native tree plantings supplemented with a hydroseed mix composed of native species would occur within wetland buffers. Landscaping within the wetland buffers would remove current occurrences of non-native/invasive species from around the buffer and would prevent those species from entering the wetlands and degrading the habitat. This is especially important along Chicarita Creek, which provides one of the few areas of habitat for wildlife species.~~

Chicarita Creek Wetland Buffer (Feature A)

As described in Section 3.2.2.2, Chicarita Creek is a natural, vegetated channel with year-round water flow in the majority of the creek. Portions of the creek within the project site provide live-in habitat for wildlife species as well as connectivity to habitat outside of the project site. The buffer along the eastern edge of Chicarita Creek would range from 18 to 148 feet. Within the buffer, existing trails would remain, including those that cross over the creek. Narrow buffer widths along the eastern and northern edges of Chicarita Creek were necessary to accommodate constraints from existing residential development and I-15 (Figures 2a and 2b).

Tributary to Los Peñasquitos Creek (Features I, J, M, N, and O)

The buffers for City wetlands associated with the tributary to Los Peñasquitos Creek will range from 30 to 50 feet. Feature I will have a 50-foot buffer along the eastern and southern edge, but the buffer along the west and north will range from 30 to 42 feet due to existing development and access road requirements for project development (Figure 2I). A 50-foot buffer will be created for Feature J with the exception of a very small portion that is constrained by development to the east, reducing the buffer slightly to 47 feet (Figure 2J). A 50-foot buffer will be created for the remaining portions of the tributary to Los Peñasquitos Creek within the project site located south of Carmel Ridge Road. There are existing trails within the immediate vicinity of Feature I. These trails will remain within the buffer for these features following project construction. As the trail moves south, it is located closer to the residential development to the west of the project site and outside of the buffer for Feature J. The trail then crosses Carmel Ridge Road and continues along the residential development and outside of the buffers for Features M, N, and O. There is an existing maintenance road that is located within the upper portion of the buffer for Feature M.

Central Wetland and Isolated Wetlands (Features E, Q, and R)

~~To the extent feasible, a 50 foot buffer was applied to other all City wetlands. However, due to existing off site development and limits of disturbance, wetland buffers for smaller City wetlands in the center and southeast portions of the site (Features Q and R on Figure 2 and Feature E on Figure 2f), generally range from 20 to 50 feet from the edge of habitat.~~

The buffer surrounding Feature E varies from 20 to 50 feet (Figure 2e). While the majority of the buffer is 50 feet, development along the southwestern portion of the feature limits the buffer to 20 feet while proposed development to the north limits the very tip of the buffer to 45 feet. There are existing trails located outside of the buffer to the east and the one closest to existing development will remain.

~~The buffer surrounding Feature Q is 50 feet, with the exception of the portion along the eastern side, which limits the buffer to 40 feet. This area also has an existing trail that will remain following project construction.~~

~~Along the eastern edge of Feature R (Figure 2m), the buffer is constrained by existing residential development and is 4 feet in width. The remaining buffer for Feature R is 50 feet, with the exception of the area along the eastern edge of the buffer, which is 43 feet. There is an existing trails within the western portion of this wetland buffer that will remain in use following project construction.~~

5 Impacts Analysis

The purpose of this section is to describe the direct, indirect, and cumulative impacts of the proposed project on special-status biological resources. The significance determinations for proposed or potential impacts are described in this section and mitigation measure to reduce impacts are provided in Section 6.

5.1 Definition of Impacts

Based upon the project description (Section 1.2), direct impacts, indirect (short-term and long-term), and cumulative impacts are defined as follows.

Direct Impacts may include both the permanent loss of on-site habitat and the plant and wildlife species that it contains, as well as the temporary loss of on-site habitat. Direct impacts were quantified by overlaying the proposed impact alignment onto the biological resources map and evaluating the impacts by vegetation community.

According to the Biology Guidelines, lands containing Tier I, II, IIIA, and IIIB habitats and all City wetlands are considered sensitive and declining and, as such, impacts to these resources may be considered significant. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant.

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

- a. Total upland impacts (Tiers I- IIIB) less than 0.1 acre are not considered significant and do not require mitigation.
- b. Total wetland impacts less than 0.01 acre are not considered significant and do not require mitigation. This does not apply to vernal pools, road pools supporting listed fairy shrimp, or wetlands within the Coastal Zone.
- c. Removal/control of non-native plants is not considered to constitute a significant habitat impact for which compensatory habitat acquisition, preservation, or creation for the area impacted is required. Mitigation for indirect impacts such as erosion control or off-site infestation by non-native species may be needed. Examples include disturbed wetlands dominated by invasive plant species such as giant reed or Mexican fan palm.

Indirect Impacts refer to off-site and on-site effects that are short-term impacts (i.e., temporary) due to the project construction or long-term (i.e., permanent) design of the project and the effects it may have to adjacent resources. For this project, it is assumed that the potential short-term indirect impacts resulting from construction activities may include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality and construction-related soil erosion and runoff. Potential long-term indirect impacts to biological resources may also occur as a result of the proposed project through introduction of non-native species and increased human presence during and following construction. Since the proposed project is not located within or adjacent to the MHPA, development would not result in potential indirect impacts to the preserve.

In accordance with the Subarea Plan and pursuant to the San Diego RWQCB Municipal Permit and the City's Stormwater Standards Manual (City of San Diego 2018b), projects are required to implement site design, source control, and treatment control best management practices (BMPs). Development projects will be required to meet National Pollutant Discharge Elimination System regulations and incorporate BMPs during construction and permanent BMPs as defined by the City's Storm Water Standards Manual as part of project development.

Significant indirect impacts to breeding birds may occur if construction activities produces noise or other types of disturbance in proximity to active nests, potentially resulting in abandonment of nests or other breeding failure. The City’s Biology Guidelines provide necessary widths for active nest buffers and breeding season dates for covered species, including raptors (City of San Diego 2018a).

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

5.2 Direct Impacts

5.2.1 Vegetation Communities and Land Cover Types

Implementation of the project would result in direct impacts totaling 70.88 acres of developed land/disturbed land (Table 5a, Figures 2 and 2a–2m). Table 5a describes direct impacts to upland vegetation communities, and Table 5b describes direct impacts to wetland vegetation communities. Tables 5a and 5b provide a list of the corresponding Biology Guidelines (City of San Diego 2018a) vegetation communities as well as the corresponding subarea plan tier or subarea plan designation. The proposed project would not have any permanent or temporary direct impacts to natural vegetation communities including any sensitive vegetation communities. All development impacts, including impacts associated with the maintenance and repair of existing trails, would be confined to areas previously developed that were associated with the golf course. The project does not propose any new trails, or maintenance, repair, or access to existing trails within areas with sensitive biological resources such as sensitive plant species, vegetation, or wetlands. The trails, both existing and those proposed within the development footprint, are shown on Figures 2a–2m.

Brush management activities would occur throughout the project site. All Zone 2 brush management, which includes the removal of invasive plant species and landscaping the area with low-growing drought tolerant species that are native to the region, would be considered impact neutral.

Because ~~the a standard~~ BMZ 2 would typically encompasses City wetlands where thinning cannot occur, an extended protective brush thinning zone is proposed beyond these riparian areas. The extended protective brush thinning zone allows for an additional 20 feet to 50 feet of brush management beyond the limits of City wetlands. The extended protective brush thinning zone would involve removal of dead, dying, and established plantings that do not meet the criteria for Zone 2 ~~thinning areas~~. Portions of the extended protective brush thinning zone would include naturally occurring areas of coastal sage scrub along the western edge of Chicarita Creek. Impacts associated with extended protective brush thinning zone also would be considered impact neutral.

Table 5a. Direct Impacts to Upland Vegetation Communities and Land Cover Types in the Project Site

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier*	Existing Acreage	Direct Impacts
<i>Native Vegetation Communities</i>				
Coastal Sage Scrub	Coastal Sage Scrub	II	3.35	—

Table 5a. Direct Impacts to Upland Vegetation Communities and Land Cover Types in the Project Site

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Tier*	Existing Acreage	Direct Impacts
Coastal Sage Scrub (disturbed)	Coastal Sage Scrub	II	0.48	—
Coastal Sage Scrub (<i>Baccharis</i> -dominated)	Coastal Sage Scrub	II	1.79	—
Undifferentiated Open Woodland	Oak Woodland	I	0.42	—
Southern Sycamore–Alder Riparian Woodland	Ornamental Plantings	IV	0.16	—
<i>Non-Native Vegetation Communities and Land Covers</i>				
Developed Land/Disturbed Habitat	Disturbed Land	IV	151.76	70.88
Eucalyptus Woodland	Eucalyptus Woodland	IV	0.27	—
Total*			158.22	70.88

Note:

* Source: City of San Diego 2018a.

Table 5b. Direct Impacts to Wetland Vegetation Communities and Land Cover Types in the Project Site

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Subarea Plan Designation*	Existing Acreage	Direct Impacts
<i>Native Vegetation Communities</i>				
Coastal and Valley Freshwater Marsh	Freshwater Marsh	Wetlands	1.48	—
Disturbed Wetland	Disturbed Wetlands	Wetlands	0.09	—
Southern Arroyo Willow Riparian Forest	Riparian Forest or Woodland	Wetlands	2.24	—
Southern Coast Live Oak Riparian Forest	Riparian Forest or Woodland	Wetlands	0.08	—
Southern Cottonwood–Willow Riparian Forest	Riparian Forest or Woodland	Wetlands	1.38	—
Southern Willow Scrub (disturbed)	Riparian Scrub	Wetlands	0.19	—
Southern Willow Scrub	Riparian Scrub	Wetlands	0.47	—
Unvegetated Channel	Natural Flood Channel	Wetlands	0.36	0.001 ¹
<i>Non-Native Vegetation Communities and Land Covers</i>				
Disturbed Wetland	Disturbed Wetlands	Wetlands	0.09	—
Total*			6.29	0.001¹

Notes:

* Source: City of San Diego 2018a.

¹ This describes the location where an arch culvert will span an existing concrete-lined brow ditch, resulting in no alteration of structure or function of the feature. This is not considered an impact as described in Section 5.2.2.

5.2.2 Impacts to Jurisdictional Resources

Implementation of the project would require installation of an arch culvert over 47 linear feet of concrete-lined brow ditch (described in Section 3.2.2 and Appendix E) in order to obtain access off Eastbourne Road near Unit 17. This brow ditch, has been identified as Feature G and is delineated as a non-wetland waters under the jurisdiction of RWQCB and CDFW. Because the installation of the arch culvert would not alter the structure or function of the concrete-lined channel, this activity is not considered an impact. No impacts to City wetlands are anticipated.

~~Five pedestrian bridges/cart paths cross over Chicarita Creek. One of the bridges, located in the southern portion of Chicarita Creek, has partially collapsed. The collapsed bridge segments in Chicarita Creek would remain undisturbed. Repair, removal, and replacement of damaged portions of the bridge would occur entirely outside of jurisdictional resources to ensure no impacts to the creek. Any new bridge construction would span the creek with bridge footings placed outside of the creek to avoid impacts to jurisdictional resources. Thus, the project proposes no impacts to jurisdictional resources regulated by the ACOE, RWQCB, CDFW, or City. No wetlands would be impacted by proposed maintenance activities required within the wetland buffer. All wetlands will be staked, with signage directing open space use away from the wetland. Repair of existing trails/paths would result in no impacts to jurisdictional resources as all trails would consist of existing paths in the developed portions of the golf course. Though repair and maintenance would occur within the wetland buffer, all activities would remain outside of the “no touch” portion of the wetland buffer.~~

No impacts to jurisdictional habitats result from brush management. Periodic brush management also would remain outside of the 5-foot “no touch” zone established directly adjacent to wetlands on site. Brush management would occur in wetland buffers associated with Units 3, 4, ~~12, 13,~~ and 16 (Figures 2a, b, i, ~~and j, and m~~).

5.2.3 Direct Impacts to Special-Status Plants

No sensitive plant species were detected within the proposed project impact footprint during reconnaissance surveys. No focused plant surveys were conducted; however, no special-status plant species are expected to occur within the proposed impact footprint due to the level of habitat disturbance on the former golf course. The impact footprint of the project would avoid all areas of natural habitat and sensitive vegetation communities and no significant impacts to any of the species discussed in Section 3.2.5 are anticipated.

5.2.4 Direct Impacts to Special-Status Wildlife

The proposed project would not have a direct impact on habitat for special-status wildlife. There are ~~1511~~ special-status wildlife species (federal, state, or local status) with moderate or high potential to occur within the project site and one species, coastal California gnatcatcher, was observed (incidental observation) (Figure 2j). No other special-status wildlife were observed within the project site during the 2019 field reconnaissance surveys. Coastal California gnatcatcher was observed within a portion of the project site that would not be developed, and therefore this species would not be directly impacted by the proposed project. The ~~1511~~ special-status species that could be present within the project site would be restricted to the native habitat that occurs outside of the proposed project development. One special-status bird, Cooper’s hawk, could nest within non-native trees adjacent to riparian habitat. However, suitable habitat for this species within the project site is not proposed to be impacted. Brush management may occur within this suitable habitat but would be limited to removing non-native weeds and would not remove any trees suitable for nesting. Therefore, no significant direct impacts to special-status wildlife would occur.

5.3 Indirect Impacts

The project would incorporate methods to control runoff, including site design, source control, and treatment control best management practices (BMPs). The project would be required to meet National Pollutant Discharge Elimination System (NPDES) regulations and incorporate BMPs during construction and permanent BMPs as defined by the City of San Diego's (City's) Storm Water Standards Manual as part of the project development. Prior to proposed construction mobilization, the project contractor will prepare a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the state's General Construction Stormwater Permit – 99-08-DWQ, and ~~DWQ~~ and implement the plan during construction. In addition, the proposed project would provide buffers surrounding all City wetlands that would be landscaped with native vegetation. In addition, a 5-foot edge from wetland would be staked with signage to delineate the wetlands and direct public access away from the wetlands. Replacement of non-native vegetation from around the wetlands, as described in Section 4, would greatly reduce the potential for invasive plant species to degrade the wetlands. Therefore, the proposed project would not have any indirect impacts on sensitive uplands, jurisdictional resources or special-status plant species.

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

Indirect impacts from construction-related noise may occur to breeding wildlife if construction occurs during the breeding season (i.e., February 1 through September 15). ~~Wildlife that would be significantly affected by noise, based on suitable habitat in the project vicinity and in accordance with the City's Biology Guidelines (City of San Diego 2018a), may occur up to 300 feet from the project work areas.~~ Special-status species whose breeding/nesting could be significantly impacted by noise include Cooper's hawk, yellow warbler, least Bell's vireo and coastal California gnatcatchers.

5.4 Cumulative Impacts

The MSCP is a long-term regional conservation plan established to protect sensitive species and habitats in San Diego County. The MSCP is divided into subarea plans that are implemented separately from one another. The project site is located within the City of San Diego Subarea Plan, but is not within the MHPA.

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

Cumulative impacts to sensitive vegetation communities or special-status species from implementation of the project are not expected since all activities are located outside of the MHPA and the project would not result in impacts to any sensitive resources.

5.5 Consistency with the Multiple Species Conservation Program

The proposed project impact footprint does not occur within or adjacent to an MHPA, and therefore is not required to document compliance with the MSCP Land Use Adjacency Guidelines. Figure 1 shows the proximity of the MHPA to the project site, with the nearest MHPA occurring approximately 0.25 miles from the proposed project site.

Area specific management directives (ASMD) were developed for certain MSCP covered species as a condition of coverage in the MSCP. The conditions for coverage outlined in the City's MSCP Subarea Plan have been reviewed in conjunction with the species which have a potential to occur within the project area. All Area Specific Management Directives for those species will be adhered to. The following table describes how the project will comply with the ASMD for species with a potential to occur within the project site.

Table 6. Area Specific Management Directives Compliance

<u>MSCP Covered Species</u>	<u>Area Specific Management Directives (ASMD)</u>	<u>Project Compliance</u>
<u>Cooper's Hawk</u>	<u>ASMD must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.</u>	<u>To avoid any indirect impacts Cooper's hawk construction within 300-feet of suitable habitat, including brush management activities, shall occur outside of the breeding season for these species (February 1 to September 15). The project will not disturbed oak woodlands or oak riparian forest.</u>
<u>Orange-Throated Whiptail</u>	<u>ASMD must address edge effects¹.</u>	<u>None of the native habitat within the project site would be impacted by the proposed project development with the exception of the limited amount of brush management activities around Chicarita Creek.</u> <u>Edge effects would be limited to development in Lot 1. However a 100-foot buffer is provided in this area to reduce edge effects from development. The amount of edge effects in this area is expected to be marginal in comparison to the existing development.</u>
<u>Blainville's Horned Lizard</u>	<u>ASMD must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.</u>	<u>None of the native habitat within the project site would be impacted by the proposed project development with the exception of the limited amount of brush management activities around Chicarita Creek.</u> <u>Edge effects would be limited to development in Lot 1. However a 100-foot buffer is provided in this area to reduce edge effects from development. The amount of edge effects in this area is expected to be marginal in comparison to the existing development.</u>

		<u>Prior to installation of common landscape improvements, container plants would be required to be inspected by the project biologist for the presence of disease, weeds, and pests, including Argentine ants. Plants identified with pests, weeds, or diseases would need to be rejected and removed from the property.</u>
<u>Coastal California Gnatcatcher</u>	<u>ASMD must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No cleaning of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.</u>	<p><u>Although the project may result in indirect impacts to coastal California gnatcatcher located outside the MHPA, these impacts would not be considered significant because the City has "take" authority for this species outside of the MHPA.</u></p> <p><u>The project includes brush management activities which would reduce the potential for habitat degradation due to unplanned fire.</u></p> <p><u>Edge effects would be limited to development in Lot 1. However a 100-foot buffer is provided in this area to reduce edge effects from development. The amount of edge effects in this area is expected to be marginal in comparison to the existing development.</u></p>
<u>Western Bluebird</u>	<u>No ASMD.</u>	<u>Not applicable</u>
<u>Least Bell's Vireo</u>	<u>ASMD must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).</u>	<p><u>To avoid any indirect impacts least Bell's vireo construction within 300-feet of suitable habitat, including brush management activities, shall occur outside of the breeding season for these species (February 1 to September 15).</u></p> <p><u>Edge effects would be limited to development in Lot 1. However a 100-foot buffer is provided in this area to reduce edge effects from development. The amount of edge effects in this area is expected to be marginal in comparison to the existing development.</u></p>
<u>Townsend's Big-Eared Bat</u>	<u>No ASMD.</u>	<u>Not applicable</u>

Notes:

¹Edge effects may include (but are not limited to) trampling, dumping, vehicular traffic, competition with invasive species, parasitism by cowbirds, predation by domestic animals, noise, collecting, recreational activities, and other human intrusion.

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6 Mitigation

This section describes proposed mitigation and avoidance measures that would mitigate adverse and significant impacts to biological resources resulting from the proposed project activities. The following mitigation and avoidance measures address the project's potential significant indirect effects on wildlife species. With implementation of the proposed measures, these indirect impacts would be avoided, minimized or offset.

As described in Section 5.2, the proposed project would not result in any significant direct impacts to sensitive vegetation, jurisdictional resources, or special-status plant or wildlife species. Therefore, no mitigation is required.

6.1 Mitigation Measures for Indirect Impacts

In order to avoid indirect impacts, the project would be required to meet NPDES regulations; incorporate BMPs during construction; install permanent BMPs per the City's Storm Water Standards Manual; and prepare and implement a SWPPP.

In addition, the project would be required to adhere to all standard construction protection measures listed in the mitigation and monitoring plan, which includes having a qualified biologist present to supervise flagging of sensitive resources prior to construction, provide environmental training and during construction to ensure no unauthorized impacts occur. Therefore, the proposed project would avoid indirect impacts to sensitive upland vegetation communities, jurisdictional resources and special-status plant species.

6.1.1 Indirect Impacts to Special-Status Wildlife

Proposed project implementation has the potential to indirectly impact special-status birds (Cooper's hawk, yellow warbler, least Bell's vireo and coastal California gnatcatchers) nesting adjacent to project development. Although the project may result in indirect impacts to coastal California gnatcatcher located outside the MHPA, these impacts would not be considered significant because the City has "take" authority for this species outside of the MHPA. Based on the provisions of the MSCP Implementing Agreement between the Wildlife Agencies and the City of San Diego, no additional protection is required to offset potential indirect impacts to the coastal California gnatcatchers located outside of the MHPA. Though similarly covered by the MSCP, a 300-foot avoidance buffer is required for the Cooper's hawk to comply with the MSCP conditions of coverage. Avoidance of indirect impacts to yellow warbler and Least Bell's vireo would require pre-construction surveys if construction or brush management activities occur during the breeding season (February 1 to September 15).

To avoid any indirect impacts Cooper's hawk, least Bell's vireo and yellow warbler, construction within 300-feet of suitable habitat, including brush management activities, shall occur outside of the breeding season for these species (February 1 to September 15). If construction/brush management must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey within suitable habitat to determine the presence or absence of nesting birds in the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities. The applicant shall submit the results of the preconstruction survey to the City of San Diego's (City's) Development Services Department (DSD) for review and approval prior to initiating any construction activities.

If nesting Cooper's hawk, least Bell's vireo and yellow warbler 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 the disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City DSD for review and approval and implemented to the satisfaction of the City. The biologist, in concert with the City, shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

If Cooper's hawk, least Bell's vireo or yellow warbler nesting is detected, then an appropriate impact avoidance area shall be included in the mitigation plan and this buffer shall be established around the active nest using orange fencing or other clear demarcation method. The radius of this avoidance buffer shall be determined through coordination with the project biologist and authorized by the City's project manager and DSD and shall use orange fencing or other clear demarcation method to define the approved buffer. If nesting Cooper's hawk, least Bell's vireo, and yellow warbler are not detected during the pre-construction survey, no further mitigation is required.

7 Acknowledgements

This report was prepared by Dudek biologists Patricia Schuyler, Olivia Koziel, and Mackenzie Forgey. Graphics were provided by Carrie Kubacki.

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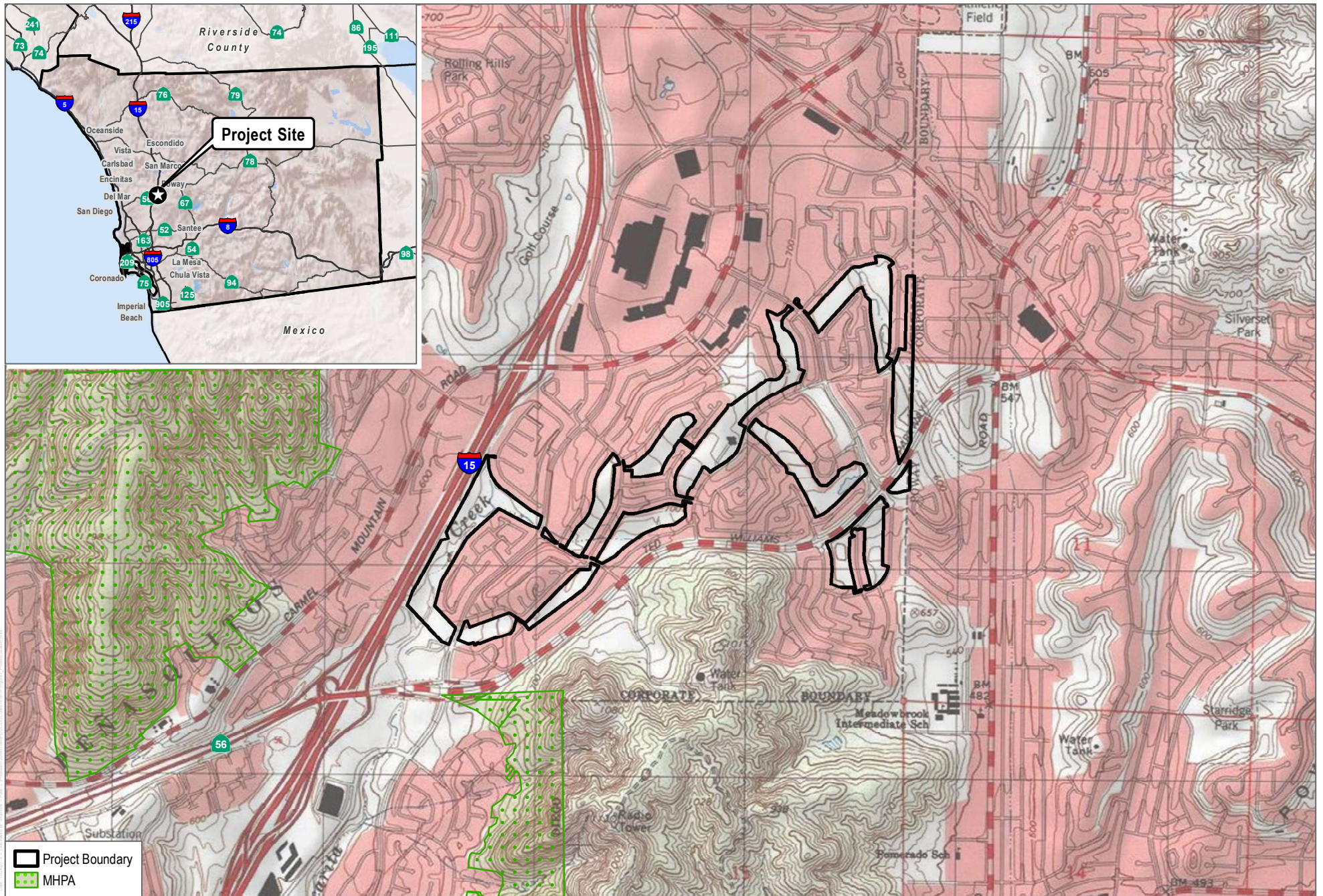


FIGURE 1

Project Location

Trails at Carmel Mountain Ranch

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SOURCE: SANGIS 2019; Project Design 2019

FIGURE 2
Biological Resources Overview Map
Trails at Carmel Mountain Ranch

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SOURCE: Esri World Imagery 2021; Project Design 2020

DUDEK



0 100 200 Feet

FIGURE 2A
Biological Resources
Trails at Carmel Mountain Ranch

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SOURCE: Esri World Imagery 2021; Project Design 2020

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SOURCE: Esri World Imagery 2021; Project Design 2020

FIGURE 2D
Biological Resources
Trails at Carmel Mountain Ranch

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SOURCE: Esri World Imagery 2021; Project Design 2020

FIGURE 2E
Biological Resources
 Trails at Carmel Mountain Ranch

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SOURCE: Esri World Imagery 2021; Project Design 2020

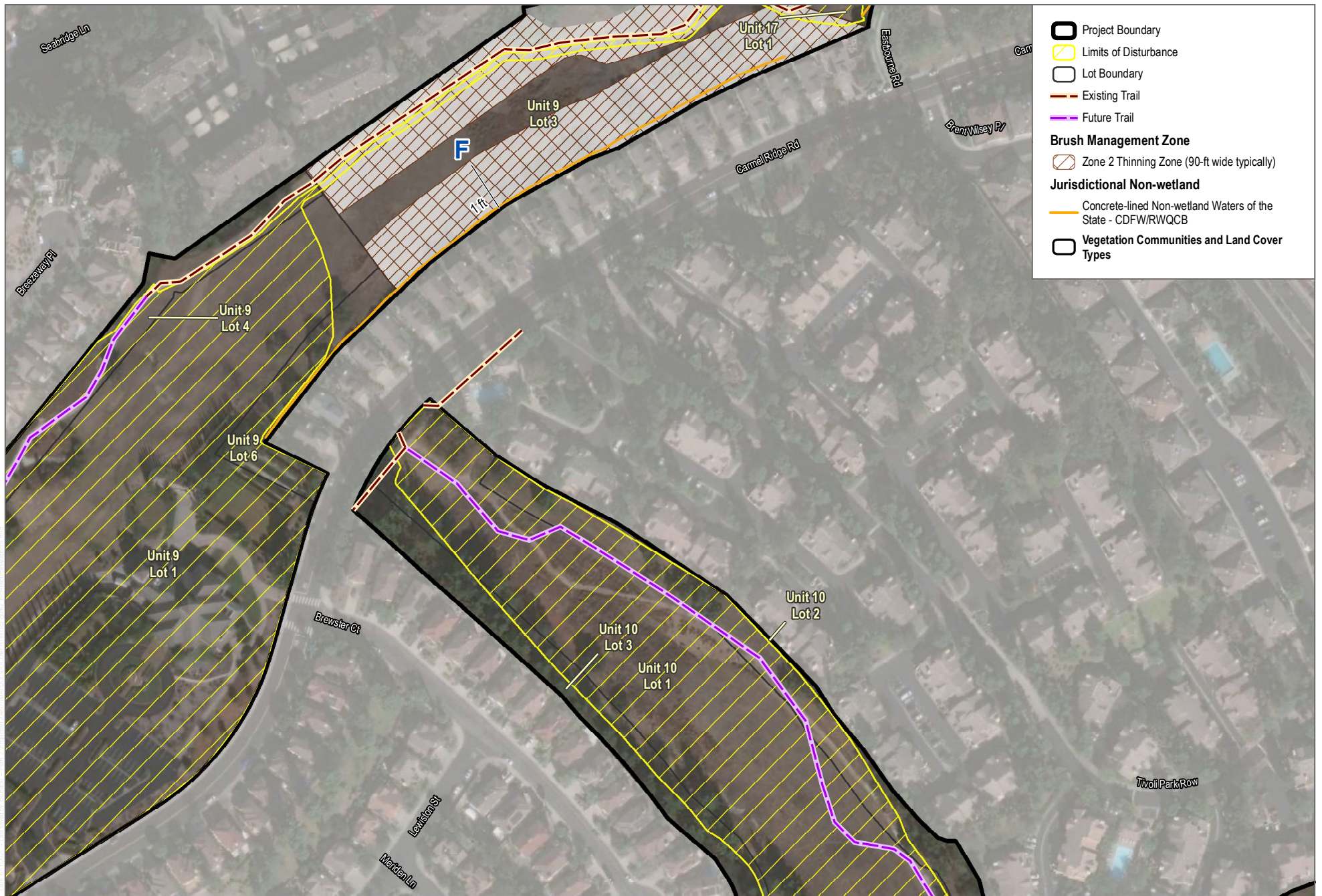
DUDEK



0 100 200 Feet

FIGURE 2F
Biological Resources
 Trails at Carmel Mountain Ranch

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SOURCE: Esri World Imagery 2021; Project Design 2020

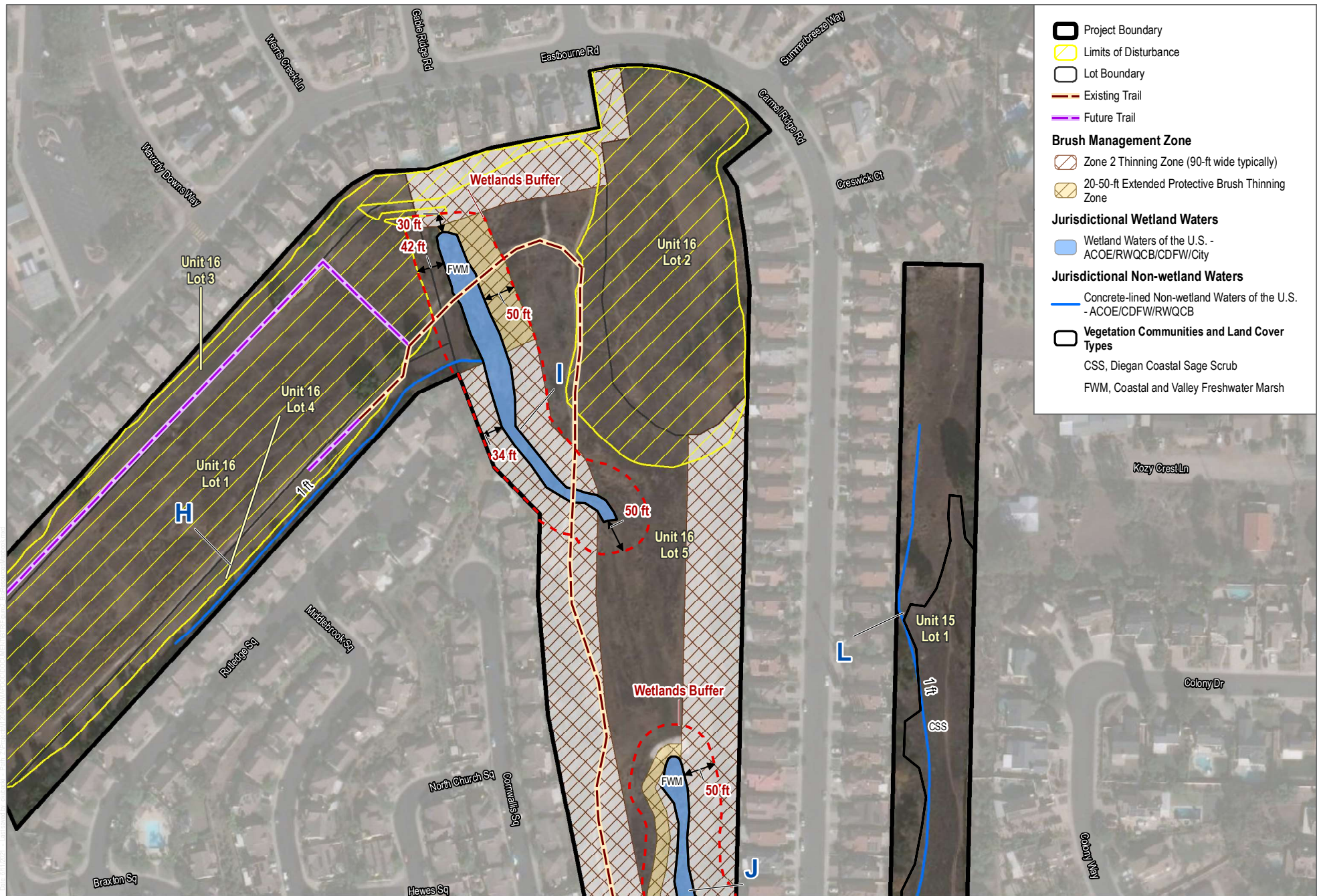
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SOURCE: Esri World Imagery 2021; Project Design 2020

FIGURE 2H
Biological Resources
Trails at Carmel Mountain Ranch

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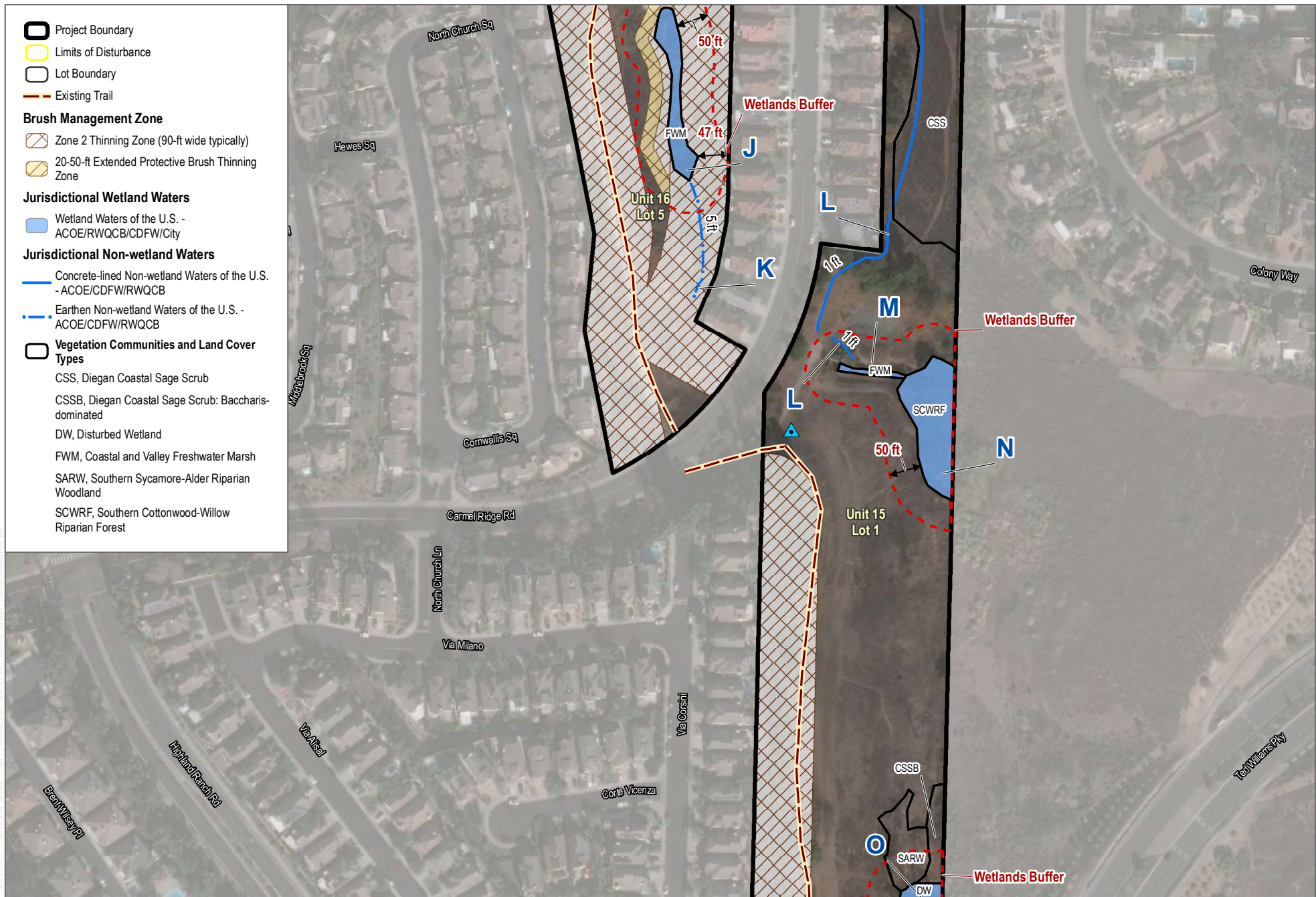
SOURCE: Esri World Imagery 2021; Project Design 2020

FIGURE 21

Biological Resources

Trails at Carmel Mountain Ranch

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SOURCE: Esri World Imagery 2021; Project Design 2020

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SOURCE: Esri World Imagery 2021; Project Design 2020

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SOURCE: Esri World Imagery 2021; Project Design 2020

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SOURCE: Esri World Imagery 2021; Project Design 2020

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Appendix A

Plant Compendium

Plant Species

Angiosperms: Magnoliids-Laurales

LAURACEAE – LAUREL FAMILY

Umbellularia californica – California bay

Angiosperms: Magnoliids-Piperales

SAURURACEAE – LIZARD'S TAIL FAMILY

Anemopsis californica – yerba mansa

Angiosperms: Eudicots

AMARANTHACEAE – AMARANTH FAMILY

Malosma laurina – laurel sumac

Rhus integrifolia – lemonadeberry

* *Schinus molle* – Peruvian pepper tree

ASTERACEAE – SUNFLOWER FAMILY

Artemisia californica – coastal sagebrush

Artemisia dracunculus – tarragon, dragon sagewort

Baccharis salicifolia ssp. *salicifolia* – mule-fat, seep-willow

* *Centaurea melitensis* – tocalote

* *Cynara* ssp. – thistle species

Encelia californica – California encelia

* *Helminthotheca echioides* – bristly ox-tongue

* *Lactuca serriola* – prickly lettuce

* *Sonchus oleraceus* – common sow-thistle

Baccharis pilularis – chaparral broom, coyote brush

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard

CHENOPODIACEAE – GOOSEFOOT FAMILY

* *Salsola australis* – Australian tumbleweed

* *Salsola tragus* – prickly Russian-thistle, tumbleweed

FABACEAE – LEGUME FAMILY

Acemisson glaber var. *glaber* – coastal deerweed

* *Acacia longifolia* – sydney golden wattle

* *Melilotus albus* – white sweetclover

FAGACEAE – OAK FAMILY

Quercus agrifolia – coast live oak

LAMIACEAE – MINT FAMILY

Salvia mellifera – black sage

MYRTACEAE – MYRTLE FAMILY

* *Eucalyptus* ssp. – eucalyptus

PLATANACEAE – PLANE TREE OR SYCAMORE FAMILY

Platanus racemosa – western sycamore

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum var. *fasciculatum* – coast California buckwheat

* *Rumex crispus* – curly dock

PROTEACEAE – PROTEA FAMILY

* *Grevillea robusta* – silk-oak

SALICACEAE – WILLOW FAMILY

Populus fremontii ssp. *fremontii* – western cottonwood

Salix gooddingii – Goodding's black willow

Salix lasiolepis – arroyo willow

SCROPHULARIACEAE – FIGWORT FAMILY

* *Myoporum laetum* – ngaio, mousehole tree

TAMARICACEAE – TAMARISK FAMILY

* *Tamarix ramosissima* – saltcedar

VITACEAE – GRAPE FAMILY

Vitis girdiana – Southern California wild grape

Angiosperms: Monocots

ARECACEAE – PALM FAMILY

Washingtonia filifera – California fan palm

CYPERACEAE – SEDGE FAMILY

Eleocharis macrostachya – pale spike-rush

POACEAE – GRASS FAMILY

Distichlis spicata – salt grass

* *Cortaderia selloana* – seloa pampas grass

* *Cynodon dactylon* – bermuda grass

* *Cenchrus setaceus* – African fountain grass

TYPHACEAE – CATTAIL FAMILY

Typha domingensis – southern cattail

Typha latifolia – broad-leaf cattail

* signifies introduced (non-native) species

Appendix B

Wildlife Compendium

Bird

Blackbirds, Orioles and Allies

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

Bushtits

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltiriparus minimus—bushtit

Cardinals, Grosbeaks and Allies

CARDINALIDAE—CARDINALS AND ALLIES

Pheucticus melanocephalus—black-headed grosbeak

Finches

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Flycatchers

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Tyrannus vociferans—Cassin's kingbird

Hawks

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Buteo jamaicensis—red-tailed hawk

Hummingbirds

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Jays, Magpies and Crows

CORVIDAE—CROWS AND JAYS

Corvus brachyrhynchos—American crow

Mockingbirds and Thrashers

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

Old World Warblers and Gnatcatchers

SYLVIIDAE – SYLVIID WARBLERS

Poliophtila californica californica – coastal California gnatcatcher

Pigeons and Doves

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

Thrushes

TURDIDAE—THRUSHES

Sialia mexicana—western bluebird

Woodpeckers

PICIDAE—WOODPECKERS AND ALLIES

Dryobates nuttallii—Nuttall's woodpecker

New World Sparrows

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza crissalis—California towhee

Invertebrate

Butterflies

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Nymphalis antiopa—mourning cloak

PIERIDAE—WHITES AND SULFURS

Pieris rapae—cabbage white

Mammal

Canids

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

Appendix C

Special-Status Plant Species Potentially Occurring within the Project Site

APPENDIX C

SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Adolphia californica</i>	California adolphia	None/None/2B.1	None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2430	High potential to occur on the site in suitable coastal sage scrub. Occurrences have been recorded previously on the site (SDNHM 2012).
<i>Artemisia palmeri</i>	San Diego sagewort	None/None/4.2	None	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May–Sep/45–3000	High potential to occur on the site. Suitable coastal sage scrub and riparian habitat is present. The site also contains suitable soils for this species. While not observed during reconnaissance surveys, there are recorded occurrences in the vicinity of the site (SDNHM 2012).
<i>Asplenium vespertinum</i>	western spleenwort	None/None/4.2	None	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb–June/590–3280	Low potential to occur on the site. Although the site does contain coastal sage scrub, suitable rocky substrate is not present. There are occurrences recorded in the vicinity of the project area (SDNHM 2012).
<i>Astragalus albens</i>	Cushenbury milk-vetch	FE/None/1B.1	None	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; usually carbonate, rarely granitic/perennial herb/Mar–June/3590–6560	Not expected to occur. The site is outside of the species' known elevation range.
<i>Atriplex coulteri</i>	Coulter's saltbush	None/None/1B.2	None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1510	High potential to occur within suitable coastal sage scrub vegetation on the site. Occurrences were recorded on the project site and less than a mile southeast of the project area (CDFW 2019; SDNHM 2012).

APPENDIX C

SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Bahiopsis laciniata</i>	San Diego County viguiera	None/None/4.3	None	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	High potential to occur within coastal sage scrub on the site. There is a known occurrence just west of Black Mountain Open Space Park (SDNHM 2012), although this perennial species was not observed during reconnaissance surveys. .
<i>Bergerocactus emoryi</i>	golden-spined cereus	None/None/2B.2	None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy/perennial stem succulent/May–June/5–1295	Low potential to occur. Suitable coastal sage scrub habitat is present, however there are no known occurrences within the Poway USGS quadrangle map and few occurrences within the region (SDNHM 2012).
<i>Bloomeria clevelandii</i>	San Diego goldenstar	None/None/1B.1	Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial bulbiferous herb/Apr–May/160–1525	Low potential to occur. Coastal sage scrub habitat is present, however there are no vernal pools present. There are no known occurrences have been recorded near or within the project area.
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	FT/SE/1B.1	Covered, Narrow Endemic	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; often clay/perennial bulbiferous herb/Mar–June/80–3675	Low potential to occur. Coastal sage scrub habitat is present, however there are no vernal pools present. There are no known occurrences on or near the site (SDNHM 2012).

APPENDIX C

SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None/None/1B.1	Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/May–July/95–5550	Not expected to occur. The site lacks suitable vegetation and no vernal pools are present.
<i>Calandrinia breweri</i>	Brewer's calandrinia	None/None/4.2	None	Chaparral, Coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/(Jan)Mar–June/30–4005	Moderate potential to occur. There is suitable disturbed and coastal sage scrub habitat present. The site also contains suitable sandy and loamy soils. There are no known occurrences of this species within the region surrounding the project site (SDNHM 2012).
<i>Calochortus dunnii</i>	Dunn's mariposa lily	None/SR/1B.2	Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb)Apr–June/605–6005	Not expected to occur. The site lacks suitable vegetation and soils.
<i>Camissoniopsis lewisii</i>	Lewis' evening-primrose	None/None/3	None	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy or clay/annual herb/Mar–May(June)/0–985	Low potential to occur. While coastal sage scrub is present, this species is more typically found in coastal areas and there are no known occurrences within the vicinity of the project site (SDNHM 2012).
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	None/None/1B.2	Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/Apr–June/770–2475	Not expected to occur. No suitable vegetation present.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Ceanothus verrucosus</i>	wart-stemmed ceanothus	None/None/2B.2	Covered	Chaparral/perennial evergreen shrub/Dec–May/0–1245	Not expected to occur. No suitable vegetation present.
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	None/None/1B.1	None	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575	Not expected to occur. There is some suitable marsh habitat on the site, but there are no vernal pools present and no known occurrences of this species within the vicinity (SDNHM 2012).
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	None/None/1B.1	None	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Low potential to occur. There is limited suitable riparian woodland on the site and it is not associated with alkali substrate. There are no known occurrences within the vicinity (SDNHM 2012).
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	FE/SE/1B.2	Covered	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. The site is outside of the species' known elevation range.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	None/None/1B.2	None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/annual herb/Apr–July/95–5020	Low potential to occur. While suitable coastal sage scrub habitat is present, there are no vernal pools on the site. There are known occurrences within the Poway USGS quadrangle map.
<i>Cistanthe maritima</i>	seaside cistanthe	None/None/4.2	None	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/annual herb/(Feb)Mar–June(Aug)/15–985	Low potential to occur. Although coastal sage scrub habitat is present, this species is more typical of coastal habitats with all known occurrences being located along the coast (SDNHM 2012).

APPENDIX C

SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Clinopodium chandleri</i>	San Miguel savory	None/None/1B.2	Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3525	Low potential to occur. There are very few known occurrences of this species within San Diego county and there are no suitable soils present. This perennial species was not observed during reconnaissance surveys and there are no recorded occurrences within the Poway USGS quadrangle map (SDNHM 2012).
<i>Convolvulus simulans</i>	small-flowered morning-glory	None/None/4.2	None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar–July/95–2430	Moderate potential to occur within suitable coastal sage scrub on the site. While not observed during reconnaissance surveys, there are known occurrences within the vicinity surrounding the project site (SDNHM 2012).
<i>Corethrogyne filaginifolia</i> var. <i>incana</i>	San Diego sand aster	None/None/1B.1	None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June–Sep/5–375	Not expected to occur. The site is outside of the species' known elevation range.
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar Mesa sand aster	None/None/1B.1	Covered	Coastal bluff scrub, Chaparral (maritime, openings), Coastal scrub; sandy/perennial herb/May,July,Aug,Sep/45–490	Low potential to occur. Although coastal sage scrub habitat is present, this species is more typical of coastal habitats with all known occurrences being located along the coast (SDNHM 2012).
<i>Cylindropuntia californica</i> var. <i>californica</i>	snake cholla	None/None/1B.1	Covered, Narrow Endemic	Chaparral, Coastal scrub/perennial stem succulent/Apr–May/95–490	Moderate potential to occur. Suitable coastal sage scrub habitat is present, however, there are no known occurrences within the Poway USGS quadrangle map and the species was not observed during reconnaissance surveys (SDNHM 2012).

APPENDIX C

SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Deinandra conjugens</i>	Otay tarplant	FT/SE/1B.1	Covered, Narrow Endemic	Coastal scrub, Valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Low potential to occur. While coastal sage scrub habitat is present, there are no known occurrences within the vicinity of the project site. All known occurrences are located in southern San Diego County (SDNHM 2012).
<i>Dichondra occidentalis</i>	western dichondra	None/None/4.2	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1640	Moderate potential to occur within suitable coastal sage scrub habitat. This species is a fire follower, thus even if it was not observed above ground, there may be a seed bank present. This perennial species was not observed during reconnaissance surveys, however there are known occurrences within the vicinity surrounding the project site (SDNHM 2012).
<i>Dicranostegia orcuttiana</i>	Orcutt's bird's-beak	None/None/2B.1	Covered	Coastal scrub/annual herb (hemiparasitic)/(Mar)Apr–July(Sep)/30–1150	Low potential to occur within suitable coastal sage scrub habitat. There are no known occurrences within the vicinity of the project site (SDNHM 2012).
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	None/None/1B.1	None	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/Apr–June/15–1475	Low potential to occur. Although coastal sage scrub habitat is present, this species is more typical of coastal habitats with all known occurrences being located along the coast (SDNHM 2012).

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SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Dudleya brevifolia</i>	short-leaved dudleya	None/SE/1B.1	Covered, Narrow Endemic	Chaparral (maritime, openings), Coastal scrub; Torrey sandstone/perennial herb/Apr–May/95–820	Low potential to occur. Suitable coastal sage scrub habitat is present, but there are no suitable sandstone soils on the site. There are no known occurrences in the vicinity (Calflora 2019).
<i>Dudleya variegata</i>	variegated dudleya	None/None/1B.2	Covered, Narrow Endemic	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr–June/5–1905	Low potential to occur. While suitable coastal sage scrub habitat is present and there is an occurrence less than one mile west of the site (CDFW 2019), there are no vernal pools on the site.
<i>Dudleya viscida</i>	sticky dudleya	None/None/1B.2	Covered	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/May–June/30–1805	Low potential to occur. The site does contain suitable coastal sage scrub habitat, however suitable rocky substrate is not present and there are no known occurrences within the Poway USGS quadrangle map (SDNHM 2012).
<i>Ericameria palmeri</i> var. <i>palmeri</i>	Palmer's goldenbush	None/None/1B.1	Covered, Narrow Endemic	Chaparral, Coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1970	Low potential to occur. There is suitable coastal sage scrub habitat present, however this perennial species was not observed during reconnaissance surveys and there are no known occurrences of this species within the region surrounding the project site (SDNHM 2012).

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SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Eriodictyon sessilifolium</i>	sessile-leaved yerba stanta	None/None/2B.1	None	Coastal scrub; volcanic/perennial shrub/July/555–560	Low potential to occur. Suitable coastal sage scrub habitat is present, however this perennial species was not observed during reconnaissance surveys and there is only one known occurrence of this species within the vicinity, approximately 2.5 miles southwest the project site (SDNHM 2012).
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	FE/SE/1B.1	Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/annual / perennial herb/Apr–June/65–2035	Low potential to occur. There is suitable coastal sage scrub habitat present, but there are no vernal pools on the site.
<i>Erysimum ammophilum</i>	sand-loving wallflower	None/None/1B.2	Covered	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/perennial herb/Feb–June/0–195	Not expected to occur. The site is outside of the species' known elevation range.
<i>Euphorbia misera</i>	cliff spurge	None/None/2B.2	None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug(Oct)/30–1640	Low potential to occur. Suitable coastal sage scrub is present, however the site does not contain suitable rocky substrate and this perennial species was not observed during reconnaissance surveys (SDNHM 2012).
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None/None/2B.1	Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem succulent/May–June/5–1475	High potential to occur on the site in suitable coastal sage scrub habitat. Occurrences have been recorded previously on and near the site (SDNHM 2012).

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SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	FE/SR/1B.1	Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/30–2350	Not expected to occur. No suitable vegetation or soils present.
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	None/None/4.2	None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3135	Moderate potential to occur within suitable coastal sage scrub on the site. Though not observed during reconnaissance surveys of the site, there is a known occurrence approximately 2 miles northwest of the project site (SDNHM 2012).
<i>Hesperocyparis forbesii</i>	Tecate cypress	None/None/1B.1	Covered	Closed-cone coniferous forest, Chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4920	Not expected to occur. No suitable vegetation or soils present.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	beach goldenaster	None/None/1B.1	None	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/Mar–Dec/0–4020	Low potential to occur. Suitable coastal sage scrub habitat is present, however this species is more typical of coastal habitats and the majority of known occurrences are along the coast (SDNHM 2012).
<i>Holocarpa virgata</i> ssp. <i>elongata</i>	graceful tarplant	None/None/4.2	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3610	High potential to occur within suitable coastal sage scrub habitat on the site. Though not observed during reconnaissance surveys, there are multiple known occurrences surrounding the project site (SDNHM 2012).

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SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Hordeum intercedens</i>	vernal barley	None/None/3.2	None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar–June/15–3280	Low potential to occur. While suitable coastal sage scrub habitat is present, there are no vernal pools on the site and there are no known occurrences within the vicinity (SDNHM 2012).
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	None/None/1B.2	None	Chaparral, Coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/30–445	Not expected to occur. The site is outside of the species' known elevation range.
<i>Iva hayesiana</i>	San Diego marsh-elder	None/None/2B.2	None	Marshes and swamps, Playas/perennial herb/Apr–Oct/30–1640	High potential to occur. There is suitable marshland habitat on the site, however the species was not observed during reconnaissance surveys. There are known occurrences within the project vicinity (SDNHM 2012).
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	None/None/4.2	None	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/5–2955	High potential to occur. There is suitable marshland habitat on the site, however the species was not observed during reconnaissance surveys. There is a known occurrence within two miles of the project area (SDNHM 2012).
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None/1B.1	None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/0–4005	Not expected to occur. No suitable vegetation present and there are no vernal pools on the site. There are no known occurrences within the site vicinity (SDNHM 2012).

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Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Lepechinia cardiophylla</i>	heart-leaved pitcher sage	None/None/1B.2	Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral, Cismontane woodland/perennial shrub/Apr–July/1705–4495	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Lepechinia ganderi</i>	Gander's pitcher sage	None/None/1B.3	Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland; Gabbroic or metavolcanic/perennial shrub/June–July/1000–3295	Not expected to occur. The site is outside of the species' known elevation range.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/None/4.3	None	Chaparral, Coastal scrub/annual herb/Jan–July/0–2905	Moderate potential to occur within suitable coastal sage scrub habitat on the site. While not observed during reconnaissance surveys, there is a known occurrence within 2 miles of the project site (SDNHM 2012).
<i>Leptosyne maritima</i>	sea dahlia	None/None/2B.2	None	Coastal bluff scrub, Coastal scrub/perennial herb/Mar–May/15–490	Low potential to occur. Suitable coastal sage scrub habitat is present, however this species is more typical of coastal habitats and the majority of known occurrences are along the coast (SDNHM 2012).
<i>Microseris douglasii</i> ssp. <i>platycarpa</i>	small-flowered microseris	None/None/4.2	None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar–May/45–3510	Low potential to occur. While suitable coastal sage scrub habitat is present, there are no vernal pools on the site. The species has been recorded in the vicinity of the site (Calflora 2019).
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	None/None/1B.2	Covered	Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Aug/980–5165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

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SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Monardella viminea</i>	willowy monardella	FE/SE/1B.1	Covered, Narrow Endemic	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/160–740	Low potential to occur. While there are suitable riparian areas on the site, this perennial species was not observed during reconnaissance surveys. This species tends to be found in sandy, dry washes. There are known occurrences within the Poway USGS quadrangle map (SDNHM 2012).
<i>Myosurus minimus ssp. apus</i>	little mousetail	None/None/3.1	Covered	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/Mar–June/65–2100	Not expected to occur. No suitable vegetation or vernal pools present.
<i>Navarretia fossalis</i>	spreading navarretia	FT/None/1B.1	Covered	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/annual herb/Apr–June/95–2150	Not expected to occur. Some suitable marsh habitat present, however there are no vernal pools on the site.
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	None/None/1B.1	None	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/Apr–July/5–3970	Not expected to occur. Some suitable coastal sage scrub habitat present, however there are no vernal pools on the site.
<i>Nolina interrata</i>	Dehesa nolina	None/SE/1B.1	Covered, Narrow Endemic	Chaparral (gabbroic, metavolcanic, or serpentinite)/perennial herb/June–July/605–2805	Not expected to occur. No suitable vegetation or soils present.
<i>Orcuttia californica</i>	California Orcutt grass	FE/SE/1B.1	Covered	Vernal pools/annual herb/Apr–Aug/45–2165	Not expected to occur. No vernal pools present.

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Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Orobanche parishii</i> ssp. <i>brachyloba</i>	short-lobed broomrape	None/None/4.2	None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Not expected to occur. This species is more typical of coastal habitats and all known occurrences are located along the coast (SDNHM 2012).
<i>Packera ganderi</i>	Gander's ragwort	None/SR/1B.2	Covered	Chaparral (burns, gabbroic outcrops)/perennial herb/Apr–June/1310–3935	Not expected to occur. No suitable vegetation or soils present.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i>	golden-rayed pentachaeta	None/None/4.2	None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6070	Moderate potential to occur within suitable coastal sage scrub or riparian areas on the site. There are no known occurrences within the vicinity of the project site (SDNHM 2012).
<i>Phacelia ramosissima</i> var. <i>austrolitoralis</i>	south coast branching phacelia	None/None/3.2	None	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt); sandy, sometimes rocky/perennial herb/Mar–Aug/15–985	Low potential to occur. This species is more typical of coastal habitats and nearly all known occurrences are located along the coast (SDNHM 2012).
<i>Phacelia stellaris</i>	Brand's star phacelia	None/None/1B.1	None	Coastal dunes, Coastal scrub/annual herb/Mar–June/0–1310	Low potential to occur. While coastal sage scrub is present, this species is more typically found in coastal areas and there are no known occurrences within the project vicinity (SDNHM 2012).
<i>Pinus torreyana</i> ssp. <i>torreyana</i>	Torrey pine	None/None/1B.2	Covered	Closed-cone coniferous forest, Chaparral; Sandstone/perennial evergreen tree/N.A./95–525	Not expected to occur. No suitable vegetation or soils present.

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Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE/SE/1B.1	Covered	Vernal pools/annual herb/Mar–July/295–655	Not expected to occur. No vernal pools present.
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	FE/SE/1B.1	Covered	Vernal pools/annual herb/May–July/295–820	Not expected to occur. No vernal pools present.
<i>Polygala cornuta</i> var. <i>fishiae</i>	Fish's milkwort	None/None/4.3	None	Chaparral, Cismontane woodland, Riparian woodland/perennial deciduous shrub/May–Aug/325–3280	Low potential to occur. While there is limited suitable riparian woodland present, this species was not observed during reconnaissance surveys. There are no known occurrences of this species within the region surrounding the project site (SDNHM 2012).
<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	None/None/2B.2	None	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; sandy, gravelly/perennial herb/(July)Aug–Nov(Dec)/0–6890	Low potential to occur. Suitable coastal sage and riparian woodland habitat is present, however there are no known occurrences of this species within the region surrounding the project site (SDNHM 2012).
<i>Quercus cedrosensis</i>	Cedros Island oak	None/None/2B.2	None	Closed-cone coniferous forest, Chaparral, Coastal scrub/perennial evergreen tree/Apr–May/835–3150	Low potential to occur. Suitable coastal sage scrub is present; however, this perennial species was not observed during reconnaissance surveys and is not known to occur within 5 miles of the project site (SDNHM 2012).
<i>Quercus dumosa</i>	Nuttall's scrub oak	None/None/1B.1	None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr(May–Aug)/45–1310	Moderate potential to occur within suitable coastal sage habitat. This perennial species was not observed during reconnaissance surveys, but is known to occur within approximately 2 miles of the project site (SDNHM 2012).

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Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Quercus engelmannii</i>	Engelmann oak	None/None/4.2	None	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/160–4265	Low potential to occur. Some suitable riparian woodland habitat is present, however this perennial species would have been observed if present during reconnaissance surveys. Nearest known occurrence is approximately 2 miles southwest of the project site (SDNHM 2012).
<i>Rosa minutifolia</i>	small-leaved rose	None/SE/2B.1	Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Jan–June/490–525	Low potential to occur. Suitable coastal sage scrub habitat is present, however this perennial species was not observed during reconnaissance surveys and all known occurrences are south of Chula Vista (SDNHM 2012).
<i>Salvia munzii</i>	Munz's sage	None/None/2B.2	None	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495	Low potential to occur within suitable coastal sage scrub habitat, however this perennial species was not observed during reconnaissance surveys and there are no known occurrences in the vicinity of the site (SDNHM 2012).
<i>Senecio aphanactis</i>	chaparral ragwort	None/None/2B.2	None	Chaparral, Cismontane woodland, Coastal scrub; sometimes alkaline/annual herb/Jan–Apr(May)/45–2625	Moderate potential to occur. Suitable coastal sage scrub habitat present, however, there are no known occurrences of this species is within the vicinity of the project site (SDNHM 2012).

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Scientific Name	Common Name	Status (Federal/State/CRPR)	San Diego MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	None/None/2B.2	None	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/perennial herb/Mar–June/45–5020	Not expected to occur. This species is most commonly found in playas (Calflora 2019), which do not occur on the project site.
<i>Stipa diegoensis</i>	San Diego County needle grass	None/None/4.2	None	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2625	Moderate potential to occur. Suitable coastal sage scrub habitat and soils are present. The nearest known occurrence is south of Mission Trails Regional Park (SDNHM 2012).
<i>Tetradloccus dioicus</i>	Parry's tetradloccus	None/None/1B.2	Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/540–3280	Low potential to occur. Suitable coastal sage scrub habitat is present, however this perennial species was not observed during reconnaissance surveys. There are no known occurrences within the vicinity of the site (SDNHM 2012).
<i>Xanthisma junceum</i>	rush-like bristleweed	None/None/4.3	None	Chaparral, Coastal scrub/perennial herb/May–Jan/785–3280	Moderate potential to occur within coastal sage scrub on the site. This perennial species was not observed during reconnaissance surveys, but there are known occurrences within the vicinity (SDNHM 2012).

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Appendix D

Sensitive Wildlife Species Potentially Occurring within the Project Site

APPENDIX D
SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
Amphibians					
<i>Anaxyrus californicus</i>	arroyo toad	FE/SSC	Covered	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. Suitable habitat onsite is likely not large enough to support the species. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Rana draytonii</i>	California red-legged frog	FT/SSC	Covered	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. No known occurrences within the region* and vicinity*.
<i>Spea hammondi</i>	western spadefoot	None/SSC	None	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley-foothill woodlands, pastures, and other agriculture	Low potential to occur within wetland habitat. There are occurrences recorded within the vicinity*.
Reptiles					
<i>Actinemys marmorata</i>	northwestern pond turtle	None/SSC	None	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. While wetland habitat on site may be suitable habitat and there are known occurrences of this species within the region*, there are no known occurrences of this species within the vicinity*. In addition, the available habitat is largely isolated from other existing habitat.

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SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Actinemys pallida</i>	southwestern pond turtle	N/A	Covered	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. No known occurrences within the region* and vicinity*.
<i>Anniella stebbinsi</i>	southern California legless lizard	None/SSC	None	Coastal dunes, stabilized dunes, beaches, dry washes, valley-foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	Moderate potential to occur within sparse coastal sage scrub or woodland habitats on the site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Arizona elegans occidentalis</i>	California glossy snake	None/SSC	None	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Low potential to occur. This species prefers desert regions. There are occurrences recorded within the vicinity*.
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail	None/WL	Covered	Low-elevation coastal scrub, chaparral, and valley-foothill hardwood	Moderate potential to occur. Most suitable coastal sage scrub habitat present is adjacent to the project site or not within the project impact area. Multiple recorded occurrences of this species in the vicinity*.
<i>Aspidoscelis tigris stejnegeri</i>	San Diegan tiger whiptail	None/SSC	None	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Low potential to occur. This species prefers hot and dry open areas. There are occurrences recorded within the vicinity*.

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SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Coleonyx variegatus abbotti</i>	San Diego banded gecko	None/SSC	None	Rocky areas within coastal scrub and chaparral	Low potential to occur within coastal sage scrub which occurs in small isolated patches. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Crotalus ruber</i>	red diamondback rattlesnake	None/SSC	None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Low potential to occur. This species prefers desert regions. There are occurrences recorded within the vicinity*.
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	None/None	None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	Not expected to occur. No suitable wet meadow on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard	None/SSC	Covered	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley-foothill hardwood, conifer, riparian, pine-cypress, juniper, and annual grassland habitats	Moderate potential to occur. Species would be supported in coastal sage scrub habitat where soil is sandy. Occurrences have been recorded in the vicinity*.
<i>Plestiodon skiltonianus interparietalis</i>	Coronado skink	None/WL	None	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Moderate potential to occur. No suitable woodland present. There are occurrences recorded within the vicinity*.
<i>Salvadora hexalepis virgultea</i>	coast patch-nosed snake	None/SSC	None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Not expected to occur. No suitable burrows on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.

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SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Thamnophis hammondi</i>	two-striped gartersnake	None/SSC	None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Moderate potential to occur. Natural habitat on the site is limited and is often surrounded by development. The species has been recorded in the vicinity*.
Birds					
<i>Accipiter cooperii</i> (nesting)	Cooper's hawk	None/WL	Covered	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	High potential to forage on the site and moderate potential to nest in areas of riparian woodland or other woodlands (including non-native) on the site. There are occurrences recorded within the vicinity*.
<i>Agelaius tricolor</i> (nesting colony)	tricolored blackbird	BCC/SSC, ST	Covered	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. There is limited suitable habitat on the site. There are occurrences recorded within the vicinity*.
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	None/WL	Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to occur. There is limited ideal habitat on the site for this species. There are recorded occurrences within the vicinity*.
<i>Ammodramus savannarum</i> (nesting)	grasshopper sparrow	None/SSC	None	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Not expected to occur. No suitable open grassland with tall, scattered shrubs on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Aquila chrysaetos</i> (nesting & wintering)	golden eagle	BCC/FP, WL	Covered	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to occur. No suitable vegetation present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Artemisiospiza belli belli</i>	Bell's sage sparrow	BCC/WL	None	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Not expected to occur. Areas of coastal sage scrub on the site are relatively small and bordered by development. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Athene cunicularia</i> (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	Covered	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to occur. Some open, disturbed habitat does exist on the site and known occurrences within the region*, but there are no known occurrences in the vicinity*.
<i>Branta canadensis</i>	Canada goose	None/None	Covered	Lakes, rivers, ponds, and other bodies of water; yards, park lawns, and agricultural fields	Not expected to occur. No suitable water bodies on site. No known occurrences within the region* and vicinity*.
<i>Buteo regalis</i> (wintering)	ferruginous hawk	BCC/WL	Covered	Winters and forages in open, dry country, grasslands, open fields, agriculture	Not expected to occur. No suitable open, dry grassland or field present. No known occurrences within the region* and vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Buteo swainsoni</i> (nesting)	Swainson's hawk	BCC/ST	Covered	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. There is no suitable foraging habitat on the site, and most large trees on the site occur in close proximity to development. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren	BCC/SSC	Covered	Southern cactus scrub patches	Not expected to occur. No suitable cactus scrub habitat present on the site. There are occurrences recorded within the vicinity*.
<i>Charadrius alexandrinus nivosus</i> (nesting)	western snowy plover	FT, BCC/SSC	Covered	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. No suitable marine shores or vegetated flats near saline water on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Charadrius montanus</i> (wintering)	mountain plover	BCC/SSC	Covered	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. No suitable shortgrass prairies or sandy deserts on site. No known occurrences within the region* and vicinity*.
<i>Circus hudsonius</i> (nesting)	northern harrier	None/SSC	Covered	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. No known occurrences within the region* and vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Coccyzus americanus occidentalis</i> (nesting)	western yellow-billed cuckoo	FT, BCC/SE	None	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable dense, wide riparian woodland on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Coturnicops noveboracensis</i>	yellow rail	BCC/SSC	None	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Not expected to occur. No suitable wet marsh or meadow present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Egretta rufescens</i>	reddish egret	None/None	Covered	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. No suitable marsh or flooded field on site. No known occurrences within the region* and vicinity*.
<i>Elanus leucurus</i> (nesting)	white-tailed kite	None/FP	None	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Moderate potential to occur. May nest in woodlands on the site, and may utilize disturbed habitat or coastal sage scrub for foraging. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Empidonax traillii eximius</i> (nesting)	southwestern willow flycatcher	FE/SE	Covered	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. Riparian habitat on site could support this species and this species is known to occur within the region*, however the species is not known to occur within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Eremophila alpestris actia</i>	California horned lark	None/WL	None	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Not expected to occur. No suitable grassland or beach present. There are occurrences recorded within the vicinity*.
<i>Falco mexicanus</i> (nesting)	prairie falcon	BCC/WL	None	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to occur. No suitable savanna, meadow, or cliff present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Falco peregrinus anatum</i> (nesting)	American peregrine falcon	FDL, BCC/FP, SDL	Covered	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to occur. No suitable cliffs or meadows where waterfowl are present on site. No known occurrences within the region* and vicinity*.
<i>Haliaeetus leucocephalus</i> (nesting & wintering)	bald eagle	FDL, BCC/FP, SE	Covered	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. No suitable forested area near large bodies of water present. No known occurrences within the region* and vicinity*.
<i>Icteria virens</i> (nesting)	yellow-breasted chat	None/SSC	None	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Moderate potential to occur. Riparian habitat on the site is likely not expansive enough to support this species. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Ixobrychus exilis</i> (nesting)	least bittern	BCC/SSC	None	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. No suitable freshwater habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	BCC/FP, ST	None	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. There is no suitable habitat on the site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Numenius americanus</i> (nesting)	long-billed curlew	BCC/WL	Covered	Nests in grazed, mixed grass, and short-grass prairies; localized nesting along the California coast; winters and forages in coastal estuaries, mudflats, open grassland, and cropland	Not expected to occur. There is no suitable habitat on the site. No known occurrences within the region* and vicinity*.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None/SE	Covered	Nests and forages in coastal saltmarsh dominated by pickleweed (<i>Salicornia</i> spp.)	Not expected to occur. There is no suitable coastal saltmarsh habitat on the site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Passerculus sandwichensis rostratus</i> (wintering)	large-billed savannah sparrow	None/SSC	Covered	Nests and forages in open, low saltmarsh vegetation, including low halophytic scrub	Not expected to occur. There is no suitable saltmarsh habitat present. No known occurrences within the region* and vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Pelecanus occidentalis californicus</i> (nesting colonies & communal roosts)	California brown pelican	FDL/FP, SDL	Covered	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. There is no suitable coastal marine habitat present. No known occurrences within the region* and vicinity*.
<i>Plegadis chihi</i> (nesting colony)	white-faced ibis	None/WL	Covered	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. Marsh habitat is very limited on the site, and the species is not known to occur in the vicinity*. There are few recorded occurrences of the species within the region*.
<i>Poliioptila californica californica</i>	coastal California gnatcatcher	FT/SSC	Covered	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	High potential to occur. Sufficiently large areas of suitable coastal sage scrub habitat are present mostly on lands adjacent to the project site. Some suitable sage scrub habitat is located on the edges of the site. The species was observed foraging within the project area, and there are recorded occurrences of this species in the vicinity*.
<i>Pyrocephalus rubinus</i> (nesting)	vermillion flycatcher	None/SSC	None	Nests in riparian woodlands, riparian scrub, and freshwater marshes; typical desert riparian with cottonwood, willow, mesquite adjacent to irrigated fields, ditches, or pastures	Not expected to occur. No suitable riparian woodland habitat for nesting present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Rallus obsoletus levipes</i>	Ridgway's rail	FE/SE, FP	Covered	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. There is no ideal suitable habitat on the site for this species. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Setophaga petechia</i> (nesting)	yellow warbler	BCC/SSC	None	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Moderate potential to nest and forage within riparian woodland areas on the site. There are occurrences recorded within the vicinity*.
<i>Sialia mexicana</i>	western bluebird	None/None	Covered	Nests in old-growth red fir, mixed-conifer, and lodgepole pine habitats near wet meadows used for foraging	Moderate potential to forage. No suitable nesting habitat on site. No known occurrences within the region* and vicinity*.
<i>Sternula antillarum browni</i> (nesting colony)	California least tern	FE/FP, SE	Covered	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. No suitable estuaries or beaches on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Thalasseus elegans</i> (nesting colony)	elegant tern	None/WL	Covered	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. No suitable water habitat on site. No known occurrences within the region* and vicinity*.
<i>Vireo bellii pusillus</i> (nesting)	least Bell's vireo	FE/SE	Covered	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Moderate potential to occur. This species would be most likely to occur within the riparian habitat along Chicarita Creek. There are occurrences recorded within the vicinity*, however, there are no known occurrences within 5 miles of the site.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
Mammals					
<i>Antrozous pallidus</i>	pallid bat	None/SSC	None	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to occur. No suitable habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	None/SSC	None	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Low potential to occur. The site lacks chaparral, which is this species' preferred habitat type. The coastal sage scrub and disturbed habitat is very constrained and it is unlikely this species occurs on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	None/SSC	None	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland	Moderate potential to occur. Suitable coastal sage scrub habitat exists on the site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None/SSC	None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland; roosts in caves, mines, and buildings	Low potential to occur. No suitable desert or montane vegetation are present on site. There are occurrences recorded within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None/SSC	None	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Low-to-moderate potential to occur. Man-made structures and riparian habitat on the site could potentially support this species. There are few occurrences recorded within the vicinity*.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FE/ST	Covered	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. Disturbed areas could provide suitable habitat and this species is known to occur within the region*, however there are no known occurrences in the vicinity*.
<i>Euderma maculatum</i>	spotted bat	None/SSC	None	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Not expected to occur. No suitable arid desert habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Eumops perotis californicus</i>	western mastiff bat	None/SSC	None	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Low potential to occur. Suitable coastal sage scrub habitat exists on the site. However, there is no suitable canyon roosting habitat present. There are occurrences recorded within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Lasionycteris noctivagans</i>	silver-haired bat	None/None	None	Old-growth forest, maternity roosts in trees, large snags 50 feet aboveground; hibernates in hollow trees, rock crevices, buildings, mines, caves, and under sloughing bark; forages in or near coniferous or mixed deciduous forest, stream or river drainages	Not expected to occur. No suitable forest on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Lasiurus blossevillii</i>	western red bat	None/SSC	None	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Not expected to occur. No suitable agricultural habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Lasiurus cinereus</i>	hoary bat	None/None	None	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	Not expected to occur. No suitable habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Lasiurus xanthinus</i>	western yellow bat	None/SSC	None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to occur. No suitable habitat present. There are occurrences recorded within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/SSC	None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. The species is not likely to occur on the site due to the proximity of suitable coastal sage scrub and disturbed habitat to existing development. There are occurrences recorded within the vicinity*.
<i>Myotis ciliolabrum</i>	western small-footed myotis	None/None	None	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	Not expected to occur. No suitable habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Myotis evotis</i>	long-eared myotis	None/None	None	Brush, woodland, and forest habitats from sea level to 9,000 feet above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Not expected to occur. No suitable habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Myotis yumanensis</i>	Yuma myotis	None/None	None	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Low potential to roost or forage on the site. Man-made structures and riparian habitat on the site could potentially support this species. There are occurrences recorded within the vicinity*.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/SSC	None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	High potential to occur within coastal sage scrub habitat on the site. There are occurrences recorded within the vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/SSC	None	Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Not expected to occur in this area. No suitable foraging habitat on the site. There are occurrences recorded within the vicinity*.
<i>Nyctinomops macrotis</i>	big free-tailed bat	None/SSC	None	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. No suitable rocky areas on site. There are occurrences recorded within the vicinity*.
<i>Odocoileus hemionus</i>	mule deer	None/None	Covered	Coastal sage scrub, chaparral, riparian, woodlands, and forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed areas	Not expected to occur. Suitable coastal sage scrub habitat exists on the site. However, the site is surrounded by development and not suitable for this species. No known occurrences within the region* and vicinity*.
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE/SSC	None	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. No suitable coastal dunes present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Puma concolor</i>	cougar	None/None	Covered	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	Not expected to occur. The project site is located in a largely urban setting and does not provide suitable cover for the species. No known occurrences within the region* and vicinity*.

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Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Taxidea taxus</i>	American badger	None/SSC	Covered	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. Suitable habitat on the site is limited and although this species is known to occur within the region*, there are no known occurrences in the vicinity*.
Invertebrates					
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE/None	Covered	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. No vernal pool habitat on the site. Occurrences have been recorded in the vicinity*.
<i>Callophrys thornei</i>	Thorne's hairstreak	None/None	Covered	Interior cypress woodland dominated by host plant <i>Hesperocyparis forbesii</i> (Tecate cypress)	Not expected to occur. No suitable woodland habitat present. No known occurrences within the region* and vicinity*.
<i>Euphydryas editha quino</i>	quino checkerspot butterfly	FE/None	Covered	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include <i>Plantago erecta</i> , <i>Antirrhinum coulterianum</i> , and <i>Plantago patagonica</i> (Silverado Occurrence Complex)	Low potential to occur. The site supports limited coastal sage scrub habitat of low disturbance level. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Lycaena hermes</i>	Hermes copper	FC/None	None	Mixed woodlands, chaparral, and coastal scrub	Not expected to occur. This species' host plant was not observed on site. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.

APPENDIX D

SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Status (Federal/State)	San Diego MSCP	Habitat	Potential to Occur
<i>Panoquina errans</i>	wandering skipper	None/None	Covered	Saltmarsh	Not expected to occur. No suitable saltmarsh habitat present. While this species is known to occur within the region*, there are no known occurrences within the vicinity*.
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE/None	Covered	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. No vernal pool habitat on the site. There are occurrences recorded within the vicinity*.

The federal and state status of species is based on the Special Animals List (July 2019) (CDFW 2019a).

* "Vicinity" refers to species recorded in the USGS 7.5-minute Poway quadrangle (CDFW 2019b).

"Region" refers to species recorded within the eight quadrangles surrounding USGS 7.5-minute Poway quadrangle (CDFW 2019b).

Status Abbreviations

FE: Federally Endangered

FT: Federally Threatened

FC: Federal Candidate

BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern

SSC: California Species of Special Concern

FP: California Fully Protected Species

WL: California Watch List Species

SE: State Endangered

ST: State Threatened

SDL: State Delisted

CDF: California Department of Forestry Sensitive Species

City of San Diego Multiple Species Conservation Program:

Covered: MSCP Covered Species

References

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Appendix E

Jurisdictional Delineation Report for the Trails at Carmel Mountain Ranch Project

MEMORANDUM

To: South Coast Branch, Regulatory Division, U.S. Army Corps of Engineers
From: Tricia Wotipka, Dudek
Subject: Jurisdictional Delineation Report for the Trails at Carmel Mountain Ranch Project
Date: October 24, 2019
cc: Patricia Schuyler, Dudek
Jason Han, New Urban West Inc.
Jonathan Frankel, New Urban West Inc.
Attachments: Attachment A, Appendix 1 of RGL 16-1, Request for Corps Jurisdictional Determination
Attachment B, Interim Approved Jurisdictional Determination Form
Attachment C, Figures
Attachment D, Routine Wetland Determination Data Forms
Attachment E, Project Site Photos
Attachment F, WETS Table
Attachment G, GIS Data (On CD)

This letter is being sent to the U.S. Army Corps of Engineers (ACOE) on behalf of New Urban West Inc. as a request for an Approved Jurisdictional Determination (JD) for the Trails at Carmel Mountain Ranch Project in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports. This memo and supporting attachments provide the 20 items listed in the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports.

Item 1: Request for a Jurisdictional Determination

Attachment A contains Appendix 1 of Regulatory Guidance Letter 16-1, Request for Corps Jurisdictional Determination Form, and Attachment B contains the Interim Approved Jurisdictional Determination Form.

Item 2: Contact Information

Applicant:	NUWI2-CMR, LLC.	Agent:	Dudek
Contact Name:	Jonathan Frankel	Contact Name:	Tricia Wotipka
Address:	2001 Wilshire Blvd, Suite 401, Santa Monica, CA 90403	Address:	605 Third Street Encinitas, California 92024
Phone:	925.708.3638	Phone:	760.420.2042
Fax:	310.394.6872	Fax:	760.632.0164
Email:	jonathanf@newurbanwest.com	Email:	twotipka@dudek.com

Item 3: Site Access

The project applicant or agent will accompany ACOE staff to the project site if a site visit is deemed necessary.

Item 4: Directions to the Project Site

The approximate 164.5-acre project site is generally located north of Ted Williams Parkway, south of Carmel Mountain Road, east of the California Interstate 15 Expressway (I-15), and west of Pomerado Road in the northeast portion of San Diego County, California. Specifically, the site is the former Carmel Mountain Ranch Golf Course, which is located in the City of San Diego (City) within the community of Carmel Mountain Ranch. The approximate centroid of the project site occurs within Section 10 of Township 14 South, Range 2 West of the Poway, California U.S. Geological Survey 7.5-minute topographic quadrangle (Figures 1, Regional Map, and Figure 2, Vicinity Map; all figures included in Attachment C, Figures).

From the north: take I-15 south to Exit 21, Carmel Mountain Road. Turn left onto Carmel Mountain Road. Turn right onto Rancho Carmel Drive. Turn left onto Windcrest Lane. Turn left onto Boulton Avenue. Turn left onto Carmel Ridge Road. The entrance to the project site is approximately 0.2 miles north at 14050 Carmel Ridge Road, San Diego, California 92128.

From the south: take I-15 south to Exit 19, California 56 Junction East/Ted Williams Parkway. Turn left onto Ted Williams Parkway and head east/northeast. Turn left onto Shoal Creek Drive. Turn right onto Stoney Gate Place. Turn left onto Carmel Ridge Road. The entrance to the project site is approximately 0.3 miles north at 14050 Carmel Ridge Road, San Diego, California 92128.

Item 5: Jurisdictional Delineation Methods

The ACOE wetlands delineation was performed in accordance with the 1987 *U.S. Army Corps of Engineers Wetlands Delineation Manual* (ACOE 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (ACOE 2008b). The Field Indicators of Hydric Soils in the United State (USDA 2018a) and Arid West 2016 Regional Wetland Plant List (Lichvar et al. 2016) were consulted to support the jurisdictional delineation.

Item 6: Aquatic Resources Narrative

The project site currently consists of a former 18-hole golf course that was operational and open to the public from 1986 to 2015. Prior to 1986, the project site appeared to support predominately upland habitats characteristic of the region, including a combination of annual grassland and hilly, upland sage-scrub and chaparral-dominated habitats. Two wetland features were discernible in historic aerial imagery dating as far back as 1953, including Chicarita Creek, a north-south trending tributary to Los Peñasquitos Creek situated along the far western boundary of the project site, and an unnamed north-south trending tributary to Los Peñasquitos Creek in the northeast corner of the project site (Historical Aerials 2019). Both of these features were delineated during the 2019 effort in more or less the same historic alignment.

Following construction of the golf course in 1986, a series of man-made drainage structures were constructed throughout the course to support the timely removal of unwanted surface runoff from the course. Such improvements included the construction of ditches, earthen swales, ponds, and channels throughout the course to redirect surface runoff away from the fairway and holes. With the exception of Chicarita Creek and the unnamed tributary to Los Peñasquitos Creek referenced above, all other currently mapped aquatic features in the project site appear to have been created to support ongoing drainage management practices associated with the golf course and adjacent residential development.

Eighteen aquatic resource features were delineated in the project site that either met the three wetland parameters (hydrophytic vegetation, hydric soils, and hydrology) or supported at least one wetland parameter along with a bed, bank, and/or OHWM. However, several of these features are likely exempt from ACOE jurisdiction because they are man-made drainage ditches (concrete-lined and earthen) constructed in and draining only uplands.

Acreages for the potential aquatic resources are summarized in Table 1.

Table 1. Potential Aquatic Features within the Project site

Feature ID	Resource Type	Acreage
Features A, I, J, M, N, O	Wetland Waters	5.12
Features E, Q, R	Isolated Wetland Waters	0.81
Features A, K, P	Non-wetland Waters – Earthen Unvegetated Channel	0.39
Feature C	Isolated Non-wetland Waters – Earthen Unvegetated Channel	0.006
Features H, L	Non-wetland Waters – Concrete-lined Brow Ditch	0.04
Features B, D, F, G	Isolated Non-wetland Waters – Concrete-lined Brow Ditch	0.08
Total acreage*		6.44

Note:

* Totals may not add up due to rounding.

Delineated aquatic features fall into one of four categories: Scrub-Shrub Forested Wetlands, Freshwater Emergent Wetlands, Man-Made Drainage Ditches, and Man-Made Ponds. The 18 features subject to this report are discussed in more detail below and they are illustrated on Figures 3 through 3I (Appendix C).

Scrub-Shrub Forested Wetlands (Features A, E, N, and O)

Feature A

Feature A refers to Chicarita Creek and a vegetated side tributary to Chicarita Creek. Chicarita Creek is a north–south trending perennial blue-line stream that connects with Los Peñasquitos Creek and eventually on to Los Peñasquitos Lagoon, where flows discharge directly into the Pacific Ocean, a traditional navigable water, approximately 13 river miles downstream and southwest of the project site. Chicarita Creek supports a combination of perennial and intermittent surface flows within a well-defined, riparian-vegetated streambed with strong indicators of an OHWM, including drainage patterns, drift lines, changes in vegetation cover and composition, a discernible bed and bank, and shelving. Historical imagery suggests that the reach was modified in the late 1980s as part of the golf course development, but it is still meandering along the general same historic alignment seen as far back as 1953 (Historical Aerials 2019). The side tributary to Chicarita Creek is dominated by arroyo willows (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), and

Goodding's black willow (*Salix gooddingii*) in the canopy with a mixed, relatively disturbed understory comprised of bristly ox-tongue (*Helminthotheca echioides*), golden wattle (*Acacia longifolia*), and wild grape (*Vitis girdiana*).

Wetland determinations were made at four geographically distinct data station sampling points along Chicarita Creek to determine the status of three wetland criteria (vegetation, soils, and hydrology) within representative potential wetlands in the project site (see Attachment D, Routine Wetland Determination Data Forms). The data station sampling point results are summarized in Table 2, and the locations are shown on Figure 3A (Attachment C).

Data Station 1 and Data Station 3 tested positive for all three wetland indicators (hydrophytic vegetation, hydric soils, and hydrology). At Data Stations 2 and 4 these indicators were lacking.

With respect to hydrophytic vegetation, Data Station 1 and Data Station 3 were dominated by an assemblage of species ranging from obligate to facultative, including, but not limited to, willows (*Salix* spp.) and western sycamore (*Platanus racemosa*) in the canopy, and a combination of disturbed and native wetland herbs in the understory.

With respect to hydrology, because wetland hydrology indicators are often the most transitory of the three wetland parameters, special attention was paid in assessing the landscape features to determine first how water flows through these areas and then the potential sources of hydrology (e.g., rainfall, sheet flow, creek flow). Hydrology indicators were assessed at each location, including the presence of an OHWM via a bed and bank, surface cracks, drainage patterns, drift deposits, scour/erosion, saturation, permanence of surface water, and wetland vegetation. Hydrology indicators were present in Data Stations 1 and 3 and lacking in Data Stations 2 and 4.

Regarding hydric soils, soils in Data Stations 1 and 3 were comprised of silt and clay loams, respectively. The soils at Data Station 1 were dry at the time of the delineation, while the soils at Data Station 3 were mesic. Soils at Data Stations 1 and 3 both had significant mottling and met the criteria for a depleted matrix (F3). Data Stations 2 and 4 were situated outside of the channel, well above the OHWM. Soils in these areas were dry loams/silt loams with no evidence of mottling. Hydric soils were not present at Data Stations 2 and 4.

Chicarita Creek is mapped in the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory as a PSS/FOC (USFWS 2019). A portion of the creek is unvegetated and therefore mapped as non-wetland waters.

Table 2. Data Station Summary

Data Station	Wetland Determination Field Indicators			Determination
	Vegetation	Hydric Soils	Hydrology	
DS-1	Yes	Yes	Yes	Meets 3-parameter wetland
DS-2	No	No	No	Does not meet 3-parameter wetland
DS-3	Yes	Yes	Yes	Meets 3-parameter wetland
DS-4	No	No	No	Does not meet 3-parameter wetland

Feature E

Feature E refers to a narrow, meandering channel that originates from a small, 6-inch to 8-inch pipe and winds through former playing holes until it reaches a remnant golf cart path. Once the channel reaches the golf cart path, any flows that remain likely dissipate through evaporation. The golf cart path was carefully evaluated for evidence of flow, including water marks/stains, drift lines, drainage patterns, sediment accretions, etc. There were no indicators of hydrology or prior indications of surface flow.

Feature E supports disturbed recently developed southern willow scrub vegetation with arroyo willow, Goodding's black willow, and narrow-leaved willow saplings coupled with a disturbed understory comprised of pampas grass (*Cortaderia selloana*) and bristly ox-tongue. Hydrology indicators observed included presence of a bed and bank, drift lines, and surface relief. Hydric soils were not evaluated.

Feature N

Feature N is the downstream extension of Feature M. Feature N supports a dense, mature stand of southern cottonwood willow riparian forest within an incised, well-defined streambed that flows off site to Los Peñasquitos Creek. Feature N tested positive for hydrophytic vegetation and hydrology (i.e., bed and bank and drift lines); hydric soils were not evaluated due to access constraints. However, hydric soils are assumed to be present.

Feature N is mapped in the USFWS National Wetlands Inventory as a PEM1/SSC. This classification includes areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions (USFWS 2019). Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface (USFWS 2019).

Feature O

Feature O refers to a small pocket of disturbed wetlands vegetation dominated by Washington fan palm (*Washingtonia robusta*) and canary date palm (*Phoenix canariensis*). Some other characteristic non-native species include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), pampas grass (*Cortaderia selloana*), and Bermuda grass (*Cynodon dactylon*). Feature O tested positive for hydrophytic vegetation and hydrology based on visual indicators (i.e., drainage patterns and drift lines); hydric soils were not evaluated due to access constraints. However, hydric soils are assumed to be present.

Freshwater Emergent Wetlands (Features I, J, and M)

Features I, J, and M comprise an unnamed tributary to Los Peñasquitos Creek that was visible on historic aerial imagery dating as far back as 1953 (Historical Aerials 2019). Historical imagery suggests that this drainage was modified and channelized in the late 1980s as part of the golf course construction and residential subdivision development; however, the segments of it that remain open continue to meander along the same general historic alignment. It is now fed solely by stormwater runoff and discharges from pipe culverts. Features I, J, and M are dominated by dense, nearly impassable stands of emergent hydrophytic vegetation, including cattail (*Typha longifolia*), tamarisk (*Tamarix* sp.) and pale spikerush (*Eleocharis macrostachya*).

Features I, J, and M comprise a drainage system that flows across three holes of the former golf course before flowing off site and southeast toward Los Peñasquitos Creek. These features support perennial surface flows within a well-defined, highly incised, densely vegetated wetland streambed. Features I, J, and M tested positive for hydrophytic vegetation and hydrology based on visual indicators (i.e., observation of drift lines); however, due to the dense vegetation, the presence of standing water, and the resultant soil saturation, access to these features was limited, and hydric soils could not be evaluated. However, given the presence of persistent, standing water, hydric soils can be assumed.

Features I, J, and M are mapped in the USFWS National Wetlands Inventory as PEM1/SSC (USFWS 2019). This classification includes non-tidal wetlands dominated by trees, shrubs, persistent emergent species, emergent mosses and/or lichens with erect, rooted, persistent herbaceous hydrophytes. Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface (USFWS 2019).

Man-Made Ponds (Features Q and R)

Features Q and R refer to two man-made, earthen ponds that are situated near the southeast corner of the golf course at two former playing holes. While a culvert exists connecting these two features to each other, there is no visible outlet to convey flows off site to downstream tributaries. Therefore, Features Q and R are considered to be isolated, artificially constructed wetlands. Historical imagery suggests that Feature Q was constructed as part of the initial golf course development in the late 1980s, while Feature R was constructed sometime between 1996 and 2002 as part of continued golf course modifications/improvements (HELIX 2018). Feature Q is dominated by a combination of freshwater emergent wetlands and disturbed southern willow scrub vegetation. Feature R is dominated solely by southern willow scrub vegetation. Both features tested positive for hydrophytic vegetation and hydrology (i.e., standing water was present); however, due to dense vegetation, the presence of surface water, and the resultant soil saturation, access to these features was limited, and hydric soils could not be evaluated. However, given the presence of persistent, standing water, hydric soils can be assumed.

Man-Made Ditches (Concrete and Earthen; Features B, C, D, F, G, H, K, L, and P)

Six concrete-lined brow ditches were mapped during the 2019 jurisdictional delineation effort including Features B, D, F, G, H, and L. Features B, D, F, and G appear to have been constructed solely in uplands to collect and convey runoff away from the adjacent residential developments and golf course with no visible surface connection to other waters in the project vicinity. Features H and L are concrete-lined brow ditches that were constructed in and drain upland habitats but they empty directly into vegetated tributaries that ultimately empty into a traditional navigable water. As such, Features H and L may be under ACOE, Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdiction.

Three earthen swales were identified during the delineation including Features C, K, and P. Feature C is a u-shaped, man-made swale situated at the bottom of a sloping fairway that appears to have been constructed in the late 1990s as part of continued golf course drainage management. Feature C supports a combination of small and large riprap boulders intended to provide energy dissipation for fast-moving surface runoff from the former golf course. Feature C is bound by 2:1 slopes that are dominated by non-native, upland weedy vegetation with occasional arroyo willow saplings and tamarisk. Flows are collected in the feature and conveyed west for a distance of 193 lineal feet at which point runoff is captured in a 30-inch pipe culvert and contained and conveyed off site in

a closed, storm drain conveyance system. Feature C does not support hydrophytic vegetation nor were signs of hydrology observed. In light of the rock lining, hydric soils could not be evaluated.

Feature K represents the downstream segment of Feature J, a perennial freshwater emergent wetland. Feature K is roughly 5 feet wide and supports castor bean (*Ricinus communis*) and a suite of ornamental vegetation from the adjacent residences. Feature K is conveyed under Carmel Ridge Road via a large culvert and joins with Feature M, a perennial freshwater emergent wetland. Similar to Features M and N, Feature K ultimately drains into Los Peñasquitos Creek, located approximately 2 river miles downstream and south of the project site. Due to steep and challenging topographic constraints, Feature K was inaccessible during the delineation. Therefore, only the characterization of existing vegetation could be verified. Indicators of hydrology could not be assessed and the evaluation of hydric soils was not conducted.

Feature P refers to an earthen, 2-foot-wide swale that was artificially constructed to convey flow away from the golf course and into a patch of disturbed wetlands, which, in turn, discharge off site into a canyon that ultimately empties into Los Peñasquitos Creek.

Table 3 provides a summary of the man-made ditches and swales, their lining type, whether or not they have a clear surface flow connection to downstream off site tributaries, and the likely agency jurisdiction based on these findings.

Table 3. Man-Made Ditch Summary

Feature ID	Lining Type	Surface Water Connection (Y/N)	Potential Agency Jurisdiction
B	Concrete	N	RWQCB/CDFW
C	Earthen	N	RWQCB/CDFW
D	Concrete	N	RWQCB/CDFW
F	Concrete	N	RWQCB/CDFW
G	Concrete	N	RWQCB/CDFW
H	Concrete	Y	ACOE/RWQCB/CDFW
K	Earthen	Y	ACOE/RWQCB/CDFW
L	Concrete	Y	ACOE/RWQCB/CDFW
P	Earthen	Y	ACOE/RWQCB/CDFW

Item 7: Delineation Maps

All maps of delineated resources are provided in Attachment C.

Item 8: Dates of Field Work

A jurisdictional delineation for the proposed project site was conducted by Dudek biologists Tricia Wotipka and Olivia Koziel in July 2019. An additional site visit was conducted in August 2019 to delineate an additional area of the property. The delineation focused on evaluating potential jurisdictional resources within portions of the project site already identified as having such resources (HELIX 2018). Table 4 summarizes Dudek's survey schedule.

Table 4. Jurisdictional Delineation Schedule for the Project Site

Date	Hours	Personnel	Conditions
7/8/2019	0800–1530	Tricia Wotipka, Olivia Koziel	62°F–77°F; 10%–80% cloud cover; 0–8 mph wind
7/19/2019	0830–1230	Tricia Wotipka, Olivia Koziel	70°F–79°F; 0%–100% cloud cover; 0–5 mph wind
8/22/2019	0930–1130	Tricia Wotipka	87°F; 0% cc; 1–4 mph wind

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

Item 9: Table of Aquatic Resources

Table 5 includes a description of each potential aquatic resource/feature, its Cowardin code (Cowardin et al. 1979), any OHWM indicators observed, the dominant vegetation, the location, and the acreage/linear feet.

Table 5. Potential Aquatic Resources within the Project Site

Feature ID	Cowardin Code	Ordinary High Water Mark Indicators	Dominant Vegetation	Location (Latitude/Longitude)	Acreage/Linear Feet
Feature A	PSS/FOC	Break in bank slope, mud cracks, drift/debris, riparian vegetation, and surface relief	Southern willow scrub, southern cottonwood willow riparian forest, southern willow riparian forest, unvegetated channel, and freshwater emergent wetlands	32° 58' 15.92 N/ 117° 05' 25.65" W	4.57/3,563
Feature B	U	No indicators observed	Unvegetated, concrete-lined brow ditch	32° 58' 04.69 N/ 117° 05' 07.05" W	0.01/530
Feature C	R6	No indicators observed	Disturbed habitat comprised of weedy, upland vegetation	32° 58' 15.41 N/ 117° 05' 01.44" W	0.006/85
Feature D	U	No indicators observed	Unvegetated, concrete-lined brow ditch	32° 58' 24.34 N/ 117° 04' 41.97" W	0.01/639
Feature E	PSS	Change in vegetation cover, bed and bank, drift/debris, and surface relief	Disturbed southern willow scrub	32° 58' 27.00 N/ 117° 04' 42.50" W	0.08/387
Feature F	U	No indicators observed	Unvegetated, concrete-lined brow ditch	32° 58' 38.49 N/ 117° 04' 27.88" W	0.02/1,017
Feature G	U	No indicators observed	Unvegetated, concrete-lined brow ditch	32° 58' 47.51 N/ 117° 04' 21.25" W	0.03/1,090
Feature H	U	No indicators observed	Unvegetated, concrete-lined brow ditch	32° 58' 54.96 N/ 117° 04' 11.40" W	0.02/677
Feature I	PEM1C	Change in vegetation cover, bed and bank, significant drift/debris, and surface relief	Freshwater emergent wetlands vegetation	32° 58' 57.76 N/ 117° 04' 09.02" W	0.37/561

Table 5. Potential Aquatic Resources within the Project Site

Feature ID	Cowardin Code	Ordinary High Water Mark Indicators	Dominant Vegetation	Location (Latitude/Longitude)	Acreage/Linear Feet
Feature J	PEM1C	Change in vegetation cover, bed and bank, significant drift/debris, and surface relief	Freshwater emergent wetlands vegetation	32° 58' 50.32 N/ 117° 04' 05.01" W	0.15/267
Feature K	PEM1C	Bed and bank, drift lines, and surface relief	Non-native uplands vegetation	32° 58' 46.62 N/ 117° 04' 04.68" W	0.02/187
Feature L	U	No indicators observed	Unvegetated, concrete-lined brow ditch	32° 58' 51.03 N/ 117° 04' 00.52" W	0.03/1,140
Feature M	PEM1/SSC	Change in vegetation cover, bed and bank, drift/debris, and surface relief	Freshwater emergent wetlands vegetation	32° 58' 44.94 N/ 117° 04' 01.47" W	0.02/99
Feature N	PEM1/SSC	Change in vegetation cover, bed and bank, drift/debris, and surface relief	Southern cottonwood willow riparian forest	32° 58' 44.73 N/ 117° 04' 00.21" W	0.29/199
Feature O	PSS	Change in vegetation cover, bed and bank, drift/debris, and surface relief	Disturbed wetlands largely dominated by palm trees	32° 58' 36.44 N/ 117° 04' 59.24" W	0.09/69
Feature P	R6	Surface relief, bed and bank	Unvegetated earthen swale	32° 58' 36.54 N/ 117° 04' 00.58" W	0.007/158
Feature Q	PSS/PEM1C	Change in vegetation cover, standing water	Disturbed southern willow scrub and freshwater emergent wetlands vegetation	32° 58' 16.72 N/ 117° 04' 12.61" W	0.26/172
Feature R	PSS/FOC	Change in vegetation cover, standing water	Southern willow scrub	32° 58' 14.67 N/ 117° 04' 06.37" W	0.47/263

Source: USFWS 2019.

Item 10: Project Site Description

The approximate 164.5-acre Trails at Carmel Mountain Ranch project site is located north of Ted Williams Parkway, south of Carmel Mountain Road, east of I-15, and west of Pomerado Road in the northeast portion of San Diego County. The project site was the former Carmel Mountain Ranch Golf Course, an 18-hole golf course that closed in July 2018. Since its closure, a majority of the former greenbelts and fairways associated with the golf course have converted from maintained turf to overgrown weeds.

The project site is relatively flat, yet slightly hilly, ranging in elevations from approximately 810 feet above mean sea level in the central portion of the site near the existing clubhouse to 530 feet above mean sea level in the southwest portion near I-15.

Surrounding land uses include residential and commercial developments, major arterial roads, and the I-15 freeway corridor.

Item 11: Hydrology

The project is situated in the Los Peñasquitos Creek Watershed Poway Subarea in the Peñasquitos Hydrologic Unit 906.00. The Los Peñasquitos Creek Watershed is located within west-central San Diego County and includes portions of the City of San Diego, the City of Poway, the City of Del Mar, and unincorporated areas of San Diego County (RWQCB 2011). The watershed extends from the foothills east of the City of Poway to the coastal plain where the watershed drains into Los Peñasquitos Lagoon before flowing into the Pacific Ocean through a narrow mouth at Torrey Pines State Beach (AMEC 2015). The entire watershed is approximately 60,419 acres, of which 59,212 is composed of the drainage areas of Los Peñasquitos Creek, Carmel Creek (north of Los Peñasquitos Creek), Carroll Canyon Creek (south of Los Peñasquitos Creek), and the Los Peñasquitos Lagoon, a 320-acre coastal lagoon that is part of the Torrey Pines State Reserve. The principal hydrologic sources for the project site include direct precipitation; surface and subsurface runoff from surrounding uplands; drainage through Chicarita Creek and an unnamed tributary to Chicarita Creek in the southwest portion of the project site; an unnamed tributary to Los Peñasquitos Creek in the northeast portion of the project site; man-made, concrete-lined brow ditches and earthen swales and ditches excavated throughout the Carmel Mountain Ranch Golf Course to drain the course; and a pair of man-made ponds excavated and maintained as part of the golf course esthetics, irrigation, and drainage system.

A WETS table is provided in Attachment F.

Item 12: Remote Sensing

Remote sensing was not used for the delineation.

Item 13: Soils

Soil types within the project area are shown in Table 6 and on Figure 4, Soils Map (USDA 2019). The hydric soils are indicated by shading (USDA 2018b).

Table 6. Soils within the Project Site

Soil Category	Soil Description	Hydric Rating	Acreage
Altamont clay	Altamont clay, 15% to 30% slopes	No	7.12
Cieneba coarse sandy loam	Cieneba coarse sandy loam, 15 to 30% slopes, eroded	No	3.38
Cieneba rocky coarse sandy loam	Cieneba rocky coarse sandy loam, 9 to 30% slopes, eroded	No	11.02

Table 6. Soils within the Project Site

Soil Category	Soil Description	Hydric Rating	Acreage
Diablo iablo clay	Diablo clay, 2% to 9% slopes	No	3.77
	Diablo clay, 9% to 15% slopes	No	32.92
	Diablo clay, 15% to 30% slopes, eroded	No	3.02
Diablo-Olivenhain complex	Diablo-Olivenhain, 9% to 30% slopes	No	24.65
Escondido	Escondido very fine sandy loam, 5 to 9% slopes	No	8.92
Fallbrook	Fallbrook rock sandy loam, 9 to 30% slopes	No	1.34
Linne clay	Linne clay loam, 9% to 30% slopes	No	12.72
Olivenhain cobbly loam	Olivenhain cobbly loam, 2% to 9% slopes	Yes	15.88
	Olivenhain cobbly loam, 9% to 30% slopes	Yes	13.33
Ramona sandy loam	Ramona sandy loam, 2 to 5% slopes	No	10.37
	Ramona sandy loam, 5 to 9% slopes	No	4.80
Salinas clay loam	Salinas clay loam, 2 to 9% slopes	No	2.89
San Miguel-Exchequer rocky silt loams	San Miguel-Exchequer rocky silt loams, 9% to 70% slopes	No	4.29
Wyman loam	Wyman loam, 2 to 5% slopes	No	0.0002
	Wyman loam, 5 to 9% slopes	No	4.07
Total			164.5

Item 14: Site Location Maps

All maps are provided in Attachment C.

Item 15: Aquatic Features Spreadsheet

A copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet is not submitted with this memo because Table 5 provides all of the information requested.

Item 16: Delineation Maps

All maps are provided in Attachment C.

Item 17: Photographs

The locations of the photo points taken during the 2019 delineation are illustrated on Figures 3A through 3I (Attachment C). Photos of the project site are provided in Attachment E.

Item 18: Data Forms

Completed routine wetland determination data forms are provided in Attachment D.

Item 19: Methods

Jurisdictional boundaries were mapped in the field using a Trimble GeoXT GPS with submeter accuracy. The delineators determined the extent of ACOE jurisdiction using the OHWM as outlined in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (ACOE 2008a). Potential wetlands were assessed using the 1987 *Corps of Engineers Wetlands Delineation Manual* (ACOE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008b).

The delineation defined areas under the jurisdiction of CDFW, pursuant to Sections 1600–1603 of the California Fish and Game Code; under ACOE, pursuant to Section 404 of the federal Clean Water Act; and under RWQCB, pursuant to Section 401 of the federal Clean Water Act and the Porter–Cologne Water Quality Control Act (see Item 5).

Item 20: Digital Data

Geographic information system data is provided in Attachment G.

References

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- USDA. 2019. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed January 2019. <http://websoilsurvey.nrcs.usda.gov/>.
- USFWS (U.S. Fish and Wildlife Service). 2019. "National Wetland Inventory" [map]. Accessed August 2019. <http://www.fws.gov/data>.



Attachment A

Request for Corps Jurisdictional Determination Form

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: Carmel Mountain Ranch Golf Course, 14050 Carmel Ridge Dr., 92128
(Street Address)
City/Township/Parish: San Diego County: San Diego State: CA
Acreage of Parcel/Review Area for JD: 163.6 acres
Section: 10 Township: 14S Range: 2W
Latitude (decimal degrees): 32.976842° Longitude (decimal degrees): 117.076906°
(For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ☐ I plan to purchase this property.
☒ I am an agent/consultant acting on behalf of the requestor.
☐ Other (please explain): _____.
- Reason for request: (check as many as applicable)
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
☒ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
☒ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
☐ A Corps JD is required in order to obtain my local/state authorization.
☒ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
☐ I believe that the site may be comprised entirely of dry land.
☐ Other: _____
- Type of determination being requested:
☒ I am requesting an approved JD.
☐ I am requesting a preliminary JD.
☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: Jonathan Frankel
Company name: New Urban West
Address: 16935 West Bernardo Drive, Suite 260
San Diego, California 92127
Daytime phone no.: 925.708.3638
Email address: jonathanf@newurbanwest.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.



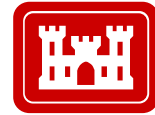
Attachment B

Interim Approved Jurisdictional Determination Form



®

Regulatory Program



®

INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD):

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ):

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/parish/borough: San Diego City: San Diego

Center coordinates of site (lat/long in degree decimal format): Lat. 32.975364 N, Long. 117.076181 W.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: ☐ attached ☒ in report/map titled Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project, September 2019, prepared by Dudek.

☐ Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1): .

D. REVIEW PERFORMED FOR SITE EVALUATION:

☐ Office (Desk) Determination Only. Date: .

☐ Office (Desk) and Field Determination. Office/Desk Dates: . Field Date(s): .

SECTION II: DATA SOURCES

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project, September 2019, prepared by Dudek.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☒ Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project, September 2019, prepared by Dudek.

☐ Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon: .

Revised Title/Date: .

☐ Data sheets prepared by the Corps. Title/Date: .

☐ Corps navigable waters study. Title/Date: .

☐ CorpsMap ORM map layers. Title/Date: .

☐ USGS Hydrologic Atlas. Title/Date: .

☐ USGS, NHD, or WBD data/maps. Title/Date: .

☐ USGS 8, 10 and/or 12 digit HUC maps. HUC number: .

☐ USGS maps. Scale & quad name and date: .

☐ USDA NRCS Soil Survey. Citation: .

☒ USFWS National Wetlands Inventory maps. Citation: USFWS. 2019. "National Wetland Inventory" [map].

Accessed August 2019. <http://www.fws.gov/data>.

☐ State/Local wetland inventory maps. Citation: .

☐ FEMA/FIRM maps. Citation: .

☐ Photographs: ☐ Aerial. Citation: . or ☐ Other. Citation: .

☐ LiDAR data/maps. Citation: .

☐ Previous JDs. File no. and date of JD letter: .

- ☐ Applicable/supporting case law:
- ☐ Applicable/supporting scientific literature:
- ☐ Other information (please specify):

SECTION III: SUMMARY OF FINDINGS

Complete ORM "Aquatic Resource Upload Sheet" or Export and Print the Aquatic Resource Water Droplet Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:

- ☐ "navigable waters of the U.S." within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.

• Complete Table 1 - Required

NOTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "waters of the U.S." within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. **Check all that apply.**

- ☐ (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))

• Complete Table 1 - Required

- ☐ This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.

- ☐ (a)(2): All interstate waters, including interstate wetlands.

• Complete Table 2 - Required

- ☐ (a)(3): The territorial seas.

• Complete Table 3 - Required

- ☐ (a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.

• Complete Table 4 - Required

- ☒ (a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 5 - Required

- ☐ (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

• Complete Table 6 - Required

- ☐ Bordering/Contiguous.
Neighboring:

- ☐ (c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.

- ☐ (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.

- ☐ (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.

- ☐ (a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required

- ☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

- ☐ (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

C. NON-WATERS OF THE U.S. FINDINGS:

Check all that apply.

- ☐ The review area is comprised entirely of dry land.
- ☐ Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

- ☐ Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

- ☒ Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):

• Complete Table 10 - Required

☐ (b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.

☐ (b)(2): Prior converted cropland.

☒ (b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

☐ (b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

☒ (b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).

☐ (b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.

☒ (b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.

☐ (b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.¹

☐ (b)(4)(iv): Small ornamental waters created in dry land.¹

☐ (b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.

☐ (b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.¹

☐ (b)(4)(vii): Puddles.¹

☐ (b)(5): Groundwater, including groundwater drained through subsurface drainage systems.¹

☒ (b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.¹

☐ (b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

- ☐ Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).

• Complete Table 11 - Required.

D. ADDITIONAL COMMENTS TO SUPPORT AJD:

¹ In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

Jurisdictional Waters of the U.S.

Table 1. (a)(1) Traditional Navigable Waters

(a)(1) Waters Name	(a)(1) Criteria	Rationale to Support (a)(1) Designation Include High Tide Line or Ordinary High Water Mark indicators, when applicable.
N/A	Choose an item.	N/A

Table 2. (a)(2) Interstate Waters

(a)(2) Waters Name	Rationale to Support (a)(2) Designation
N/A	N/A

Table 3. (a)(3) Territorial Seas

(a)(3) Waters Name	Rationale to Support (a)(3) Designation
N/A	N/A

Table 4. (a)(4) Impoundments

(a)(4) Waters Name	Rationale to Support (a)(4) Designation
N/A	N/A
N/A	N/A

Table 5. (a)(5)Tributaries

(a)(5) Waters Name	Flow Regime	(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows	Tributary Breaks	Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.
Feature A	Perennial	Los Peñasquitos Creek	Yes	Chicarita Creek flows to Los Peñasquitos Creek, which flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature H	Ephemeral	Los Peñasquitos Creek	Yes	Concrete-lined brow ditch that discharges directly into a man-made perennial emergent wetland that flows through a series of pipe culverts beneath the former golf course and existing roads before discharging into an unnamed tributary to Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature I	Perennial	Los Peñasquitos Creek	Yes	Feature I bound to the north and south by constricted pipe culverts. Feature I flows south for a distance of 521 lineal feet before emptying into a closed pipe culvert beneath the fairway. Flows are contained in a closed conveyance system for a distance of roughly 225 feet before daylighting into Feature J, another open, freshwater emergent wetland. Flows pass at least four more tributary breaks by way of constructed culverts before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature J	Perennial	Los Peñasquitos Creek	Yes	Feature J is created by a large, exposed pipe culvert that sustains perennial flow with freshwater emergent wetlands vegetation. Feature J flows south for a distance of 262 lineal feet before transitioning into an earthen swale dominated by ornamental vegetation (Feature K). Flows leave Features J and K and are conveyed beneath Carmel Ridge Road via a large trapezoidal culvert. Flows pass through at least four more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows

				to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature K	Intermittent	Los Peñasquitos Creek	Yes	Feature K immediately abuts Feature J to the north and is bound by a large trapezoidal culvert to the south. Feature K is an earthen, unvegetated swale that flows for a distance of 187 lineal feet before passing under Carmel Ridge Road by way of a large, trapezoidal culvert. Once flows leave Feature K they pass through at least four more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature L	Ephemeral	Los Peñasquitos Creek	Yes	<p>Feature L is a concrete-lined brow ditch that runs nearly parallel to an existing residential development to the west and has been broken down into a north-south segment and a short east-west segment. The southern terminus of the north-south segment terminates abruptly and flows at this point get collected by way of a drain and conveyed to a much smaller, roughly east-west segment on the east side of the existing golf cart path. Since the golf course closed in 2015 the drain connecting the north-south segment to the east-west segment appears to be clogged as the east-west brow ditch was nearly 100% filled with accumulated sediment and leaf litter. Any flows that might still exist in this segment ultimately sheet flow into Feature M.</p> <p>Once flows leave Feature L they pass through at least four more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.</p>
Feature M	Perennial	Los Peñasquitos Creek	Yes	Feature M flows into Feature N for a distance of 105 lineal feet before flowing off-site toward Los Peñasquitos Creek . Once flows leave Feature M they pass through at least four more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.

Feature N	Intermittent	Los Peñasquitos Creek	Yes	Feature N flows for a distance of 219 lineal feet before flowing off-site toward Los Peñasquitos Creek . Once flows leave Feature N they exit off-site and pass through at least four more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature O	Intermittent	Los Peñasquitos Creek	Yes	Feature O flows on-site for a distance of 75 lineal feet before flowing off-site into a hilly canyon toward Los Peñasquitos Creek . Once flows leave Feature O they exit off-site and pass through at least three more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.
Feature P	Ephemeral	Los Peñasquitos Creek	Yes	Feature P is comprised of an earthen, unvegetated swale that discharges directly into Feature O, a disturbed wetlands feature. Once flows leave Feature P they empty into Feature O and pass through at least three more tributary breaks by way of constructed culverts beneath roadways and housing developments before flowing openly into an off-site canyon that ultimately drains into Los Peñasquitos Creek. Los Peñasquitos Creek flows to Los Peñasquitos Lagoon, which flows to the Pacific Ocean, an (a)(1) Traditional Navigable Water.

Table 6. (a)(6) Adjacent Waters

(a)(6) Waters Name	(a)(1)-(a)(5) Water Name to which this Water is Adjacent	Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Table 7. (a)(7) Waters

SPOE Name	(a)(7) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; discuss whether any similarly situated waters were present and aggregated for SND; discuss data, provide analysis, and summarize how the waters have more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Table 8. (a)(8) Waters

SPOE Name	(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to subject water and aggregated for SND; discuss data, provide analysis, and then summarize how the waters have more than speculative or insubstantial effect the on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Non-Jurisdictional Waters

Table 9. Non-Waters/No Significant Nexus

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the (a)(1)-(a)(3) Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Table 10. Non-Waters/Excluded Waters and Features

Paragraph (b) Excluded Feature/Water Name	Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.
Feature B/ EXCLDB6	Standard one foot-wide concrete-lined brow ditch with no direct surface connection to another water
Feature C/ EXCLDB3I	An ephemeral u-shaped swale that was constructed to collect and convey flows from the gently sloping fairway to a 30" pipe culvert.
Feature D/ EXCLDB6	Standard one foot-wide concrete-lined brow ditch with no direct surface connection to another water
Feature E/ EXCLDB3II	A ditch that supports intermittent flow was constructed on the golf course, fed by a small, 6-8" pipe, in existing uplands and is not a relocated tributary or excavated in a tributary and not draining a wetland. The channel winds through disturbed uplands vegetation for a distance of 385 before terminating abruptly at a remnant golf cart path. Any remnant flows still present likely evaporate on the golf cart path. There were no signs of hydrology observed despite experiencing a fairly heavy 2018/2019 rainy season.
Feature F/ EXCLDB6	Standard one foot-wide concrete-lined brow ditch with no direct surface connection to another water
Feature G/ EXCLDB6	Standard one foot-wide concrete-lined brow ditch with no direct surface connection to another water
Feature Q/ EXCLDB4II	Earthen-lined artificially constructed pond with no inlet or outlet to downstream tributaries that was designed to enhance the golf course landscape.
Feature R/ EXCLDB4II	Earthen-lined artificially constructed pond with no inlet or outlet to downstream tributaries that was designed to enhance the golf course landscape.

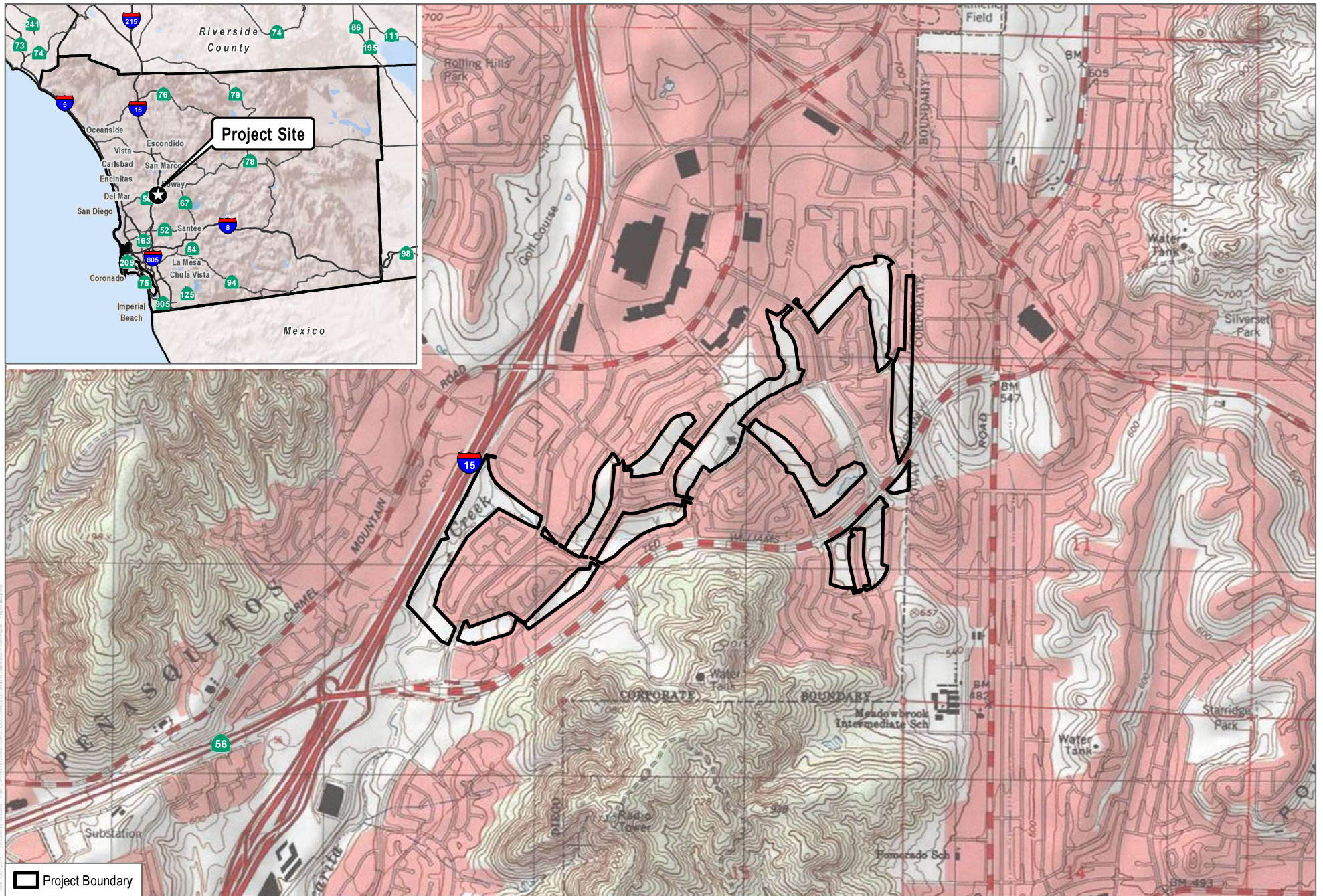
Table 11. Non-Waters/Other

Other Non-Waters of U.S. Feature/Water Name	Rationale for Non-Waters of U.S. Feature/Water and Additional Discussion.



Attachment C

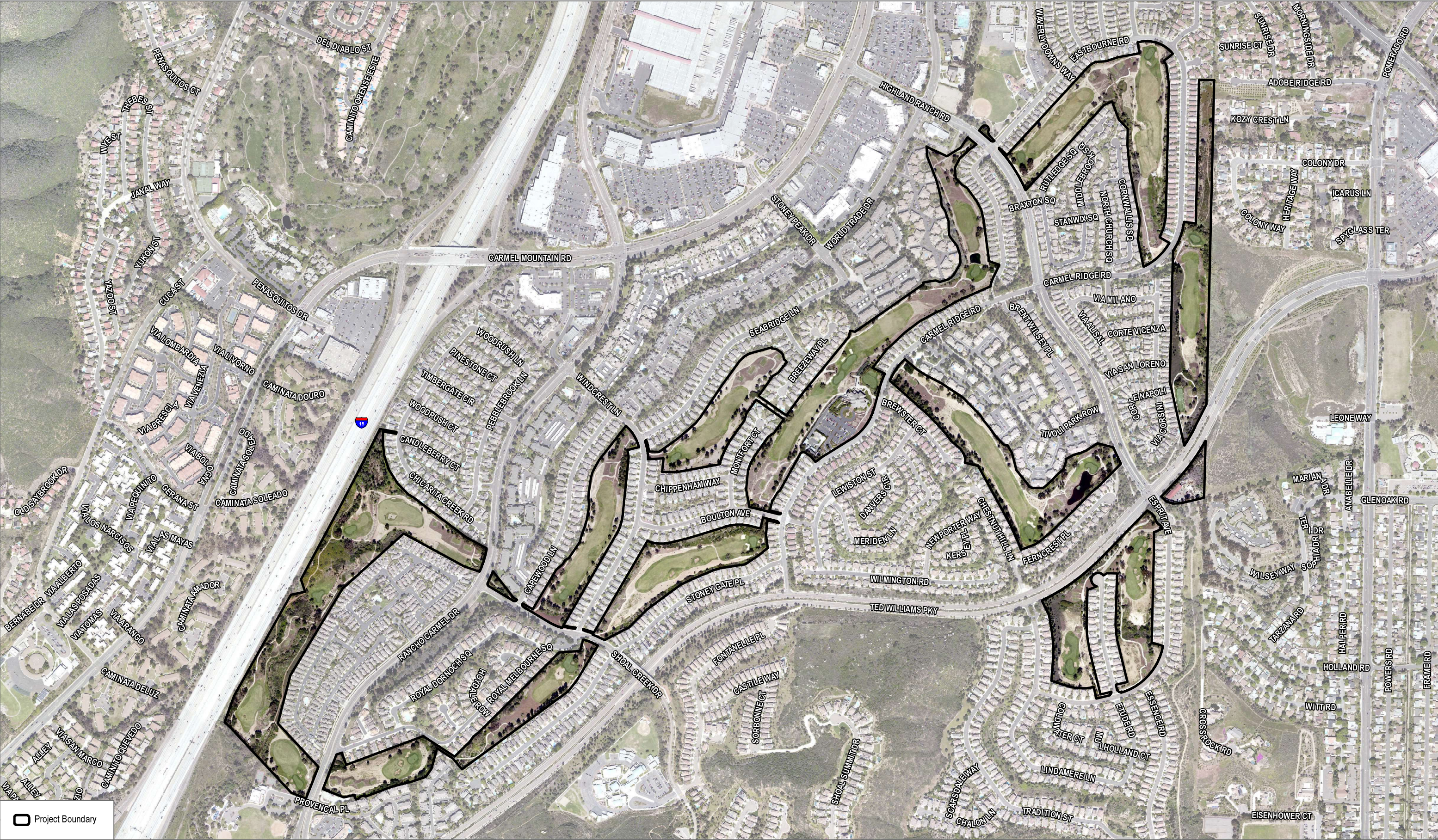
Figures



SOURCE: USGS 7.5-Minute Series Poway Quadrangle

FIGURE 1

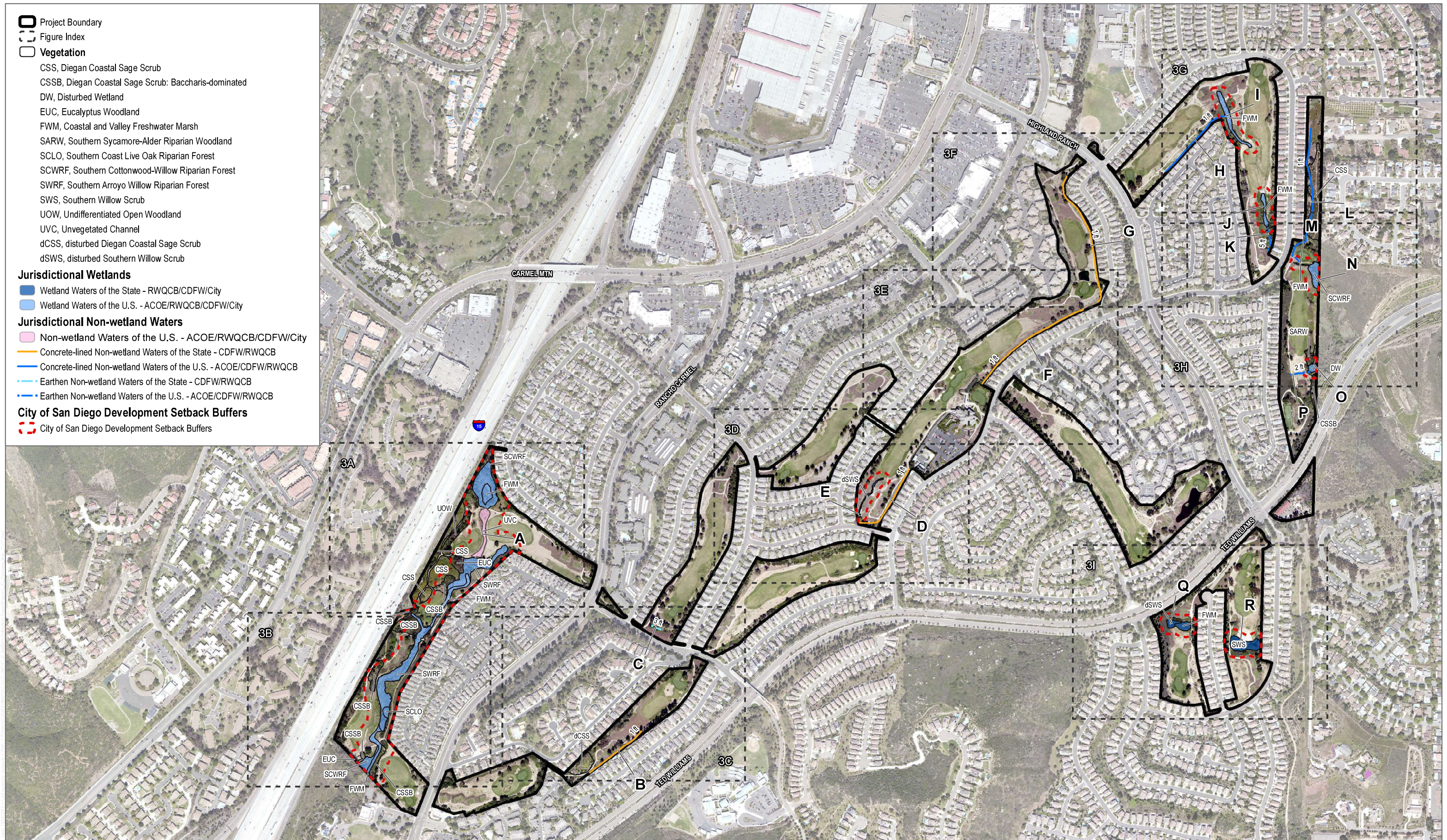
Regional Map



SOURCE: SANGIS 2017

FIGURE 2

Vicinity Map



SOURCE: SANGIS 2014, 2017, 2019

FIGURE 3

Jurisdictional Delineation Overview Map

Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project



SOURCE: SANGIS 2017



SOURCE: SANGIS 2017



SOURCE: SANGIS 2017



SOURCE: SANGIS 2017



SOURCE: SANGIS 2017



SOURCE: SANGIS 2017



SOURCE: SANGIS 2017

FIGURE 3G

Jurisdictional Delineation Map

Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project

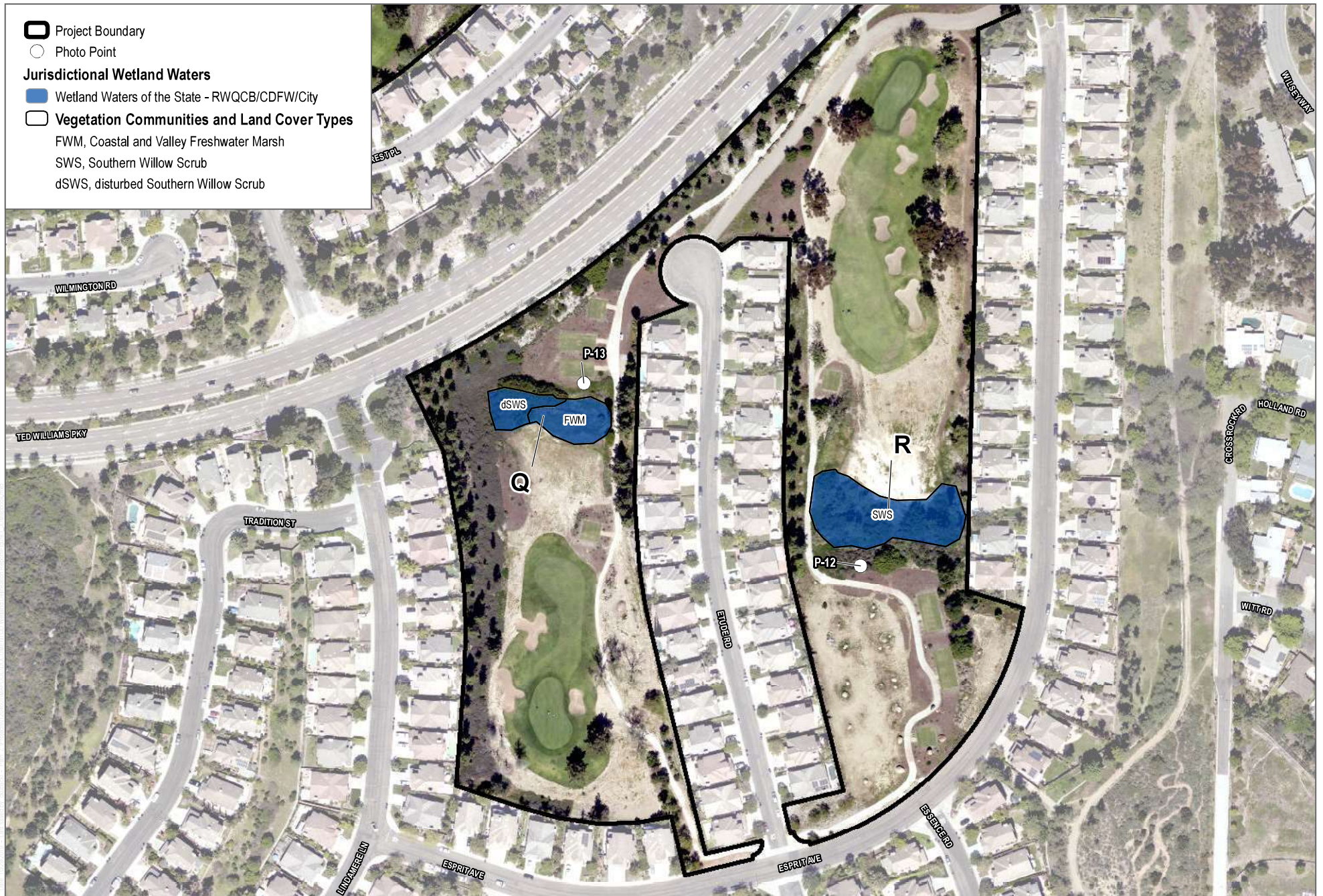


SOURCE: SANGIS 2017

FIGURE 3H

Jurisdictional Delineation Map

Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project



SOURCE: SANGIS 2017

FIGURE 31

Jurisdictional Delineation Map

Jurisdictional Delineation Report for the Carmel Mountain Ranch Golf Course Project



SOURCE: SANGIS 2014, 2017, 2019; USDA 2019

FIGURE 4

Soils Map



Attachment D

Routine Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carmel Mountain Ranch Golf Course City/County: San Diego/San Diego County Sampling Date: 8 July 2019
 Applicant/Owner: New Urban West, Inc. State: CA Sampling Point: DS 1
 Investigator(s): Tricia Wotipka, Olivia Koziel Section, Township, Range: Section 10; Township 14S; Range 2 West
 Landform (hillslope, terrace, etc.): Channel bottom Local relief (concave, convex, none): Mildly concave Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.972611 Long: 117.087944 Datum: _____
 Soil Map Unit Name: Salinas clay loam, 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="radio"/>	No <input type="radio"/>
Hydric Soil Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Remarks: This sampling pit is situated in a side tributary to Chicarita Creek. The origin of this feature is unknown but based on a review of aerial imagery dating back to the 1980s it appears to have been created following construction of the golf course and single-family residences that abut the course.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. <i>Salix gooddingii</i>	20	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)			
2. <i>Salix lasiolepis</i>	65	Yes	FACW	Total Number of Dominant Species Across All Strata: <u>5</u> (B)			
3. <i>Platanus racemosa</i>	15	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80.0 %</u> (A/B)			
4. _____							
Total Cover: <u>100%</u>							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1. <i>Acacia longifolia</i>	75	Yes	Not Listed	Total % Cover of: _____ Multiply by: _____			
2. <i>Myoporum laetum</i>	15	No	FACU	OBL species	<u>10</u>	x 1 =	<u>10</u>
3. <i>Cortaderia selloana</i>	10	No	FACU	FACW species	<u>85</u>	x 2 =	<u>170</u>
4. _____				FAC species	<u>125</u>	x 3 =	<u>375</u>
5. _____				FACU species	<u>25</u>	x 4 =	<u>100</u>
Total Cover: <u>100%</u>				UPL species	<u>75</u>	x 5 =	<u>375</u>
				Column Totals:	<u>320</u>	(A)	<u>1030</u> (B)
				Prevalence Index = B/A = <u>3.22</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Helminthotheca echinoides</i>	75	Yes	FAC	<input checked="" type="checkbox"/> Dominance Test is >50%			
2. <i>Anemopsis californica</i>	10	No	OBL	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹			
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____							
6. _____							
7. _____							
8. _____							
Total Cover: <u>85 %</u>							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1. <i>Vitis girdiana</i>	35	Yes	FAC	Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>			
2. _____							
Total Cover: <u>35 %</u>							
% Bare Ground in Herb Stratum <u>5 %</u>			% Cover of Biotic Crust <u>10 %</u>				

Remarks:

SOIL

Sampling Point: DS 1**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-12"	10YR 4/2	100	5YR 5/6	45	C	M	Silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:⁴

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

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carmel Mountain Ranch Golf Course City/County: San Diego/San Diego County Sampling Date: 8 July 2019
 Applicant/Owner: New Urban West, Inc. State: CA Sampling Point: DS 2
 Investigator(s): Tricia Wotipka, Olivia Koziel Section, Township, Range: Section 10; Township 14S; Range 2 West
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.972667° Long: 117.088056° Datum: _____
 Soil Map Unit Name: Salinas clay loam, 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Wetland Hydrology Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Remarks: This sampling pit is situated beyond the ordinary high water mark of a side tributary to Chicarita Creek on the top of a slope leading down to the stream channel.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)			
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)			
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3 %</u> (A/B)			
4. _____	_____	_____	_____				
Total Cover: <u>_____</u> %							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____			
2. _____	_____	_____	_____	OBL species _____ x 1 = <u>0</u>			
3. _____	_____	_____	_____	FACW species _____ x 2 = <u>0</u>			
4. _____	_____	_____	_____	FAC species <u>30</u> x 3 = <u>90</u>			
5. _____	_____	_____	_____	FACU species <u>45</u> x 4 = <u>180</u>			
Total Cover: <u>_____</u> %				UPL species <u>25</u> x 5 = <u>125</u>			
				Column Totals: <u>100</u> (A) <u>395</u> (B)			
				Prevalence Index = B/A = <u>3.95</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Helminthotheca echinoides</i>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	<input checked="" type="checkbox"/> Dominance Test is >50%			
2. <i>Brassica nigra</i>	<u>25</u>	<u>Yes</u>	<u>Not Listed</u>	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹			
3. <i>Lactuca serriola</i>	<u>45</u>	<u>Yes</u>	<u>FACU</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
Total Cover: <u>100</u> %							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1. _____	_____	_____	_____				
2. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Total Cover: <u>_____</u> %							
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %					

Remarks:

SOIL

Sampling Point: DS 2

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-8"	10YR 3/2	100	----				Silt loam	Refusal occurred at 8".

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

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

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:⁴

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: Data station pit was situated on a flat terrace at the top of a hillslope leading down to an intermittent side tributary of Chicorita Creek.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carmel Mountain Ranch Golf Course City/County: San Diego/San Diego County Sampling Date: 8 July 2019
 Applicant/Owner: New Urban West, Inc. State: CA Sampling Point: DS 3
 Investigator(s): Tricia Wotipka, Olivia Koziel Section, Township, Range: Section 10; Township 14S; Range 2 West
 Landform (hillslope, terrace, etc.): Channel bottom Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.972086° Long: 117.088736° Datum: _____
 Soil Map Unit Name: San Miguel-Exchequer rocky silt loams, 9 to 70 percent slopes NWI classification: PSS/FOC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="radio"/>	No <input type="radio"/>
Hydric Soil Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Remarks: This sampling pit is situated in the center flow line of Chicarita Creek. Soils were wet at the time the delineation was conducted in July 2019.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)			
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)			
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)			
4. _____	_____	_____	_____				
Total Cover: <u> </u> %							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____			
2. _____	_____	_____	_____	OBL species	<u>25</u>	x 1 =	<u>25</u>
3. _____	_____	_____	_____	FACW species	_____	x 2 =	<u>0</u>
4. _____	_____	_____	_____	FAC species	<u>80</u>	x 3 =	<u>240</u>
5. _____	_____	_____	_____	FACU species	_____	x 4 =	<u>0</u>
Total Cover: <u> </u> %				UPL species	<u>35</u>	x 5 =	<u>175</u>
				Column Totals:	<u>140</u>	(A)	<u>440</u> (B)
				Prevalence Index = B/A = <u>3.14</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Helminthotheca echioides</i>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	<input checked="" type="checkbox"/> Dominance Test is >50%			
2. <i>Eleocharis macrostachya</i>	<u>10</u>	<u>No</u>	<u>Not Listed</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹			
3. <i>Anemopsis californica</i>	<u>25</u>	<u>No</u>	<u>OBL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. <i>Melilotus alba</i>	<u>25</u>	<u>No</u>	<u>Not Listed</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
5. <i>Distichlis spicata</i>	<u>35</u>	<u>Yes</u>	<u>FAC</u>				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
Total Cover: <u>140</u> %							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>			
2. _____	_____	_____	_____				
Total Cover: <u> </u> %							
% Bare Ground in Herb Stratum <u> </u> %			% Cover of Biotic Crust <u> </u> %				

Remarks:

SOIL

Sampling Point: DS 3

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-12"	10YR 4/2	100	7.5 5/6	25	C	M	Clay loam	Mottles are bright and distinct

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

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

- ☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:⁴

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carmel Mountain Ranch Golf Course City/County: San Diego/San Diego County Sampling Date: 8 July 2019
 Applicant/Owner: New Urban West, Inc. State: CA Sampling Point: DS 4
 Investigator(s): Tricia Wotipka, Olivia Koziel Section, Township, Range: Section 10; Township 14S; Range 2 West
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None. Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.972069° Long: 117.088606° Datum: _____
 Soil Map Unit Name: San Miguel-Exchequer rocky silt loams, 9 to 70 percent slopes NWI classification: None.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Wetland Hydrology Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Remarks: Data Station 4 is situated on top of a hillslope near an existing golf cart path over 30 feet from Chicarita Creek.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. <i>Podocarpus gracilior</i>	100	Yes	Not Listed	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)			
2.				Total Number of Dominant Species Across All Strata: <u>2</u> (B)			
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0 %</u> (A/B)			
4.							
Total Cover: <u>100%</u>							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1.				Total % Cover of: <u>25</u> Multiply by:			
2.				OBL species <u>25</u> x 1 = <u>0</u>			
3.				FACW species <u>25</u> x 2 = <u>0</u>			
4.				FAC species <u>25</u> x 3 = <u>75</u>			
5.				FACU species <u>25</u> x 4 = <u>0</u>			
Total Cover: <u>25 %</u>				UPL species <u>100</u> x 5 = <u>500</u>			
				Column Totals: <u>125</u> (A) <u>575</u> (B)			
				Prevalence Index = B/A = <u>4.60</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Helminthotheca echioides</i>	25	Yes	FAC	<input checked="" type="checkbox"/> Dominance Test is >50%			
2.				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹			
3.				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4.				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
5.							
6.							
7.							
8.							
Total Cover: <u>25 %</u>							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1.				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>			
2.							
Total Cover: <u>25 %</u>							
% Bare Ground in Herb Stratum <u>75 %</u>							
% Cover of Biotic Crust <u> </u> %							

Remarks:

SOIL

Sampling Point: DS 4

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-12"	10YR 3/2	100					Loam	

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

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

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:⁴

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: _____



Attachment E

Project Site Photos

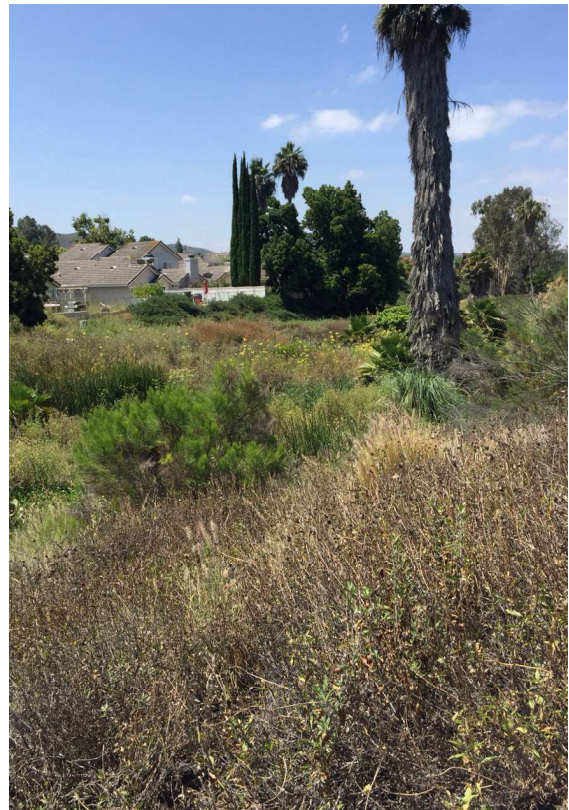
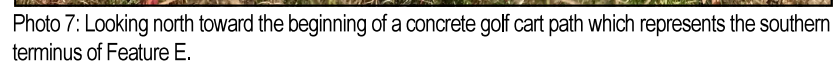




Photo 5: Disturbed southern willow scrub habitat associated with Feature E. The stake represents the northern terminus of the feature.



Photo 6: Additional photo of Feature E illustrating the disturbed nature of the channel and the narrowness of the feature.



ATTACHMENT E
Project Site Photos



Attachment F

WETS Table

WETS Table

WETS Station: POWAY VALLEY, CA													
Requested years: 1971 - 2000													
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall					
Jan	-	-	-	2.76	1.24	3.29	5	0.0					
Feb	-	-	-	2.88	0.97	3.45	5	0.0					
Mar	-	-	-	3.05	1.19	3.50	5	0.0					
Apr	-	-	-	1.11	0.27	1.22	2	0.0					
May	-	-	-	0.35	0.11	0.33	1	0.0					
Jun	-	-	-	0.10	0.00	0.04	0	0.0					
Jul	-	-	-	0.02	0.00	0.00	0	0.0					
Aug	-	-	-	0.12	0.00	0.09	0	0.0					
Sep	-	-	-	0.30	0.00	0.22	1	0.0					
Oct	-	-	-	0.49	0.16	0.49	1	0.0					
Nov	-	-	-	1.25	0.48	1.39	2	0.0					
Dec	-	-	-	1.74	0.71	2.01	4	0.0					
Annual:					-	-							
Average	-	-	-	-	-	-	-	-					
Total	-	-	-	14.18			27	0.0					
GROWING SEASON DATES													
Years with missing data:	24 deg = 30	28 deg = 30	32 deg = 30										
Years with no occurrence:	24 deg = 0	28 deg = 0	32 deg = 0										
Data years used:	24 deg = 0	28 deg = 0	32 deg = 0										
Probability	24 F or higher	28 F or higher	32 F or higher										
50 percent *	Insufficient data	Insufficient data	Insufficient data										
70 percent *	Insufficient data	Insufficient data	Insufficient data										
* Percent chance of the growing season occurring between the Beginning and Ending dates.													
STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1893	1.78		8.26	0.51	0.00	T	0.00	0.00	0.06	0.19	1.36	2.49	14.65
1894	0.79	1.29	1.64	0.14	0.21	0.15		0.06	T	T		3.06	7.34
1895	12.65	1.08	1.24	0.46	0.26			T		0.25	1.44	0.57	17.95
1896		T	4.73	0.96	0.31		T	0.08		1.51	1.54	2.42	11.55
1897	4.30	4.91	2.89	0.00	0.12				0.02	1.70	0.08	0.95	14.97
1898	2.78	0.22	1.75	0.33	1.55	0.00		T	0.05	0.00	0.29	1.87	8.84
1899	2.98	0.61	1.16	0.05	0.44	0.51		0.00	0.00	0.78	1.29	1.29	9.11
1900	3.89	0.32	0.69	1.48	1.48	0.05			T	0.25	3.19		11.35
1901	2.28	5.82	0.34	0.61	0.65	0.01	T	0.02	T	0.24	0.46	0.22	10.65
1902	2.47	2.64	3.13	0.59	0.10	0.01	0.80	0.00	0.00	0.38	3.03	2.27	15.42

[illegible]

1955													
1956	2.81	0.49	0.01	1.62	0.35	0.00	0.00	0.00	0.00	0.28	0.00	0.40	5.96
1957	6.39	0.36	1.27	1.22	1.49	0.30	0.00	0.00	0.00	1.89	1.17		14.09
1958					M0.00	T	T	0.00	0.20	0.05	0.37	0.07	0.69
1959	0.27	3.97	T	0.28	0.02	0.00	0.00	0.00	0.03	1.10	M0.20	2.35	8.22
1960	2.94	2.12	1.06	0.54	0.31	0.00	0.00	0.00	0.21	T	1.71	0.08	8.97
1961	0.90	0.07	1.79	0.00	0.02	0.05	0.00	0.30	0.00	0.43	1.32	1.70	6.58
1962	3.81	M4.47	1.31	0.00	1.29	0.16	0.00	0.00	0.00	0.00	T	0.30	11.34
1963	0.61	2.67	1.98	1.42	0.01	0.15	0.00	0.41	2.10	0.24	2.28	0.10	11.97
1964	1.71	0.87	1.91	1.05		0.02	0.00	T	0.06	0.17	1.56	0.81	8.16
1965	0.55	1.24	0.99	3.80	0.01	0.06	0.11	0.00	0.23	0.00	7.05	6.31	20.35
1966	1.16	1.46	0.27	0.02	0.06	0.02	T	0.00	T	0.83	1.96	5.76	11.54
1967	2.08	T	1.49	2.62	0.01	0.07	0.16	0.19	0.03	0.00	2.08	2.63	11.36
1968	0.40	0.39	2.64	1.03	0.24	0.05	0.35	0.00	T	0.11	0.63	1.22	7.06
1969	5.95	6.32	1.99	0.35	0.40	0.27		0.25	0.02	0.03	1.06	0.43	17.07
1970	0.90	1.24	3.94	0.59	0.06	0.02	T	0.05	0.00	0.43	2.09	2.87	12.19
1971	0.77	1.13	0.03	1.04	1.50	T	T	0.02	T	1.23	0.54	3.47	9.73
1972		0.26		0.08	0.36	0.81	0.00	T	0.36	1.39	3.69	1.96	8.91
1973	2.39	2.57	3.94	0.20	0.08	0.02	0.00	0.12	T	T	2.05	0.21	11.58
1974	4.43	0.14	2.66	0.32	T	0.00	T	0.00	T	1.98	0.32	2.37	12.22
1975	0.35	1.08	4.68	4.23	0.08	0.00	0.15	0.00	0.02	0.22	1.21	0.70	12.72
1976	0.00	5.70	2.19		0.05	T	T	0.02	2.00	0.05	2.15	1.26	13.42
1977	2.55	0.55	1.15	0.09	2.07	0.05	0.00	1.32	0.00	0.15	0.17	2.97	11.07
1978	10.50	5.50	7.60	1.15	0.26		0.00	0.00	0.70	0.06	2.29	3.61	31.67
1979	6.10	2.00	4.55	0.02	0.14	0.02	0.00			1.02	0.42	0.06	14.33
1980		8.16	3.05	2.33	0.43	0.00	0.00		0.00	0.11	0.00	0.84	14.92
1981	1.32	M2.10	5.19	0.07	0.24			0.00	0.00	0.18	1.14	M0.00	10.24
1982	2.08	1.40	3.43	1.07	0.14	0.00	0.00	0.00	0.59	0.29	3.92	M2.58	15.50
1983	1.43	5.00	9.56	1.74	0.14	0.03	0.00	0.26	0.33	1.35	2.30	2.13	24.27
1984	M0.35	0.03	0.04	0.68	0.00	0.17	T	M0.36	0.09	0.24	1.95	5.93	9.84
1985	M0.95	1.11	1.06	0.43	0.00	0.00	0.00	0.00	0.74	0.22	M5.63	M1.63	11.77
1986	0.77	3.34	3.03	0.62	0.00	0.00	0.00	0.34	0.90	0.72	M1.39	2.03	13.14
1987	2.04	1.63			0.15	0.00	0.01	0.07	0.19	2.29	1.27	3.10	10.75
1988	1.55	0.07	0.00	M4.08	0.21	0.00	0.00	0.00	0.03	0.00	1.08	2.41	9.43
1989	0.56	1.38	1.33	0.07	M0.13	0.01	0.00	0.00		0.00	0.23	0.00	4.11

									39	01		
1990	3.07		0.83	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.50	4.88
1991	1.22	1.97	10.34	0.05	0.00	0.00	0.00	0.00	0.00		0.86	15.48
1992	2.94	4.94	4.03		0.34	0.00	0.12	0.14	0.00		0.09	15.65
1993	12.64	5.85	1.68	0.00	0.00	0.59	0.02	0.00	0.01	0.17	1.25	23.04
1994	1.79	4.46	3.82	1.91	0.33	0.00				0.07		12.38
1995					0.45	0.06	0.00	0.00	0.00	0.00	0.34	1.46
1996	1.62	3.40	2.13	M0.74	0.67	0.00	0.10	0.00	0.12	1.20	2.72	14.66
1997	5.41	0.83	0.00	0.20	0.07	0.04			1.63	0.18	2.13	12.32
1998	4.66	10.36	3.68	2.35	2.24	0.01	0.00	0.00	0.18	0.16	1.19	25.57
1999	2.10	0.76	1.16	2.82	T	0.56	0.20	0.42	0.00	0.00	0.00	8.02
2000	1.01	4.89	1.29	1.09	0.00	0.00	0.00	M0.14	M0.32	0.00	M0.52	9.26
2001	3.64	4.22	1.46	0.99	0.24	0.00	0.00	0.00	0.00	0.00	1.01	12.90
2002	0.53	0.31	1.17	0.49	0.00	0.00	0.05	0.00	0.11	0.07	2.09	6.97
2003	0.01	4.15	2.36	2.39	1.01	0.04	0.11	0.00	0.00	0.00	0.81	12.14
2004	0.36	4.37	0.61	1.08	0.00	1.00	0.00	0.00	0.00	2.48	M1.83	15.28
2005	5.99	M0.59	1.06	M0.65	0.16	0.00	M0.00	0.00	0.25	1.21	0.05	9.97
2006	0.95	M1.31	M1.13	0.89	0.20	0.00	0.15	0.00	0.00	0.00	0.00	4.83
2007	M0.00	3.05	0.08	0.60	0.05	0.00	0.00	0.00	0.10	0.54	1.82	8.65
2008	4.82	1.54	0.11	0.01	0.20	0.00	0.00	0.00	0.00	0.14	1.52	10.65
2009	0.07	4.31	0.10	0.03	0.05	0.17	0.00	0.00	0.00	0.03	0.66	8.67
2010	M2.15	4.18	0.58	1.84	0.02	0.00	0.02	0.00	0.09	4.04	1.61	23.50
2011	1.29	3.69	1.98	0.40	0.96	M0.13	T	0.00	0.32	0.52	4.10	14.47
2012	0.98	M0.40	1.93	2.08	0.18	0.00	0.00	0.01	0.00	1.05	0.40	10.42
2013	1.60	1.44	1.39	0.08	0.32	0.00	0.02	0.00	0.00	1.37	0.45	7.41
2014	0.12	1.35	1.30	1.03	0.00	0.00	0.00	0.13	0.00	0.00	0.95	8.29
2015	0.81	0.64	1.21	0.44	1.96	0.27	1.37	0.00	0.45	0.51	0.79	10.53
2016	6.38	0.14	1.17	0.90	0.57	0.00	0.00	0.00	0.49	0.30	1.35	11.30
2017	7.09	6.12	0.22	0.00	1.57	0.01	0.04	0.00	0.00	0.00	0.04	15.20
2018	3.91	0.61	1.69	0.04	0.23	0.00	0.00	0.00	0.00	0.57	1.74	11.26
2019	2.83	8.37	1.50	0.42	1.68	0.01	0.00	M0.00				14.81

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22



Attachment G

GIS Data (provided digitally)

