

APPENDIX B

Biological Resources Letter Report

April 10, 2020

12034

Norm Pedersen
Associate Planner
City of San Marcos Planning Division
1 Civic Center Drive
San Marcos, California 92069

Subject: *Biological Resources Letter Report for the Kaiser Permanente San Marcos Medical Center Project,
City of San Marcos, California*

Dear Mr. Pedersen:

This letter report documents the results of a detailed biological resources assessment conducted for the 36.30-acre proposed Kaiser Permanente San Marcos Medical Center Project (Project) located in the City of San Marcos, California.

This report describes the current biological character of the 36.30-acre Project study area and provides an analysis of direct and indirect impacts based on the proposed development footprint; analyzes the biological significance of the site with respect to regional biological resource planning; describes the impact controls that will avoid impacts to biological resources; and includes mitigation measures that will reduce significant biological impacts to a less-than-significant level consistent with federal, state, and local regulations, including the California Environmental Quality Act (CEQA).

It is important to note that the term "Project study area" refers to the entire Project including the proposed on-site development and the off-site sewer improvement location (KH-08) while the term "Project site" refers exclusively to the proposed on-site development only.

1 Introduction

1.1 Project Location and Description

The Project site is located just north of the existing Kaiser Permanente medical complex at 400 Craven Road in the Barham/Discovery Neighborhood approximately 0.5-mile south of the State Route 78 (SR-78)/Twin Oaks Valley Road intersection. The property is bounded by Rush Drive to the east, Craven Road to the south, Echo Lane to the west, and the proposed Discovery Street extension to the north. The off-site KH-08 sewer improvement area is located near the centerline of Craven Road just west of Santa Barbara Drive. The regional location of the Project in addition to the local vicinity is illustrated on Figure 1. The Project study area is surrounded by commercial development to the south and east, residential development to the southwest, open space to the north and northwest, and rural residential to the northeast.

The Project study area is located on unsectioned lands of the U.S. Geological Survey (USGS) 7.5 minute map, San Marcos quadrangle: Township 12 South; Range 3 West; latitude 33° 07' 47.82"N; and longitude 117° 10' 12.19"W (Figure 1).

2 Methods

Data regarding biological resources present within the Project study area were obtained through a review of pertinent literature and field reconnaissance; both are described in detail below.

2.1 Literature Review

To evaluate the natural resources found or potentially occurring within the Project study area, literature searches and database reviews were conducted by Dudek biologists. Prior to conducting the field reconnaissance, a literature review was conducted to identify listed and other special-status biological resources present or potentially present within the study area and Project vicinity using the following sources: U.S. Fish and Wildlife Service (USFWS) Critical Habitat and Occurrence Data (USFWS 2019), California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CDFW 2019a, 2019b, 2019c, and 2019d), and California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Vascular Plants (CNPS 2019a). Dudek queried these sources for special-status resources within the San Marcos U.S. Geological Survey 7.5-minute quadrangle, plus the eight surrounding quadrangle maps. The surrounding quadrangles include Morro Hill, Bonsall, Pala, San Luis Rey, Valley Center, Encinitas, Rancho Santa Fe, and Escondido.

For purposes of this report, listed species include those plant and wildlife species that are listed as threatened or endangered by either the California or federal Endangered Species Act. Special-status plants include listed species, candidates for listing, and species designated with a California Rare Plant Rank by CNPS. Special-status wildlife species include listed species; candidates for listing; and species with a designation from the CDFW of Watch List, Fully Protected, or Species of Special Concern (CDFW 2019d). Other special-status biological resources include vegetation communities that are considered to support unique stands, are of particular value to special-status plant or wildlife species, or have a rank of S1–S3 on the CDFW's List of Terrestrial Communities (CDFW 2019a). Unique vegetation communities include habitats found only in the region, local representatives of species not generally found in San Diego County, or outstanding examples of CDFW special-status vegetation communities. Additionally, riparian areas, wetlands, bays, estuaries, marshes, and wildlife corridors are generally considered special-status biological resources.

2.2 Field Reconnaissance

Between June and July 2019, Dudek conducted surveys for the following biological resources: vegetation mapping, a jurisdictional wetland delineation, a rare plant survey, and a focused wildlife survey. Dudek conducted an additional assessment on February 11, 2020 to evaluate the biological resources at the off-site KH-08 sewer improvement area. Table 1 lists the dates, conditions, and focus for each survey.

Table 1. Schedule of Surveys

Date	Hours	Personnel	Focus	Conditions
Vegetation Mapping, Jurisdictional Wetlands and Waters Assessment				
6/21/2019	0900-1200	TW	Vegetation mapping	60–66°F, 0% cc, 1–4 mph wind

Table 1. Schedule of Surveys

Date	Hours	Personnel	Focus	Conditions
6/23/2019	1030–1230	TW	Vegetation mapping, jurisdictional wetland delineation	63–68°F, 0% cc, 0–3 mph wind
2/11/2020	1200–1300	TW	Vegetation mapping	69°F, 0% cc, 0–3 mph wind
Rare Plants				
7/29/2019	0845–1145	KD	Rare Plant Survey	67–78°F, 100–0% cc, 0–4 mph wind
Coastal California Gnatcatcher				
8/12/2019	0830–1030	TW/JP	CAGN Focused Survey	66–72°F, 100–10% cc, 1–4 mph wind
8/21/2019	0800–1000	TW/JP	CAGN Focused Survey	72–76°F, 0% cc, 1–5 mph wind
8/30/2019	0730–0930	TW/JP	CAGN Focused Survey	70–82°F, 0% cc, 0–4 mph wind

°F = degrees Fahrenheit; mph = miles per hour; cc = cloud cover; NR = not recorded; CAGN = coastal California gnatcatcher; TW = Tricia Wotipka; JP = Jeff Priest; KD = Kathleen Dayton.

2.2.1 Vegetation Community and Land Cover Mapping

Vegetation communities and land covers on site were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet), aerial photograph-based field map of the Project study area (Bing 2019). 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 by Dudek GIS Analyst Andrew Greis. Once in ArcGIS, the acreage of each vegetation community and land cover present in the Project study area was determined.

Vegetation community classifications followed *Vegetation Alliances and Associations: Natural Communities List Arranged Alphabetically by Life Form* (Natural Communities List) (CDFW 2018a) based on the *Manual of California Vegetation*, second edition (Sawyer et al. 2009). Land covers not included in the Natural Communities List followed the *Preliminary Descriptions of the Terrestrial Natural Communities of California* Holland (1986), as modified by the County of San Diego and noted in *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008).

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 by GIS Analyst Andrew Greis. Once in ArcGIS, the acreage of each vegetation community and land cover present in the Project study area was determined.

2.2.2 Flora

All native and naturalized plant species encountered in the Project study area were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) (formerly CNPS List) follow the CNPS Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2019a). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2019), and common names follow the List of Vegetation Alliances and Associations (CDFG 2010) or the U.S. Department of Agriculture Plants Database (USDA 2019b). A preliminary list of plants observed during the site visit is included in Appendix A.

2.2.2.1 Rare Plant Surveys

On July 29, 2019, focused surveys for special-status plants were conducted on site by Dudek biologist Kathleen Dayton. This survey was conducted at the appropriate phenological stage to detect and identify target species with a moderate potential to occur on site including Orcutt's brodiaea (*Brodiaea orcuttii*), California Rare Plant Rank (CRPR) 1B.1, and southern tarplant (*Centromadia parryi* ssp. *australis*), CRPR 1B.1. Prior to special-status plant surveys, Dudek evaluated plant records in the U.S. Geological Survey 7.5-minute San Marcos quadrangle and the surrounding Morro Hill, Bonsall, Pala, San Luis Rey, Valley Center, Encinitas, Rancho Santa Fe, and Escondido quadrangles (CDFW 2019a; CNPS 2019a; USFWS 2019) to determine target species. 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 plant species to occur. Field survey methods conformed to CNPS Botanical Survey Guidelines (CNPS 2001); Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and General Rare Plant Survey Guidelines (Cypher 2002). Surveys were conducted by walking meandering transects throughout the Project site to detect special-status species. All plant species were identified and recorded in Appendix A.

2.2.3 Fauna

All wildlife species detected during the field surveys by sight, calls, tracks, scat, or other signs were recorded. Binoculars (10×40 magnification) were used to aid in the identification of observed wildlife. In addition to species actually detected, expected wildlife use of the Project study area was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, American Ornithologists' Society (AOS 2019) for birds, Wilson and Reeder (2005) for mammals, and North American Butterfly Association (NABA 2001) or San Diego Natural History Museum (SDNHM 2002) for butterflies. All wildlife species were identified and recorded in Appendix B.

2.2.3.1 Focused Coastal California Gnatcatcher Survey

Surveys for the federally listed threatened coastal California gnatcatcher (*Poliophtila californica californica*) were conducted on a portion of the Project site in 2018 by Merkel & Associates, Inc. (M&A) and more recently by Dudek across the entire Project site in 2019.

A summary of the surveys conducted by firm is provided below.

Merkel & Associates, Inc. 2018

M&A conducted focused, protocol-level surveys for the coastal California gnatcatcher for the purpose of determining the presence or absence of this species on the adjacent, off-site Discovery Village South Specific Plan Project, of which a small portion overlaps the proposed Project site near the northeast corner where the extension of Discovery Street is proposed (M&A 2017). It is important to note that M&A did not survey the entire Project site subject to this report but rather they focused on lands within 500 feet of their own project site, of which a portion overlaps the proposed Project site.

All areas of suitable coastal sage scrub vegetation in the northern, undeveloped portion of the proposed Project site were surveyed during focused surveys conducted by M&A for the Discovery Village South Specific Plan Project. Surveys were conducted in accordance with the current USFWS Coastal California Gnatcatcher Presence/Absence Survey Protocol (USFWS 1997) which included nine protocol surveys conducted during the non-breeding season (defined as July 1 through March 14) with a minimum 2-week interval between surveys (M&A 2019). This more intensive survey requirement was necessary as the City is no longer an active participant in the Natural Community Conservation Plan (NCCP) Interim Section 4(d) process under the Multiple Habitat Conservation Plan (MHCP) conservation planning efforts (USFWS 2007). The surveys were conducted by slowly walking meandering transects in potentially suitable gnatcatcher habitat. Taped recordings of gnatcatcher vocalizations, as well as “pishing,” were used to elicit initial vocal responses, and an approximate nine minute time interval was allowed for a response, particularly from advantageous viewpoints. Gnatcatcher presence was determined based on the detection of songs, calls, and/or direct observations. Efforts were made to determine the gender, paired or unpaired status, age, and any color band information of each observed gnatcatcher. A list of detected avian species was recorded in a field notebook, and the locations of identified gnatcatchers were recorded using a GPS unit or noted onto color aerial photographs of the BSA. Data collected from the surveys were digitized into current GIS ESRI software platforms.

Dudek 2019

Focused surveys for the coastal California gnatcatcher were conducted on the Project site by Dudek biologists Tricia Wotipka and Jeff Priest in August 2019 following a modified, three-visit survey protocol, as approved by the USFWS. Ms. Wotipka and Mr. Priest are authorized to survey for this species under Section 10(a)(1)(A) permit #TE-840619. Coastal California gnatcatchers were first located using a taped recording of coastal California gnatcatcher vocalizations, when necessary. The tape was played approximately every 50 to 100 feet depending on assumed sound attenuation related to topography to induce responses from potentially present coastal California gnatcatchers. If a coastal California gnatcatcher was detected, tape-playback was terminated to minimize potential for harassment. Once a pair or individual was located, an attempt was made to locate the other bird of the pair and determine each bird’s sex. If only one bird was located and another bird of the other sex did not appear within a reasonable amount of time, a note was made to re-find and follow this bird at a later date to determine if it is paired or unpaired.

In order avoid double counting, once an individual or pair was located, the first observer followed the original gnatcatcher pair (or individual) and the second observer began searching for a second pair/individual nearby that may have been occupying an adjacent territory. With synchronized watches, the different observers communicated with each other using walkie-talkies or phones, and kept a record of the time they had birds under observation. This method helps define how many pairs are present on a site and as an example, simultaneous observations of males and females together in two nearby locations would establish the presence of two pairs. In many cases, individual males could be recognized by unique plumage markings. Where two males were clearly recognizable by differences in their plumage, simultaneous observations would not be necessary. Once it was determined if two pairs were present in adjacent territories, polygons would be drawn on an aerial map showing the approximate separation of these two pairs. In situations where determinations of one or two pairs might be otherwise unclear (e.g., too much time had elapsed between observations), distinguishing characters about the male’s cap plumage would be used to make a determination. If there were no distinguishing characters between the males’ plumage, then the particular general area in question would then be re-visited at the end of the initial survey pass of the entire Project site to further assess the number of pairs or individuals in the area.

Binoculars (10x50 magnification) were used to aid in the detection and identification of bird species. Weather conditions, time of day, and season were appropriate for the detection of this species (see Table 1).

2.2.4 Jurisdictional Wetland Delineation

Dudek conducted a delineation of jurisdictional aquatic resources within the Project site on June 23, 2019. The entire Project site was surveyed on foot for the following types of features:

- Waters of the United States, including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), pursuant to Section 404 of the federal Clean Water Act;
- Waters of the state under the jurisdiction of the California Regional Water Quality Control Board (RWQCB), pursuant to Section 401 of the federal Clean Water Act and the Porter–Cologne Water Quality Control Act as wetlands or drainages; and,
- Streambeds under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code.

Wetland waters of the United States are delineated based on methodology described in the 1987 ACOE *Corps of Engineers Wetlands Delineation Manual* (ACOE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008a). ACOE and RWQCB jurisdictional wetlands are determined based on the presence of all three wetlands criteria: hydrophytic vegetation, hydrology, and hydric soils.

Non-wetland waters of the United States are delineated based on the presence of an Ordinary High Water Mark (OHWM) as determined utilizing the methodology in *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (ACOE 2008b).

In accordance with California Fish and Game Code, streambeds are determined based on the presence of a definable bed and bank, and are delineated from top of bank to top of bank or the extent of associated riparian vegetation (CDFW jurisdiction). For shallow drainages and washes that do not support riparian vegetation, the top of bank measurement may be the same as the OHWM measurement.

The jurisdictional delineation performed within the Project site included the preparation of four data stations assessed at the locations shown on Figure 2A. Data stations were collected in groups along a transect line with a data point located in the generally lower, more mesic portion of the feature and another data point located upslope, or above the OHWM and where the three jurisdictional criteria would likely no longer be met (based on elevation, vegetation, soil, and or, hydrological indicators).

Small ditches comprising less than one acre in size that were excavated in uplands, drain only uplands, and whose purpose is to provide storm water runoff conveyance and treatment, such as concrete-lined brow ditches, were not considered jurisdictional and thus were not mapped as such. In the context of this report, these features are considered non-jurisdictional uplands.

2.3 Survey Limitations

Focused surveys for potentially occurring special-status plant species were conducted for the proposed Project in July 2019. The timing of the survey was intended to capture the blooming period of those plant species with a more moderate to high potential to occur on site. All perennial, conspicuous shrubs would have been identified during the survey if present.

Dudek did not conduct focused surveys for special-status wildlife species other than the coastal California gnatcatcher because no other listed species have a moderate to high potential to occur on site.

To account for survey limitations, biologists identified special-status plant and wildlife species that could occur in the Project site, based on pertinent literature on distribution and habitat preference, recorded off-site observations, and extensive local experience of the Dudek biologists. Special-status plant and wildlife species were analyzed based on their potential to occur, and adequate measures to avoid and minimize impacts to these species are provided in this report. Based on this, nocturnal surveys have not been conducted for the proposed Project because birds represent the largest component of the vertebrate fauna, and most are active in the daytime; therefore, diurnal surveys maximize the number of observations of this portion of the fauna. In contrast, daytime surveys usually result in few observations of mammals or bats, many of which may be active at night. In addition, many species of reptiles and amphibians are nocturnal or cryptic in their habits and are difficult to observe using standard meandering transects.

3 Physical Characteristics

3.1 Environmental Setting

The 36.30-acre Project study area and surrounding area is largely characterized as an urban, developed commercial and residential area. The areas surrounding the Project study area to the west, south and east have undergone extensive development and have existing commercial and residential uses. The Project study area is immediately bordered by neighborhood commercial and office/professional uses to the east, existing medical office buildings and surface parking lots associated with the existing Kaiser Permanente Medical Campus to the south, single family residential uses in the Discovery Meadows neighborhood to the west, and the soon-to-be developed Discovery Village South Specific Plan Area to the north and northeast. The Discovery Village South Specific Plan encompasses the area located directly north of the Project site and will include the development of up to 230 single-family homes and the extension of Discovery Street to Twin Oaks Valley Road.

A majority of the Project study area (~59%) is flat and developed, supporting a combination of existing medical facilities, parking lots, associated infrastructure and utilities, and ornamental landscaping. The Project site includes an extensively disturbed, vacant lot to the north comprised of undeveloped land with varying topography including cut hillslopes to the north dominated by a combination of native and disturbed sage-scrub dominated vegetation with annual brome grassland and patches of disturbed native upland vegetation scattered throughout the flatter portions of the site. The vacant lot associated with the Project site is extensively disturbed by a combination of dirt trails, trash and rubble interspersed with pockets of native and non-native vegetation. A homeless encampment is situated just north and off site of the property on lands associated with the Discovery Village South Specific Plan. Ingress/egress from this encampment occurs primarily through the Project site by way of a deteriorated chain link

fence off Rush Drive. A north-south trending, unvegetated concrete-lined brow ditch designed to convey storm water runoff parallels Rush Drive and more or less forms the eastern Project boundary.

The Project site also supports several isolated wetland features including two patches of willow-dominated vegetation to the north, several scattered patches of tamarisk thickets along Rush Drive, a small pocket of earthen, open channel, and disturbed wetlands associated with a manmade detention basin near the southeast Project site boundary.

The off-site sewer improvement area is situated entirely within Craven Road, a paved four-lane arterial roadway bordered largely by single-family residential housing.

Topography

Elevations in the Project study area range from approximately 565 feet above mean sea level (amsl) to approximately 640 feet amsl. The Project study area is comprised of a combination of developed areas, disturbed habitats, and native habitat. The majority of the Project study area is relatively flat within the existing medical campus site with steep hillside cut slopes forming the north/northeast Project site boundary.

Soils

According to the Natural Resources Conservation Service (USDA 2019a), there are four native soil types found within the Project study area: Escondido very fine sandy loam, 5% to 9% slopes; Escondido very fine sandy loam, 9% to 15% slopes, eroded; Exchequer rocky silt loam, 9% to 30% slopes; and Grangeville fine sandy loam, 0 to 2 percent slopes. The most common and predominant soil series in the Project study area is Escondido very fine sandy loam, 5% to 9% slopes.

4 Results

4.1 Vegetation Communities and Land Covers

Thirteen vegetation communities and land cover types (including disturbed forms) were mapped by Dudek in the Project study area based on general physiognomy and species composition, including 9 native or naturalized vegetation types and 4 non-natural land covers. Acreages of vegetation communities and land covers are listed in Table 2, and their spatial distribution is depicted in Figure 2.

Table 2. Vegetation Communities and Land Cover Types in Project Site

Vegetation Community/Land Cover	Acreage	
	On site	Off-site
Native Upland Communities		
California Sagebrush Scrub*	0.03	0
Disturbed California Sagebrush Scrub*	0.43	0
Disturbed Coyote Brush Scrub*	1.66	0
Laurel Sumac/Deer Weed Scrub*	0.39	0
Deer Weed Scrub*	0.30	0
<i>Subtotal</i>	<i>2.81</i>	<i>0</i>

Wetlands, Waters, and Riparian Communities		
Arroyo Willow Thickets*	0.07	0
Disturbed Wetland*	0.08	0
Tamarisk Thickets *	0.02	0
Open Channel*	0.002	0
Subtotal	0.172	0
Non-Native Vegetation Community/Land Cover		
Annual Brome Grasslands	9.94	0
Disturbed Habitat	0.41	0
Developed	20.58	0.67
Ruderal	1.72	0
Subtotal	32.65	0.67
Total	35.63	0.67

* Indicates a special-status vegetation community

4.1.1 California Sagebrush Scrub

California sagebrush scrub is considered a coastal scrub vegetation alliance (CDFW 2018a; 2018b). It is a native plant community characterized by a variety of soft, low, aromatic, drought-deciduous shrubs, such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), California brittle bush (*Encelia californica*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and toyon (*Heteromeles arbutifolia*). It typically develops on steep, south-facing slopes and at times, though rarely, occurs on flooded low-gradient deposits along streams in which are scattered willows (*Salix* spp.) and mulefat (*Baccharis salicifolia*), depending on the site conditions. Soils on which this vegetation community occurs are described as alluvial or colluvial-derived and shallow (Sawyer et al. 2009). California sagebrush scrub rarely occurs as a continuous vegetation community but rather occurs in a patchy or mosaic distribution pattern throughout its range.

Within the Project study area, a small patch of California sagebrush scrub, comprising 0.03 acre, was mapped on a south-facing cut slope dominated by low-growing sage scrub species with an inclusion of taller native shrubs and rock outcrops. Predominate species in this small patch on site include California sagebrush, California brittle bush, California buckwheat, black sage (*Salvia mellifera*), white sage (*Salvia apiana*), Menzies' goldenbush (*Isocoma menziesii* var. *menziesii*), and wishbone bush (*Mirabilis californica*). Non-native species comprise roughly 10% to 15% of the total area of this community including, but not limited to, tocalote (*Centaurea melitensis*), short-pod mustard (*Hirschfeldia incana*) and assorted non-native grasses and herbs. Bare ground comprised up to 25% cover.

4.1.2 Disturbed California Sagebrush Scrub

Two patches of disturbed coastal sage scrub, comprising 0.43 acre, were identified adjacent to the small patch of undisturbed coastal sage scrub on the same south-facing cut slope near the northeast corner of the Project site. Floral species found in this area are characteristic of natural, undisturbed coastal sage scrub and include specifically California sagebrush, black sage and California buckwheat but also include at least 50% cover of short-pod mustard, tocalote, and prickly Russian thistle (*Salsola tragus*).

4.1.3 Disturbed Coyote Brush Scrub

Disturbed coyote brush scrub includes coyote brush as the sole or dominant shrub in the canopy, with anywhere from 30% to 50% cover of non-native annual grasses and other non-native species, including short-pod mustard, tamarisk, tree tobacco, castor bean, and sweet fennel in the understory. Disturbed coyote brush scrub typically has an intermittent shrub canopy less than 2 meters (7 feet) in height with a variable ground layer (Sawyer and Keeler-Wolf 2009). In general, species associated with undisturbed coyote brush scrub typically include black sage, California buckwheat, California blackberry (*Rubus ursinus*), California coffeeberry (*Rhamnus californica*), California figwort (*Scrophularia* sp.), California sagebrush, creeping ryegrass (*Leymus triticoides*), poison oak (*Toxicodendron diversilobum*), seaside woolly sunflower (*Eriophyllum staechadifolium*), salal (*Gaultheria shallon*), sword fern (*Polystichum munitum*), tufted hairgrass (*Deschampsia cespitosa*), yellow bush lupine (*Lupinus arboreus*), yellow sand-verbena (*Abronia latifolia*), wax myrtle (*Myrica californica*), and white sage (Sawyer et al. 2009). Within the Project study area, however, the coyote brush scrub is extensively disturbed by considerable amounts of trash, rubble, and debris. Areas mapped as disturbed coyote brush scrub on-site support established stands of coyote brush with sweet fennel, short-pod mustard, prickly Russian thistle, and tocalote growing in the understory of the shrubs atop piles of concrete rubble and in the void spaces of stockpiled concrete pipes. Individual stands of tree tobacco (*Nicotiana glauca*) are occasionally emergent. Native plant cover is limited to coyote brush only.

4.1.4 Deer Weed Scrub

Two large patches of vegetation dominated by native deer weed (*Acmispon glaber*) exist on site and are thus classified as a native vegetation community for their potential value as habitat for native wildlife species. Although these patches are generally too small to be considered a vegetation community on their own and rather occur in patches throughout the disturbed habitat on site, these patches were mapped due to the small size of the site and the relative importance of native vegetation cover on any portion of the site. Deer weed is an early colonizer of disturbed sites (CNPS 2019b). Within the Project site, deer weed scrub has formed predominantly along an existing dirt foot trail just north of the existing medical center campus.

4.1.5 Laurel Sumac/Deer Weed Scrub

This community refers to a large, presumably manufactured, south-facing cut slope on the Project site along the northern Project boundary that is dominated by laurel sumac and deer weed. The vegetation appears to be in a state of recovery based on the height and density of the vegetation growth. The laurel sumac and deer weed occupy roughly 40% of this mapped area. The remaining 60% is composed of bare ground.

4.1.6 Arroyo Willow Thickets

Arroyo willow thickets refer to areas supporting more than 50% relative cover of arroyo willow (*Salix lasiolepis*) in the tall shrub or low tree canopy with a sparse to depauperate understory. This community is best characterized as a dense, broad-leafed, winter-deciduous riparian thicket comprised of several species of willow (Holland 1986). Most stands are too dense to allow much understory development (Holland 1986). Species associated with arroyo willow thickets includes scattered emergent Fremont cottonwood (*Populus fremontii*) and western sycamore (*Platanus racemosa*) (Holland 1986).

Arroyo willow thickets are often found along stream channels on loose, sandy, or fine gravelly alluvium deposits. This community is considered seral due to repeated disturbance/flooding and is therefore unable to develop into the taller southern cottonwood–willow riparian forest (Holland 1986). As a shrubland, emergent trees may be present at low cover.

Arroyo willow thickets occur in two small, isolated patches on site near the northeast corner of the Project site. The source of hydrology sustaining these two patches of arroyo willow is unknown but there is no visible evidence of a stream channel or seep in this location. Dominant species include arroyo willow and Goodding's black willow (*Salix gooddingii*) in the canopy with tall flatsedge (*Cyperus eragrostis*), mariposa rush (*Juncus dubius*), wrinkled rush (*Juncus rugulosus*) and annual beard grass (*Polypogon monspeliensis*) in the herbaceous layer.

4.1.7 Disturbed Wetland

Disturbed wetland refers to areas that are dominated by exotic wetland species that invade areas that have been previously disturbed and/or undergone periodic disturbances. These non-native species become established more readily following natural or human-induced habitat disturbance than the native wetland flora. Disturbed wetlands were mapped on site in an existing detention basin near the southeast corner of the Project site. Dominant species include annual beard grass, curly dock (*Rumex crispus*), southern cattail (*Typha domingensis*), common knotweed (*Polygonum aviculare*), and bristly ox-tongue (*Helminthotheca echioides*).

4.1.8 Tamarisk Thickets

Tamarisk thickets are typically comprised of shrubs and/or small trees of exotic tamarisk species (*Tamarix* spp.), but may also contain willows (*Salix* spp.), salt bushes (*Atriplex* spp.), and catclaw acacia (*Acacia greggii*) often times with a grassy, disturbed understory. This habitat typically occurs along intermittent streams in areas where high evaporation rates increase the salinity level of the soil. Tamarisk is a phreatophyte, a plant that can obtain water from an underground water table. Because of its deep root system and high transpiration rates, tamarisk can substantially lower the water table to below the root zone of native species, thereby competitively excluding them. As a prolific seeder, it may rapidly displace native species within a drainage course (Holland 1986). In the context of the Project site, tamarisk thickets were mapped in small, scattered patches alongside a concrete-lined brow ditch running parallel to Rush Drive/Discovery Street. Dominant species include five-stamen tamarisk (*Tamarix chinensis*) with a non-native grassy understory comprised of red brome (*Bromus rubens*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), Perez's marsh-rosemary (*Limonium perezii*), and African fountain grass (*Cenchrus setaceus*).

4.1.9 Open Channel

Open channel refers to areas that are associated with a stream channel that are sandy-bottomed, barren and/or sparsely vegetated. Open channel is typically observed below the OHWM and often represents the active, low flow channel of a waterway. Open channel refers to an earthen-bottomed storm drain inlet on site near the far east end of the Project that receives input from the adjacent hillside slopes.

4.1.10 Annual Brome Grasslands

Annual brome grasslands are characterized by lands dominated by weedy, introduced annual brome grasses and non-native herbs and forbs. It may occur where disturbance by maintenance (mowing, scraping, disking, spraying, etc.), repetitive fire, agriculture, or other mechanical disruptions have altered soils and removed native seed sources from areas formerly supporting native vegetation. This community occurs in areas with flat to gradual slopes with deep, fine-textured, typically clay soils. Most of the introduced annual species that comprise annual brome grassland originated from the Mediterranean region of Europe, an area with a climate similar to that in California and a long history of agriculture. These two factors have contributed to the successful invasion and establishment of these species and the replacement of native grasslands by annual-dominated non-native grassland (Jackson 1985). Holland (1986) states that annual brome grasslands have a sparse to dense cover of annual grasses that are typically 0.2–0.5 meter (0.7–1.6 feet) tall and can be up to 1 meter (3 feet) tall. Wildflowers are often associated with annual brome grasslands, especially in years with favorable precipitation (Holland 1986). Characteristic species that occur in annual grasslands include oats (*Avena* spp.), bromes (*Bromus* spp.), fescue (*Vulpia* spp.), and Italian ryegrass (*Lolium perenne* ssp. *multiflorum*). Forbs that occur with these grasses include California poppy (*Eschscholzia californica*), filaree (*Erodium* spp.), goldfields (*Lasthenia* spp.), phacelia (*Phacelia* spp.), gillias (*Gilia* spp.), and baby blue-eyes (*Nemophila menziesii*) (Holland 1986).

Annual brome grasslands support at least 50% cover of low-growing, annual non-native grasses on the Project site including, but not limited to, slender wild oat, soft chess, red brome, perennial rye grass (*Festuca perennis*), and rat-tail fescue (*Festuca myuros*). Other dominant non-native herbs and forbs observed on site include scarlet pimpernel (*Anagallis arvensis*), red-stem filaree (*Erodium cicutarium*), Indian sweetclover (*Melilotus indicus*), short-pod mustard, prickly Russian thistle, fascicled tarplant (*Deinandra fasciculata*), prickly lettuce (*Lactuca serriola*), and tocalote. Due to extensive, repeated disturbance on site due to transient use of the property and considerable trash deposition, the annual brome grasslands on site provide limited value to wildlife. Because no special status plant or wildlife species were recorded in these areas and no wildlife movement through the annual brome grasslands was detected during the site surveys, annual brome grasslands is not considered a sensitive vegetation community in the context of the proposed Project.

4.1.11 Disturbed Lands

Disturbed lands refer to areas that are not developed, yet lack vegetation, and generally are the result of severe or repeated mechanical perturbation and can often have compacted soils. Disturbed lands refer to existing unpaved foot trails and bare, unvegetated ground on the Project site with less than 10% vegetative cover. These areas support limited natural ecological processes, native vegetation, and/or habitat for wildlife species and thus are not considered sensitive by local, state, and/or federal agencies.

4.1.12 Developed

Developed lands are described by Oberbauer (et al. 2008) as areas that have been constructed on or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008).

Within the Project study area, developed land refers to the existing medical campus, parking facilities, and associated infrastructure, hardscape, paved roadways (i.e., Craven Road), and ornamental landscaping. These areas support limited natural ecological processes, native vegetation, and/or habitat for wildlife species and thus are not considered sensitive by local, state, and/or federal agencies.

4.1.13 Ruderal

Ruderal is a land cover type characterized by a predominance of non-native species, often introduced and established through human action with very limited bare ground. Annual non-native grasses are often present but in small numbers (less than 10% cover). Vegetation in ruderal areas is often comprised of weedy herbaceous species including, but not limited to, wild oat, short-pod mustard, black mustard (*Brassica nigra*), thistles ([*Centaurea*], [*Carduus*], and [*Cynara*] spp.), sow thistles (*Sonchus* spp.), prickly lettuce, prickly Russian thistle, telegraphweed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), London rocket (*Sisymbrium irio*), wild radish, hottentot fig (*Carpobrotus edulis*), tree tobacco, castor bean, garland chrysanthemum (*Glebionis coronaria*), and sweet fennel. Ruderal areas are generally the result of extensive disturbance, such as prior grading or fire. Ruderal areas occur across a wide range of elevations, topographic orientations, and soil types.

Within the Project site, ruderal areas are dominated by dove weed (*Croton setigerus*), short-pod mustard, garland chrysanthemum, sweet fennel, prickly lettuce, prickly Russian thistle, tree tobacco, and telegraph weed.

4.2 Floral Diversity

Sixty-eight vascular plant species consisting of 36 native species (60%) and 32 non-native species (40%) were recorded during general and rare plant surveys conducted for the Project study area. A list of all plant species observed during 2019/2020 surveys is presented in Appendix A, Plant Compendium.

4.3 Special-Status Plant Species

Endangered, rare, or threatened plant species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as “special-status plant species” in this report and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) (CDFW 2018a), and (2) plant species with a CRPR 1 through 3 (CNPS 2019). This report also includes CRPR 4 plant species.

A special-status plant survey was conducted for the Project site on July 29, 2019 to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 (14 CCR 15000 et seq.). A list of potentially occurring plants was generated as part of the literature review. Each species’ potential to occur on site was evaluated based on the elevation, habitat, and soils present on site and Dudek’s knowledge of biological resources in the area and regional distribution of each species. A number of potentially occurring plant species are conspicuous (e.g., large, woody shrubs) and readily observed if present within an open and largely disturbed site.

No special-status plant species (CRPR 1-4) were observed on site during the 2019 rare plant survey and given the extensively disturbed nature of the site special-status plant species are not expected to occur.

Special-status plant species known to occur in the surrounding region that have a low potential to occur and/or are not expected to occur on the Project site are presented in Appendix C, Special-Status Plant Species Observed or Potentially Occurring within the Project Study Area.

Critical Habitat

There is no USFWS-designated critical habitat mapped for plant species within the Project study area (USFWS 2019).

4.4 Wildlife Diversity

Twenty-five wildlife species were recorded during 2019 surveys conducted for the Project study area including 1 reptile, 18 birds, 3 mammals, and 3 invertebrates. A full list of wildlife species observed in the Project study area during 2019 surveys is provided in Appendix B, Wildlife Compendium.

4.5 Special-Status Wildlife Species

Species defined as “special-status wildlife species” in this report include endangered and threatened wildlife species recognized in the context of the California and federal Endangered Species Acts (CDFW 2019b); Species of Special Concern assigned by CDFW to species whose population levels are declining, have limited ranges, and/or are vulnerable to extinction due to continuing threats; Fully Protected species protected by the CDFW and Watch List species candidates for higher sensitivity statuses; and Birds of Conservation Concern provided by USFWS to migratory and non-migratory bird species that adhere to the 1988 amendment to the Fish and Wildlife Conservation Act that mandates USFWS to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Federal Endangered Species Act of 1973” (USFWS 2008).

Sixty-two special-status wildlife species were reported in the CNDDDB and USFWS databases as occurring in the vicinity of the Project study area. Appendix D, Special-Status Wildlife Species Observed or Potentially Occurring within the Project Study Area, summarizes the special-status wildlife species that were included in these databases and evaluated as part of this assessment. For each species evaluated, a determination was made regarding the potential use of the site based on information gathered during the field reconnaissance, known habitat preferences, and knowledge of their relative distributions in the area.

Of the 62 special-status wildlife species listed in the CNDDDB and USFWS databases as occurring in the vicinity of the Project site, none were determined to have at least a moderate potential of occurring on site (Appendix D) with the exception of the coastal California gnatcatcher, which was recently observed during 2019 focused surveys conducted by Dudek for the Project.

Critical Habitat

There is no USFWS-designated critical habitat mapped for wildlife species within the Project study area (USFWS 2019).

4.5.1 Coastal California Gnatcatcher

The coastal California gnatcatcher is a federally listed threatened species and a CDFW Species of Special Concern (SSC). It is closely associated with California sagebrush scrub habitat and is therefore threatened primarily by loss, degradation,

and fragmentation of this habitat. The coastal California gnatcatcher typically occurs below 820 feet amsl within 22 miles of the coast and 1,640 feet amsl for inland regions (Atwood and Bolsinger 1992). Studies have suggested that gnatcatchers avoid nesting on very steep slopes (greater than 40%) (Bontrager 1991). The coastal California gnatcatcher is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism (Braden et al. 1997).

One pair plus a juvenile were observed foraging as a family unit on the Project site by Dudek during 2019 modified focused surveys conducted for the Project. This pair was also documented on site during focused surveys conducted by M&A for the Discovery Village South Specific Plan Project in 2018. This pair was consistently observed foraging in both Project areas during 2018 surveys conducted for the Discovery Village South Specific Plan Project by M&A and during 2019 surveys conducted for the proposed Project by Dudek (M&A 2019). Both M&A and Dudek reported a single individual foraging with the adult pair. No other coastal California gnatcatcher individuals were observed on the Project site. Given the extremely disturbed nature of the habitat on site, it is possible but not confirmed that the coastal California gnatcatchers detected on site could be individuals who were previously displaced and/or dispersing from off-site lands approximately 4,500 feet southeast of the Project site (M&A 2019). Given the size, composition and disturbance of the native shrub patches on site, coastal California gnatcatcher is not expected to nest on the Project site. However, coastal California gnatcatcher may occasionally forage on site as documented during focused survey efforts in 2018 and 2019.

4.6 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals. They may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

To function effectively, a wildlife corridor must link two or more patches of habitat for which connectivity is desired, and it must be suitable for the focal target species to achieve the desired demographic and genetic exchange between populations. Movement corridors identified within the City are generally composed of relatively narrow riparian corridors including San Marcos Creek, Las Posas Creek, Twin Oaks Valley Creek, Buena Creek, and Agua Hedionda Creek (City of San Marcos 2012). The vicinity of the Project study area is highly urbanized with adjacent areas consisting of a mix of low- to high-density residential development, commercial development and roadways. The Project study area is not within a Focused Planning Area (FPA) and is isolated from areas proposed for preservation under the MHCP (e.g., FPAs). Figure 4-2 of Section 4 of the San Marcos General Plan does not identify the proposed Project study area as a wildlife corridor or habitat linkage.

The approximately 36.30-acre Project study area is not expected to provide for wildlife movement or serve as an important habitat linkage because a majority of the site supports existing urban/developed uses; however, there is potential for limited use of the vacant lot on site to the north by both resident and migratory species due to the presence of limited habitat features, including mature trees, California sagebrush scrub vegetation, and open areas

for foraging. The Project study area is surrounded by existing, high-density commercial and residential development. Because of regular human activity and considerable vehicle traffic in and surrounding the Project study area, predominantly urban-adapted wildlife species are expected to occur in this area, such as raccoons (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and brush rabbits (*Sylvilagus* spp.).

4.7 Jurisdictional Aquatic Resources

A wetland delineation was conducted for the Project site in June 2019, focusing on potential features within the on-site development footprint. Results of the wetland delineation indicate that the Project site supports 0.07 acre of isolated arroyo willow thickets, 0.08 acre of disturbed wetland associated with a detention basin, 0.02 acre of tamarisk thicket patches along Rush Drive, and 0.002 acre of open channel associated with a storm drain inlet (Table 3). The wetland determination data forms are included in Appendix E, Routine Wetland Determination Data Forms.

Table 3. Existing Aquatic Resource Summary

Vegetation Community	Acres
Arroyo Willow Thickets	0.07
Disturbed Wetland	0.08
Tamarisk Thickets	0.02
Open Channel	0.002
Total¹	0.172

¹ Total may not sum due to rounding.

4.8 Regional Conservation Planning Context

The City of San Marcos (City) Subarea Habitat Conservation Plan/Natural Community Conservation Plan (NCCP) (Subarea Plan) has not been finalized or implemented, and the City is no longer an active participant in the NCCP program and the subregional MHCP conservation planning effort. However, it is the City's policy to comply with the conservation policies identified in the Draft San Marcos Subarea Plan, including an assessment of designated Biological Core Linkage Area (BCLA) or MHCP Focused Planning Area (FPA) in the context of the proposed project. In addition, the Project will be evaluated to ensure consistency with the California Environmental Quality Act (CEQA).

5 Anticipated Project Impacts

This section defines the types of impacts that would occur due to Project implementation, including direct, permanent impacts; direct, temporary impacts; and indirect impacts.

Direct Impacts

Direct, permanent impacts refer to the absolute and permanent physical loss of a biological resource due to clearing, grading, and construction of the proposed Project. Direct, permanent impacts are analyzed in four ways: (1) permanent loss of vegetation communities and land covers, and general wildlife and their habitat; (2) permanent

loss of or harm to individuals of special-status plant and wildlife species; (3) permanent loss of suitable habitat for special-status species; or (4) permanent loss of wildlife movement and habitat connectivity in the Project site.

Direct, temporary impacts refer to a temporal loss of vegetation communities and land covers resulting from vegetation and land cover clearing and grading associated with implementation of the proposed Project. The main criterion for direct, temporary impacts is that impacts would occur for a short period of time and would be reversible.

Indirect Impacts

Indirect impacts are reasonably foreseeable effects caused by Project implementation on remaining or adjacent biological resources outside the direct disturbance zone that may occur during grading activities (i.e., short-term construction-related indirect impacts) or later in time as a result of the Project (i.e., long-term, or operational, indirect impacts). Short-term indirect impacts can include dust, human activity, pollutants (including potential erosion), and noise that extend beyond the identified construction area. Long-term indirect impacts can include changes to hydrology, introduction of invasive species, dust, and noise that are operations related or occur over the long term. In most cases, indirect effects are not quantified, but in some cases, quantification might be included, such as using a noise contour to quantify indirect impacts to nesting birds.

For each of the following impact sections, direct and indirect impacts for biological resources are identified and a significance determination is made for each impact. For each significant impact, mitigation measures that would reduce the impact to less than significant are proposed.

5.1 Vegetation Communities and Land Covers

Direct impacts to vegetation are shown in Table 4. All biological resources within the impact limits are considered directly impacted. Figures 2A–2B illustrate the distribution of biological resources in the Project study area and the extent of the proposed impacts both on site and off site.

Table 4. Direct Impacts to Vegetation Communities and Land Covers

Vegetation Community/Land Cover	Impacts (acres)	
	Permanent	Temporary
Native Upland Communities		
Disturbed California Sagebrush Scrub*	0	0.08
Disturbed Coyote Brush Scrub*	0.42	1.22
Laurel Sumac/Deer Weed Scrub*	0	0.38
Deer Weed Scrub*	0.03	0.27
<i>Subtotal</i>	0.45	1.95
Non-Native Vegetation Communities/Land Covers		
Annual Brome Grasslands	7.45	1.87
Ruderal	0	0.73

Table 4. Direct Impacts to Vegetation Communities and Land Covers

Vegetation Community/Land Cover	Impacts (acres)	
	Permanent	Temporary
Urban/Developed	4.03	0.67
Disturbed Lands	0.10	0.28
<i>Subtotal</i>	<i>11.58</i>	<i>3.55</i>
Total	12.03	5.50

* Indicates a special-status vegetation community

Direct Impact

Implementation of the Project would result in direct, permanent impacts to 0.42 acre of disturbed coyote brush scrub and 0.03 acre of deer weed scrub, both of which are considered special-status vegetation communities. The Project would also incur additional temporary impacts to 0.08 acre of disturbed California sagebrush scrub, 1.22 acres of disturbed coyote brush scrub, 0.38 acre of laurel sumac/deer weed scrub, and 0.27 acre of deer weed scrub, totaling 1.95 acres. Temporary impacts are due to construction-related access and equipment staging that needs to occur to facilitate Project construction. Direct permanent and direct temporary impacts to these vegetation communities would be considered significant absent mitigation. Implementation of Mitigation Measures (MM)-BIO-1 and MM-BIO-2 would reduce potential direct, permanent and temporary impacts to less than significant. No other special-status vegetation communities would be directly impacted by the Project.

Permanent and temporary impacts to non-native vegetation communities/land covers, totaling 11.58 acres and 3.55 acres, respectively, are not considered significant because these land covers are not considered sensitive; they are non-native and provide little biological resource value.

MM-BIO-1 RESTORE TEMPORARY IMPACTS. Post-construction, proposed mitigation for direct, temporary impacts to 1.95 acres of native upland communities will be provided through on site restoration of the temporarily disturbed areas at a 1:1 ratio. All temporary impact areas must be restored to pre-construction contours and conditions following Project completion.

Kaiser Permanente, or their designee, shall prepare a conceptual habitat restoration plan outlining the restoration of these communities and implement the restoration plan including monitoring and maintenance for a period of at least 3 years to ensure 80% coverage of native plants.

The restoration plan should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. The plan should include, at a minimum: (a) a description of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

MM-BIO-2 **HABITAT MITIGATION.** Post-construction mitigation for direct, permanent impacts to 0.45 acre of native upland communities will be provided at a 2:1 ratio, totaling 0.90 acre. Mitigation will be accomplished through the acquisition of 0.90 acre of coastal California gnatcatcher-occupied habitat credits from an approved mitigation bank in northern San Diego County.

Indirect Impact

Indirect impacts to vegetation during construction may include dust, which could disrupt plant vitality in the short term, construction-related soil erosion and runoff. Implementation of industry-standard construction and storm water BMPs including dust control, erosion control, and water quality protection would be required for the project to obtain a grading permit. Implementation of these dust, erosion control, and water quality protection measures during construction, including consistency with the Construction General Permit Order 2009-009-DWQ, would reduce any potential short-term indirect impacts on adjacent vegetation communities to a level that is less than significant.

5.2 Special-Status Plant Species

Direct Impact

No special-status plant species have the potential to occur within the impact footprint due to the lack of suitable habitat and substrate. Further, results of the special-status plant survey in 2019 were negative. Thus, no direct impacts to special-status plant species are anticipated.

Indirect Impacts

Because no special-status plant species were observed on site during 2019 surveys, no indirect impacts to special-status plant species are anticipated to occur within the project site. Indirect impacts to special-status plant species potentially occurring off site would be limited to short-term construction impacts related to erosion, runoff, and dust. However, all project ground-disturbing activities would be subject to the typical restrictions (e.g., best management practices [BMPs]) and requirements that address erosion and runoff, including those of the National Pollutant Discharge Elimination System (NPDES) permit program and preparation of a Stormwater Pollution Prevention Plan (SWPPP) including consistency with the Construction General Permit Order 2009-009-DWQ. With implementation of these BMPs and permit conditions, potential indirect impacts to special-status plant species would be less than significant.

5.3 Special-Status Wildlife Species

Direct Impacts

One federally listed wildlife species, coastal California gnatcatcher, was observed in the Project site during surveys conducted for the off-site, immediately abutting Discovery Village South Specific Plan Project by M&A in 2018 and more recently by Dudek during modified focused surveys conducted for the Project in 2019. One pair plus one individual was confirmed by M&A, Dudek, and the USFWS to be co-occurring between the two project sites. Additionally, in the Biological Opinion issued by the USFWS for the Discovery Village South Specific Plan Project, dated February 21, 2020, the USFWS asserts that the co-occurring coastal California gnatcatcher individuals also occur on the North City (University District) Specific Plan Project and that when considering the suitable vegetation across all three projects there is sufficient habitat to support breeding coastal California gnatcatchers.

Further, assuming an approximately 10-acre territory size, which is the estimated territory size for projects situated roughly 10 miles inland from the coast (Preston et al. 1998), the USFWS expects that coastal California gnatcatchers could continue to expand to at least three pairs in available suitable habitat across all three projects. However, it is our understanding that all suitable coastal sage scrub vegetation within the Discovery Village South Specific Plan and North City (University District) Specific Plan development boundaries, comprising approximately 31 acres, has already been cleared in accordance with local, state, and federal agency approvals.

The proposed Project on its own supports 2.81 acres of coastal sage scrub vegetation in various stages of disturbance and patch size. This represents a very small percentage (less than 10%) of their overall use area and is not large enough on its own to support a viable breeding territory for coastal California gnatcatcher. This is especially true given the low quality of habitat on the Project site that is largely characterized as extensively disturbed *Baccharis*-dominated vegetation sprouting from piles of construction-related debris. Further, the diminutive size of the site coupled with a low percent cover of native shrubs and a high percent cover of bare ground and herbaceous weeds cannot support all of the needs for these individuals during a typical annual life cycle for this species. It is assumed that coastal California gnatcatchers displaced by construction of the two adjacent, aforementioned projects to the north may move/adjust their territories into the remaining habitat on the Project site. However, because the remaining habitat is small, isolated, and fragmented, consisting of small, disturbed patches of native shrubs separated by large expanses of disturbed habitats, it is expected to serve merely as a “stepping stone” at this point to provide access to other areas off site. Therefore, direct impacts to coastal California gnatcatcher are not expected to occur.

However, to further ensure that coastal California gnatcatchers are not impacted by initial clearing/grubbing, or grading activities within 500 feet of coastal sage scrub vegetation, the Project will implement **MM-BIO-3** to **MM-BIO-11** to avoid direct mortality of coastal California gnatcatchers.

MM-BIO-3 **TEMPORARY INSTALLATION FENCING.** Kaiser Permanente, or their designee, will temporarily fence (including downslope silt barriers) the limits of project impacts (including construction staging areas and access routes) and install other appropriate sediment trapping devices to prevent additional impacts to, and the spread of silt from the construction zone into, adjacent habitat to be avoided. Fencing and sediment trapping devices will be installed in a manner that does not impact habitats to be avoided.

If work occurs beyond the fenced limits of impact, all work will cease until the problem has been remedied to the satisfaction of the City. Any habitat impacts that occur beyond the authorized work will be offset at ratios approved by the City. Temporary construction fencing and sediment trapping devices will be removed upon project completion.

MM-BIO-4 **ENVIRONMENTAL AWARENESS TRAINING.** A Workers Environmental Awareness Training Program shall be implemented with the contractor and all active construction personnel prior to construction to ensure knowledge of California gnatcatcher, its habitat, and general compliance with environmental/permit regulations and mitigation measures.

At a minimum, training will include a discussion of the following topics: (1) the purpose for resource protection; (2) a description of the coastal California gnatcatcher and its habitat; (3) the MMs outlined in this report that should be implemented during project construction to conserve the sensitive resource, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (4) environmentally responsible construction practices; (5) the protocol to resolve conflicts that may arise at any time during the construction process; and, (6) the general provisions of the FESA, the need to adhere to the provisions of the FESA, and the penalties associated with violating the FESA.

MM-BIO-5 BREEDING SEASON AVOIDANCE. The removal of coastal sage scrub vegetation from the Project impact footprint will occur from September 1 to February 14 to avoid the coastal California gnatcatcher breeding season. Further, to the maximum extent practicable, grading activities associated with construction of the expanded medical campus will occur from September 1 to February 14 to avoid the coastal California gnatcatcher breeding season. If project construction must occur during the coastal California gnatcatcher breeding season, MMs BIO 10 and 11 will be implemented.

MM-BIO-6 WORK HOURS. Project construction will occur during daylight hours. However, if temporary night work is required, night lighting will be of the lowest illumination necessary for human safety, selectively placed, shielded and directed away from natural habitats.

MM-BIO-7 GENERAL CONSTRUCTION MONITORING PRACTICES. Kaiser Permanente, or their designee, will ensure that the following conditions are implemented during project construction in order to minimize potential impacts to coastal California gnatcatcher and its habitat.

- a. Employees will strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint;
- b. To avoid attracting predators of the coastal California gnatcatcher, the Project site will be kept as clean of debris as possible. All food related trash items will be enclosed in sealed containers and regularly removed from the site;
- c. Pets of project personnel will not be allowed on the Project site; and,
- d. Impacts from fugitive dust will be avoided and minimized through watering and other appropriate measures consistent with the Construction General Permit Order 2009-009-DWQ.

MM-BIO-8 BIOLOGICAL MONITOR REQUIREMENTS AND DUTIES. A qualified biologist with at least 40 hours in the field observing coastal California gnatcatchers and documented experience locating and monitoring coastal California gnatcatcher nests will be on site daily during initial clearing/grubbing and weekly during grading activities within 500 feet of coastal California gnatcatcher habitat to

ensure compliance with all project-imposed mitigation measures. The biologist will be available during pre-construction and construction phases to review grading plans, address protection of sensitive biological resources, monitor ongoing work, and maintain communications with the Project's engineer to ensure that issues relating to the coastal California gnatcatcher and its habitat are appropriately and lawfully managed.

The qualified biological monitor will also be responsible for the following duties:

- a. Oversee installation of and inspect temporary fencing and erosion control measures within or up-slope of avoided and/or preserved areas a minimum of once per week during installation and daily during all rain events until established to ensure that any breaks in the fence or erosion control measures are repaired immediately.
- b. Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust.
- c. Halt work, if necessary, and confer with the USFWS and City to ensure the proper implementation of species and habitat protection measures. The biologist will report any violation to the USFWS and City within 24 hours of its occurrence.
- d. Submit weekly letter reports (including photographs of impact areas) via regular or electronic mail (email) to the City during clearing/grubbing of coastal California gnatcatcher habitat and/or project construction resulting in ground disturbance within 500 feet of avoided coastal California gnatcatcher habitat. The weekly reports will document that authorized impacts were not exceeded and general compliance with all conditions. The reports will also outline the duration of coastal California gnatcatcher monitoring, the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers and locations of any coastal California gnatcatchers and nests, sex of gnatcatchers, observed coastal California gnatcatchers behavior (especially in relation to construction activities), and remedial measures employed to avoid, minimize, and mitigate impacts to coastal California gnatcatchers and nests.
- e. Submit a final report to the City within 60 days of project completion that includes the following: (1) as-built construction drawings for grading with an overlay of any active nests; (2) photographs of habitat areas during pre-construction and post-construction conditions; and (3) other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with the avoidance/minimization provisions and monitoring program as required by the USFWS were achieved.

MM-BIO-9 GENERAL PRE-CONSTRUCTION CALIFORNIA GNATCATCHER SURVEY. For initial clearing/grubbing of coastal California gnatcatcher habitat within the project development footprint, a biologist holding a Section 10(a)(1)(A) permit shall perform a minimum of three (3) focused surveys, on separate days, to determine the presence of California gnatcatchers or nests in the Project impact

footprint including temporary construction areas. Surveys will begin a maximum of seven (7) days prior to performing initial clearing/grubbing, and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing. If any coastal California gnatcatchers are found in the Project impact footprint, the biologist will direct construction personnel to begin clearing/grubbing in an area away from the coastal California gnatcatchers and attempt to flush coastal California gnatcatchers away from clearing/grubbing so that coastal California gnatcatchers will not be injured or killed by clearing/grubbing activities. If an active coastal California gnatcatcher nest is found, the nest will be avoided until nesting is confirmed to be completed by the biologist. Kaiser Permanente, or their designee, will notify the USFWS at least seven (7) days prior to the initiation of surveys and within 24 hours of locating any California gnatcatcher and/or nest.

MM-BIO-10 PRE-CONSTRUCTION NESTING CALIFORNIA GNATCATCHER SURVEY. A biologist holding a Section 10(a)(1)(A) permit shall perform a minimum of three (3) focused surveys, on separate days, to determine the presence of coastal California gnatcatcher nests within 500 feet of project grading activities if construction is proposed during the coastal California gnatcatcher breeding season. The surveys will begin a maximum of seven (7) days prior to project construction (including temporary fence installation required by MM-BIO-3) and one survey will be conducted the day immediately prior to the initiation of work. Additional surveys will be done once a week during project grading activities in the breeding season.

MM-BIO-11 CALIFORNIA GNATCATCHER NEST AVOIDANCE AND MINIMIZATION MEASURES. Though unlikely, if an active coastal California gnatcatcher nest is found on site or within 500 feet of Project grading activities, the biologist will postpone work within 500 feet of the nest and contact the USFWS and the City to discuss: (1) the best approach to avoid/minimize impacts to nesting coastal California gnatcatchers (e.g., sound walls, noise monitoring); and (2) a nest monitoring program acceptable to the USFWS. Subsequent to these discussions, work may be initiated subject to implementation of the agreed-upon avoidance/minimization approach and monitoring program. If the biologist determines that bird breeding behavior is being disrupted, Kaiser Permanente, or their designee, shall stop work and coordinate with the USFWS to review the avoidance/minimization approach. Upon agreement as to any necessary revisions to the avoidance/minimization approach, work may resume subject to the revisions and continued monitoring. Success or failure of an active nest shall be established by regular and frequent trips to the site, as determined by the biologist and through a schedule approved by the wildlife agencies. Monitoring of an active nest shall continue until fledglings have dispersed or the nest has been determined to be a failure, as approved by the USFWS.

Indirect Impacts

Indirect effects to special-status wildlife species during Project construction may include the generation of fugitive dust, changes in hydrology resulting from construction, including sedimentation and erosion, the release of chemical pollutants, and increased human presence. As noted above under indirect effects to vegetation, the potential indirect impacts from construction dust, erosion/sedimentation, and the release of chemical pollutants would be avoided and minimized through the implementation of industry standard construction-related BMPs,

including consistency with the Construction General Permit Order 2009-009-DWQ, which would reduce these potential effects on special-status wildlife species to a level that is less than significant. Although increased human presence during construction may result in avoidance and/or behavioral modification by wildlife in the area, this effect would be short-term and is considered less than significant.

Noise generated during construction has the potential to indirectly impact adjacent special-status wildlife species by disrupting their normal activities, particularly breeding and nesting activities associated with special-status bird species. Special-status bird species, including federal- and state-listed species and species protected under protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503-3513 and 3800-3801, may occur in habitats adjacent to the Project area. Nesting birds can be affected by short-term construction-related noise, resulting in decreased reproductive success or abandonment of an area as nesting habitat. Breeding passerine and raptor species likely utilize the various habitats on site for nest construction and foraging. Indirect impacts from construction-related noise may occur to breeding birds if construction occurs during the breeding season (i.e., February 15 through September 15). Potential impacts, including noise, lighting, increased human presence and vehicle traffic within the site could affect nesting birds. Pre-construction nesting bird surveys during the breeding season to avoid impacts to nesting birds in accordance with the Migratory Bird Treaty Act and Fish and Game Code are a condition of project approval.

While not expected to nest on site, **MMs BIO-10** and **BIO-11** address potential impacts to nesting coastal California gnatcatcher in the event that they do breed on site or within 500 feet of grading activities. Appendix F, Determining Need for an Incidental Take Permit under Federal Endangered Species Act Section 10(a)(1)(B), includes an analysis for determining the need for an Incidental Take Permit under the FESA Section 10(a)(1)(B). The analysis concludes that no such permit would be needed for the Project.

5.4 Jurisdictional Aquatic Resources

Direct Impact

No direct impacts to jurisdictional wetlands and waters will occur due to Project implementation.

Indirect Impact

Indirect impacts would be limited to short-term construction impacts related to construction runoff and dust. However, all project ground-disturbing activities would be subject to the typical restrictions (e.g., BMPs) and requirements that address erosion and runoff, including those of the NPDES permit program and preparation of a SWPPP, including consistency with the Construction General Permit Order 2009-009-DWQ. With implementation of these BMPs and permit conditions, potential indirect impacts to preserved jurisdictional aquatic resources in the Project site would be less than significant.

5.5 Wildlife Corridors and Habitat Linkages

As indicated in Section 3.1, Environmental Setting, the Project site is bordered by residential and commercial development to the south, east, and west, thus limiting the effectiveness of the site as a wildlife movement corridor. As described in Section 4.6, Wildlife Corridors and Habitat Linkages, a better quality wildlife movement corridor is

Mr. Norm Pedersen

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present to the north of the Project site along San Marcos Creek from State Route 78 west to Discovery Street, which is presumed to be used by the majority of resident and migratory wildlife species. Although the Project site provides some suitable habitat for wildlife species, the utility of this habitat is expected to be low due to the extent of disturbance, the small size and discontinuity with regional open space. Therefore, impacts to wildlife corridors and linkages would not be substantial and are considered less than significant.

5.6 Regional Conservation Planning Context

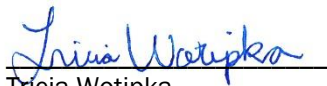
The Project is not located within a designated BCLA or FPA, and therefore, it is consistent with the conservation policies of the Draft San Marcos Subarea Plan. In addition, the Project would be required to conform to the goals and policies in the City of San Marcos General Plan (City of San Marcos 2012) related to the protection of biological resources. Following implementation of proposed mitigation measures, the Project is expected to be found to be in conformance with the Draft San Marcos Subarea Plan and the General Plan. Therefore, no impacts related to regional resource planning are anticipated.

6 Conclusion

Based on our extensive review of biological resources in the Project site, with implementation of **MM-BIO-1** through **MM-BIO-11**, no significant impacts to biological resources would occur due to Project implementation.

If you have any questions regarding this biological assessment, please do not hesitate to contact me at 760.479.4295 or at twotipka@dudek.com.

Sincerely,



Tricia Wotipka
Senior Biologist

Att.: *Figures 1–2B*

Appendix A, Plant Compendium

Appendix B, Wildlife Compendium

Appendix C, Special-Status Plant Species Observed or Potentially Occurring in the Project Study

Appendix D, Special-Status Wildlife Species Observed or Potentially Occurring in the Project Study Area

Appendix E, Routine Wetland Determination Data Forms

Appendix F, Determining Need for an Incidental Take Permit under Federal Endangered Species Act Section 10(a)(1)(B)

7 References

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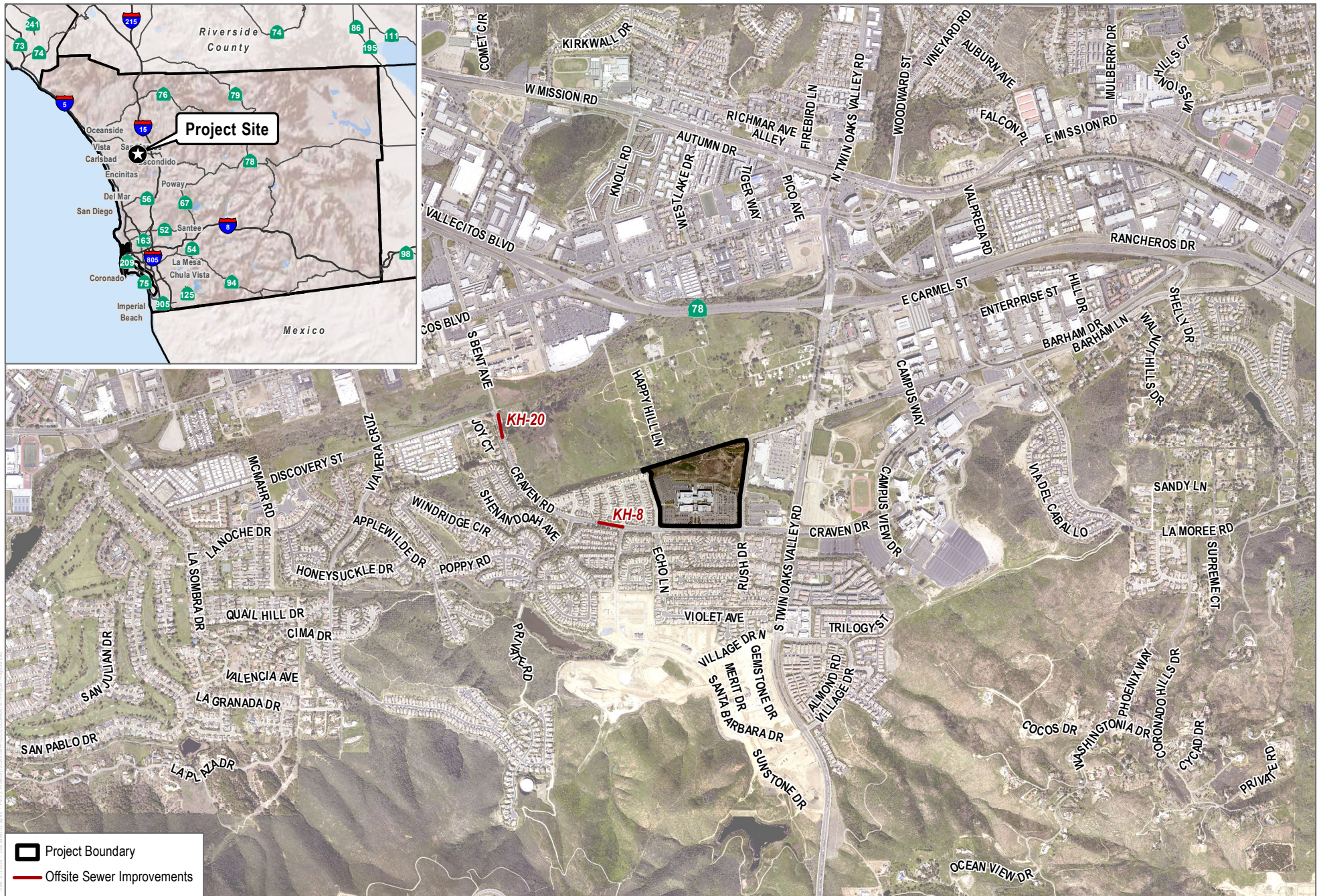
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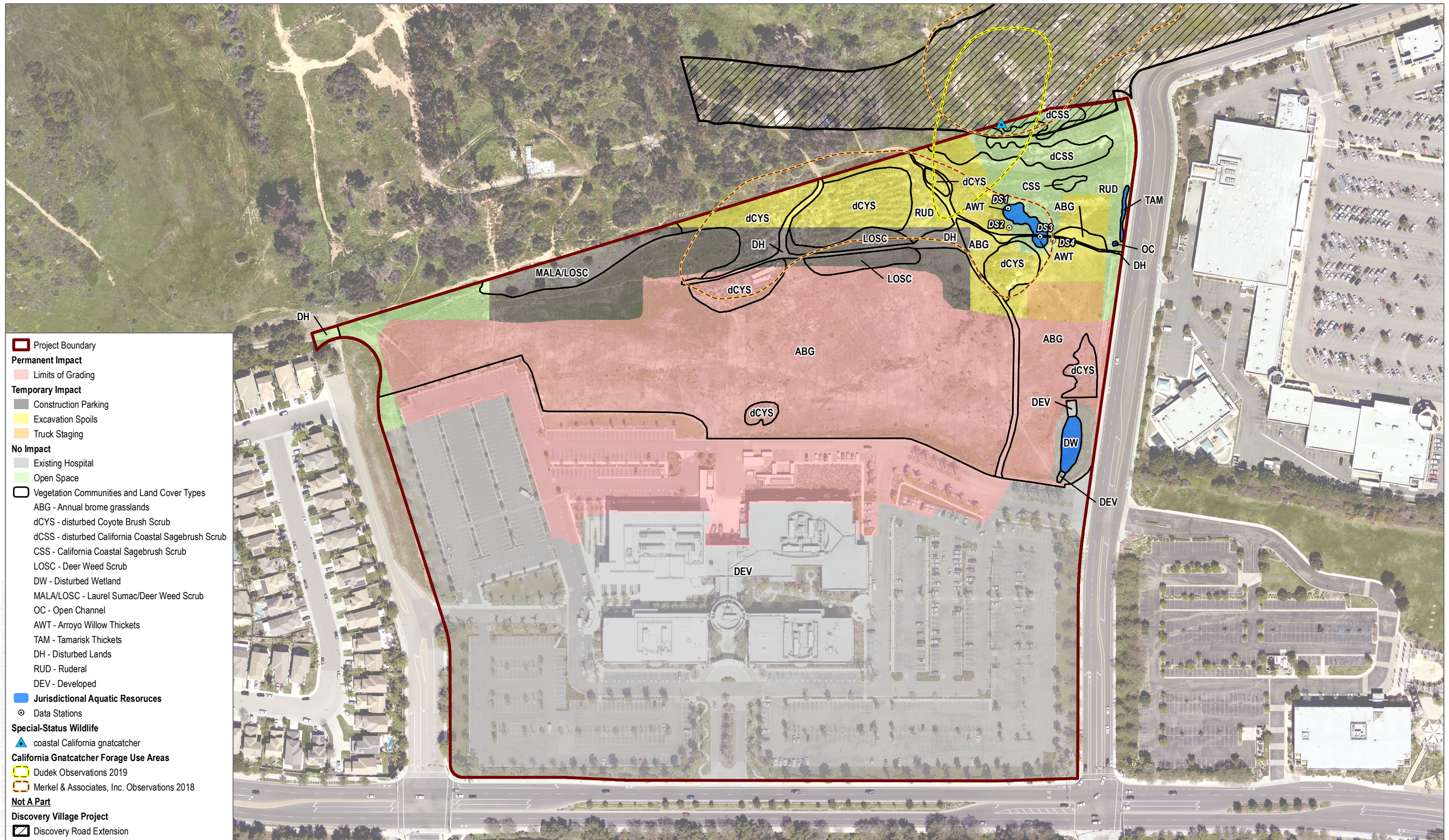
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SOURCE: Vallecitos Water District 2020; SANGIS 2017, 2019



SOURCE: SANGIS 2017; Merkel & Associates, 2019; DPR Construction 2019

FIGURE 2A

On-site Impacts to Biological Resources

Kaiser Permanente Medical Center Project - Biological Resources Technical Report



SOURCE: SANGIS 2017; Merkel & Associates, 2019; DPR Construction 2019; Vallecitos Water District 2020



Appendix A

Plant Compendium

Plant Species

Angiosperms: Eudicots

AMARANTHACEAE – AMARANTH FAMILY

Malosma laurina – laurel sumac

Rhus integrifolia – lemonadeberry

APIACEAE – CARROT FAMILY

Daucus pusillus – rattlesnake weed

* *Foeniculum vulgare* – sweet fennel

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia psilostachya – western ragweed

Artemisia californica – coastal sagebrush

Baccharis pilularis ssp. *consanguinea* – chaparral broom, coyote brush

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

Baccharis sarothroides – broom baccharis

Brickellia californica – California brickellbush

Deinandra fasciculata – fascicled tarweed

Encelia californica – California encelia

Eriophyllum confertiflorum var. *confertiflorum* – long-stem golden-yarrow

Heterotheca grandiflora – telegraph weed

Isocoma menziesii var. *menziesii* – spreading goldenbush

Pseudognaphalium beneolens – fragrant everlasting

Pseudognaphalium biolettii – bicolor cudweed

Pseudognaphalium californicum – California everlasting

Stephanomeria diegensis – San Diego wreath-plant

* *Centaurea melitensis* – tocalote

* *Dittrichia graveolens* – stinkwort

* *Erigeron bonariensis* – flax-leaf fleabane

* *Glebionis coronaria* – garland/crown daisy

* *Helminthotheca echioides* – bristly ox-tongue

* *Lactuca serriola* – prickly lettuce

* *Logfia gallica* – narrow-leaf cottonrose

* *Sonchus asper* ssp. *asper* – prickly sow-thistle

Hazardia squarrosa – sawtooth goldenbush

BORAGINACEAE – BORAGE FAMILY

Eucrypta chrysanthemifolia – common eucrypta

BRASSICACEAE – MUSTARD FAMILY

* *Hirschfeldia incana* – short-pod mustard

CARYOPHYLLACEAE – PINK FAMILY

- * *Spergularia bocconi* – Boccone’s sand-spurrey

CHENOPODIACEAE – GOOSEFOOT FAMILY

- * *Atriplex semibaccata* – Australian saltbush
- * *Salsola tragus* – prickly Russian-thistle, tumbleweed

CRASSULACEAE – STONECROP FAMILY

Crassula connata – pygmyweed

EUPHORBIACEAE – SPURGE FAMILY

- Croton setiger* – doveweed
- * *Euphorbia maculata* – spotted spurge

FABACEAE – LEGUME FAMILY

- Acmispon americanus* var. *americanus* – Spanish-clover
- Acmispon glaber* var. *glaber* – coastal deerweed
- * *Melilotus indicus* – Indian sweetclover

GERANIACEAE – GERANIUM FAMILY

- * *Erodium cicutarium* – red-stem filaree/storksbill

LAMIACEAE – MINT FAMILY

Salvia mellifera – black sage

MYRSINACEAE – MYRSINE FAMILY

- * *Anagallis arvensis* – scarlet pimpernel, poor man’s weatherglass

ONAGRACEAE – EVENING-PRIMROSE FAMILY

Epilobium brachycarpum – summer cotton weed

PHRYMACEAE – LOPSEED FAMILY

Diplacus puniceus – coast monkey flower

PLUMBAGINACEAE – LEADWORT FAMILY

- * *Limonium perezii* – Perez’s marsh-rosemary

POLYGONACEAE – BUCKWHEAT FAMILY

- Eriogonum fasciculatum* var. *foliolosum* – inland California buckwheat
- * *Rumex crispus* – curly dock
- * *Polygonum aviculare* – common knotweed, doorweed

ROSACEAE – ROSE FAMILY

Heteromeles arbutifolia – toyon, Christmas berry

SALICACEAE – WILLOW FAMILY

Salix gooddingii – Goodding's black willow

Salix lasiolepis – arroyo willow

SCROPHULARIACEAE – FIGWORT FAMILY

* *Myoporum parvifolium* – slender myoporum

SOLANACEAE – NIGHTSHADE FAMILY

* *Nicotiana glauca* – tree tobacco

Solanum sp. – nightshade

TAMARICACEAE – TAMARISK FAMILY

* *Tamarix chinensis* – fivestamen tamarisk

Angiosperms: Monocots

AGAVACEAE – AGAVE FAMILY

* *Yucca gloriosa* – Spanish dagger

CYPERACEAE – SEDGE FAMILY

Cyperus eragrostis – tall flatsedge

JUNCACEAE – RUSH FAMILY

Juncus dubius – mariposa rush

Juncus rugulosus – wrinkled rush

* *Juncus bufonius* var. *congestus* – clustered toad rush

POACEAE – GRASS FAMILY

* *Avena barbata* – slender wild oat

* *Bromus hordeaceus* – soft chess

* *Festuca myuros* – rat-tail fescue

* *Festuca perennis* – perennial rye grass

* *Polypogon monspeliensis* – annual beard grass

* *Bromus rubens* – foxtail chess, red brome

* *Cenchrus setaceus* – African fountain grass

TYPHACEAE – CATTAIL FAMILY

Typha domingensis – southern cattail

* signifies introduced (non-native) species

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Appendix B

Wildlife Compendium

BIRD

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltiriparus minimus—bushtit

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Tyrannus verticalis—western kingbird

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Selasphorus sasin—Allen's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay

Corvus brachyrhynchos—American crow

Corvus corax—common raven

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

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

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Petrochelidon pyrrhonota—cliff swallow

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—song sparrow

Melospiza crissalis—California towhee

INVERTEBRATE

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS

Icaricia acmon acmon—Acmon blue

PIERIDAE—WHITES AND SULFURS

Phoebastria immutabilis—cloudless sulphur

Pieris rapae—cabbage white

MAMMAL

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Uta stansburiana—common side-blotched lizard

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Appendix C

Special-Status Plant Species Observed or Potentially
Occurring in the Project Study Area

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Abronia maritima</i>	red sand- verbena	None/None/4.2	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand- verbena	None/None/1B.1	Chaparral, Coastal scrub, Desert dunes; sandy/annual herb/(Jan)Mar–Sep/245–5250	Not expected to occur. Records of this subspecies are all north or east of the project site (CCH 2019). Focused surveys were negative for this plant.
<i>Acanthomintha ilicifolia</i>	San Diego thorn-mint	FT/SE/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/Apr–June/30–3150	Low potential to occur. No suitable clay soils on site.
<i>Acmispon prostratus</i>	Nuttall's acmispon	None/None/1B.1	Coastal dunes, Coastal scrub (sandy)/annual herb/Mar–June(July)/0–35	Not expected to occur. The site is outside of the species' known elevation range.
<i>Adolphia californica</i>	California adolphia	None/None/2B.1	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2430	Low potential to occur. No suitable clay soils on site. Focused surveys were negative for this conspicuous perennial shrub.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE/None/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr– Oct/65–1360	Not expected to occur. Focused surveys for this species were negative.
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Del Mar manzanita	FE/None/1B.1	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec–June/0–1200	Not expected to occur. No suitable vegetation present.
<i>Arctostaphylos rainbowensis</i>	Rainbow manzanita	None/None/1B.1	Chaparral/perennial evergreen shrub/Dec– Mar/670–2200	Not expected to occur. No suitable vegetation present.
<i>Artemisia palmeri</i>	San Diego sagewort	None/None/4.2	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May– Sep/45–3000	Not expected to occur. Focused surveys for this species were negative.
<i>Asplenium vespertinum</i>	western spleenwort	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb– June/590–3280	Low potential to occur. No suitable rocky habitat and the project site is heavily disturbed.
<i>Atriplex coulteri</i>	Coulter's saltbush	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1510	Not expected to occur. Focused surveys for this species were negative.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Atriplex pacifica</i>	South Coast saltscale	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar–Oct/0–460	Not expected to occur. The site is outside of the species' known elevation range.
<i>Atriplex parishii</i>	Parish's brittlescale	None/None/1B.1	Chenopod scrub, Playas, Vernal pools; alkaline/annual herb/June–Oct/80–6235	Not expected to occur. No suitable vegetation present.
<i>Baccharis vanessae</i>	Encinitas baccharis	FT/SE/1B.1	Chaparral (maritime), Cismontane woodland; sandstone/perennial deciduous shrub/Aug,Oct,Nov/195–2360	Not expected to occur. No suitable vegetation present.
<i>Bloomeria clevelandii</i>	San Diego goldenstar	None/None/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial bulbiferous herb/Apr–May/160–1525	Low potential to occur. No suitable clay soils on site and the project site is heavily disturbed.
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	FT/SE/1B.1	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. Focused rare plant surveys conducted in July 2019 were negative and thread-leaved brodiaea was still visible at a reference site at a mitigation project within the San Marcos Quadrangle as late as August 2019. No suitable clay soils on site and the project site is heavily disturbed with non-native vegetation and trash. The nearest CNDDDB record is located within 1 mile of the project site, but is located within vernal pools, which do not occur on site.
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None/None/1B.1	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. Focused surveys for this species were negative.
<i>Calochortus dunnii</i>	Dunn's mariposa lily	None/SR/1B.2	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. Records for this species are in south and east San Diego County (CCH 2019).
<i>Camissoniopsis lewisii</i>	Lewis' evening- primrose	None/None/3	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. This species typically occurs on very sandy substrates near the beach (Reiser 2001) and the project site is heavily disturbed.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Caulanthus simulans</i>	Payson's jewelflower	None/None/4.2	Chaparral, Coastal scrub; sandy, granitic/annual herb/(Feb)Mar–May(June)/295–7220	Low potential to occur. Almost all records are north and east of the project site (CCH 2019). The project site is heavily disturbed.
<i>Ceanothus verrucosus</i>	wart-stemmed ceanothus	None/None/2B.2	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	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575	Not expected to occur. Focused surveys for this species were negative. A reference check was conducted for southern tarplant in the project site vicinity immediately prior to the survey to ensure proper timing for focused surveys.
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	None/None/1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Not expected to occur. Focused surveys for this species were negative.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/None/1B.1	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Chamaebatia australis</i>	southern mountain misery	None/None/4.2	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov–May/980–3345	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	FE/SE/1B.1	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/annual herb/Mar–May/5–410	Not expected to occur. The site is outside of the species' known elevation range.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	None/None/1B.2	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/annual herb/Apr–July/95–5020	Not expected to occur. Focused surveys for this species were negative.
<i>Cistanthe maritima</i>	seaside cistanthe	None/None/4.2	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/annual herb/(Feb)Mar–June(Aug)/15–985	Not expected to occur. Focused surveys for this species were negative.
<i>Clarkia delicata</i>	delicate clarkia	None/None/1B.2	Chaparral, Cismontane woodland; often gabbroic/annual herb/Apr–June/770–3280	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	summer holly	None/None/1B.2	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr-June/95-2590	Not expected to occur. No suitable vegetation present.
<i>Convolvulus simulans</i>	small-flowered morning-glory	None/None/4.2	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar-July/95-2430	Not expected to occur. Focused surveys for this species were negative.
<i>Corethrogyne filaginifolia</i> var. <i>incana</i>	San Diego sand aster	None/None/1B.1	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	Coastal bluff scrub, Chaparral (maritime, openings), Coastal scrub; sandy/perennial herb/May,July,Aug,Sep/45-490	Not expected to occur. The site is outside of the species' known elevation range.
<i>Cryptantha wigginsii</i>	Wiggins' cryptantha	None/None/1B.2	Coastal scrub; often clay/annual herb/Feb-June/65-900	Low potential to occur. No suitable clay soils on site and the project site is heavily disturbed.
<i>Deinandra paniculata</i>	paniculate tarplant	None/None/4.2	Coastal scrub, Valley and foothill grassland, Vernal pools; usually vernal mesic, sometimes sandy/annual herb/(Mar)Apr-Nov(Dec)/80-3085	Not expected to occur. Focused surveys for this species were negative.
<i>Dichondra occidentalis</i>	western dichondra	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar-July/160-1640	Not expected to occur. Focused surveys for this species were negative.
<i>Dudleya alainae</i>	Banner dudleya	None/None/3.2	Chaparral, Lower montane coniferous forest, Sonoran desert scrub; rocky/perennial herb/Apr-July/2425-3935	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	None/None/1B.1	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/Apr-June/15-1475	Not expected to occur. This species occurs along the immediate coastline (CCH 2019).
<i>Dudleya multicaulis</i>	many-stemmed dudleya	None/None/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland; often clay/perennial herb/Apr-July/45-2590	Not expected to occur. Focused surveys for this species were negative.
<i>Dudleya variegata</i>	variegated dudleya	None/None/1B.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr-June/5-1905	Low potential to occur. No suitable clay soils on site and the project site is heavily disturbed.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Dudleya viscida</i>	sticky dudleya	None/None/1B.2	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/May–June/30–1805	Not expected to occur. This species occurs closer to the coast in San Diego County (CCH 2019) and the project site is heavily disturbed.
<i>Ericameria palmeri</i> var. <i>palmeri</i>	Palmer's goldenbush	None/None/1B.1	Chaparral, Coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1970	Not expected to occur. Focused surveys for this species were negative.
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	FE/SE/1B.1	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/annual / perennial herb/Apr–June/65–2035	Low potential to occur. No suitable clay soils or vernal pools on site and the project site is heavily disturbed.
<i>Eryngium pendletonense</i>	Pendleton button-celery	None/None/1B.1	Coastal bluff scrub, Valley and foothill grassland, Vernal pools; clay, vernal mesic/perennial herb/Apr–June(July)/45–360	Not expected to occur. The site is outside of the species' known elevation range.
<i>Erysimum ammodendrum</i>	sand-loving wallflower	None/None/1B.2	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>Erythranthe diffusa</i>	Palomar monkeyflower	None/None/4.3	Chaparral, Lower montane coniferous forest; sandy or gravelly/annual herb/Apr–June/4000–6005	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Euphorbia misera</i>	cliff spurge	None/None/2B.2	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug(Oct)/30–1640	Not expected to occur. Focused surveys for this species were negative.
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None/None/2B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem succulent/May–June/5–1475	Not expected to occur. Focused surveys negative for this conspicuous perennial stem succulent.
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	None/None/4.2	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3135	Low potential to occur. No suitable clay soils on site and the project site is heavily disturbed.
<i>Hazardia orcuttii</i>	Orcutt's hazardia	None/ST/1B.1	Chaparral (maritime), Coastal scrub; often clay/perennial evergreen shrub/Aug–Oct/260–280	Not expected to occur. The site is outside of the species' known elevation range.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	beach goldenaster	None/None/1B.1	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/Mar–Dec/0–4020	Not expected to occur. Focused surveys for this species were negative.
<i>Holocarpha virgata</i> ssp. <i>elongata</i>	graceful tarplant	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3610	Not expected to occur. Focused surveys for this species were negative.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Hordeum intercedens</i>	vernal barley	None/None/3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar-June/15-3280	Low potential to occur. No suitable clay soils or vernal pools on site and the project site is heavily disturbed.
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None/None/1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub; sandy or gravelly/perennial herb/Feb-July(Sep)/225-2655	Not expected to occur. Focused surveys for this species were negative.
<i>Horkelia truncata</i>	Ramona horkelia	None/None/1B.3	Chaparral, Cismontane woodland; clay, gabbroic/perennial herb/May-June/1310-4265	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	None/None/1B.2	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	Marshes and swamps, Playas/perennial herb/Apr-Oct/30-1640	Not expected to occur. No suitable vegetation present.
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	None/None/4.2	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May-June/5-2955	Not expected to occur. No suitable vegetation present.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None/1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb-June/0-4005	Not expected to occur. No suitable vegetation present.
<i>Lepechinia cardiophylla</i>	heart-leaved pitcher sage	None/None/1B.2	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>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/None/4.3	Chaparral, Coastal scrub/annual herb/Jan-July/0-2905	Not expected to occur. Focused surveys for this species were negative.
<i>Leptosyne maritima</i>	sea dahlia	None/None/2B.2	Coastal bluff scrub, Coastal scrub/perennial herb/Mar-May/15-490	Not expected to occur. The site is outside of the species' known elevation range.
<i>Lycium californicum</i>	California box-thorn	None/None/4.2	Coastal bluff scrub, Coastal scrub/perennial shrub/(Dec)Mar,June,July,Aug/15-490	Not expected to occur. The site is outside of the species' known elevation range.
<i>Microseris douglasii</i> ssp. <i>platycarpha</i>	small-flowered microseris	None/None/4.2	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar-May/45-3510	Low potential to occur. No suitable clay soils or vernal pools on site and the project site is heavily disturbed.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	intermediate monardella	None/None/1B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest (sometimes); Usually understory/perennial rhizomatous herb/Apr–Sep/1310–4100	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	None/None/1B.2	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.
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mousetail	None/None/3.1	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/Mar–June/65–2100	Low potential to occur. No suitable clay soils or vernal pools on site and the project site is heavily disturbed.
<i>Nama stenocarpa</i>	mud nama	None/None/2B.2	Marshes and swamps (lake margins, riverbanks)/annual / perennial herb/Jan–July/15–1640	Not expected to occur. No suitable vegetation present.
<i>Navarretia fossalis</i>	spreading navarretia	FT/None/1B.1	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/annual herb/Apr–June/95–2150	Not expected to occur. No suitable vegetation present.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly-heads	None/None/1B.2	Coastal dunes/annual herb/Apr–Sep/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	slender cottonheads	None/None/2B.2	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/(Mar)Apr–May/-160–1310	Not expected to occur. No suitable vegetation present.
<i>Nolina cismontana</i>	chaparral nolina	None/None/1B.2	Chaparral, Coastal scrub; sandstone or gabbro/perennial evergreen shrub/(Mar)May–July/455–4185	Not expected to occur. Focused surveys for this species were negative.
<i>Orcuttia californica</i>	California Orcutt grass	FE/SE/1B.1	Vernal pools/annual herb/Apr–Aug/45–2165	Not expected to occur. No suitable vegetation present.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i>	short-lobed broomrape	None/None/4.2	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Not expected to occur. Focused surveys for this species were negative.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i>	golden-rayed pentachaeta	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6070	Not expected to occur. Focused surveys for this species were negative.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Phacelia ramosissima</i> var. <i>austrolitoralis</i>	south coast branching phacelia	None/None/3.2	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt); sandy, sometimes rocky/perennial herb/Mar–Aug/15–985	Not expected to occur. Focused surveys for this species were negative.
<i>Pinus torreyana</i> ssp. <i>torreyana</i>	Torrey pine	None/None/1B.2	Closed-cone coniferous forest, Chaparral; Sandstone/perennial evergreen tree/N.A./95–525	Not expected to occur. No suitable vegetation present.
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE/SE/1B.1	Vernal pools/annual herb/Mar–July/295–655	Not expected to occur. No suitable vegetation present.
<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	None/None/2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; sandy, gravelly/perennial herb/(July)Aug–Nov(Dec)/0–6890	Not expected to occur. Focused surveys for this species were negative.
<i>Psilocarphus brevissimus</i> var. <i>multiflorus</i>	Delta woolly-marbles	None/None/4.2	Vernal pools/annual herb/May–June/30–1640	Not expected to occur. No suitable vegetation present.
<i>Quercus dumosa</i>	Nuttall's scrub oak	None/None/1B.1	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr(May–Aug)/45–1310	Not expected to occur. Focused surveys for this species were negative.
<i>Quercus engelmannii</i>	Engelmann oak	None/None/4.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/160–4265	Not expected to occur. Focused surveys were negative for this conspicuous tree.
<i>Salvia munzii</i>	Munz's sage	None/None/2B.2	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495	Not expected to occur. Almost all records of this species are south of SR-52 (CCH 2019). Focused surveys for this conspicuous shrub were negative.
<i>Selaginella cinerascens</i>	ashy spike-moss	None/None/4.1	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Not expected to occur. Focused surveys for this species were negative.
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	None/None/2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/perennial herb/Mar–June/45–5020	Low potential to occur. No suitable alkaline mesic habitat on site and the project site is heavily disturbed.

APPENDIX C

SPECIAL-STATUS PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Stemodia durantifolia</i>	purple stemodia	None/None/2B.1	Sonoran desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr,June,Aug,Sep,Oct,Dec/590–985	Not expected to occur. No suitable vegetation present.
<i>Stipa diegoensis</i>	San Diego County needle grass	None/None/4.2	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2625	Not expected to occur. This species occurs in southern San Diego County (CCH 2019).
<i>Suaeda esteroa</i>	estuary seablite	None/None/1B.2	Marshes and swamps (coastal salt)/perennial herb/(May)July–Oct(Jan)/0–15	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Tetradococcus dioicus</i>	Parry's tetradococcus	None/None/1B.2	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/540–3280	Not expected to occur. Focused surveys for this conspicuous shrub were negative.
<i>Viguiera laciniata</i>	San Diego County viguiera	None/None/4.3	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	Not expected to occur. Focused surveys for this species were negative.
<i>Xanthisma junceum</i>	rush-like bristleweed	None/None/4.3	Chaparral, Coastal scrub/perennial herb/May–Jan/785–3280	Not expected to occur. The site is outside of the species' known elevation range.

Status Legend:

FE: Federally listed as endangered

FT: Federally listed as threatened

FC: Federal Candidate for listing

DL: Delisted

SE: State listed as endangered

ST: State listed as threatened

SC: State Candidate for listing

SR: State Rare

CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere

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

CRPR 2A: Plants presumed extirpated in California but common elsewhere

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

CRPR 3: Review List: Plants about which more information is needed

CRPR 4: Watch List: Plants of limited distribution

¹ Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

² Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

³ Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

References

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Appendix D

Special-Status Wildlife Species Observed or Potentially
Occurring in the Project Study Area

APPENDIX D

SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Amphibians				
<i>Anaxyrus californicus</i>	arroyo toad	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. There are no suitable streams or washes present on site. The project site is too urban and disturbed to support this species.
<i>Spea hammondi</i>	western spadefoot	None/SSC	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	Not expected to occur. There is no suitable slow-moving water or ponded areas coupled with adjacent upland habitat on site. The project site is too urban and disturbed to support this species.
Reptiles				
<i>Actinemys marmorata</i>	western pond turtle	None/SSC	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 project site does not support suitable aquatic habitat for this species.
<i>Anniella stebbinsi</i>	southern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley-foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. Habitat on site is extensively disturbed and fragmented.
<i>Arizona elegans occidentalis</i>	California glossy snake	None/SSC	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also, found in rocky areas.	Low potential to occur. Habitat on site is extensively disturbed and fragmented.
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail	None/WL	Low-elevation coastal scrub, chaparral, and valley-foothill hardwood	Low potential to occur. The coastal sage scrub on site is very limited and disturbed.

APPENDIX D

SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Aspidoscelis tigris stejnegeri</i>	San Diegan tiger whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Low potential to occur. Suitable hot, dry, and sparse riparian or chaparral habitat is not present. Any marginal habitat present is extensively disturbed and fragmented due to anthropogenic influences.
<i>Crotalus ruber</i>	red diamondback rattlesnake	None/SSC	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in scattered patches on site; however, it lacks rocky areas preferred by this species and it is isolated from additional upland habitat due to surrounding development and extensively disturbed habitat.
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard	None/SSC	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	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in scattered patches on site; however, it lacks connectivity to additional upland habitat due to surrounding development and extensively disturbed habitat.
<i>Plestiodon skiltonianus interparietalis</i>	Coronado skink	None/WL	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Not expected to occur. Minimal habitat potentially suitable for this species within the project site.
<i>Salvadora hexalepis virgultea</i>	coast patch-nosed snake	None/SSC	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in scattered patches on site; however, it lacks connectivity to additional upland habitat due to surrounding development and extensively disturbed habitat.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Thamnophis hammondi</i>	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. No suitable habitat present.
<i>Thamnophis sirtalis</i> ssp. (Southern California coastal plain from Ventura County to San Diego County, and from sea level to about 850 m)	south coast garter snake	None/SSC	Marsh and upland habitats near permanent water and riparian vegetation	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Birds				
<i>Accipiter cooperii</i> (nesting)	Cooper's hawk	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Not expected to nest onsite. No suitable vegetation present.
<i>Agelaius tricolor</i> (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable wetlands vegetation present.
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	None/WL	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. The coastal sage scrub on site is very limited and disturbed.
<i>Aquila chrysaetos</i> (nesting & wintering)	golden eagle	BCC/FP, WL	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	Low potential to nest or winter. Suitable magnitudes of natural habitat and open space is not present within the project site. Large trees with adjacent suitable large open areas for foraging is absent within and around the entire project site.
<i>Artemisiospiza belli belli</i>	Bell's sparrow ¹	BCC/None	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter.	Low potential to occur. Suitable large and unfragmented patches of coastal scrub or chaparral is not present.

¹ Bell's sparrow is the common name per the split from sage sparrow into two species, Sagebrush sparrow (*Artemisiospiza nevadensis*) and Bell's sparrow (*A. belli*) (Pyle 2013).

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Athene cunicularia</i> (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to burrow or winter. This species requires open grassland or sparse scrub habitat, which is not present on site. The northernmost sections of the site support more open scrubby habitats, but they are situated on steep hillsides, which would be unsuitable burrowing or wintering habitat for this species.
<i>Buteo swainsoni</i> (nesting)	Swainson's hawk	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to nest. No suitable riparian nesting habitat is present on site; the majority of the project site is developed/disturbed and it lacks appropriate grassland or agricultural habitat required for foraging.
<i>Campylorhynchus brunneicapillus sandiegensis</i> (San Diego & Orange Counties only)	coastal cactus wren	BCC/SSC	Southern cactus scrub patches	Not expected to occur. Suitable cactus scrub habitat is not present within the project site.
<i>Charadrius alexandrinus nivosus</i> (nesting)	western snowy plover	FT, BCC/SSC	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 nest. The site lacks bodies of water (e.g., ponds or lakes) for nesting.
<i>Circus hudsonius</i> (nesting)	northern harrier	None/SSC	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 nest on site. There are no suitable wetlands for nesting on site.
<i>Coccyzus americanus occidentalis</i> (nesting)	western yellow-billed cuckoo	FT, BCC/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable vegetation present.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Elanus leucurus</i> (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Little to no potential to nest on site. Marginal nesting vegetation is present. Suitable foraging habitat is limited due to the isolated context of the site.
<i>Empidonax traillii extimus</i> (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable habitat present.
<i>Eremophila alpestris actia</i>	California horned lark	None/WL	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Low potential to occur. Marginal suitable grassland and limited open habitat occurs on site.
<i>Icteria virens</i> (nesting)	yellow-breasted chat	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to occur. No suitable habitat present.
<i>Ixobrychus exilis</i> (nesting)	least bittern	BCC/SSC	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. No suitable vegetation present.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	BCC/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. The site is outside of the species' known geographic range.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (<i>Salicornia</i> spp.)	Not expected to occur. No suitable habitat present.
<i>Plegadis chihi</i> (nesting colony)	white-faced ibis	None/WL	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. The site is outside of the species' known geographic range.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Polioptila californica californica</i>	coastal California gnatcatcher	FT/SSC	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	Observed on site during focused surveys conducted by Merkel & Associates for the adjacent Discovery Village Project in 2018 and during focused surveys conducted by Dudek in 2019.
<i>Rallus obsoletus levipes</i>	Ridgway's rail	FE/SE, FP	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. No suitable habitat present.
<i>Riparia riparia</i> (nesting)	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Not expected to occur. No suitable habitat present.
<i>Setophaga petechia</i> (nesting)	yellow warbler	BCC/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to occur. No suitable habitat present.
<i>Sternula antillarum browni</i> (nesting colony)	California least tern	FE/FP, SE	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. No suitable habitat present.
<i>Vireo bellii pusillus</i> (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. Marginal, isolated riparian habitat is present in small, fragmented patches. Least Bell's vireo is known to occur in the vicinity along San Marcos Creek from State Route 78 west to Via Vera Cruz.
Fishes				
<i>Eucyclogobius newberryi</i>	tidewater goby	FE/SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. No suitable habitat present. The site is outside of the species' known geographic range.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Gila orcuttii</i>	arroyo chub	None/SSC	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. No suitable habitat present. The site is outside of the species' known geographic range.
Mammals				
<i>Antrozous pallidus</i>	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Low potential to occur. Rocky outcrop roosting habitat is absent.
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	None/SSC	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. Low potential to occur. Marginally suitable coastal sage scrub and Baccharis-dominated coastal sage scrub is present on site but it is isolated from other upland habitats due to development and the presence of extensively disturbed habitats.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	None/SSC	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland	Low potential to occur. Low potential to occur. Marginally suitable coastal sage scrub and Baccharis-dominated coastal sage scrub is present on site but it is isolated from other upland habitats due to development and the presence of extensively disturbed habitats.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None/SSC	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. No suitable habitat present on site.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None/SSC	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 potential to occur. Suitable cavernous roosting habitat is absent.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FE/ST	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. Limited suitable habitat on site and the area is highly disturbed and surrounded by extensive development.
<i>Eumops perotis californicus</i>	western mastiff bat	None/SSC	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 forage on site. Not expected to roost on site. Marginal, suitable coastal scrub present.
<i>Lasiurus cinereus</i>	hoary bat	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.
<i>Lasiurus xanthinus</i>	western yellow bat	None/SSC	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. Minimal riparian habitat present.
<i>Leptonycteris yerbabuenae</i>	lesser long-nosed bat	FDL/None	Sonoran desert scrub, semi-desert grasslands, lower oak woodlands	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/SSC	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. Suitable habitat present however close proximity to urban development.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Myotis yumanensis</i>	Yuma myotis	None/None	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Not expected to occur. Marginal, isolated riparian habitat is present in small, fragmented patches surrounded by extensive disturbance.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/SSC	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Not expected to occur. No suitable habitats with dense undergrowth present. Would have detected middens if present.
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/SSC	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. This species is typically found in more arid habitats. No suitable rocky desert habitat present.
<i>Nyctinomops macrotis</i>	big free-tailed bat	None/SSC	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. The site is outside of the species' known geographic range.
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE/SSC	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. No suitable habitat present.
<i>Taxidea taxus</i>	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. There is no suitable habitat and substrate for this species on site.
Invertebrates				
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	Not expected to occur. No vernal pools or other types of seasonally inundated wetlands occur on site.
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No vernal pools or other types of seasonally inundated wetlands occur on site.
<i>Cicindela senilis frosti</i>	senile tiger beetle	None/None	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. No suitable habitat present. The site is outside of the species' known geographic range.

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SPECIAL-STATUS WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No vernal pools or other types of seasonally inundated wetlands occur on site.
<i>Tryonia imitator</i>	mimic tryonia (California brackishwater snail)	None/None	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. No suitable habitat present. The site is outside of the species' known geographic range.

Notes:

¹ The federal and state status of species is based on the Special Animals List (November 2018) (CDFW 2018).

Federal Designations:

BCC: Fish and Wildlife Service: Birds of Conservation Concern.

FD: Federally delisted; monitored for 5 years.

FE: Federally listed as endangered.

FT: Federally listed as threatened.

FC: Candidate for federal listing as threatened or endangered.

State Designations:

FP: California Department of Fish and Wildlife Protected and Fully Protected Species.

SD: State-delisted.

SE: State listed as endangered.

ST: State listed as threatened.

SSC California Species of Special Concern.

WL: Watch List.



Appendix E

Routine Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Kaiser Permanente Medical Center Project City/County: San Marcos/San Diego Sampling Date: June 23, 2019
 Applicant/Owner: Kaiser Permanente State: CA Sampling Point: DS 1
 Investigator(s): Tricia Wotipka Section, Township, Range: Unsectioned, Township 12S, Range 3W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0%
 Subregion (LRR): C - Mediterranean California Lat: 33.13050833 Long: 117.16833333 Datum: NAD83
 Soil Map Unit Name: Escondido very fine sandy loam, 5 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 ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Data Station #1 is located in the centroid of a small patch of willow-dominated vegetation just north of an actively used pedestrian trail. Area is inundated with rubble and refuse.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. <i>Salix lasiolepis</i>	50	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)			
2. <i>Salix gooddingii</i>	50	Yes	FACW	Total Number of Dominant Species Across All Strata: <u>3</u> (B)			
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)			
4.							
Total Cover: <u>100%</u>							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1.				Total % Cover of: Multiply by:			
2.				OBL species	<u>200</u>	x 1 =	<u>0</u>
3.				FACW species	<u>200</u>	x 2 =	<u>400</u>
4.				FAC species		x 3 =	<u>0</u>
5.				FACU species		x 4 =	<u>0</u>
Total Cover: <u>%</u>				UPL species		x 5 =	<u>0</u>
				Column Totals:	<u>200</u>	(A)	<u>400</u> (B)
				Prevalence Index = B/A = <u>2.00</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Polypogon monspeliensis</i>	5	No	FACW	☒ Dominance Test is >50%			
2. <i>Juncus dubius</i>	95	Yes	FACW	☒ Prevalence Index is ≤3.0 ¹			
3.				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4.				☐ 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.				Hydrophytic Vegetation Present? Yes ☒ No ☐			
2.							
Total Cover: <u>%</u>							
% Bare Ground in Herb Stratum <u>%</u>			% Cover of Biotic Crust <u>%</u>				

Remarks: None.

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				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	2.5Y 4/2	100	-----				Clay loam	Soils were wet/glistening.

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

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: Non-native rock, rubble, and debrisDepth (inches): 4"**Hydric Soil Present?** Yes ☐ No ☒

Remarks: Depth of soil pit was limited to 4" due to extensive rock and rubble in the soil profile.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (any one indicator is sufficient)

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

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 ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: Hydrology indicators were not observed. Data station #1 is situated the toe of a disturbed, upland slope vegetated with short-pod mustard, fennel, and other non-native species. Data Station #1 is located in rubble and rock debris with extensive refuse. The landform is not suggestive of a wetland; the hydrology source for the willow-dominated vegetation is unknown as there is no stream or visible seep. The area is likely fed by a high groundwater table coupled with soils with a high clay content.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Kaiser Permanente Medical Center Project City/County: San Marcos/San Diego Sampling Date: June 23, 2019
 Applicant/Owner: Kaiser Permanente State: CA Sampling Point: DS 2
 Investigator(s): Tricia Wotipka Section, Township, Range: Unsectioned, Township 12S, Range 3W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0%
 Subregion (LRR): C - Mediterranean California Lat: 33.13050833 Long: 117.16833333 Datum: NAD83
 Soil Map Unit Name: Escondido very fine sandy loam, 5 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 ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Data Station #2 is located just outside of willow-dominated vegetation in a flat terrace supporting annual brome grassland habitat. Area is inundated with rubble and refuse.					

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>0</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>0.0</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 _____ x 3 = <u>0</u>			
5. _____	_____	_____	_____	FACU species <u>45</u> x 4 = <u>180</u>			
Total Cover: <u>_____</u> %				UPL species <u>55</u> x 5 = <u>275</u>			
				Column Totals: <u>100</u> (A) <u>455</u> (B)			
				Prevalence Index = B/A = <u>4.55</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Deinandra fasciculata</i>	<u>45</u>	<u>Yes</u>	<u>FACU</u>	☒ Dominance Test is >50%			
2. <i>Centaurea melitensis</i>	<u>55</u>	<u>Yes</u>	<u>UPL</u>	☒ Prevalence Index is ≤3.0 ¹			
3. _____	_____	_____	_____	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____	_____	_____	_____	☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
Total Cover: <u>100</u> %							
Woody Vine Stratum				Hydrophytic Vegetation Present?			
1. _____	_____	_____	_____	Yes ☐ No ☒			
2. _____	_____	_____	_____				
Total Cover: <u>_____</u> %							
% Bare Ground in Herb Stratum <u>_____</u> %			% Cover of Biotic Crust <u>_____</u> %				

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

Hydrophytic Vegetation Present?

Yes ☐ No ☒

Remarks: None.

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			
0-12	10YR 3/2	100	-----				Silt loam	Soils were dry and friable.

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

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

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 ☒ Depth (inches): _____
(includes capillary fringe)**Wetland Hydrology Present?** Yes ☐ No ☒

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

Remarks: Hydrology indicators were not observed. Data station #2 is situated in an upland disturbed area comprised of annual brome grasslands habitat.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Kaiser Permanente Medical Center Project City/County: San Marcos/San Diego Sampling Date: June 23, 2019
 Applicant/Owner: Kaiser Permanente State: CA Sampling Point: DS 3
 Investigator(s): Tricia Wotipka Section, Township, Range: Unsectioned, Township 12S, Range 3W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0%
 Subregion (LRR): C - Mediterranean California Lat: 33.13043611 Long: 117.16833333 Datum: NAD83
 Soil Map Unit Name: Escondido very fine sandy loam, 5 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 ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: <u>Data Station #3 is situated along the northern edge of a small patch of arroyo willow (Salix lasiolepis) just outside of an actively used pedestrian trail. The understory is inundated with non-native grasses, rubble and refuse.</u>					

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>3</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>100.0 %</u> (A/B)			
4. _____							
Total Cover: <u> </u> %							
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet:			
1. <u>Salix lasiolepis</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	Total % Cover of:		Multiply by:	
2. _____				OBL species	<u> </u>	x 1 =	<u>0</u>
3. _____				FACW species	<u>200</u>	x 2 =	<u>400</u>
4. _____				FAC species	<u> </u>	x 3 =	<u>0</u>
5. _____				FACU species	<u> </u>	x 4 =	<u>0</u>
Total Cover: <u>100 %</u>				UPL species	<u> </u>	x 5 =	<u>0</u>
<u>Herb Stratum</u>				Column Totals:	<u>200</u>	(A)	<u>400</u> (B)
1. <u>Polypogon monspeliensis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	Prevalence Index = B/A = <u>2.00</u>			
2. <u>Juncus dubius</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>				
3. _____							
4. _____							
5. _____							
6. _____							
7. _____							
8. _____							
Total Cover: <u>100 %</u>							
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Indicators:			
1. _____				☒ Dominance Test is >50%			
2. _____				☒ Prevalence Index is ≤3.0 ¹			
				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
				☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
				¹ Indicators of hydric soil and wetland hydrology must be present.			
				Hydrophytic Vegetation Present? Yes ☒ No ☐			
Total Cover: <u> </u> %							
% Bare Ground in Herb Stratum <u> </u> %		% Cover of Biotic Crust <u> </u> %					

Remarks: None.

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			
0-8	10YR 3/1	100	2.5Y 5/4	50	RM	M	Clay loam	None.

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

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

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 ☒ Depth (inches): _____
(includes capillary fringe)**Wetland Hydrology Present?** Yes ☐ No ☒

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

Remarks: The willow vegetation associated with Data Station #3 is growing on a stockpile of rock, rubble, and trash; there is no channel associated with this feature and the landform is not suggestive of a wetland or waters as there is no bed and bank.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Kaiser Permanente Medical Center Project City/County: San Marcos/San Diego Sampling Date: June 23, 2019
 Applicant/Owner: Kaiser Permanente State: CA Sampling Point: DS 4
 Investigator(s): Tricia Wotipka Section, Township, Range: Unsectioned, Township 12S, Range 3W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0%
 Subregion (LRR): C - Mediterranean California Lat: 33.13043611 Long: 117.16833333 Datum: NAD83
 Soil Map Unit Name: Escondido very fine sandy loam, 5 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 ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: <u>Data Station #4 is situated in an upland area with a distinct vegetation change from willow-dominated vegetation (DS 3) to annual brome grasslands.</u>					

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>0</u> (A)			
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)			
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</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 _____ x 3 = <u>0</u>			
5. _____	_____	_____	_____	FACU species <u>100</u> x 4 = <u>400</u>			
Total Cover: <u>_____</u> %				UPL species _____ x 5 = <u>0</u>			
				Column Totals: <u>100</u> (A) <u>400</u> (B)			
				Prevalence Index = B/A = <u>4.00</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Deinandra fasciculata</i>	<u>85</u>	<u>Yes</u>	<u>FACU</u>	☒ Dominance Test is >50%			
2. <i>Bromus hordeaceus</i>	<u>15</u>	<u>No</u>	<u>FACU</u>	☒ Prevalence Index is ≤3.0 ¹			
3. _____	_____	_____	_____	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____	_____	_____	_____	☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
Total Cover: <u>100</u> %							
Woody Vine Stratum				Hydrophytic Vegetation Present?			
1. _____	_____	_____	_____	Yes ☐ No ☒			
2. _____	_____	_____	_____				
Total Cover: <u>_____</u> %							
% Bare Ground in Herb Stratum <u>_____</u> %			% Cover of Biotic Crust <u>_____</u> %				

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

Hydrophytic Vegetation Present?

Yes ☐ No ☒

Remarks: None.

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		0						None sampled. See below.

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

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: Despite multiple attempts to prepare a soil profile, the soils were too compacted and rocky to prepare a pit; this is consistent with the area.

HYDROLOGY

Wetland Hydrology Indicators:**Primary Indicators (any one indicator is sufficient)**

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

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: Hydrology indicators were not observed. Data Station #4 is situated on a flat, compacted terrace adjacent to a patch of southern willow scrub.

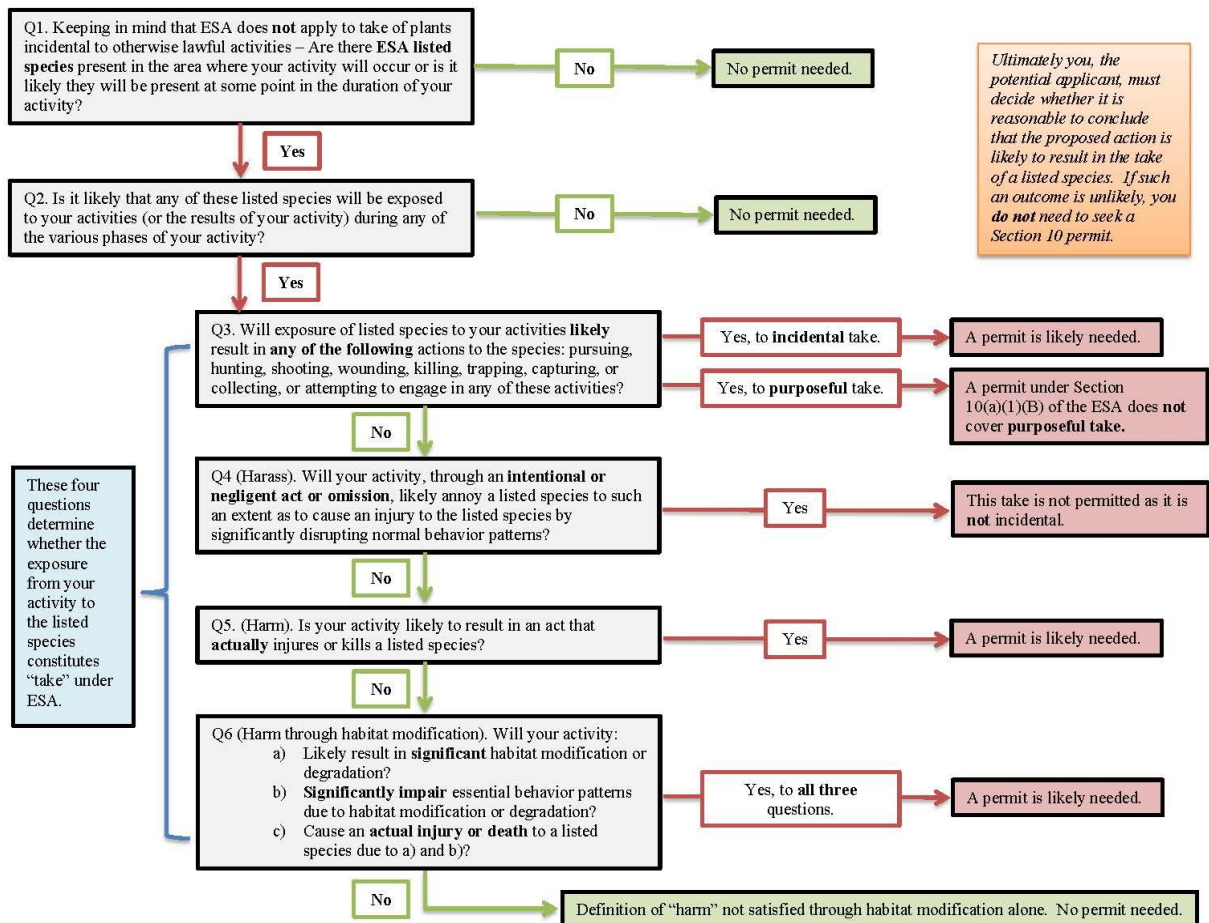


Appendix F

Determining Need for an Incidental Take Permit under
Federal Endangered Species Act Section 10(a)(1)(B)

Appendix F
Determining Need for an Incidental Take Permit under Federal Endangered Species
Act Section 10(a)(1)(B)

Guidance on Determining Need for ITP under ESA Section 10(a)(1)(B)



Responses to Questions Provided in Flow Chart

- Q1** Results of 2018 and 2019 focused surveys indicate that coastal California gnatcatcher forages on the Kaiser Permanente San Marcos Hospital Project (Project) site. Approximately 2.81 acres of suitable habitat is present on site. Coordination with consultants for the Discovery Village South Specific Plan to the immediate north indicate that a pair of coastal California gnatcatchers plus a juvenile was observed on both the Project site and the Discovery Village South Specific Plan Project site during 2018 and 2019 focused survey efforts and that they are confirmed to be the same family group.
- Q2** Given that the removal of coastal sage scrub vegetation in the project impact footprint will occur outside of the breeding season for coastal California gnatcatcher, it's unlikely that the coastal California gnatcatcher, a highly mobile species with suitable habitat in the vicinity, will be exposed to project construction; however, the coastal California gnatcatcher is a year-round resident and will likely be aware of the construction activity and may avoid foraging on the site during that time (assuming this species hasn't already been fully displaced from the area due to ongoing construction efforts associated with the Discovery Village South Specific Plan and North City (University District) Specific Plan Projects to the north). Following construction, the coastal California gnatcatcher may forage in coastal sage scrub vegetation near the northern project boundary where habitat suitable for this species, comprising 1.95 acres, will be restored.
- Q3** The Project would not result in pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting coastal California gnatcatcher. Nor would it involve any attempts to engage in any of these activities.
- Q4** The Project would not result in an intentional, negligent or act of omission that might annoy coastal California gnatcatcher to such an extent as to cause an injury to the listed species by significantly disrupting normal behavior patterns. Mitigation measures include the removal of suitable vegetation from the impact footprint outside of the coastal California gnatcatcher breeding season to preclude significantly disrupting normal behavior patterns during the species' most vulnerable period. In addition, restrictions on lighting will be imposed on the project and noise attenuation features will be installed, if necessary, to prevent excessive lighting or noise from altering their behavior. In addition, following Project implementation, restoration of all temporarily impacted sage-scrub vegetation, totaling 1.95 acres, will occur and is expected to benefit this species through coastal sage scrub habitat restoration.
- Q5** The Project is not likely to result in an act that actually injures or kills coastal California gnatcatcher. As described above, avoidance of the nesting bird season during vegetation removal activities would prevent significantly disrupting normal behavior patterns during the species' most vulnerable period and would also avoid actual destruction of a nest that would result in injury or death. Given the lack of continuous coastal sage scrub vegetation in the area due to construction of the Discovery Village South Specific Plan and North City (University District) Specific Plan Projects to the north, the availability of foraging habitat in the Project site is limited and would likely encourage the dispersal of coastal California gnatcatchers to off-site areas to the northeast or southeast with higher quality habitat.

Q6

a) The Project would not likely result in significant habitat modification or degradation given that no contiguous, intact coastal sage scrub vegetation occurs on site. While there are disturbed deer weed patches and native shrub patches that would be impacted by the Project, given the small size of the habitat patches and the disturbance of this habitat, it would not qualify as a significant habitat modification or degradation. In fact, following Project implementation, approximately 1.95 acres of disturbed coastal sage scrub vegetation that will be impacted by equipment staging and temporary parking will be restored using a palette of coastal sage scrub species that are ecologically appropriate from the area. This will restore and provide high quality foraging habitat for coastal California gnatcatcher that will exceed the functions and services of the existing habitat that is currently extensively disturbed by trash, non-native species inundation, and other anthropogenic influences.

b) The Project would not significantly impact essential animal behavior patterns due to habitat modification or degradation. Although coastal California gnatcatcher may forage on site, they have not been observed nesting on site, either anecdotally or during focused surveys conducted on site in 2018 and more recently in 2019. Nesting activities likely occurred off site and north in the Discovery Village South Specific Plan Project limits in which take authorization was granted for up to two pairs of coastal California gnatcatchers, and their nests, through the issuance of a Biological Opinion (FWS-SDG-08B0320-19F1251), dated February 21, 2020. While foraging opportunities on site may be limited during construction, birds can forage off site using San Marcos Creek as a dispersal corridor. In addition, foraging opportunities will be enhanced within the temporary impact restoration areas, totaling 1.95 acres. This will allow birds to continue foraging behaviors on site following Project implementation.

c) The Project would not cause an actual injury or death of coastal California gnatcatcher because the removal of suitable coastal sage scrub vegetation within the Project impact footprint would occur outside of the breeding season for this species. In addition, mitigation measures are provided to protect birds from indirect effects, such as lighting and noise. Further, permanent habitat modifications from the Project, totaling 0.45 acre, would be mitigated through the acquisition of California gnatcatcher-occupied habitat credits from an approved mitigation bank in northern San Diego County. Mitigation for the temporary modification of coastal sage scrub vegetation during construction, which accounts for 1.95 acres or roughly 80% of the Project's impacts to suitable habitat, would be accomplished through the on-site restoration of 1.95 acres of coastal sage scrub vegetation. The restoration of this habitat will improve foraging opportunities for dispersing coastal California gnatcatchers in the area.

CONCLUSION Provided that responses to the flow chart questions above are all "No" and as stated above, the definition of "harm" is not satisfied through habitat modification alone, no Incidental Take Permit under Federal Endangered Species Act Section 10(a)(1)(B) is needed for the Project.

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