Appendix C

Biological Resources Technical Report

DRAFT

Biological Resources Technical Report

Fenton Parkway Bridge Project

APRIL 2024

Prepared for:

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CSU	California State University
CWA	Clean Water Act
dBA	A-weighted decibel
FE	federally listed as endangered
FESA	Federal Endangered Species Act
GIS	geographic information system
HCP	habitat conservation plan
I	Interstate
L_{eq-h}	hourly equivalent noise level
MBTA	Migratory Bird Treaty Act
MHPA	Multi-Habitat Planning Area
MM	mitigation measure
MSCP	Multiple Species Conservation Program
NCCP	natural community conservation plan
OHWM	ordinary high water mark
Rule	Waters of the United States Rule
RWQCB	Regional Water Quality Control Board
SDSU	San Diego State University
SE	state listed as endangered
SSC	Species of Special Concern
Subarea Plan	City of San Diego Multiple Species Conservation Program Subarea Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WL	Watch List

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Summary of Findings

This report presents the results of Dudek's biological resources study for the Fenton Parkway Bridge (proposed project). The proposed project would span the San Diego River connecting Fenton Parkway with Camino Del Rio North in the Mission Valley community of the City of San Diego (City). The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community that would connect residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the San Diego State University (SDSU) Mission Valley site development, which was approved by the Board of Trustees of the California State University (CSU) in 2020 (City of San Diego 2019). The project would involve construction of a vehicular and pedestrian bridge spanning the San Diego River from north to south.

The following report assesses the biological resources found within the 12.9-acre project site and the resulting impacts that would occur following project implementation. The report provides information to support the environmental impact report for the proposed project. The report first provides the local and regional setting, followed by a detailed description of the proposed project. The report then identifies the methodology used to assess the biological resources found on the project site. A discussion of the existing biological resources, including vegetation communities, flora and fauna, wetlands and jurisdictional resources, and wildlife corridors, follows the methodology section. The report then provides the significance thresholds, analysis, and results, and recommends mitigation measures where appropriate. The report concludes with a discussion of the level of significance of impacts after the proposed mitigation measures are implemented as part of the proposed project.

Dudek conducted vegetation mapping, focused botanical surveys, a jurisdictional delineation, and focused surveys for the coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). This report documents the results of Dudek's fieldwork completed to date and provides an analysis of the direct and indirect impacts related to the proposed project.

Two land cover types were mapped within the project site, the majority of which is developed (74% of the project site) and includes a non-vegetated channel. Based on species composition and general physiognomy, three native plant communities—Baccharis-dominated Diegan coastal sage scrub, Diegan coastal sage scrub, and southern cottonwood–willow riparian forest—were identified within the project site.

Dudek identified the San Diego River and one drainage that outlets into the San Diego River within the project site as falling within the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and City of San Diego. There are approximately 1.23 acres of jurisdictional features on-site, including 0.90 acres regulated by USACE, RWQCB, CDFW, and City of San Diego; and 0.33 acres regulated by CDFW and City of San Diego only.

The project would result in permanent direct impacts to approximately 2.03 acres on-site, of which 1.14 acres are existing developed areas. The remaining impacts to native vegetation communities or land covers include 0.03 acres of Baccharis-dominated Diegan coastal sage scrub, 0.03 acres of Diegan coastal sage scrub, 0.80 acres of southern cottonwood–willow riparian forest, and 0.03 acres of unvegetated stream channel, in total 0.86 acres. The proposed project would also result in permanent direct impacts to 0.07 acres of USACE, RWQCB, and CDFW jurisdictional non-wetland waters; 0.50 acres of USACE, RWQCB, and CDFW jurisdictional wetlands; and 0.27 acres of CDFW riparian vegetation.

The proposed project would also result in temporary impacts to 10.86 acres, including 8.44 acres of developed areas, 2.03 acres of Diegan coastal sage scrub, 0.02 acres of unvegetated stream channel, and 0.38 acres of southern cottonwood–willow riparian forest. These temporary impacts would be from the project construction work area and staging areas. General project construction would result in temporary impacts to 0.02 acres of USACE, RWQCB, and CDFW jurisdictional non-wetland waters; 0.32 acres of USACE, RWQCB, and CDFW jurisdictional wetlands; and 0.06 acres of CDFW riparian vegetation.

Potentially significant impacts are limited to direct and/or indirect impacts to sensitive natural communities, jurisdictional features, San Diego County viguiera (*Viguiera laciniata*), San Diego marsh-elder (*Iva hayesiana*), least Bell's vireo, southwestern willow flycatcher, coastal California gnatcatcher, habitat for special-status wildlife species, migratory wildlife corridors, native wildlife nursery sites, and nesting birds protected under the Migratory Bird Treaty Act.

Mitigation to reduce this impact to a less than significant level includes credit purchase or credit allocation in a mitigation bank and/or on-site, avoidance of the breeding bird season or pre-construction surveys for nesting birds, and implementation of construction noise limitations/setbacks, if necessary. With implementation of the required mitigation measures, all potentially significant impacts would be reduced to less than significant.

1 Introduction

The proposed Fenton Parkway Bridge Project (proposed project) would connect Fenton Parkway, which currently terminates north of the river channel, with Camino del Rio North, south of the river channel. The Fenton Parkway bridge (bridge) would span the San Diego River (river) in the Mission Valley community of the City of San Diego (City). San Diego State University (SDSU) contracted Dudek to initiate the processing of an environmental impact report (EIR) in preparation for the proposed project. The Board of Trustees of the California State University (CSU), which is the State of California acting in its higher education capacity, on behalf of SDSU, is the lead agency responsible for certifying the adequacy and completeness of the EIR. As a requirement of the EIR, Dudek has completed this biological resources technical report for the proposed project.

1.1 Regional and Local Setting

The location of the proposed bridge (project site) is in the northeast portion of the Mission Valley Community, in the central portion of the City of San Diego metropolitan area (Figure 1, Project Location). A portion of the project site is within the City's Stadium Wetland Mitigation Site (no credit area), which is a 57-acre advanced permittee-responsible compensatory mitigation site that generates wetland mitigation credits for use in connection with infrastructure projects for the City.

The project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, the SDSU Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space, including the San Diego River, to the east and west. The bridge would be located within and adjacent to the City of San Diego's Multi-Habitat Planning Area (MHPA) as well as the City's Stadium Mitigation Site.

The project site is surrounded by four major freeways—Interstate- (I-)15, I-8, I-805, and State Route 163—accessed via Friars Road. The existing Metropolitan Transit System (MTS) Trolley Green Line and MTS Fenton Parkway Trolley Station are located on the north bank of the San Diego River, northwest of the project site, as shown in Figure 1. The proposed project is located in unsectioned land of the La Jolla and La Mesa USGS 7.5-minute quadrangles.

1.2 Project Description

The proposed project would involve construction of a vehicular and bicycle/pedestrian bridge spanning the San Diego River from north to south. The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation (Caltrans) design standards, as well as American Association of State Highway and Transportation Officials guidelines. The proposed design for the bridge is a conventional prestressed concrete box girder structure. This bridge design can be accomplished by way of two different construction methods, pre-cast, or cast-in-place. A pre-cast construction method uses bridge components that are manufactured off-site and assembled onsite. For a cast-in-place construction method, concrete is poured and cured in forms onsite to create a structural element in its final position. Both construction methods were fully analyzed as part of the proposed project.

The bridge would be approximately 450 feet long, 58 feet wide, and 7 feet, 6 inches deep, and would consist of up to four spans. The spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns. For purposes of this analysis, three piers have been analyzed.

Each abutment would be supported on eight 4-foot-diameter, cast-in-drilled-hole concrete piles, and each of the columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Piles are currently estimated to be drilled to depths of between 50 and 200 feet below existing grade. Each of the abutments will be protected with energy dissipating riprap that will be buried to allow for post-construction habitat restoration over the riprap. Allowing this habitat restoration will ensure that post-construction replanting fosters wildlife use following completion of the bridge.

Standard cobra head light fixtures would be mounted on concrete pedestals behind the bridge barrier. Selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. During final design, the specific types of light poles, arms, and luminaires would be adjusted if necessary to suit aesthetics. Given the sensitive environmental nature of the river below and to ensure consistency with the City's MHPA Land Use Adjacency Guidelines, lighting would be minimized and oriented away from sensitive biological resources as much as possible to reduce light spillover.

The construction method used (pre-cast or cast-in-place) would occur in two phases, site preparation and bridge construction. Prior to the commencement of construction activities, the project site would be surveyed and fenced, followed by clearing and grubbing of the construction disturbance area. Any necessary stormwater best management practices or temporary fencing or catchment dams to establish bridge pier work areas will be established during this initial site preparation phase. No vegetation clearing, removal, and/or disturbance would occur outside of the bridge impact boundaries shown in Figure 2. The site preparation stage is estimated to occur over a period of 3 weeks for both the pre-cast and the cast-in-place construction methods.

During the bridge construction phase, bridge abutment footings would be excavated from the embankments to install deep cast-in-drilled-hole concrete piles. This excavation may require temporary shoring along Camino Del Rio North. Larger cast-in-drilled-hole piles would also be installed at each of the bridge column locations. Excavation of approximately 4,000 cubic yards of soil would be required for bridge abutment footings, piers, riprap, and utility relocations. Groundwater dewatering may also be necessary given the very high water table. Groundwater dewatering, if necessary, would be done in compliance with NPDES regulations and would require a groundwater discharge permit through the City of San Diego. The maximum depth of remedial grading excavation is anticipated to extend to approximately 5 feet above measured groundwater levels. Following the deep pile foundation installation, concrete bridge abutments and columns would be formed and poured, along with a large concrete retaining wall extending about 100 feet northward from the bridge along the west side of the roadway.

Bridge superstructure construction would follow and would involve either casting concrete pumped into forms supported on temporary falsework supports for the cast-in-place construction method or lifting precast concrete girders into position atop the columns for the pre-cast construction method. In either case, the bridge deck would then be cast in place and finished to the correct profile. Concrete sidewalks, barriers, lights, and metal railings would then be installed along the length of the bridge. Once access to the river channel is no longer required for construction activities, riprap would be installed around each abutment for erosion protection and energy

dissipation. Once the riprap is buried, the riverbed would be recontoured to mirror existing conditions. Additionally, areas where native vegetation would be removed during the site preparation phase of the project would be reseeded or replanted with appropriate native plant species in accordance with the conceptual restoration plan. These restored areas would be monitored consistent with City's Stadium Wetland Mitigation Site and resource agency permit requirements to ensure success.

The proposed project includes relocation and/or extension of an existing 96-inch reinforced concrete pipe storm drain on the north side of the proposed bridge and a 54-inch storm drain along the proposed southern terminus of the bridge at Camino Del Rio North, both of which discharge directly into the San Diego River.

The 96-inch reinforced concrete pipe storm drain located near the northern terminus of the bridge would be extended south to accommodate the Fenton Parkway extension and abutments of the proposed bridge. Extension of the existing storm drain would require removal of the existing headwall and construction of a new headwall at the end of the extended 96-inch reinforced concrete pipe storm drain.

The existing 54-inch storm drain located near the southern terminus of the bridge would conflict with the proposed bridge abutment location. As a result, the storm drain would be relocated west of the proposed south bridge abutment. The outlet of the storm drain would require construction of a new headwall with riprap at the outfall for erosion protection and energy dissipation.

The proposed bridge would include 24-inch cells that could accommodate potential future wet and dry utilities. Wet and dry utility extensions through the bridge cells are not part of the proposed project.

For both the pre-cast and cast-in-place construction methods, Phase 2 is estimated to require a construction period of up to 57 weeks and would require a total of approximately 300 construction personnel across the duration of construction activities.

The intersection of Fenton Parkway and River Park Road and the intersection of Mission City Parkway and Camino Del Rio North would also require updates. No vegetation clearing, removal, and/or disturbance would occur outside of the bridge impact boundaries shown in Figure 2, Proposed Project Components.

Project construction laydown and staging areas would be located either south of the proposed bridge, on the City-owned undeveloped property east of Mission City Parkway and west of Camino Del Rio North, and/or within the City-owned land east of the proposed Fenton Parkway Bridge and the SDSU-operated park space south of River Park Road (see Figure 2).

Once operational, the City would engage in routine street sweeping and debris removal. The City would also maintain streetlights and roadway striping and ensure that all signage is maintained. Like all bridges owned and maintained by the City of San Diego, once constructed, the bridge would be added to the City's operations and maintenance schedule which would include periodic inspection, potential improvements, and long-term structural monitoring.

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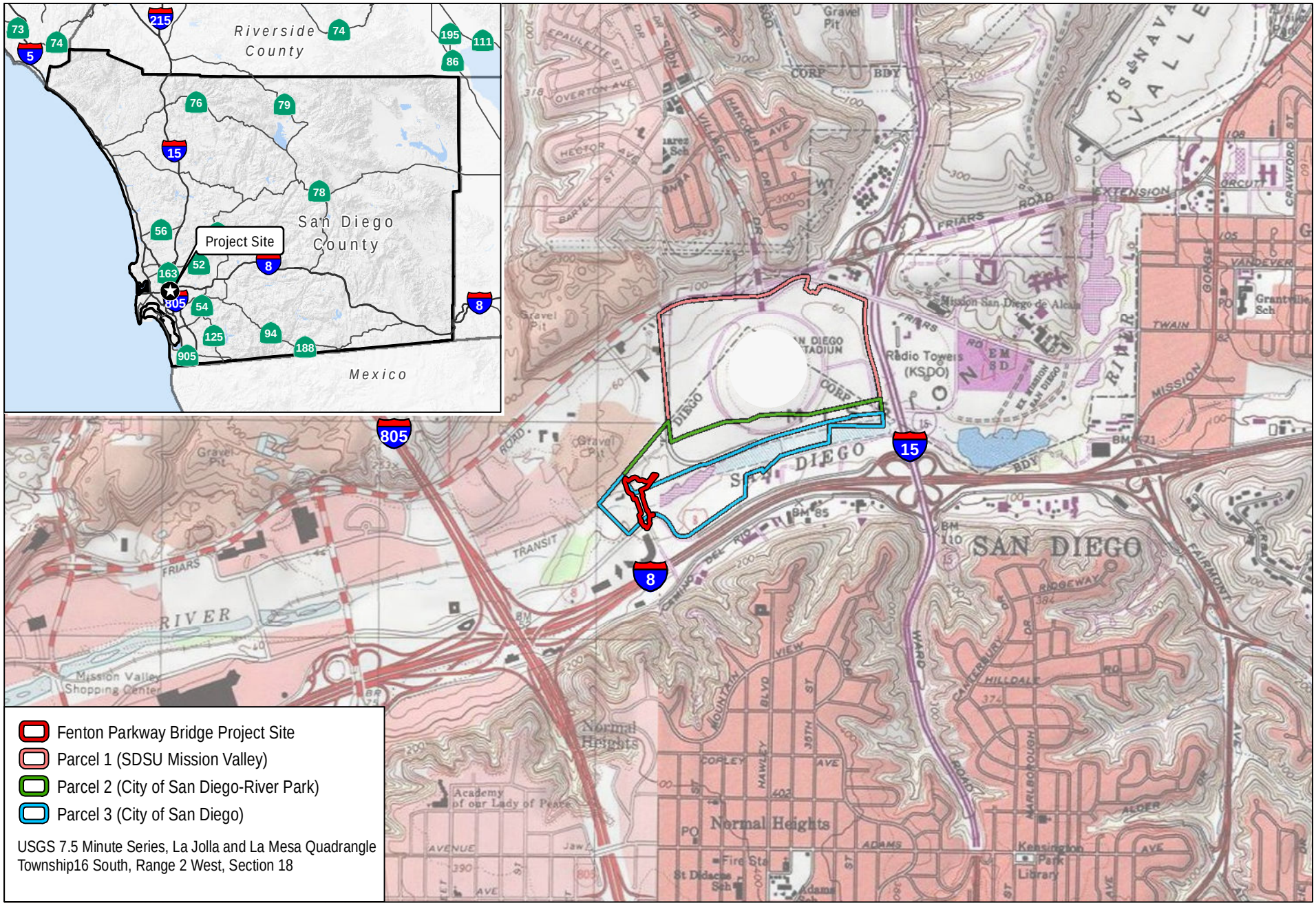

SOURCE: USGS; BOWMAN/PDC 5/08/2023

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FIGURE 1

Project Location

SDSU Fenton Parkway Bridge Biological Technical Report

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SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; KLEINFELDER 2/8/2023
DEVELOPMENT-BOWMAN/PDC 5/08/2023; PARCELS-BOWMAN/PDC 3/27/2023

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FIGURE 2
Proposed Project Components
SDSU Fenton Parkway Bridge Biological Technical Report

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2 Methodology

2.1 Literature Review

The following data sources were reviewed to assist with the biological and jurisdiction efforts:

- Natural Resources Conservation Service Web Soil Survey (USDA 2023)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2023)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2023)
- U.S. Geological Survey National Hydrography Dataset (USGS 2023)
- U.S. Fish and Wildlife Service (USFWS) Species Occurrence Data (USFWS 2023)
- Biological Resources Technical Report for the SDSU Mission Valley Campus Master Plan Project (Dudek 2019a)
- 2019 Focused Coastal California Gnatcatcher Survey Report for the Proposed SDSU Mission Valley Campus Master Plan Project, County of San Diego, California (Dudek 2019b)
- Focused Least Bell's Vireo Survey Report for the Stadium Wetland Mitigation Project (Dudek 2017)
- Focused Least Bell's Vireo Survey Report for the Stadium Wetland Mitigation Project (Dudek 2022a)
- Focused Southwestern Willow Flycatcher Survey Report for the San Diego State University- Fenton Parkway Bridge Project (Dudek 2022b)
- Focused California Gnatcatcher Survey Report for the San Diego State University- Fenton Parkway Bridge Project (Dudek 2023a)
- Fenton Parkway Bridge Project Noise Technical Report (Dudek 2023b)

2.2 Field Reconnaissance

Dudek has conducted numerous surveys within the project site and vicinity during 2022–2023, including focused surveys for special-status wildlife, southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and coastal California gnatcatcher (*Polioptila californica californica*). Vegetation and jurisdictional mapping and rare plant surveys have been conducted. Table 1 lists the dates, conditions, personnel, and focus for each survey performed.

Table 1. Survey Schedule

Date	Hours	Personnel	Focus	Conditions
5/19/2022	5:45 a.m.–09:45 a.m.	Paul Lemons	Southwestern willow flycatcher	57–64°F; 100%–90% cloud cover; 0–3 mph wind
6/6/2022	6:00 a.m.–10:00 a.m.	Paul Lemons	Southwestern willow flycatcher	62–68°F; 100%–50% cloud cover; 0–3 mph wind
6/17/2022	6:00 a.m.–09:30 a.m.	Paul Lemons	Southwestern willow flycatcher	63–68°F; 100%–20% cloud cover; 0–3 mph wind

Table 1. Survey Schedule

Date	Hours	Personnel	Focus	Conditions
6/28/2022	5:30 a.m.–9:00 a.m.	Paul Lemons	Southwestern willow flycatcher	64–70°F; 0% cloud cover; 0–2 mph wind
7/9/2022	5:30 a.m.–9:00 a.m.	Paul Lemons	Southwestern willow flycatcher	63–69°F; 100%–50% cloud cover; 0–4 mph wind
4/28/2022	7:20 AM–11:00 AM	Olivia Koziel, Shana Carey	Least Bell's vireo	59–63°F, 70%–100% cc, 1–3 mph wind
4/29/2022	7:15 AM–10:59 AM	Olivia Koziel	Least Bell's vireo	54–69°F, 0% cc, 0–4 mph wind
5/10/2022	5:30 AM–11:00 AM	Jeffrey Priest, Paul Lemons	Least Bell's vireo	48–73°F, 10%–50% cc, 0–4 mph wind
5/10/2022	7:00 AM–10:45 AM	Olivia Koziel, Cody Schaff	Least Bell's vireo	53–67°F, 0% cc, 1–5 mph wind
5/21/2022	5:30 AM–11:00 AM	Jeffrey Priest, Paul Lemons	Least Bell's vireo	58–63°F, 100% cc, 0–3 mph wind
5/22/2022	5:30 AM–11:00 AM	Jeffrey Priest, Paul Lemons	Least Bell's vireo	57–68°F, 70%–100% cc, 0–1 mph wind
5/31/2022	5:40 AM–11:00 AM	Paul Lemons	Least Bell's vireo	59–70°F, 0%–100% cc, 0–1 mph wind
6/1/2022	7:00 AM–11:00 AM	Olivia Koziel	Least Bell's vireo	62–73°F, 0%–100% cc, 2–4 mph wind
6/13/2022	5:05 AM–10:35 AM	Jeffrey Priest, Paul Lemons	Least Bell's vireo	62–68°F, 100% cc, 0–3 mph wind
6/13/2022	6:50 AM–9:45 AM	Olivia Koziel, Cody Schaaf	Least Bell's vireo	62–64°F, 100% cc, 1–5 mph wind
6/23/2022	5:45 AM–10:20 AM	Paul Lemons, Charles Adams	Least Bell's vireo	64–74°F, 0%–100% cc, 0–3 mph wind
6/23/2022	6:42 AM–10:31 AM	Olivia Koziel, Abigail Bierzychudek	Least Bell's vireo	67–80°F, 0% cc, 0–4 mph wind
7/10/2022	5:15 AM–11:00 AM	Jeffrey Priest, Paul Lemons	Least Bell's vireo	63–74°F, 10%–100% cc, 0–2 mph wind
7/11/2022	6:14 AM–10:03 AM	Olivia Koziel, Abigail Bierzychudek	Least Bell's vireo	65–71°F, 0%–100% cc, 0–3 mph wind
7/20/2022	5:20 AM–11:00 AM	Jeffrey Priest, Paul Lemons	Least Bell's vireo	66–76°F, 30%–100% cc, 1–5 mph wind
7/21/2022	6:24 AM–10:14 AM	Olivia Koziel, Megan Correa, Sierra Lippert	Least Bell's vireo	67–79°F, 10%–60% cc, 0–5 mph wind
4/26/2023	7:00 AM–10:00 AM	Paul Lemons	Coastal California gnatcatcher	63–72°F, 100%–0% cc, 0–3 mph winds
4/28/2023	9:00 AM–2:30 PM	Callie Amoaku, Dylan Ayers	Vegetation and jurisdictional mapping	58–66°F; 0% cloud cover; 0–1 mph wind

Table 1. Survey Schedule

Date	Hours	Personnel	Focus	Conditions
5/3/23	7:14 AM–9:15 AM	Kathleen Dayton	Rare plant survey (spring pass)	57–68°F; 0%–100% cloud cover; 0–1 mph wind
5/4/2023	7:00 AM–10:00 AM	Paul Lemons	Coastal California gnatcatcher	59–65°F, 90%–50%cc, 1–3 mph winds
5/6/22	8:38 AM–9:41 AM	Kathleen Dayton	Rare plant survey (spring pass)	56–59°F; 70%–90% cloud cover; 0–3 mph wind
5/18/2023	7:40 AM–10:30 AM	Paul Lemons	Coastal California gnatcatcher	64–67°F, 100%cc, 0–3 mph winds
5/26/2023	7:00 AM–10:00 AM	Paul Lemons	Coastal California gnatcatcher	58–72°F, 100%–90%cc, 0–3 mph winds
6/3/2023	7:30 AM–10:30 AM	Paul Lemons	Coastal California gnatcatcher	57–59°F, 100%cc, 1–3 mph winds
6/10/2023	7:30 AM–10:20 AM	Paul Lemons	Coastal California gnatcatcher	58–60°F, 100%cc, 1–2 mph winds
7/21/2023	8:45 AM–11:07 AM	Kathleen Dayton	Rare plant survey (summer pass)	71–77°F; 100% cc; 0–5 mph winds

Notes: cc = cloud cover.

2.3 Resource Mapping

Vegetation communities and land covers on and within 100 feet of the project site were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet) aerial photograph-based field map of the project site (Bing 2023). Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS, and geographic information system (GIS) coverage was created by Senior GIS Analyst Lesley Terry. Once in ArcGIS, the acreage of each vegetation community and land cover present on-site was determined.

Vegetation community classifications used in this report follow Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) and the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), where feasible, with modifications to accommodate the lack of conformity of the observed communities to those of Holland (1986) or Oberbauer et al. (2008).

2.4 Flora

All native and naturalized plant species encountered on the project site 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 2023). 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 2023), and common names follow the U.S. Department of Agriculture Plants Database (USDA 2022). A preliminary list of plants observed during the site visit is included in Appendix A.

2.4.1 Rare Plant Surveys

Focused surveys for special-status plants were conducted in May 2022 (bridge location) and May and July 2023 (staging area) (Figure 2). Surveys were conducted at the appropriate phenological stage (blooming and fruiting) to detect and identify target species. Prior to special-status plant surveys, Dudek evaluated plant records in the U.S. Geological Survey 7.5-minute La Jolla quadrangle and the surrounding Del Mar, Poway, San Vicente Reservoir, El Cajon, Point Loma, National City, and Jamul Mountains quadrangles (CDFW 2023; CNPS 2023; USFWS 2023) 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 rare plant survey area 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); Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFG 2000); and General Rare Plant Survey Guidelines (Cypher 2002). Surveys were conducted by walking meandering transects throughout the project site to detect special-status species. Special-status plant observations were mapped in the field using the Esri Collector mobile application to record the location and population number of special-status plant occurrences.

2.5 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 site 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 2016) or San Diego Natural History Museum (SDNHM 2002) for butterflies.

2.5.1 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Surveys

In 2017 and 2022, Dudek conducted focused surveys for least Bell's vireo and southwestern willow flycatcher for the Stadium Wetland Mitigation project, overlapping the project site within the San Diego River (Dudek 2017, 2022a). In 2019, Dudek conducted focused surveys for least Bell's vireo and southwestern willow flycatcher as part of the SDSU Mission Valley Campus Master Plan Project, overlapping the northern portion of the San Diego River and the unnamed channel to the north (Dudek 2019a). In 2022, focused surveys for southwestern willow flycatcher were completed for the project site (Dudek 2022b). Suitable habitat for both of these species includes the southern cottonwood–willow riparian forest in the San Diego River (Figure 3, Survey Areas).

In concurrence with the accepted Least Bell's Vireo Survey Guidelines (USFWS 2001), qualified biologists from Dudek conducted eight focused surveys within all riparian areas and any other potential vireo habitats between April 29, 2022, and July 20, 2022. The site visits were conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Dudek did not use playback of vireo vocalizations during the surveys. Surveys were conducted between dawn and noon and not during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

The five surveys conducted for flycatcher will follow the currently accepted protocol, A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher (Sogge et al. 2010), which states that a minimum of five survey visits is needed to evaluate a project's effects on flycatchers. The protocol recommends one survey between May 15 and 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17. Consistent with the protocol, surveys during the final period (June 25 and July 17) were separated by at least 5 days. Recorded flycatcher vocalizations were used approximately every 50 to 100 feet within suitable habitat to induce flycatcher responses.

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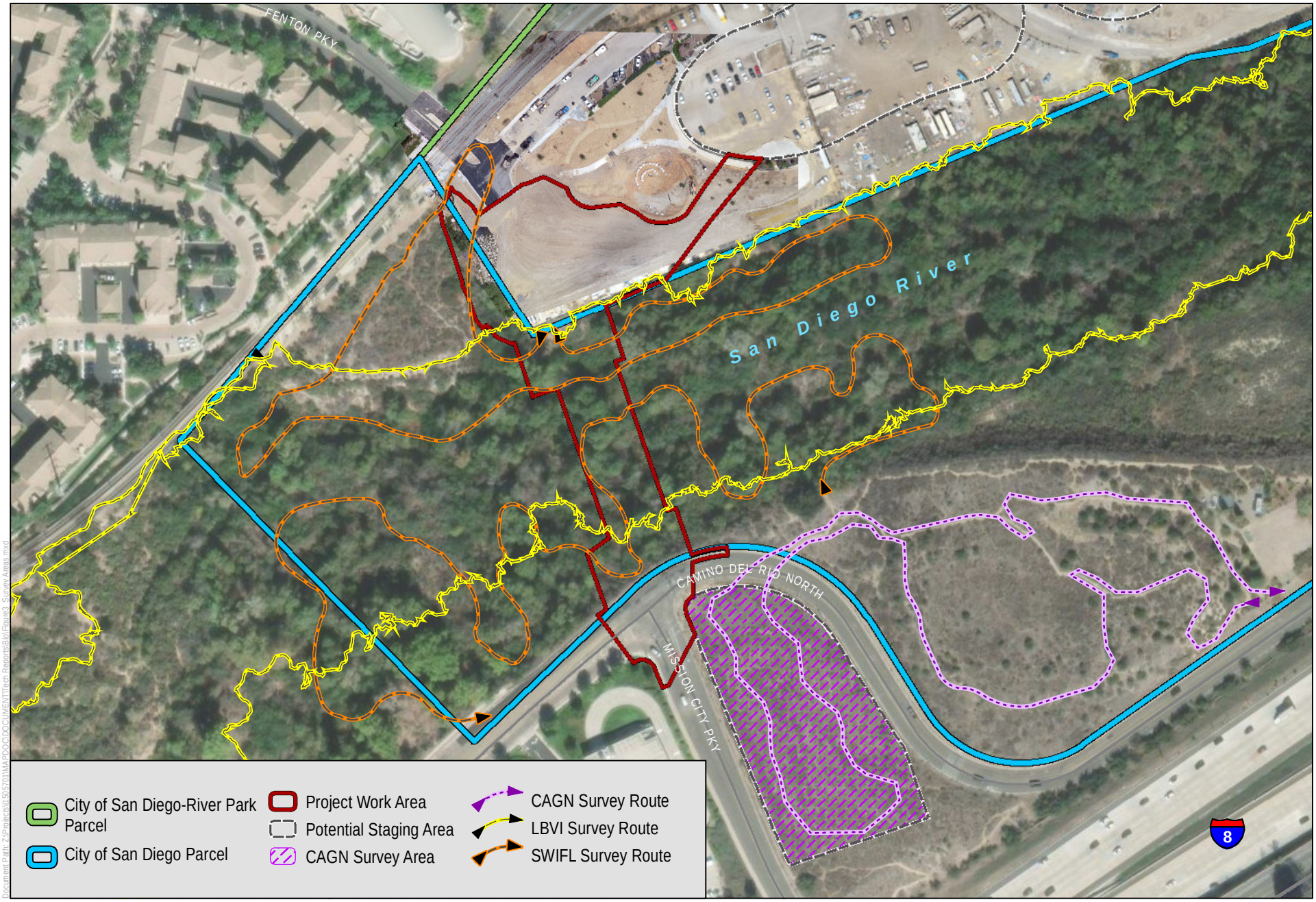

Document Path: Z:\Projects\13.5057011MA\PDOC\DOCUMENT\Tech Reports\Bio\Figure3_Survey Areas.mxd

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; KLEINFELDER 2/8/2023
DEVELOPMENT-BOWMAN/PDC 5/08/2023; PARCELS-BOWMAN/PDC 3/27/2023; SURVEYS-DUDEK

DUDEK

N

0 150 300 Feet

FIGURE 3
Survey Areas
SDSU Fenton Parkway Bridge Biological Technical Report

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2.5.2 Focused California Gnatcatcher Surveys

Focused coastal California gnatcatcher surveys were completed for the proposed staging area (southern portion of the project site) in April through June 2023 (Dudek 2023a). Focused surveys within the coastal sage scrub in the northern portion of the site were completed as part of the SDSU Mission Valley Campus Master Plan Project in 2019 (Dudek 2019a-b). The surveys follow the current protocol established by the USFWS Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol, July 28, 1997 (USFWS 1997).

Per the USFWS protocol, Dudek surveyed suitable habitat within the project site six times for the coastal California gnatcatcher. Suitable habitat includes Diegan coastal sage scrub located in the southern portion of the project site (potential staging area), for a total survey acreage of approximately 1.99 acres (Figure 3, Survey Areas). A map of the site (scale 1 inch = 100 feet) overlain with vegetation polygons was used for the survey. Binoculars were used to aid in detecting and identifying bird species. Gnatcatcher vocalizations were played frequently to elicit a response from the species, if present. The vocalizations were played approximately every 50 to 100 feet within suitable habitat.

2.6 Jurisdictional Wetlands Delineation

Dudek conducted a delineation of jurisdictional aquatic resources within the project site on April 28, 2023. 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 (USACE), pursuant to Section 404 of the federal Clean Water Act (CWA)
- 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
- Streambeds under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code
- City of San Diego wetlands, pursuant to Land Development Code §113.0103

Wetland waters of the United States are delineated based on methodology described in the 1987 USACE Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008). USACE 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 (USACE and EPA 2008).

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 City's definition of wetlands is broader than the definition applied by the USACE. Per the City's Guidelines, naturally occurring wetland vegetation communities are typically characteristic of wetland areas. Examples of wetland vegetation communities include saltmarsh, brackish marsh, freshwater marsh, riparian forest, oak riparian

forest, riparian woodland, riparian scrub and vernal pools. Common to all wetland vegetation communities is the predominance of hydrophytic plant species (plants adapted for life in anaerobic soils).

The jurisdictional delineation performed within the project site included six data stations assessed at the locations shown on Figure 4, Biological Resources. Data stations were collected in groups along a transect line, with a data point located in the generally lower, more mesic area 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).

2.7 Survey Limitations

Focused surveys for potentially occurring special-status plant species were conducted for the proposed project in May 2022, May 2023, and July 2023. Almost all of the potentially occurring special-status plant species have blooming periods that overlap with the May survey pass, and all perennial, conspicuous shrubs would be identified during surveys if present.

Dudek did not conduct focused surveys for special-status wildlife species other than least Bell's vireo, southwestern willow flycatcher, and California gnatcatcher, because no other listed species have high potential to occur on-site or immediately adjacent to the site.

To account for survey limitations, biologists identified special-status plant and wildlife species that could occur in the project site and off-site improvement areas, based on pertinent literature on distribution and habitat preference, recorded off-site observations, and the 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.

STADIUM WAY
San Diego River
CAM DEL RIO N
MISSION VALLEY FWY
California Miramar Univ
San Diego Community Coll District
1
2
3
4
Project Work Area
Potential Staging Area
MHPA
Veg Communities/Land Covers
BD-CSS,Baccharis-dominated Coastal Sage Scrub
CSS,Coastal Sage Scrub
DEV, Developed
SCWRF, Southern Cottonwood Willow Riparian Forest
Jurisdictional Aquatic Resources
USACE/RWQCB Non-Wetland Waters/CDFW Riparian/City Wetlands
USACE/RWQCB/CDFW/City Wetlands
CDFW/City Wetlands
Wetland Sampling Point
Special-Status Plants
Iva hayesiana, San Diego marsh-elder
Special-Status Wildlife (2022)
yellow warbler
brown-headed cowbird
Special-Status Wildlife (2019)
Cooper's hawk
yellow warbler
yellow-breasted chat
least Bell's vireo
Special-Status Wildlife (2017)
least Bell's vireo
FENTON PKWY
RIVER PARK RD
(under construction)
Mission Valley River Park
(under construction)
DEV
BD-CSS
SCWRF
DP1a
DP1b
DP1c
CSS
Ih1

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

0 40 80 Feet

FIGURE 4 - View 1

Biological Resources

SDSU Fenton Parkway Bridge Biological Technical Report

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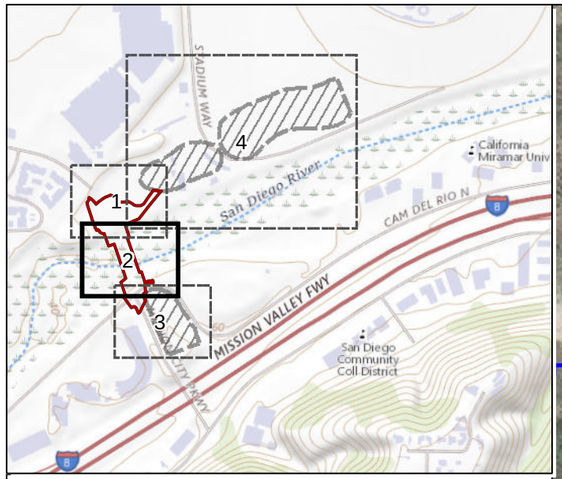

- Project Work Area
- Potential Staging Area
- MHPA
- Veg Communities/Land Covers
  - BD-CSS,Baccharis-dominated Coastal Sage Scrub
  - CSS,Coastal Sage Scrub
  - DEV, Developed
  - SCWRF, Southern Cottonwood Willow Riparian Forest
  - UVC, Unvegetated Channel
- Jurisdictional Aquatic Resources
  - USACE/RWQCB/CDFW Non-Wetland Waters/City Wetlands
  - USACE/RWQCB Non-Wetland Waters/CDFW Riparian/City Wetlands
  - USACE/RWQCB/CDFW/City Wetlands
  - CDFW/City Wetlands
  - Wetland Sampling Point
  - Transect
- Special-Status Plants
  - *Iva hayesiana*, San Diego marsh-elder
- Special-Status Wildlife (2022)
  - least Bell's vireo
  - yellow warbler
  - yellow-breasted chat
  - brown-headed cowbird
- Special-Status Wildlife (2019)
  - Cooper's hawk
  - yellow warbler
  - yellow-breasted chat
  - least Bell's vireo
- Special-Status Wildlife (2017)
  - least Bell's vireo

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

N

0 40 80 Feet

FIGURE 4 - View 2

Biological Resources

SDSU Fenton Parkway Bridge Biological Technical Report

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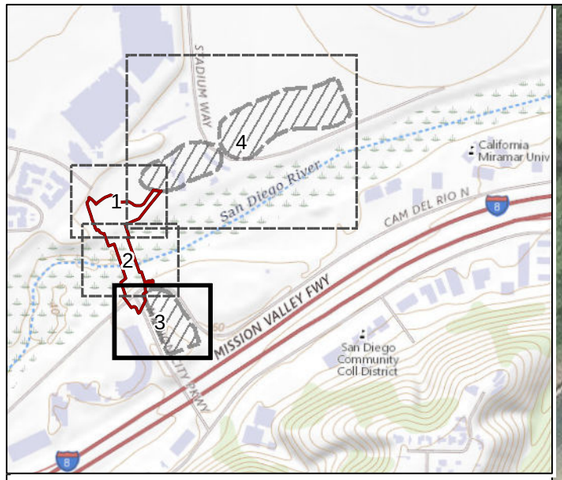

Project Work Area
Potential Staging Area
MHPA
Veg Communities/Land Covers
DEV, Developed
SCWRF, Southern Cottonwood Willow Riparian Forest

Jurisdictional Aquatic Resources
USACE/RWQCB/CDFW/City Wetlands
CDFW/City Wetlands

Special-Status Plants
Viguiera laciniata, San Diego County viguiera

SCWRF
SCWRF
CAMINO DEL RIO NORTH
CSS
DEV
MISSION CITY PKY
VI3
CSS
VI5
VI6
VI2
VI1
VI1

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

N

0 40 80 Feet

FIGURE 4 - View 3
Biological Resources
SDSU Fenton Parkway Bridge Biological Technical Report

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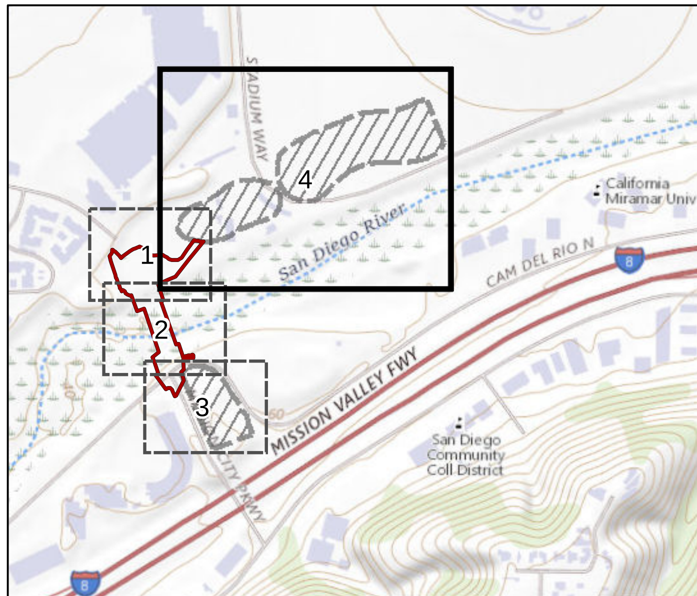
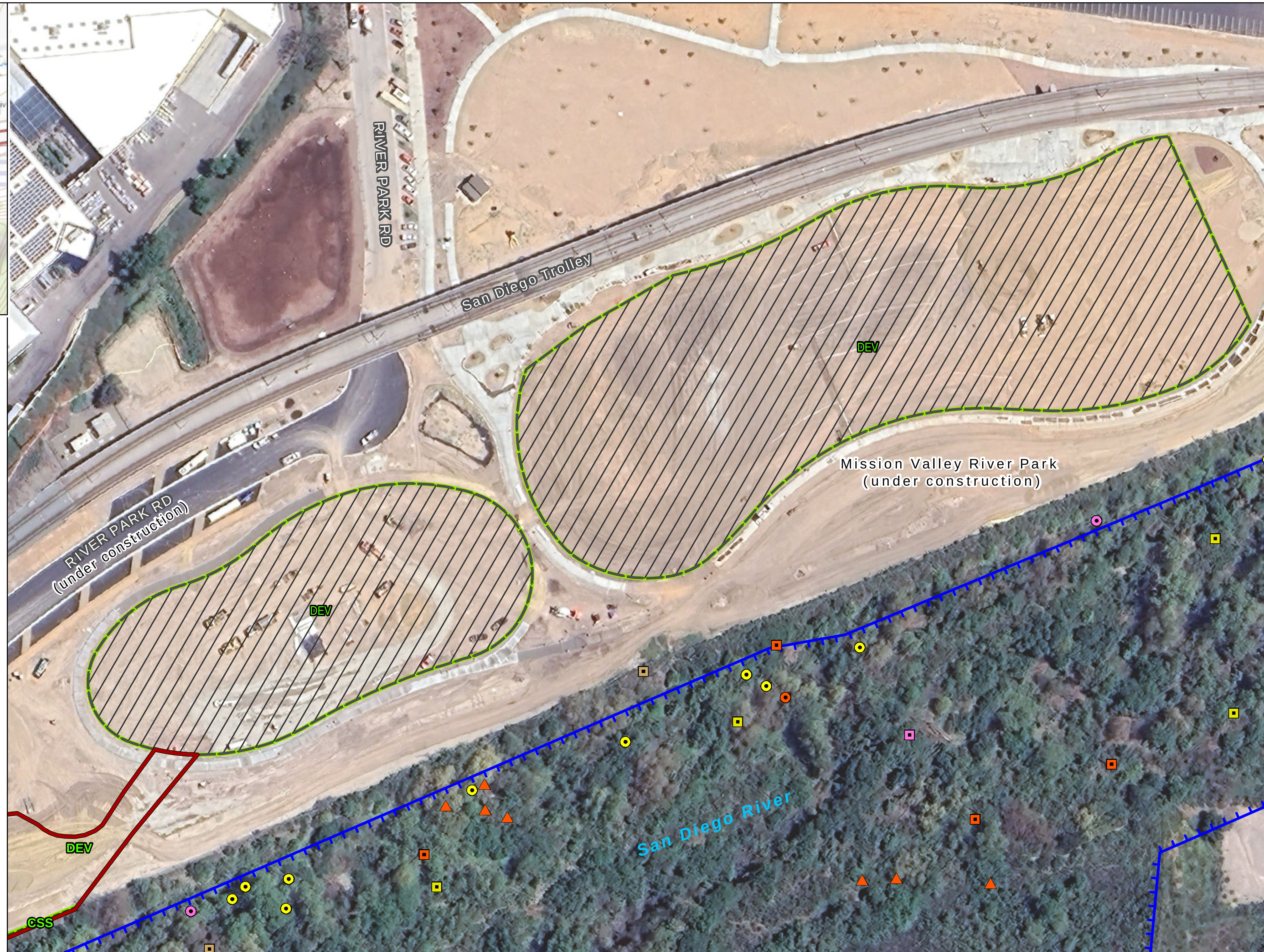


Project Work Area
Potential Staging Area
MHPA
Veg Communities/Land Covers
CSS,Coastal Sage Scrub
DEV, Developed
Special-Status Wildlife (2022)
least Bell's vireo
yellow warbler
yellow-breasted chat
brown-headed cowbird
Special-Status Wildlife (2019)
yellow warbler
yellow-breasted chat
least Bell's vireo
Special-Status Wildlife (2017)
least Bell's vireo



SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

0 60 120 Feet

FIGURE 4 - View 4

Biological Resources

SDSU Fenton Parkway Bridge Biological Technical Report

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3 Existing Conditions

The project site is located within the Mission Valley Community Plan area in the City of San Diego (City of San Diego 2013). The Mission Valley Community Plan area comprises approximately 2,418 acres and includes a variety of residential, retail, commercial, transportation, and open space land uses.

The project site is located within the U.S. Geological Survey 7.5-minute La Jolla quadrangle in Township 16 South, Range 2 West (Figure 1). The surrounding quadrangles include Point Loma, National City, La Mesa, Poway, and Del Mar. The approximate centroid of the project site is -117°7′33.87″ W, 32°46′39.25″ N.

3.1 Existing Environmental Setting

The project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north; the SDSU Mission Valley development (including Snapdragon Stadium) to the northeast; office and healthcare uses to the south; and open space, including the San Diego River. The bridge would traverse and be adjacent to the City's MHPA and the City's Stadium Mitigation Site.

The elevation ranges from approximately 35 feet above mean sea level to 300 feet above mean sea level. The project site includes developed areas and native habitat. The project site includes the lower floodplain of the San Diego River, developed areas associated with the SDSU Mission Valley Campus, Camino del Rio North, and an undeveloped area south of Camino del Rio North.

According to the Natural Resources Conservation Service (USDA 2023), there are three soil types found within the project site: Riverwash; Tujunga sand, 0% to 5% slopes; and made land.

The Riverwash series drains excessively well and occurs on drainageways at elevations of 700 feet to 2,900 feet (USDA 2023).

3.1.1 Vegetation Communities

Dudek mapped five vegetation communities/land covers within the project site. Native vegetation communities within the project site include Baccharis-dominated Diegan coastal sage scrub, Diegan coastal sage scrub, southern cottonwood–willow riparian forest. Two land cover types—developed and unvegetated channel—occur within the project site. The acreages for these vegetation communities and land cover types are presented in Table 2, and their spatial distributions are presented on Figure 4.

Table 2. Vegetation Communities/Land Cover Types on the Project Site

Habitat Types/Vegetation Communities	Oberbauer Code	City of San Diego Habitat Tier Code	Project Site (acres)	% of Project Site
Non-Native Vegetation Community/Land Cover Types				
Developed (DEV)	12000	Tier IV	9.58	74%
Non-vegetated Channel or Floodway (NVC)	64200	City Wetland (Natural Flood Channel)	0.04	<1%
Subtotal	*N/A*	*N/A*	*9.62*	*74%*
Native Vegetation Communities				
Baccharis-dominated Diegan Coastal Sage Scrub (BD-CSS)	32350	Tier II	0.03	<1%
Diegan Coastal Sage Scrub (CSS)	32500	Tier II	2.05	16%
Southern Cottonwood–Willow Riparian Forest (SCWRF)	61330	City Wetland (Riparian Habitat)	1.18	9%
Subtotal	*N/A*	*N/A*	*3.27*	*26%*
Total*	**N/A**	**N/A**	**12.89**	**100%**

Note:
* Acreages may not sum due to rounding.

Baccharis-Dominated Diegan Coastal Sage Scrub (32530)

Diegan coastal sage scrub is the most widespread coastal sage scrub in coastal Southern California, extending from Los Angeles into Baja California (Oberbauer et al. 2008). The community mostly consists of drought-deciduous species such as California sagebrush (i.e., coastal sagebrush; *Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*). Baccharis-dominated Diegan Coastal Sage Scrub is similar to Diegan coastal sage scrub except that it is dominated by Baccharis species including desertbroom (*Baccharis sarothroides*) and/or coyote brush (*Baccharis pilularis*) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys. This community is distributed along coastal and foothill areas in San Diego County. According to the City's Biology Guidelines, Diegan coastal sage scrub is considered a Tier II vegetation community (City of San Diego 2018).

Diegan coastal sage scrub and all its variants generally are recognized as sensitive plant communities by local, state, and federal resource agencies. It supports a diversity of sensitive plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical coverage throughout Southern California.

Baccharis-dominated Diegan Coastal Sage Scrub vegetation located within the northwestern portion of the project site totals 0.03 acres and is dominated by coyote brush and desertbroom, with Menzies's golden bush (*Isocoma menziesii*) and California brittle bush (*Encelia californica*) (Figure 4).

Diegan Coastal Sage Scrub (32500)

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush, California buckwheat, and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*), and laurel sumac. It typically develops on xeric (dry) slopes.

Diegan coastal sage scrub and all its variants generally are recognized as sensitive plant communities by local, state, and federal resource agencies. It supports a diversity of sensitive plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical coverage throughout Southern California. According to the City's Biology Guidelines, Diegan coastal sage scrub is considered a Tier II vegetation community (City of San Diego 2018).

The Diegan coastal sage scrub vegetation occurs primarily to the east of Mission City Parkway in a potential staging area and a small strip just north of the river (Figure 4). The Diegan coastal sage scrub totals approximately 2.05 acres and is dominated by California sagebrush, Menzies's golden bush, and black sage, with annual yellow sweetclover (*Melilotus indicus*), compact brome (*Bromus madritensis*), and shortpod mustard (*Hirschfeldia incana*); crowndaisy (*Glebionis coronaria*) grows along the edges.

Southern Cottonwood–Willow Riparian Forest (61330)

Southern cottonwood–willow riparian forest generally consists of tall, open, broadleaved forests that are winter-deciduous. This community is typically dominated by cottonwood (*Populus fremontii*, *P. trichocarpa*), with several tree willows (*Salix* sp.) and shrubby willows dominating the understory. Dominant species require moist, bare mineral soils for germination and establishment and are located on subirrigated or frequently overflowed lands along rivers and streams (Oberbauer et al. 2008). According to the City's Biology Guidelines, southern cottonwood–willow riparian forest is considered a City Wetland (Riparian Forest) habitat (City of San Diego 2018).

There are 1.18 acres of southern cottonwood–willow riparian forest within the project site, located in the northwestern portion of the project site and associated with a storm drain outlet channel that discharges into the San Diego River (Figure 4) and along the San Diego River channel (Figure 4). Dominant species in this area are Gooding's willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), and black elderberry (*Sambucus nigra*), with a sparse understory.

Urban/Developed (12000)

Urban/developed refers to areas that have been constructed upon 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). According to the City's Biology Guidelines, urban/developed land is considered a Tier IV vegetation community (City of San Diego 2018).

Within the project site, developed land dominates the overall land cover, totaling 9.58 acres (74% of the project site), and includes paved roads and construction areas associated with the Mission Valley River Park (Figure 4).

Non-vegetated Channel or Floodway (64200)

According to Oberbauer et al. (2008), non-vegetated channel is the sandy, gravelly, or rocky fringe of waterways or flood channels that is unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel. According to the City's Biology Guidelines, non-vegetated channel is considered a City Wetland (Natural Flood Channel) habitat (City of San Diego 2018).

Within the project site, there is 0.04 acres of non-vegetated channel, which is a portion of the San Diego River (Figure 4).

3.1.2 Flora

A total of 101 species of native or naturalized plants, 45 native (45%) and 56 non-native (55%), was recorded on the site (see Appendix A).

3.1.3 Fauna

The project site supports habitat for both common upland and riparian species and some special-status species. Riparian vegetation within the project site provides foraging and nesting habitat for migratory and resident bird species and other wildlife species. The project site is within the San Diego River Stadium Mitigation site, part of the City of San Diego's Multiple Species Conservation Program.

A total of 74 wildlife species have been recorded during the 2022-23 focused surveys (Appendix B).

3.1.4 Sensitive 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) (CNDDB 2023a), and (2) plant species with a CRPR 1 through 3 (CNPS 2023). This report also includes CRPR 4 plant species.

Special-status plant surveys were conducted within the project site 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 (see Section 2). 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. Special-status plant species observed within the project site are presented in Appendix C1.

Rainfall levels prior to May 2022 survey were drier than normal, while rainfall prior to May 2023 and July 2023 surveys was normal (USACE 2023a). Further, the drought index at the time of the May 2023 survey was severe wetness due to the above-average rainfall in the winter of 2022/2023. Surveys for special-status plants demonstrate the species' presence or absence on-site. San Diego County viguiera (*Viguiera laciniata*; CRPR 4.3), and San Diego marsh-elder (*Iva hayesiana*; CRPR 2B.2) were observed within the San Diego River portion of the

project site. No additional rare plants have high or moderate potential to occur that would not have been identified during the spring surveys.

All of the target species typically bloom in May or July, and the surveys conducted in May 2022 and May and July 2023 coincide with the bloom periods for annual species; therefore, the target species would have been detected if they occurred on-site.

Special-status plant species known to occur in the surrounding region that are not expected to occur on-site are presented in Appendix C2.

Critical Habitat

There is no USFWS-designated critical habitat mapped for plant species within the project site. However, there is USFWS-designated critical habitat for one species located approximately 2.5 miles north of the project site: spreading navarretia (*Navarretia fossalis*; federally threatened, CRPR 1B.1) (USFWS 2023).

3.1.5 Sensitive Wildlife Species

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of CESA and FESA (CNDDB 2023b); (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFW (CNDDB 2023c); (3) mammals and birds that are fully protected species, as described in the California Fish and Game Code, Sections 4700 and 3511; and (4) Birds of Conservation Concern, as designated by the USFWS (USFWS 2008).

Special-status wildlife species that were observed on-site or that have a high or moderate potential to occur are presented in Appendix D1. Special-status wildlife species known to occur in the surrounding region but that were absent or have low potential to occur on-site are presented in Appendix D2. For each species listed, Dudek determined whether the species had the potential to occur on-site based on information gathered during the literature review and site visits, including the location of the project site, vegetation communities or land covers present, current site conditions, and past and present land use.

Critical Habitat

There is no USFWS-designated critical habitat for wildlife species mapped within the project site or off-site areas. However, there is USFWS-designated critical habitat for two species located within 5 miles of the project site: San Diego fairy shrimp (*Branchinecta sandiegonensis*; federally endangered [FE]) and least Bell's vireo (FE, state endangered [SE]) (USFWS 2023).

Species Observed or with Potential to Occur On-Site

Special-Status Amphibians and Reptiles

There is potential for southern California legless lizard (*Anniella stebbinsi*; SSC), orange-throated whiptail (*Aspidoscelis hyperythra*; WL), Coronado skink (*Plestiodon skiltonianus interparietalis*; WL), two-striped gartersnake (*Thamnophis hammondii*; SCC, SCE), southwestern pond turtle (*Actinemys pallida [Emys marmorata*]; federally

proposed as threatened, SSC), and western spadefoot (*Spea hammondii*; SSC) to occur within the riparian habitat associated with the San Diego River and associated riparian habitat.

Special-Status Birds

In 2017 and 2022, Dudek conducted focused surveys for least Bell's vireo and southwestern willow flycatcher for the Stadium Wetland Mitigation Project, overlapping the project site within the San Diego River. In 2019, Dudek conducted focused surveys for least Bell's vireo and southwestern willow flycatcher as part of the SDSU Mission Valley Campus Master Plan Project, overlapping the northern portion of the San Diego River and the unnamed channel to the north (Dudek 2019a). In 2022, focused surveys for southwestern willow flycatcher were completed for the project site.

Least Bell's vireo has been detected within, and adjacent to, the project site during the 2017, 2019, and 2022 surveys. Figure 4 includes these observations.

Focused protocol surveys for southwestern willow flycatcher (FE, SE) in 2022 were negative. Surveys conducted in the San Diego River as part of the SDSU Mission Valley Campus Master Plan Project and the Stadium Wetland Mitigation Project were also negative for all willow flycatcher subspecies (Dudek 2017, 2019a). There is one record of southwestern willow flycatcher in the San Diego River downstream of El Capitan Reservoir (approximately 20 miles from the project site) from June 22, 2009; one record in Chocolate Canyon just south of El Capitan Reservoir on July 8, 2010; and two pairs nesting at the north end of El Capitan Reservoir in 2001 (USFWS 2023; CDFW 2023). There are no other records of the southwestern willow flycatcher in the San Diego River (CDFW 2023; USFWS 2023; Cornell Lab of Ornithology 2019; Unitt 2004). There are willow flycatcher (*Empidonax traillii*) in the San Diego River. However, none of the records is during the "non-migrant" period (i.e., about June 15 to July 20); willow flycatchers detected only outside of this period are likely migrants (Sogge et al. 2010). Given the lack of possible breeding individuals (i.e., southwestern willow flycatchers) recorded since 2009 and the complete lack of willow flycatchers detected during the 2022 focused protocol surveys, it is unlikely that southwestern willow flycatcher occurs within the project site. However, there is suitable habitat in the San Diego River for this species, and thus it has the potential to occur on-site in the future.

Cooper's hawk (*Accipiter cooperii*; WL), yellow-breasted chat (*Icteria virens*; SSC), yellow warbler (*Setophaga petechia*; BCC, SSC), song sparrow (*Melospiza melodia*; SSC) were detected within the project site (Figures 4).

Surveys for coastal California gnatcatcher (federally threatened; SSC) were conducted in 2019 and 2023. Focused surveys within the coastal sage scrub in the northern portion of the site were completed as part of the SDSU Mission Valley Campus Master Plan Project in 2019 (Dudek 2019a-b). In 2023, protocol surveys were conducted in the southern portion of the site where a staging area is proposed. No coastal California gnatcatcher have been observed within the project site. A pair of coastal California gnatcatcher with fledglings was observed approximately 350 feet east of the proposed staging area in the southern portion of the project site during the 2023 surveys. There is suitable coastal sage scrub within the southern portion of the site near this observation that could be used by this species in the future. No coastal California gnatcatchers were observed in the coastal sage scrub communities north of the San Diego River during the 2019 surveys.

Other avian species with a moderate potential to occur include tricolored blackbird (*Agelaius tricolor*; BCC/SSC, ST), which has the potential to nest within riparian habitat of the San Diego River, although it has not been observed in the vicinity of the project during statewide monitoring surveys or incidentally detected during on-site surveys. Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*; federally threatened, SE), white-tailed kite (*Elanus*

leucurus; FP), and least bittern (*Ixobrychus exilis*; SSC) also have a moderate potential to nest in the riparian woodlands of the San Diego River, although there are no recent occurrences in the area.

Special-Status Mammals

There is potential for Mexican long-tongued bat (*Choeronycteris mexicana*; SSC), western yellow bat (*Dasypterus xanthinus*; SCC), and western red bat (*Lasiurus blossevillii*; SSC) to forage and roost in the riparian habitat associated with the San Diego River. No special-status mammals have been observed on-site.

Special-Status Invertebrates

Crotch's bumble bee (*Bombus crotchii*) has potential to occur within the coastal sage scrub communities on-site where floral resources are present. There are several records of Crotch's bumble bee within 5 miles of the site, including one from 2019 located approximately 4 miles west of the site along the northern side of the San Diego River (CDFW 2023).

3.1.6 Wetlands/Jurisdictional Resources

The project site was surveyed to determine the presence of an OHWM along one potential drainage channel and the San Diego River (Table 3).

Table 3. Jurisdictional Aquatic Resources within the Project Site

Jurisdictional Aquatic Resource	Project Site (acres)
USACE/RWQCB/CDFW/City of San Diego Jurisdictional	
Non-wetland Waters/City Wetland	0.08
Wetland/City Wetland	0.82
Subtotal	*0.90*
CDFW/City of San Diego Jurisdictional	
Riparian Area/City Wetland	0.33
Total*	**1.23**

Note:
* Acreages may not sum due to rounding.

There is one National Hydrographic Database blue-line stream channel within the project site, the San Diego River, which is located in the center of the project site. The San Diego River is a traditional navigable water (USACE 2023b) regulated by the USACE, RWQCB, and CDFW. Wetland habitat borders the river, with hydrophytic vegetation, hydrology, and hydric soils. Surrounding the wetland is riparian forest habitat regulated by CDFW. The wetland determination data forms are included in Appendix E. Vegetation present along the river was predominantly willow but included mulefat (*Baccharis salsifolia*), mugwort (*Artemisia douglasii*), and blackberry (*Rubus californica*). The portion of the river observed on-site had a defined bed and bank, evidence of an OHWM, and a channel bed 22 feet wide and approximately 4 feet deep at OHWM. The San Diego River is a traditional navigable water.

There is another feature located to the north of the San Diego River, which conveys runoff from the surrounding developments into a defined channel, with evidence of an OHWM and a channel bed approximately 5 feet wide. It then is directed into a culvert, where it flows beneath the stadium parking lot and outlets into the San Diego River.

This feature typically conveys flow year-round and therefore is considered a relatively permanent water. This feature is regulated by USACE, RWQCB, and CDFW, and the surrounding riparian vegetation (southern cottonwood willow riparian forest) is regulated by CDFW.

The City regulates Environmentally Sensitive Lands (ESL) under the San Diego Municipal Code (SDMC) Chapter 143.0110 and the City's Land Development Code Biology Guidelines (City of San Diego 2018). Section 114 of the San Diego Municipal Code describes specific development regulations pertaining to sensitive biological resources, including wetlands. The City's definition of wetlands is broader than the definition applied by USACE. The City regulates "wetlands" as defined in the City's Biology Guidelines (City of San Diego 2018). The intention of the definition is to differentiate uplands from wetlands. Under the City's definition, wetlands can include vegetation communities such as freshwater marsh, riparian forest, riparian scrub, or vernal pools. They may also include areas that have hydric soil or wetland hydrology, but human activities have resulted in a lack of hydrophytic vegetation (e.g., channelized streambeds) or recurring natural events. However, according to the Biology Guidelines (City of San Diego 2018):

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

Collectively, areas under the jurisdiction of one or all of the resource agencies (USACE, RWQCB, and CDFW), and/or the City are termed "jurisdictional resources." All of the jurisdictional resources within the project area are considered wetlands under the City's jurisdiction.

Permanent and temporary impacts are planned along the San Diego River and along the drainage in southern cottonwood–willow riparian forest, of which a portion is considered wetland waters of the United States; the area along the slope is riparian vegetation regulated by CDFW only.

3.1.7 Habitat Connectivity and Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping-stones for wildlife dispersal. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of wildlife from high-density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife corridors are considered sensitive by resource and conservation agencies.

Canyon lands in San Diego are disappearing and are largely the only habitat corridors that remain within urbanized areas of San Diego. There are no canyon lands within or adjacent to the project site. The San Diego River is the largest open space area within the vicinity of the project site; other open space and wildlife habitat occurs in Murphy Canyon, northeast of the project site; Marine Corps Air Station Miramar, located 5.2 miles north of the project site; and Mission Trails Regional Park, located approximately 5.6 miles northeast of the project site. None of these areas

are directly connected to the San Diego River and only dense urban developments and highways connect them. The San Diego River continues west from the project site in a narrow, development-constrained alignment for approximately 4.8 miles, where it crosses I-5 and turns into estuary and tidally influenced open water for another 2.7 miles before terminating at the Pacific Ocean. Along this 7-mile route to the west, there are a minimum of 25 bridges—mostly high-volume vehicular, but also rail, trolley, and a few pedestrian structures. Upstream, the river is similarly constrained, with a northward turn approximately 1.3 miles to the east and the first widening approximately 2.3 miles upstream. From that point, there are a few finger canyons that radiate out between urban developments. There are a minimum of five high-volume vehicle bridges within this stretch. The project site vicinity includes existing urban development to the west and I-805 (approximately 2,500 feet); existing urban development and I-15 (approximately 4,000 feet) to the east; I-8 approximately 700 feet to the south; and steep hillsides and residential development to the north of the project site.

While several structural design attributes can influence wildlife use (DOT 2011), the openness of underpasses has been proposed to be one potentially influential determinant (Gordon and Anderson 2003, Clevenger and Barrueto 2014). Openness influences the amount of light that penetrates the interior and the corresponding view of the opposite side of a structure perceived by wildlife. It is related to the cross-sectional area of the opening (and thus underpass size) and is greatly influenced by distance (length) through the structure tied to highway width (Clevenger and Huijser 2011). Although unknown for other wildlife groups, openness seems particularly important to certain ungulate species (e.g., deer) in being able to overcome their hesitancy to pass through unnatural, confined spaces that are perceived as a predation risk. Reed et al. (1975) first employed the concept of openness to evaluate deer use of underpasses using an openness ratio, or index (length × width/length [in meters]). Gordon and Anderson (2003) conducted rigorous experimental evaluation of the influence of underpass openness on mule deer use. They found that use was influenced more by underpass width than height, (given constant length) and recommended a minimum index of 0.8 for deer and other small ungulates.

The proposed project's bridge structure is between 10 and 20 feet (4.6 meters averaged) above the river bottom, approximately 58 feet (17.7 meters) wide, and approximately 90 feet (27.4 meters) long. This translates into an openness ratio of roughly 3:1, which exceeds the minimum index for deer (the largest wildlife species that would occur in the river).

The San Diego River serves as a wildlife movement corridor and migratory habitat for both migratory birds and year-round birds, as well as foraging habitat and movement for avian and terrestrial species both up- and downstream. Other urban-adapted mammals, such as coyotes, bobcats, opossums, raccoons, and rabbits could use the San Diego River for movement through the area. It is highly unlikely that larger species like mountain lions and mule deer are able to access or persist in this stretch of the San Diego River. Because of surrounding urban development that limits or prevents wildlife movement in the vicinity of the San Diego River, the importance and use of the San Diego River as a wildlife corridor is likely to be high and important for local common ground-based species, though it does not lead to large blocks of habitat to the west and more likely serves as a linear stretch of live-in habitat. For common and special-status avian species, it likely serves as live-in habitat and a local wildlife corridor, perhaps serving at a regional scale as well.

3.2 Regulatory Setting

This section describes the applicable regulatory plans, policies, and ordinances for the proposed project.

3.2.1 Federal

Federal Endangered Species Act

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

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans (HCPs) on private property without any other federal agency involvement. Upon development of an HCP, USFWS can issue incidental take permits for listed species.

FESA provides for designation of Critical Habitat, defined in Section 3(5)(A) as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and "which may require special management considerations or protection." Critical Habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). The MTBA was updated in 2004 with the Migratory Bird Treaty Reform Act of 2004, which amended the MTBA to apply only to migratory bird species that are "native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes." A list of non-native, human-introduced species that are not covered by the MBTA was published in 2020. On January 7, 2021, the USFWS published a final rule, to be effective December 3, 2021, defining the scope of the MBTA to prohibit incidental take and applying enforcement discretion, consistent with judicial precedent and longstanding agency practice (USFWS 2021). Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Clean Water Act (Section 404)

The CWA is the major federal legislation governing water quality, providing guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 of the CWA requires an applicant for a federal license or permit that may result in a discharge of pollutants into waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The State Water Resources Control Board and RWQCBs administer the 401 certification program in California.

Section 402 of the CWA establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found in 33 Code of Federal Regulations (CFR) Parts 320 to 332. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic ecosystem only if there is no practicable alternative that would have less-adverse impacts.

Wetlands and Other Waters of the United States

The definition of waters of the United States establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3(a)) has changed multiple times over the past few decades, starting with the *United States v. Riverside Bayview Homes Inc*. court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*), 2006 (*Rapanos v. United State*s), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule), and 2021 (*Pasqua Tribe et al v. United States Environmental Protection Agency* resulting in remand and vacatur of the Navigable Waters Protection Rule and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation. On December 30, 2022, the agencies announced the final Revised Definition of "Waters of the United States" rule (Rule) (88 CFR 3004–3144). The Rule was published in the Federal Register on January 18, 2023, and became effective on March 20, 2023, restoring federal jurisdiction over waters that were protected prior to 2015 under the Clean Water Act for traditional navigable waters, the territorial seas, interstate waters, and upstream water resources that significantly affect those waters. The Rule represents a re-expansion of federal jurisdiction over certain water bodies and wetlands previously exempt pursuant to the 2020 Navigable Waters Protection Rule. The Rule also considers various subsequent court decisions, including two notable Supreme Court decisions.

There are two key changes that the Rule incorporates. Firstly, the Rule reinstates the "Significant Nexus" test. The Significant Nexus test refers to waters that either alone, or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas (86 FR 69372-69450). The Significant Nexus test attempts to establish a scientific connection between smaller water bodies, such as ephemeral or intermittent tributaries, and larger, more traditional navigable waters such as rivers. Significant Nexus evaluations take into consideration hydrologic and ecologic factors including, but not limited to, volume, duration, and frequency of surface water flow in the resource and its proximity to a traditional navigable water, and the functions performed by the resource on adjacent wetlands. Second, the Rule adopts the "Relatively Permanent Standard" test. To meet the Relatively Permanent Standard, water bodies must be relatively permanent, standing, or continuously flowing and have a continuous surface connection to such waters.

On May 25, 2023, the Supreme Court issued its long-anticipated decision in Sackett v. EPA., in which it rejected the EPA's claim that "waters of the United States," as defined in the CWA, includes wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a continuous surface water connection to traditional navigable waterways would be afforded federal protection under

the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes water[s] of the United States (i.e., a relatively permanent body of water connected to traditional interstate navigable waters), and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins. On August 29, 2023, the EPA and USACE announced the final rule amending the 2023 definition of "waters of the United States", conforming with the Sackett v. EPA decision. Some of the key changes include removing the significant nexus test from consideration when identifying tributaries and other waters as federally protected and revising the adjacency test when identifying federally jurisdictional wetlands. Under the EPA's new "waters of the United States" definition, a "waters of the United States" is a relatively permanent, standing, or continuously flowing body of water that has an apparent surface connection to a "traditionally navigable water" to fall within federal purview. The new rule applies to wetlands and streams throughout the U.S. Although the Sackett opinion did not specifically reference streams, the EPA's new rule extends the "continuous surface connection" standard to streams, thereby removing non-permanent, ephemeral streams that do not meet these standards from federal jurisdiction.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

3.2.2 State

California Endangered Species Act

CDFW administers CESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the State of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating:

> No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001).

California Fish and Game Code

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

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

For the purposes of these state regulations, CDFW currently defines an active nest as one that is under construction or in use and includes existing nests that are being modified. For example, if a hawk is adding to or maintaining an existing stick nest in a transmission tower, then it would be considered to be active and covered under these Fish and Game Code sections.

Pursuant to Section 1602 of the Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional wetlands in accordance with Section 1602 of the California Fish and Game Code.

Porter–Cologne Water Quality Control Act

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by the USACE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing storm water pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain a Clean Water Act Section 401 certification or waste discharge requirements.

California Environmental Quality Act

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

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

3.2.3 Regional

Natural Community Conservation Plan

Section 2835 of the Fish and Game Code allows CDFW to authorize incidental take in a natural community conservation plan (NCCP). Take may be authorized for identified species whose conservation and management is provided for in the NCCP, whether or not the species is listed as threatened or endangered under FESA or CESA, provided that the NCCP complies with the conditions established in Section 2081 of the Fish and Game Code. The NCCP provides the framework for the San Diego Multiple Species Conservation Program (MSCP) Plans (see the following discussion).

Multiple Species Conservation Program

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

The MSCP establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value, which are delineated as the MHPA. The City's MHPA is an area within which a "hard line" preserve will be established in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

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

Signatory agencies/districts administer their portions of the MSCP through subarea plans and implementing agreements. Within the City of San Diego, the MSCP is implemented through the City of San Diego MSCP Subarea Plan (Subarea Plan) and Implementing Agreements (City of San Diego 1997), as well as referenced companion documents, including the Environmentally Sensitive Lands (ESL) Regulations of the Land Development Code (LDC) and San Diego Biology Guidelines (SDBG) of the Land Development Manual (LDM). The MSCP Subarea Plan establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value, which are delineated in the MHPA.

3.2.4 Local

As a state agency, the CSU is not subject to local land use regulatory/planning documents, ordinances, regulations, policies, rules, fees, or exactions. However, as part of the purchase and sale agreement between SDSU and the City for the SDSU Mission Valley site, which was executed in August 2020, SDSU agreed to help fund the planning, design, and construction of the Fenton Parkway Bridge. In furtherance thereof, and pursuant to a Memorandum of Understanding between SDSU and the City, once constructed, the City would assume operation and maintenance obligations for the bridge. As such, City regulations and guidelines are used as guidance during the planning and design of the project.

City of San Diego Multiple Species Conservation Program Subarea Plan

The City of San Diego Subarea Plan (1997) encompasses 206,124 acres within the MSCP Subregional Plan area. The project site is located within an area designated as Urban in the Subarea Plan. Urban habitat areas within the City's MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek, and a variety of smaller canyon systems.

The Subarea Plan is characterized by urban land uses, with approximately three-quarters either built out or retained as open space/park system. The City MHPA is a “hard line” preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). The MHPA is considered an urban preserve that is constrained by existing or approved development and comprises habitat linkages connecting several large core areas of habitat (Figure 1-3, Multi-Habitat Planning Area, and Figure 1-4, Core Areas and Habitat Linkages, in City of San Diego 1997). The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core areas are conserved in a functional manner, with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997).

SDSU was not involved with the preparation of the City’s Subarea Plan and is not a “permittee” under this HCP. However, pursuant to a Memorandum of Understanding between SDSU and the City outlining the provisions of the planning and design of the bridge, SDSU will evaluate the project in the context of the City’s Subarea Plan and companion documents, including the ESL Regulations and SDBG, even though authorization of incidental take for potential impacts to special status species will be obtained by SDSU directly from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife.

City of San Diego Municipal Code

Specific development regulations pertaining to sensitive biological resources exist in the City Municipal Code in both the Environmentally Sensitive Lands Regulations (Chapter 14, Division 1, Section 143.0141) and the Open Space Residential (OR-1-2) Zone (Chapter 13, Division 2, Section 131.0230) of the Land Development Code (Chapters 11 to 15 of the City Municipal Code).

Environmentally Sensitive Lands Regulations

The ESL Regulations provide a compliance and implementation mechanism for the MSCP Subarea Plan and its Implementing Agreement. According to the City LDC Section 143.0101, the purpose of the ESL Regulations are to "protect, preserve, and, where damaged restore, the ESL of San Diego and the viability of the species supported by those lands." In addition to serving as the implementation mechanism for the MSCP Subarea Plan, the ESL Regulations and LDM supporting documents (Biology, Steep Hillside, and Coastal Bluffs and Beaches Guidelines) serve as standards for the determination of impacts and mitigation under CEQA.

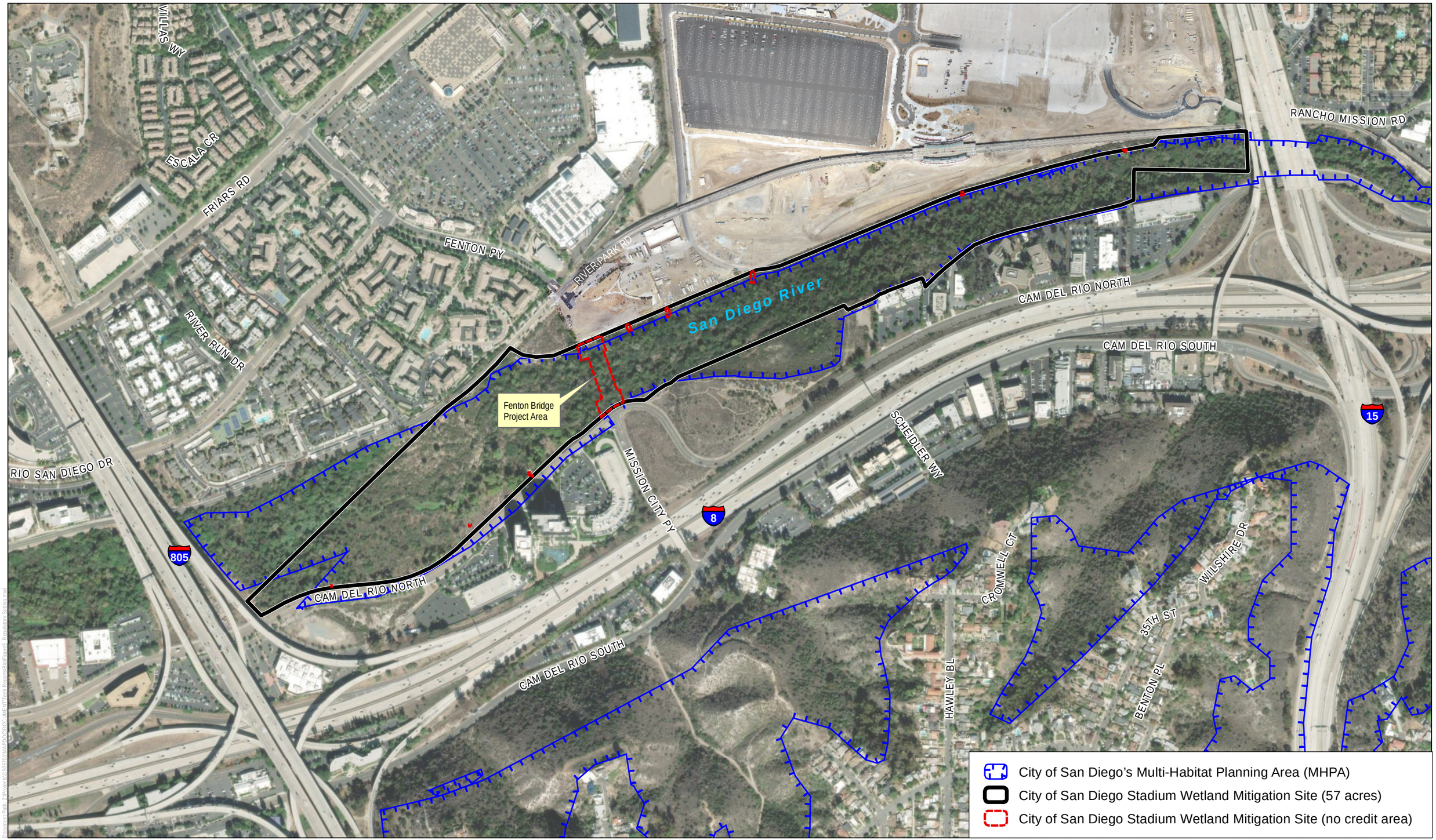
As defined in the City's LDC Section 113.0103, ESL means land containing steep hillsides, sensitive biological resources, coastal beaches, sensitive costal bluffs, or Special Flood Hazard Areas. Development on ESL requires a development permit in accordance with Section 143.0110, unless exempted pursuant to the City's LDC Section 143.0110(c), and is subject to the ESL regulations and various Guidelines in the Land Development Manual, with limited exceptions as outlined in the City's LDC Section 143.0111. Deviations from the ESL Regulations may be granted in accordance with the City's LDC Section 143.0150. Deviations to the wetland regulations in Section 143.0141(b), in particular, may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project (EPP) Option, the Economic Viability (EV) Option, or the Biologically Superior (BS) Option according to the City's LDC Section 143.0150(d). Because Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan as a proposed connection, it meets the criteria to be categorized as an Essential Public Project (see LDC Section 143.0150(d)(1)(B)(ii).

City of San Diego Biology Guidelines

The City of San Diego Development Services Department developed the Biology Guidelines (SDBG) presented in the Land Development Manual "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations, San Diego Land Development Code, Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018). The guidelines also provide standards for the determination of impact and mitigation under CEQA. SDSU, as the lead agency, is not generally subject to the City's guidelines; however, for the reasons noted above and outlined in the Memorandum of Understanding between SDSU and the City for planning and design of the bridge, this biological resources technical report includes the same level of detail and analysis that is required by the City for a report that is within the City's jurisdiction and is consistent with the SDBG.

City of San Diego Stadium Wetland Mitigation Site

The project site is located within and adjacent to the City of San Diego Stadium Wetland Mitigation Site. The 57-acre City of San Diego Stadium Wetland Mitigation Site was implemented by the City of San Diego Public Utilities Department to generate compensatory mitigation credit for the City by providing re-establishment, rehabilitation, and enhancement of wetlands within the San Diego River. The Stadium Wetland Mitigation Site includes multiple "no-credit areas" located throughout its boundary. One of these "no-credit areas" is the proposed project site (Figure 5, Regulatory Setting).



SOURCE: ESRI MAPPING SERVICE 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023

DUDEK

0 250 500 Feet

FIGURE 5

Regulatory Setting

SDSU Fenton Parkway Bridge Biological Technical Report

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4 Thresholds of Significance

The City's *California Environmental Quality Act Significance Determination Thresholds* (City of San Diego 2022) and Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) contain guidelines for determining the significance of impacts to biological resources. For the purposes of this project, significance thresholds have been adapted from the City's Significance Thresholds and Appendix G of the CEQA Guidelines. A potentially significant impact to biological resources would occur if the proposed project would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in the MSCP or other local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on local, state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region.
1. Result in a cumulative impact when considered with other present and probable future projects in the region.

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5 Impact Analysis

5.1 Threshold 1

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

5.1.1 Direct Impacts

Least Bell's Vireo

Least Bell's vireo is a federally and state-listed endangered species and is a covered species under the City's Subarea Plan. Least Bell's vireo has been detected within, and adjacent to, the project site during the 2017, 2019, and 2022 surveys. Figure 6 includes these observations.

The project would result in both permanent (0.80 acres) and temporary impacts (0.38 acres) to southern cottonwood–willow riparian forest and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which have the potential to support this special-status species. Permanent impacts include grading, bridge pier construction, and bridge shading. While vegetation removed under the bridge during construction would be revegetated with riparian species that could support special-status species, including least Bell's vireo, the restored habitat under the bridge may not have equal function and value as the habitat currently present and so is considered a permanent impact in this analysis.

By impacting southern cottonwood–willow riparian forest and the unvegetated channel within the San Diego River, the proposed project would adversely affect suitable habitat for least Bell's vireo, which is a federally and state listed endangered species. Given the presence of least Bell's vireo on-site, this impact is considered **potentially significant** absent mitigation (Impact BIO-1).

Willow Flycatcher, Including Southwestern Willow Flycatcher

Willow flycatcher (*E. traillii*) consists of five subspecies, three of which – *E. t. brewsteri*, *E. t. adastus*, and *E. t. extimus* – are native to Southern California. All three are listed as endangered under CESA, but only *E. t. extimus*, more commonly known as the southwestern willow flycatcher, is also federally listed. In addition, only the southwestern willow flycatcher is known to breed and reside in San Diego County, where it is a covered species under the City's Subarea Plan. The other two willow flycatcher subspecies, while occasionally observed in San Diego County, are considered migrants.

Southwestern willow flycatcher was not observed during focused protocol surveys in 2022, nor were they detected during focused surveys in this stretch of the river in 2017 and 2019 (Dudek 2017, 2019a). Given the lack of possible breeding individuals (i.e., southwestern willow flycatchers) recorded here since 2009 and the lack of *any* willow flycatchers detected during the 2017, 2019, and 2022 focused protocol surveys, it is unlikely that southwestern willow flycatcher occurs within the project site. However, there is suitable habitat in the San Diego River for this species, and thus it has the potential to occur on-site in the future.

The project would result in both permanent (0.80 acres) and temporary impacts (0.38 acres) to southern cottonwood–willow riparian forest and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which could have the potential to support this special-status species in the future. If southwestern willow flycatcher were to occur on-site in the future, impacts to individuals of the species and/or occupied habitat would be considered **potentially significant** absent mitigation (Impact BIO-2).

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally listed threatened species, a CDFW SSC, and a covered species under the City's Subarea Plan. Focused surveys were conducted in 2019 and 2023 to determine presence or absence within the Baccharis-dominated Diegan coastal sage scrub and Diegan coastal sage scrub on-site. No coastal California gnatcatcher were observed. A pair of coastal California gnatcatcher with fledglings was observed approximately 350 feet east of the proposed staging area in the southern portion of the project site during the 2023 surveys. There is suitable coastal sage scrub within the southern portion of the site near this observation that could be used by this species in the future.

No coastal California gnatcatchers were observed in the coastal sage scrub communities north of the San Diego River during the 2019 surveys and have low potential to occur there. The Baccharis-dominated Diegan coastal sage scrub and Diegan coastal sage scrub north of the river is marginal and patchy and not expected to support this species. However, the 1.99-acre patch of coastal sage scrub in the southern portion of the site where the proposed staging area is located is near an observed pair and fledglings and could be used by this species in the future. There are 1.99 acres of temporary impacts associated with this staging area. Impacts to this habitat would be considered **potentially significant** absent mitigation (Impact BIO-3).

Other Special-Status Birds

Other special-status birds were detected within the project site during the focused riparian bird surveys, including Cooper's hawk, yellow-breasted chat, and yellow warbler.

Riparian forest habitat in the San Diego River provides suitable habitat for these species, and the project would result in both permanent (0.78 acres) and temporary impacts (0.38 acres) to southern cottonwood–willow riparian forest and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which could support these special-status species. Impacts to this habitat would be considered **potentially significant** absent mitigation (Impact BIO-4).

Special-Status Amphibians and Reptiles

The southern California legless lizard, orange-throated whiptail, southwestern pond turtle, two-striped gartersnake, and western spadefoot have moderate potential to occur in the riparian vegetation of aquatic habitats within the San Diego River. Orange-throated whiptail also has a moderate potential to occur in the coastal sage scrub habitat south of the river. These species are not federally or state listed as threatened or endangered but are CDFW-designated WLs or SSCs and/or covered species under the City's Subarea Plan.

The project would result in both permanent (0.78 acres) and temporary impacts (0.38 acres) to southern cottonwood–willow riparian forest and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which could have the potential to support these special-status reptiles and amphibians. The project would also result in both permanent impacts (0.07 acres) and temporary impacts (2.03 acres) to coastal sage scrub

communities south of the San Diego River, which could have the potential to support orange-throated whiptail. Impacts to potentially occupied habitat would be considered **potentially significant** absent mitigation (Impact BIO-5).

Special-Status Mammals

The Mexican long-tongued bat, western yellow bat, and western red bat have potential to forage over the project site and could roost within the riparian forests of the San Diego River. These species are not federally or state listed as threatened or endangered but are CDFW SSC. While the project would result in both permanent and temporary impacts to southern cottonwood willow riparian forest (0.78 acres permanent, 0.38 acres temporary) and unvegetated channel (0.03 acres permanent, 0.02 temporary) within the San Diego River, which support these species, it is anticipated that foraging habitat would have similar function and quality after project implementation and that impacts to foraging habitat would not have a substantially adverse effect on these species and would be considered **less than significant**. Maternity roosts are protected under Fish and Game Code and can be considered a nursery site; riparian trees in the San Diego River could provide suitable roosting habitat for these species. Impacts to maternity roosts would be considered **potentially significant** absent mitigation (Impact BIO-6).

Special-Status Invertebrates

There is suitable habitat for Crotch's bumble bee where floral resources are present, primarily in the coastal sage scrub habitat types. There are permanent impacts (0.07 acres) and temporary impacts (2.03 acres) to coastal sage scrub communities. Impacts to potentially occupied habitat would be considered **potentially significant** absent mitigation (Impact BIO-7).

Birds Protected Under the Migratory Bird Treaty Act and Fish and Game Code

Construction activities are anticipated to occur during a period lasting up to 60 weeks, and some activities will occur during the bird nesting season (typically February 1 through September 15). There are numerous birds that could nest within or adjacent to the project site. Therefore, impacts to migratory birds or destruction of active migratory bird nests and/or eggs would be considered a **potentially significant** impact because they are protected under the MBTA and California Fish and Game Code (Impact BIO-8).

Other Species

No special-status fish have potential to occur (see Appendix D2). Fish in the low flow channel could be temporarily disturbed by turbidity, piledriving vibrations, and noise, should in-channel construction activities take place. Most fish would leave the immediate project area. After in-channel activities are complete, reduced numbers of invertebrates (until recolonization is complete) would reduce the food supply for some fish species; however, those effects would be short term and localized.

Invertebrate organisms and fish present in the low flow channel could also be affected should contaminated river sediments be released into the water column during construction-related activities. Contaminates could become incorporated into the surrounding environment and biomagnified in the river's food web, resulting in direct or indirect impacts to organisms present in the river channel. However, upon implementation of avoidance and minimization measures and mitigation listed in Section 6, the release of contaminated sediments into the environment, and the potential for incorporation and biomagnification of contaminates in the food web, would be avoided or reduced.

Special-Status Plants

Two special-status plants were observed within the project site: San Diego County viguiera and San Diego marsh-elder. Grading, vegetation removal, and habitat conversion could directly impact special-status plants if they occur within the construction footprint. San Diego County viguiera occurrences are located along the southern edge of the potential staging area, within a temporary impact area; therefore, impact to San Diego County viguiera is **potentially significant** absent mitigation (Impact BIO-9). Three San Diego marsh-elder occurrences are mapped within the development footprint. Impact to one San Diego marsh-elder is **potentially significant** absent mitigation (Impact BIO-9).

5.1.2 Indirect Impacts

Short-Term Indirect Impacts to Special-Status Plants

Short-term or temporary indirect impacts to special-status plants adjacent to the project site could primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). Short-term indirect impacts associated with project implementation could affect the special-status plants if they occur adjacent to the project site and are described in detail in the following.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Changes in Hydrology. There is the potential for construction to result in hydrologic and water-quality-related impacts adjacent to and downstream of the limits of grading. The hydrologic regime will not be altered since that is dictated by the climate and watershed. Altered hydraulics can have a localized affect immediately adjacent and downstream (off-site) to aquatic, wetland, and riparian vegetation communities. Water-quality impacts could include chemical-compound pollution (fuel, oil, lubricants, paints, release agents, and other construction materials), or increased sediment load. Removal of native vegetation associated with direct impacts could result in localized increased scour and transport of sediment downstream. The low flow channel will remain in place and removal of vegetation will be limited to areas outside of the low flow channel within the impact footprint. In addition, a storm water pollution prevention plan outlining best management practices (BMPs) to reduce discharges of pollutants in storm water from construction sites to the maximum extent practicable and effectively prohibit non-storm water discharges from the construction site will be developed and implemented.

Aerial imagery from the past 10 years indicates that unvegetated areas have been regularly present within the San Diego River floodplain and have likely resulted in the natural mobilization of sediment into and out of the Stadium Wetland Mitigation site during storm events which is consistent with the natural processes of the river system. Nevertheless, absent implementation of mitigation and minimization measures, construction-related impacts could have minimal downstream effects on aquatic, wetland, and riparian vegetation communities, including the adjacent

Stadium Wetland Mitigation site. Implementation of the measures described in Section 6, such as the installation of coir mat ahead of rain events[1], will act as a soil stabilization measure and prevent downstream sedimentation.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect special-status plants. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Short-term indirect impacts to special-status plants associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-10).

Long-Term Indirect Impacts to Special-Status Plants

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed development to special-status plants adjacent to the project site after construction. Permanent indirect impacts associated with project implementation that could affect special-status plants include habitat fragmentation, chemical pollutants, altered hydrology, and non-native invasive species. Each of these potential indirect impacts is discussed in the following.

Chemical Pollutants. The effects of chemical pollutants on special-status plant species are described above. Landscaping has not been finalized; however, only plants that do not need fertilizers will be used in the landscape palette. Additionally, no herbicides or pesticides will be used in the landscaped areas. For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations.

Altered Hydrology. The river's low flow channel will remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations.

Non-native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are well documented in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including, but not limited to, exotic plant competition for light, water, and nutrients, and the formation of thatches that block sunlight from reaching smaller native plants.

The project site already contains invasive species, and other invasive plant species may establish adjacent to the project site and alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within vegetation communities and special-status plant populations.

[1] Coir mat will be installed prior to rain events that are expected to result in surface flows exceeding a depth of 4 feet. Predicted depths will be based on the National Weather Service Advanced Hydrologic Prediction Service for the San Diego River at Fashion Valley, as reported here: https://water.weather.gov/ahps2/hydrograph.php?wfo=sgx&gage=fsnc1

Long-term indirect impacts to special-status plants associated with project implementation are considered **potentially significant** absent mitigation (Impact BIO-11).

Short-Term Indirect Impacts to Special-Status Wildlife Species

Short-term, construction-related, or temporary indirect impacts to special-status wildlife species that have moderate potential to occur (see Appendix D1) would primarily result from construction activities associated with project implementation. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, lighting, chemical pollutants, increased human activity, and non-native animal species.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Noise. Construction-related noise will result from equipment used during construction. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, cited in Lovich and Ennen 2011). The predicted construction-related concurrent phase "without barrier" noise levels for the nearest noise-sensitive receptor range from 68 dBA Leq to 81 dBA Leq over the duration of up to 60 weeks (Dudek 2023b). The predicted construction-related concurrent phase "with barrier" noise levels for the nearest noise-sensitive receptor range from 60 dBA Leq to 71 dBA Leq over the duration of 60 weeks (Dudek 2023b). The noise model ranges are based primarily on construction equipment, such as (but not limited to) pile drivers, excavators, cranes, and loaders.

The coastal sage scrub located outside of the project work area in the north was surveyed for coastal California gnatcatcher in 2019 and the results were negative. While the probability of coastal California gnatcatcher occurring here is low, construction-related noise impacts could affect upland bird species within this area.

Lighting. Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if performed at all.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through poisoning or altering suitable habitat.

Increased Human Activity. Construction activities adjacent to the San Diego River can deter wildlife from using already constrained habitat areas near the project site.

Non-native Animal Species. Trash from construction-related activities could attract invasive predators (e.g., ravens [*Corvus corvax*], coyotes [*Canis latrans*], rats [*Rattus* spp.], Virginia opossums [*Didelphis virginiana*], raccoons [*Procyon lotor*], American crows [*Corvus brachyrhynchos*], and gulls [*Larus* spp.]) that could impact the wildlife species in the project site or surrounding areas.

Short-term indirect impacts to special-status wildlife species associated with project implementation would be considered **potentially significant** absent mitigation (Impact BIO-12).

Long-Term Indirect Impacts to Special-Status Wildlife Species

Potential long-term or permanent indirect impacts associated with project implementation to special-status wildlife species that have been observed or have high or moderate potential to occur (see Appendix D1) include non-native, invasive plant and animal species; lighting; increased vehicle traffic; and altered hydrology.

Non-native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are well-documented in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including, but not limited to, the fact that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for special-status wildlife species. In addition, trash can attract invasive predators, such as ravens and coyotes, that could impact the wildlife species in the project site. Least bell's vireo, which have been documented in the San Diego River, are susceptible to nest parasitism from brown-headed cowbirds (*Molothrus ater*). Microhabitat cover is an important habitat feature which influences incidence of brown-headed cowbird parasitism of vireo nests, with more cover near a nest reducing the chances that a cowbird will observe vireo nesting activity and subsequently parasitize a nest (Sharp and Kus 2010). Removal of riparian habitat reduces the amount of available habitat utilized by vireos or may reduce the amount of dense riparian cover available for hiding nests, which increases the risks of nest parasitism. Therefore, bridge construction activities that reduce riparian habitat or cover may increase vireo susceptibility to nest parasitism.

Noise. Operation-related noise, including noise from car traffic on the new bridge, can have the same type of impacts to wildlife as described above under the short-term indirect impacts. The measured ambient noise levels within the San Diego River near the project area and riparian vegetation adjacent to Fenton Parkway ranged from 51 dBA Leq to 64 dBA Leq (Dudek 2023). Some of these measured levels are higher than the 60 dBA hourly Leq threshold typically used for analyzing impacts to special-status species, such as least Bell's vireo and coastal California gnatcatcher. The predicted "with project" traffic noise levels for the project area in 2035 (the worst-case traffic noise scenario for the project) range from 55 to 72 dBA Leq (Dudek 2023). Dudek acousticians analyzed two scenarios to determine if there would be significant indirect impacts affecting the occupation of otherwise potentially suitable habitat for special-status species: 1) areas that currently have noise levels averaging less than 60 dBA Leq that would exceed 60 dBA Leq under the modeled noise levels in 2035 or 2) areas where the change between the current average noise levels and modeled noise levels in 2035 exceeds 3 dBA Leq. It is assumed that a 3dBA Leq increase is the threshold for an increase that would be most perceptible to wildlife. These areas are depicted on Figure 7, Noise Modeling. The height of the bridge (20 feet) from the ground and the walls of the bridge (7.5 feet) sufficiently buffer habitat and result in modeled noise levels at approximately 2 meters from the ground (with 2035 levels) that are almost always less than 60 dBA Leq within the San Diego River. Least Bell's vireo typically nest 0.6-0.9 meters (2-3 ft), but sometimes 0.3-3.0 meters (1-10 ft), off the ground (USFWS 1998, Kus et al. 2022, Zeiner et al. 1998-1990). Where noise levels were higher, the existing ambient conditions are generally higher than 60 dBA Leq at current noise levels; birds in these areas have likely adapted to the higher noise levels through increasing their own vocalization levels (California Department of Transportation 2016).

Least Bell's vireo's breeding territory sizes ranges by region, but in a study in the San Diego River the territory size was approximately 0.7 hectares or 1.7 acres (7,000 square meters) (Kus et al. 2022). In 2016, The California Department of Transportation published the *Technical Guidance for Assessment and Mitigation of the Effects of Highway and Road Construction Noise on Birds*. This document describes communication types (comfortable communication, individual recognition, discrimination, and detection) at varying distances depending on traffic

noise levels (dBA). At 60 dBA, birds can comfortably communicate up to 60 meters, recognition of vocalization can occur up to 210 meters, discrimination between two vocalizations at about 270 meters, and detection at about 340 meters (California Department of Transportation 2016). The diameter of 7,000 square meters (estimated breeding territory) is approximately 94 meters, meaning birds can recognize vocalizations well within noise levels at 60 dBA. At higher levels, such as 65 dBA, birds can comfortably communicate up to 35 meters, recognition of vocalization can occur up to 125 meters, discrimination between two vocalizations at about 150 meters, and detection at about 180 meters (California Department of Transportation 2016). This indicates that birds such as least Bell's vireo could continue to effectively communicate within their territories in the San Diego River after the bridge is built and at maximum modeled noise levels.

Areas where noise levels will result in a 3 dBA Leq (or more) change between the current average noise levels and modeled noise levels in 2035 are limited to the fringes of the San Diego River where it meets the Mission City Parkway and Camino del Rio North (southern boundary of the river) or near the Mission Valley River Park, trolley tracks, Fenton Parkway and River Park Road (northern boundary of the river). Birds such as least Bell's vireo have not been recorded along these outer fringes of the river and are less likely to nest in these areas compared to the interior protected portions of the river. The modeled areas with potentially significant noise levels (see Figure 7) that intersect with southern cottonwood willow riparian forest in the north are within the permanent impact area; modeled noise levels do not result in additional impacts to this habitat beyond the permanent impact area.

Lighting. Standard cobra-head light fixtures will be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associated habitat will occur due to car headlights from traffic on the new bridge. Based on feedback received during final design, including input from the City, SDSU may adjust the specific types of light poles, arms, and luminaires to suit aesthetics, if necessary.

Increased Human Activity/Vehicle Traffic. The proposed project includes a bridge spanning the San Diego River, where currently none exists. Wildlife associated with the San Diego River could be subject to increased car–wildlife interaction (and lighting/noise, discussed above) due the presence of increased traffic. A study performed by Dudek (2018) tracked avian mortalities and avoidance flight behaviors at the West Mission Bay Bridge (along the San Diego River, but coastal) in 2017 resulting in 100 surveys over 21 weeks (16,000 hours of observation time). The study detected over- or under-flights of the bridge by 12,854 birds with only 6 avian mortalities detected including 3 western gulls, and double-crested cormorant, western grebe, and rock pigeon. Bridge and vehicle avoidance behavior was detected for 16 species, primarily in the central portion of the bridge and highest at dawn or dusk periods. Vehicles on the bridge could result in occasional avian mortality due to collisions with vehicles. Birds such as doves, barn owls (*Tyto alba*), and waterfowl may fly in the elevation range of the bridge (i.e., 25-30 feet) and collide with vehicles. Rock pigeons and doves are likely to sit on bridge structural components. However, smaller passerine birds such as least Bell's vireo, yellow warbler, yellow-breasted chat, etc. are expected to avoid the road surface and traffic areas of the bridge as they typically fly shorter distances (outside of migration) and within the tree canopy and understory to avoid predation and are less likely to fly over the bridge and collide with vehicles. Least Bell's vireo capture insects through foliage gleaning or hover-gleaning mid-air and have been documented to typically forage below 4 meters (13 feet) (Salata 1983) and 3 to 6 meters (9.8 feet to 22.8 feet) (Miner 1989).

Altered Hydrology. The river's low flow channel will remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. The placement of piers and abutments within the San Diego River could alter local aquatic habitat by constraining the channel at times during high flows, or redirecting flows around

the piers leaded to scouring and creation of artificial pools or other habitat features adjacent to the piers. As described in the Hydraulic Report for the San Diego State University Mission Valley Campus Fenton Parkway Bridge report (Chang Consultants 2023), the bridge causes a minor decrease in base flood elevations (BFEs) in the immediate two cross-sections just upstream, then a slight increase from cross sections 43153 to 44513 (Chang Consultants 2023). The decrease occurs because vegetative cover is reduced by the bridge shadow. The nearly negligible BFE increases are contained with the southerly San Diego River channel bank, so do not cause adverse off-site impacts. In addition, the bridge has over 6 feet of freeboard over the BFE, so can adequately convey the 100-year flow. Less intense storm events, such as 10-year flows, would have even less impacts compared to the 100-year flow. No long-term impacts to wildlife within the river are anticipated.

For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations.

Long-term indirect impacts to special-status wildlife species associated with project implementation would be considered **potentially significant** absent mitigation (Impact BIO-13).

5.2 Threshold 2

Would the project have a substantial adverse effect on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

5.2.1 Direct Impacts

Sensitive Natural Communities

As described in Section 3.1.1, the project site was surveyed for vegetation communities. The results of the surveys are provided in Table 2. A total of three vegetation communities were mapped on the project site, including the native vegetation communities of Baccharis-dominated Diegan coastal sage scrub, Diegan coastal sage scrub, and southern cottonwood–willow riparian forest; and two non-native vegetation communities—developed and unvegetated channel. Anticipated temporary and permanent impacts to these communities/land covers are shown in Tables 4 and 5 and on Figure 7, Impacts to Biological Resources.

Table 4. Temporary Impacts to Vegetation Communities/Land Cover Types

Habitat Types/Vegetation Communities	City of San Diego Habitat Tier Code	Existing Acres	Total Temporary Impacts (acres)
Native Vegetation Communities			
Baccharis-dominated Diegan Coastal Sage Scrub	Tier II	0.03	N/A
Diegan Coastal Sage Scrub	Tier II	2.05	2.03
Southern Cottonwood–Willow Riparian Forest	City Wetland (Riparian Habitat)	1.18	0.38

Table 4. Temporary Impacts to Vegetation Communities/Land Cover Types

Habitat Types/Vegetation Communities	City of San Diego Habitat Tier Code	Existing Acres	Total Temporary Impacts (acres)
Subtotal	*N/A*	*3.27*	*2.41*
Non-Native Vegetation Community/Land Cover Types			
Urban/Developed	Tier IV	9.58	8.44
Non-Vegetated Channel	City Wetland (Natural Flood Channel)	0.04	0.02
Subtotal	*N/A*	*9.62*	*8.46*
Total*	**N/A**	**12.89**	**10.86**

Note:
* Acreages may not sum due to rounding.

Table 5. Permanent Impacts to Vegetation Communities/Land Cover Types

Habitat Types/Vegetation Communities		Existing On-Site Acres	Total Permanent Impacts (acres)
Native Vegetation Communities			
Baccharis-Dominated Diegan Coastal Sage Scrub	Tier II	0.03	0.03
Diegan Coastal Sage Scrub (Restored)	Tier II	2.05	0.03
Southern Cottonwood–Willow Riparian Forest	City Wetland (Riparian Habitat)	1.18	0.80
Subtotal	*N/A*	*3.27*	*0.86*
Non-Native Vegetation Community/Land Cover Types			
Urban/Developed	Tier IV	9.58	1.14
Non-Vegetated Channel	City Wetland (Natural Flood Channel)	0.04	0.03
Subtotal	*N/A*	*9.62*	*1.17*
Total*	**N/A**	**12.89**	**2.03**

Note:
* May not sum due to rounding.

There are temporary impacts to 2.03 acres of Diegan coastal sage scrub and 8.44 acres of urban/developed land. Temporary impacts to Diegan coastal sage scrub would be considered **potentially significant** absent mitigation (Impact BIO-15).

Southern cottonwood–willow riparian forest is regulated as riparian habitat by the California Fish and Game Code Section 1600. The layback cut, potential staging, and work area would result in temporary impacts to up to 0.38 acres of southern cottonwood–willow riparian forest. Temporary impacts to these sensitive natural communities would be considered **potentially significant** absent mitigation (Impact BIO-14).

Project implementation would result in permanent impacts to Baccharis-dominated Diegan coastal sage scrub (0.03 acres), 0.03 acres of Diegan coastal sage scrub, and 1.14 acres of urban/developed. Permanent impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub are considered **potentially significant** absent mitigation (Impact BIO-14). Project implementation would permanently impact 0.80 acres of southern cottonwood–willow riparian forest. Permanent impacts to this sensitive natural community would be considered **potentially significant** absent mitigation (Impact BIO-14).

Jurisdictional Waters

Impacts to jurisdictional features are summarized in Tables 6 and 7. Temporary impacts total approximately 0.40 acres. Temporary impacts to jurisdictional features would be considered **potentially significant** absent mitigation (Impact BIO-15). Permanent impacts total approximately 0.83 acres, including 0.50 acres of wetland, 0.07 acres of non-wetlands waters/CDFW riparian area and 0.27 acres of CDFW riparian area. Permanent impacts to jurisdictional features would be considered **potentially significant** absent mitigation (Impact BIO-15).

Table 6. Temporary Impacts to Jurisdictional Aquatic Resources

Habitat Types/Vegetation Communities	Temporary Impacts[1] (acres)
USACE/RWQCB/CDFW/City of San Diego Jurisdictional	
Non-wetland Waters/City Wetland	0.02
Wetland/City Wetland	0.32
Subtotal	*0.34*
CDFW/City of San Diego Jurisdictional	
Riparian Area/City Wetland	0.06
Total*	**0.40**

Note:
1 City regulations do not differentiate between temporary and permanent wetland impacts. This impact would be mitigated as permanent and in accordance with City of San Diego Biology Guidelines' Table 2a for an EPP.
* May not sum due to rounding.

Table 7. Permanent Impacts to Jurisdictional Aquatic Resources

Jurisdictional Aquatic Resource	Permanent Impacts (acres)
USACE/RWQCB/CDFW/City of San Diego Jurisdictional	
Non-wetland Waters–Riparian Area/City Wetland	0.07
Wetland/City Wetland	0.50
Subtotal	*0.57*
CDFW/City of San Diego Jurisdictional	
Riparian Area/City Wetland	0.27
Total*	**0.83**

Note:
* May not sum due to rounding.

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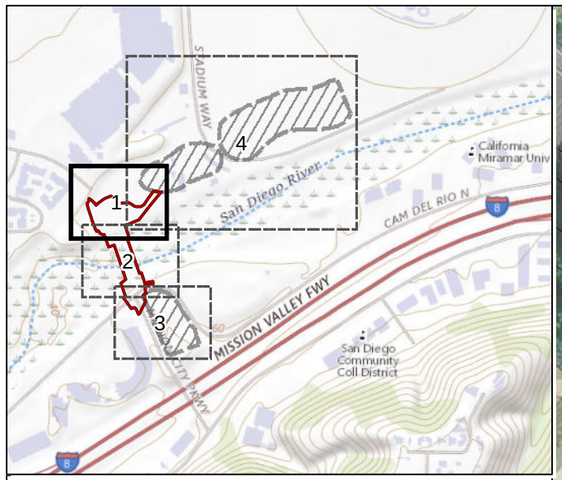

- Project Work Area
- Potential Staging Area
- MHPA
- Prior Permit Area
- Permanent Impact
- Temporary Impact
- Veg Communities/Land Covers
  - BD-CSS,Baccharis-dominated Coastal Sage Scrub
  - CSS,Coastal Sage Scrub
  - DEV, Developed
  - SCWRF, Southern Cottonwood Willow Riparian Forest
- Jurisdictional Aquatic Resources
  - USACE/RWQCB/CDFW Non-Wetland Waters/City Wetlands
  - USACE/RWQCB Non-Wetland Waters/CDFW Riparian/City Wetlands
  - USACE/RWQCB/CDFW/City Wetlands
  - CDFW/City Wetlands
  - Wetland Sampling Point
- Special-Status Plants
  - *Iva hayesiana*, San Diego marsh-elder
- Special-Status Wildlife (2022)
  - yellow warbler
  - brown-headed cowbird
- Special-Status Wildlife (2019)
  - Cooper's hawk
  - yellow warbler
  - yellow-breasted chat
  - least Bell's vireo
- Special-Status Wildlife (2017)
  - least Bell's vireo

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

N

0 25 50 Feet

FIGURE 6 - View 1

Impacts to Biological Resources

SDSU Fenton Parkway Bridge Biological Technical Report

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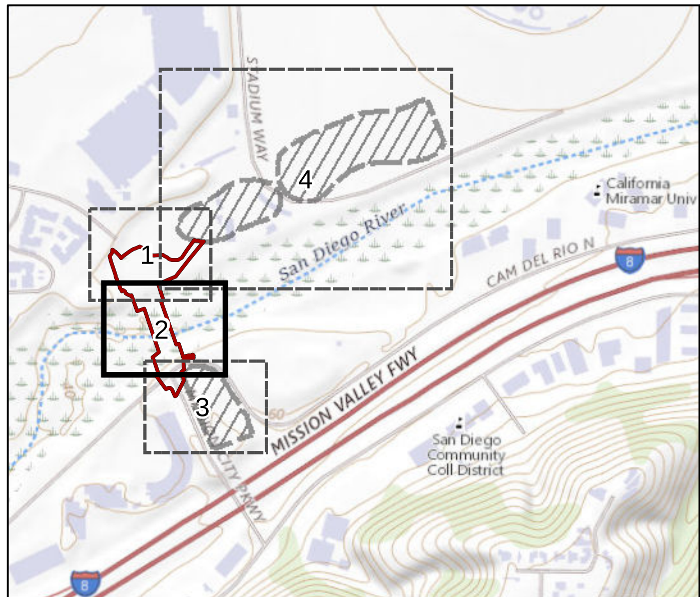

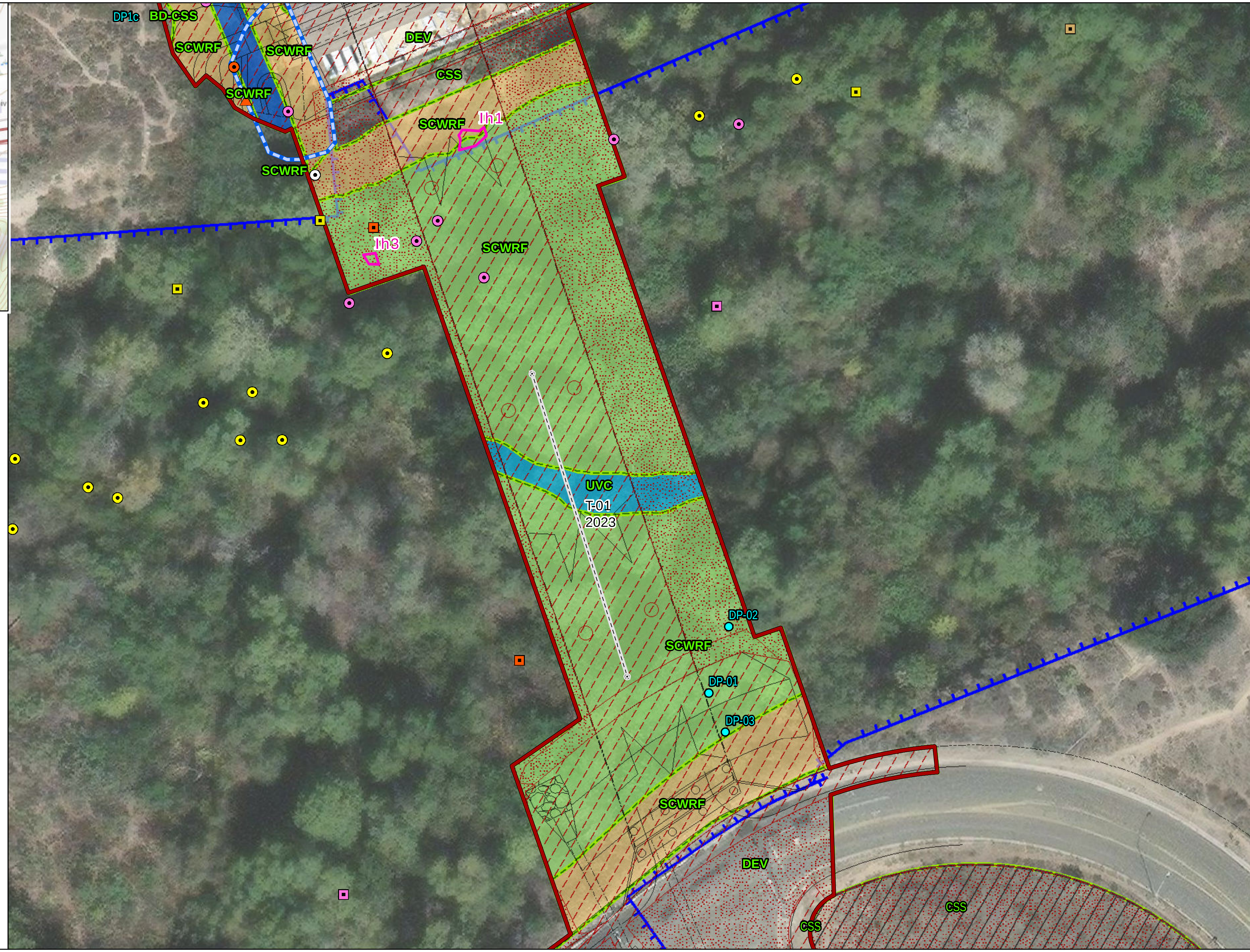

- Project Work Area
- Potential Staging Area
- MHPA
- Permanent Impact
- Temporary Impact
- Veg Communities/Land Covers
  - BD-CSS, Baccharis-dominated Coastal Sage Scrub
  - CSS, Coastal Sage Scrub
  - DEV, Developed
  - SCWRF, Southern Cottonwood Willow Riparian Forest
  - UVC, Unvegetated Channel

Jurisdictional Aquatic Resources
- USACE/RWQCB/CDFW Non-Wetland Waters/City Wetlands
- USACE/RWQCB Non-Wetland Waters/CDFW Riparian/City Wetlands
- USACE/RWQCB/CDFW/City Wetlands
- CDFW/City Wetlands
- Wetland Sampling Point
- Transect

Special-Status Plants
- *Iva hayesiana*, San Diego marsh-elder

Special-Status Wildlife (2022)
- least Bell's vireo
- yellow warbler
- yellow-breasted chat
- brown-headed cowbird

Special-Status Wildlife (2019)
- Cooper's hawk
- yellow warbler
- yellow-breasted chat
- least Bell's vireo

Special-Status Wildlife (2017)
- least Bell's vireo

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

0 25 50 Feet

FIGURE 6 - View 2

Impacts to Biological Resources

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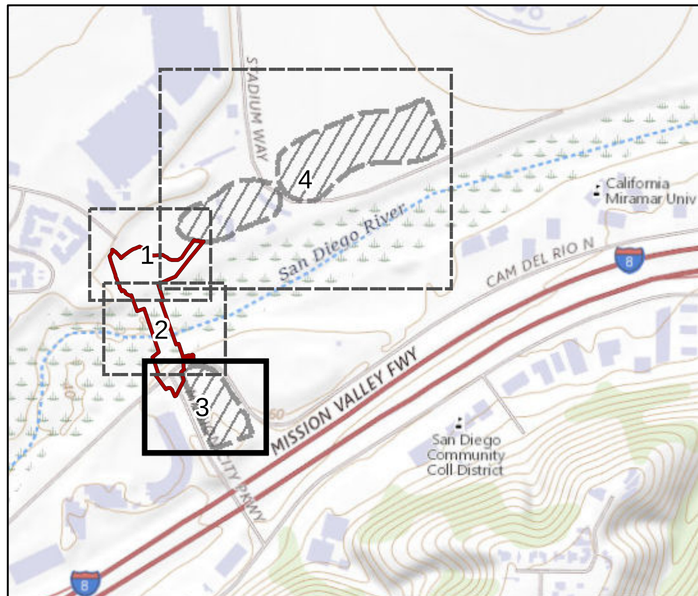

Project Work Area
Potential Staging Area
MHPA
Permanent Impact
Temporary Impact
Veg Communities/Land Covers
DEV, Developed
SCWRF, Southern Cottonwood Willow Riparian Forest
Jurisdictional Aquatic Resources
USACE/RWQCB/CDFW Non-Wetland Waters/City Wetlands
USACE/RWQCB Non-Wetland Waters/CDFW Riparian/City Wetlands
USACE/RWQCB/CDFW/City Wetlands
CDFW/City Wetlands
Special-Status Plants
Viguiera laciniata, San Diego County viguiera

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

0 25 50 Feet

FIGURE 6 - View 3
Impacts to Biological Resources

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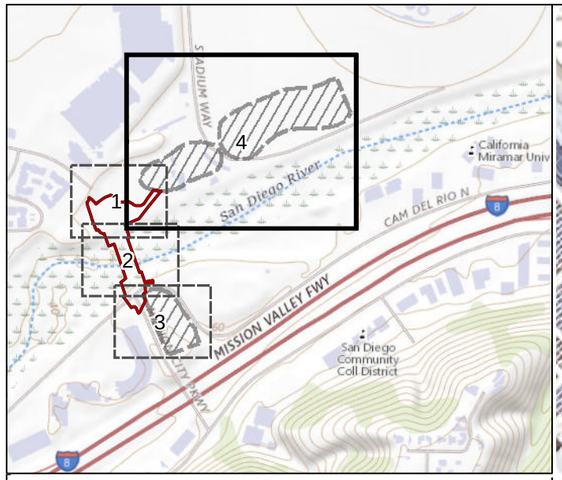

- Project Work Area
- Potential Staging Area
- MHPA
- Permanent Impact
- Temporary Impact
- Veg Communities/Land Covers
  - CSS,Coastal Sage Scrub
  - DEV, Developed
- Special-Status Wildlife (2022)
  - least Bell's vireo
  - yellow warbler
  - yellow-breasted chat
  - brown-headed cowbird
- Special-Status Wildlife (2019)
  - yellow warbler
  - yellow-breasted chat
  - least Bell's vireo
- Special-Status Wildlife (2017)
  - least Bell's vireo

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK N 0 40 80 Feet

FIGURE 6 - View 4
Impacts to Biological Resources
SDSU Fenton Parkway Bridge Biological Technical Report

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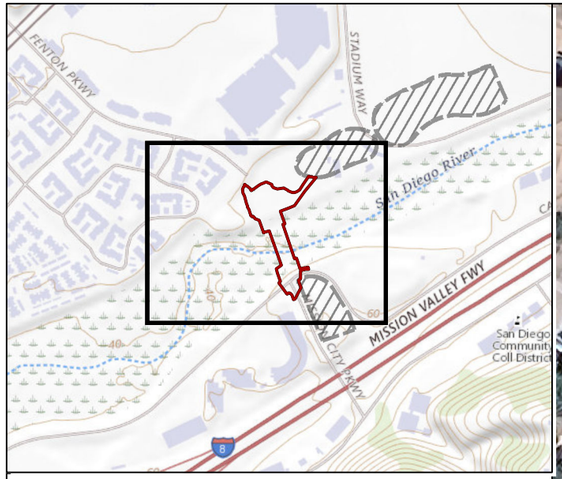

- Project Work Area
- Road Segment
- Areas with Potentially Significant Noise Levels (? 3+ dBA Leq)
- Worst Month (within breeding season) Concurrent Phase Construction Noise, 60 dBA Contour

Noise Contour Zones (2035)

- Greater than 70 dBA
- 65 to 70 dBA
- 60 to 65 dBA
- Less than 60 dBA

- Veg Communities/Land Covers
  - BD-CSS,Baccharis-dominated Coastal Sage Scrub
  - CSS,Coastal Sage Scrub
  - DEV, Developed
  - DH, Disturbed Habitat
  - SCWRF, Southern Cottonwood Willow Riparian Forest
  - UVC, Unvegetated Channel

SOURCE: GOOGLE 4/2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

DUDEK

0 75 150 Feet

FIGURE 7
Noise Modeling
SDSU Fenton Parkway Bridge Biological Technical Report

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5.2.2 Indirect Impacts

Sensitive Natural Communities (Short-Term and Long-Term)

Potential short-term and long-term indirect impacts on sensitive natural communities associated with project implementation would be the same as those described for special-status plants in Section 5.1.2 (Impacts BIO-9, BIO-10, and BIO-11). These impacts would be considered **potentially significant** absent mitigation.

Jurisdictional Waters (Short-Term)

The City's Stadium Wetland Mitigation site is located adjacent to the proposed project (see Figure 5). Potential short-term or temporary indirect impacts to jurisdictional waters and wetlands adjacent to or downstream from the project site would primarily result from construction activities, and include impacts related to or resulting from changes in hydrology resulting from construction, including sedimentation and erosion, and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts associated with project implementation that could affect jurisdictional waters and wetlands of the San Diego River and a drainage (Figure 6) are described in detail as follows.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts within the San Diego River. The effects of changes in hydrology would be similar to those described in Section 5.1.2.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect jurisdictional waters. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Short-term indirect impacts to jurisdictional waters associated with project implementation would be considered **potentially significant** absent mitigation (Impact BIO-16).

Jurisdictional Waters (Long-Term)

Long-term (operation-related) or permanent indirect impacts could result from the bridge spanning the jurisdictional waters and wetlands of the San Diego River after construction, including impacts related to operation and maintenance. Operation and maintenance activities will occur within the project site. Permanent indirect impacts associated with project implementation that could affect jurisdictional waters and wetlands include habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, and increased human activity, especially vehicle traffic. Each of these potential indirect impacts is discussed as follows.

Chemical Pollutants. The effects of chemical pollutants on jurisdictional waters and wetlands are described above.

Altered Hydrology. The river's low flow channel will remain in place, with water flowing unobstructed through the floodplain during higher flood events (see discussion in Section 5.1.2). For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations.

Non-native, Invasive Plant and Animal Species. The effects of chemical pollutants would be similar to those described in Section 5.1.2. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within jurisdictional waters and wetlands.

Increased Human Activity/Vehicle Traffic. The effects of increased human activity and vehicle traffic would be similar to those described in Section 5.1.2.

Long-term indirect impacts to jurisdictional waters associated with project implementation would be considered **potentially significant** absent mitigation (Impact BIO-17).

5.3 Threshold 3

Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Project implementation would permanently impact 0.82 acres of southern cottonwood–willow riparian forest. Permanent impacts to this sensitive natural community would be considered **potentially significant** absent mitigation (Impact BIO-14).

Impacts to jurisdictional features are summarized in Tables 6 and 7. Temporary impacts total approximately 0.40 acres. Temporary impacts to jurisdictional features would be considered **potentially significant** absent mitigation (Impact BIO-15). Permanent impacts total approximately 0.85 acres. Permanent impacts to jurisdictional features would be considered **potentially significant** absent mitigation (Impact BIO-15).

Short-term and long-term indirect impacts to state and federal wetlands would be considered **potentially significant** absent mitigation (see Impacts BIO-16 and BIO-17).

5.4 Threshold 4

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

5.4.1 Direct Impacts

While the project site is 74% developed, the proposed Fenton Parkway Bridge crosses the San Diego River, which functions as a regionally important wildlife corridor and live-in habitat for species. It is expected that wildlife movement within the San Diego River corridor will be impacted during construction due to vegetation removal, presence of ongoing construction activity, fencing, noise, lighting, and the presence of equipment and bridge falsework. However, many of the potentially affected species will be able to move through the area at night or crepuscular periods, when work has ceased and when a majority of the anticipated mammalian species (e.g., coyote, bobcat, mesocarnivores) are expected to be active. Species that would normally move through the riparian forests would have limited ways to move up or downstream through the San Diego River during construction activities (developed areas surrounding the site make it difficult or impossible for wildlife to go around the construction areas). Temporary fencing will be installed in the work area to prevent impacts to resources outside of the limits of work. Due to the potential for flood events in the river, the fencing material may be more substantial

than the standard orange construction fencing. If fencing such as chain-link fencing is required within the river, it will be constructed to allow for wildlife to continue to move through the river. The proposed conditions of the San Diego River floodplain are anticipated to be very similar to existing conditions and therefore would not limit movement for ground-based species any more than current conditions. Under both current and proposed conditions, few species would be expected to attempt movements during these rain events and no special-status ground-based species are expected to be affected. Avian species flying above the riparian canopy may have increased vehicle interaction risk after project completion due to traffic on the new bridge, though as discussed in Section 3.1.7 the area currently supports over 25 bridges, with many supporting high-volume traffic.

Because the bridge structure provides a much greater openness ratio than the minimum recommended 0.8, the structure design itself is not expected to affect wildlife movement ability.

Short-term and long-term direct impacts to the San Diego River wildlife corridor would be considered **potentially significant** absent mitigation (Impacts BIO-18 and BIO-19).

Special-Status Bat Roosts

The impacts to the riparian forest could impact roosting bats (including maternity roosts). While specific surveys for bats were not done and bats were not observed during various biological resource surveys done on or adjacent to the project site, the riparian trees provide suitable roosting habitat for some bats species, including Mexican long-tongued bat, western yellow bat, and western red bat. Maternity roosts are protected under Fish and Game Code and can be considered a nursery site. Impacts to maternity roosts would be considered **potentially significant** absent mitigation (Impact BIO-6).

5.4.2 Indirect Impacts

Short-Term

The project site is within the San Diego River and is an important habitat area for wildlife and possibly local wildlife movement, particularly birds. Short-term indirect impacts to the San Diego River could result from increased human activity lighting (possible bridge-lighting and vehicle-headlight overspill), and noise (traffic and pedestrian-related).

Increased Human Activity. As described in Section 1.4.3, construction activities would generally be limited to between 7:00 a.m. and 5:30 p.m. Monday through Saturday, which would be consistent with the provisions of the City's noise ordinance. However, limited nighttime and Sunday work may be required. Daytime construction activities would have less effects on wildlife species such as mammals that are most active in evenings and nighttime; however, these species could be affected if nighttime construction occurs near natural habitat areas. Wildlife species such as birds, rabbits, and lizards are active in the daytime. The presence of construction activities within the San Diego River would impact wildlife living and moving through the area day or night.

Lighting. Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if at all. If nighttime work occurs, lighting could impact wildlife movement in and use of the immediate vicinity.

Noise. Construction-related noise will occur from equipment used during vegetation clearing. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking),

damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). The predicted construction-related concurrent phase "without barrier" noise levels for the nearest noise-sensitive receptor range from 68 dBA Leq to 81 dBA Leq over the duration of up to 60 weeks (Dudek 2023b). Several options would be reviewed and implemented as feasible to reduce noise from construction activities (see Section 7). The predicted construction-related concurrent phase "with barrier" noise levels for the nearest noise-sensitive receptor range from 60 dBA Leq to 71 dBA Leq over the duration of 60 weeks (Dudek 2023b). The noise model ranges are based primarily on construction equipment, such as (but not limited to) pile drivers, excavators, cranes, and loaders.

The coastal sage scrub located outside of the project work area in the north was surveyed for coastal California gnatcatcher in 2019 and the results were negative. While the probability of coastal California gnatcatcher occurring here are low, construction-related noise impacts could affect upland bird species within this area.

Short-term indirect impacts to wildlife movement would be considered **potentially significant** absent mitigation (Impact BIO-18).

Long-Term

Long-term indirect impacts include noise, lighting, and increased human activity.

Noise. The noise impacts would be the same as those described in Section 5.1.2 above.

Lighting. Standard cobra-head light fixtures will be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associated habitat will occur due to car headlights from traffic on the new bridge. There will likely be lighting overspill from vehicles at night. This can have a negative effect on species occurring within the affected areas. Based on the bridge design and elevations, it is anticipated that any vehicular light spill will affect the adjacent tree canopy (and species occurring within the canopy) and not the lower movement areas. Therefore, light spill is expected to not pose much deterrence to ground-based wildlife moving along the river at night.

Increased Human Activity/Vehicle Traffic. As described above, the proposed bridge would connect existing developed areas, but its placement over the San Diego River could increase noise, vehicle lights, and disturbance on the bridge above this important wildlife corridor. Wildlife species that use the San Diego River could be impacted once construction is complete in a variety of ways, ranging from people throwing trash over the bridge (including cigarette butts leading to fire), to accidents releasing chemicals, or any number of other hypothetical situations. Development of the bridge could create shaded, disturbed areas that might increase encampments and access in the river corridor. There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. In addition, abutments will be designed to limit abutment clearance and slopes intersecting with bridge abutments will be angled to limit accessibility and the potential for encampments to be established. Because there is no other option for wildlife in the vicinity, the level of disturbance and disruption will likely be tolerated by wildlife species that use the corridor, and use of the San Diego River is not expected to decrease over time due to the project.

Vehicles on the bridge could result in avian mortality due to collisions with vehicles. Birds such as doves, barn owls (*Tyto alba*), and ducks may fly in the elevation range of the bridge (i.e., 25-30 feet) and collide with vehicles.

However, smaller passerine birds such as least Bell's vireo, yellow warbler, yellow-breasted chat, etc. typically fly within smaller distances in the tree canopy and understory and are less likely to fly over the bridge and collide with vehicles. Least Bell's vireo capture insects through foliage gleaning or hover-gleaning mid-air; they have been documented foraging below 4 meters (13 feet) (Salata 1983) and 3 to 6 meters (9.8 feet to 22.8 feet) (Miner 1989).

Long-term indirect impacts to wildlife movement would be considered **potentially significant** absent mitigation (Impact BIO-19).

5.5 Threshold 5

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The lead agency, the State of California, is a state agency; therefore, it is not subject to the policies and ordinances set forth by local agencies such as the City or County of San Diego. The City of San Diego does not have a tree protection policy or other ordinance such as would apply to natural habitat such as present in the project work area. Deviations to the wetland regulations in Section 143.0141(b) may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project (EPP) Option, the Economic Viability (EV) Option, or the Biologically Superior (BS) Option according to the City's LDC Section 143.0510(d). The Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan Circulation Element as a proposed roadway connection, and thus qualifies as an Essential Public Project.

Therefore, the project would not conflict with local policies and ordinances and **no impact** would occur.

5.6 Threshold 6

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?

5.6.1MSCP Consistency Analysis

Compliance with MHPA Guidelines

According to the Subarea Plan, the project site is located within an urban habitat area. The Subarea Plan identifies specific guidelines for features that were incorporated into the MHPA, including the San Diego River, which are required to be implemented for take authorization of MSCP Covered Species. Guideline B15 states: "Native vegetation shall be restored as a condition of future development proposals along this portion of the San Diego River Corridor."

Mitigation Measure (MM)-BIO-17 requires temporarily impacted areas to be restored to their original condition and the preparation of a conceptual restoration plan outlining these restoration activities, subject to review and approval by City of San Diego, including PUD and MSCP reviewers. The conceptual restoration plan shall be consistent with

the long-term maintenance requirements for the City of San Diego Stadium Wetland Mitigation Site and will satisfy the requirements of MHPA Guideline B15 by restoring temporarily impacted native vegetation within the MHPA.

Compliance with the Conditions of Coverage for Impacts to Covered Wildlife Species

This subsection provides the project's analysis of the Conditions of Coverage, including Area Specific Management Directives (ASMDs), outlined in Appendix A of the City's MSCP Subarea for MSCP Covered Species. In addition to project-specific mitigation, the project is required to implement the conditions, as stated in Appendix A of the City's MSCP Subarea for MSCP Covered Species, for each covered species proposed to be impacted. The project must demonstrate how the Conditions of Coverage (or ASMDs) would be implemented in order for the species to be considered "covered" by the MSCP and issue take authority under the City Incidental Take Permit. Table 8 provides the Conditions of Coverage for each covered species that has a potential to be impacted by the project and outlines the project compliance with the applicable Conditions of Coverage.

Table 8. Compliance with Conditions of Coverage for Impacts to Covered Wildlife Species

Covered Species	Conditions of Coverage	Project Compliance
Birds		
Cooper's hawk	ASMDs must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.	MM-BIO-6 requires the establishment of 500-foot avoidance buffers around raptor nests.
Western bluebird	None.	Not applicable.
Southwestern willow flycatcher	Jurisdictions must require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions must require monitoring and control of cowbirds. ASMDs must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 1 and May 1 (i.e., outside of the nesting period).	Focused protocol surveys for southwestern willow flycatcher were conducted on the project site in 2017, 2019, and 2022 (Dudek 2017, 2019a, 2022a, 2022b). All vegetation clearing will occur between September 15 and March 15. MM-BIO-1, which requires habitat mitigation and take avoidance, and MM-BIO-2, which requires habitat mitigation, will be implemented to mitigate direct impacts to this species. Noise generating project activities that may disturb this species will be conducted outside of the breeding season to the extent possible. For project activities that are conducted during the breeding season, indirect impacts due to construction noise would be mitigated by implementation of MM-BIO-15, which requires noise monitoring and noise-reducing strategies/features to be utilized where possible, including but not limited to the utilization of quieter equipment, adherence to equipment maintenance schedules, the installation of temporary sound barriers, or shifting construction work further from the nest. Other potential indirect impacts during construction will be mitigated

Table 8. Compliance with Conditions of Coverage for Impacts to Covered Wildlife Species

Covered Species	Conditions of Coverage	Project Compliance
		by implementation of MM-BIO-8 and MM-BIO-9, requiring delineation of disturbance limits and biological monitoring, respectively. Long-term, development-related edge effects would be mitigated by implementation of MM-BIO-11, MM-BIO-13, and MM-BIO-14. which require a lighting plan, signage/barriers, and restrictions on landscape planting. MM-BIO-16, which requires initiation of a brown-headed cowbird trapping program within the project area, as necessary, would mitigate potential impacts resulting from reduced riparian habitat or cover, which could increase flycatcher susceptibility to nest parasitism by cowbirds.
coastal California gnatcatcher	ASMDs must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.	Implementation of MM-BIO-11, MM-BIO-13, and MM-BIO-14. which require a lighting plan, signage/barriers, and restrictions on landscape planting.
Least Bell's vireo	Jurisdictions will require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Jurisdictions must require new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds to monitor and control cowbirds. ASMDs must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).	Focused protocol surveys for least Bell's vireo were conducted on the project site in 2017, 2019, and 2022 (Dudek 2017, 2019a, 2022a, 2022b). All vegetation clearing will occur between September 15 and March 15. MM-BIO-1, which requires habitat mitigation and take avoidance, and MM-BIO-2, which requires habitat mitigation, will be implemented to mitigate direct impacts to this species. Noise generating project activities that may disturb this species will be conducted outside of the breeding season to the extent possible. For project activities that are conducted during the breeding season, indirect impacts due to construction noise would be mitigated by implementation of MM-BIO-15, which requires noise monitoring and noise-reducing strategies/features where possible, including but not limited to the utilization of quieter equipment, adherence to equipment maintenance schedules, and the installation of temporary sound barriers. Other potential indirect impacts during construction will be

Table 8. Compliance with Conditions of Coverage for Impacts to Covered Wildlife Species

Covered Species	Conditions of Coverage	Project Compliance
		mitigated by implementation of MM-BIO-8 and MM-BIO-9, requiring delineation of disturbance limits and biological monitoring, respectively. Long-term, development-related edge effects would be mitigated by implementation of MM-BIO-11, MM-BIO-13, and MM-BIO-14, which require a lighting plan, signage/barriers, and restrictions on landscape planting. MM-BIO-15, which requires initiation of a brown-headed cowbird trapping program within the project area, as necessary, would mitigate potential impacts resulting from reduced riparian habitat or cover, which could increase flycatcher susceptibility to nest parasitism by cowbirds.
Orange-throated whiptail	ASMDs must address edge effects.	Implementation of MM-BIO-11, MM-BIO-13, and MM-BIO-14, which require a lighting plan, signage/barriers, and restrictions on landscape planting.
Southwestern pond turtle	Maintain and manage a 1,500-foot area around known locations within preserve lands for the species. Within this impact avoidance area, human impacts will be minimized, non-native species detrimental to pond turtles controlled/removed and habitat restoration/enhancement measures implemented.	There are no known locations within the project area. Presence of some permanent open water and recorded occurrences within the San Diego River in Mission Trails Regional Park. Regardless, MM-BIO-9 requires a biologist be onsite to monitor all activities within native habitat to avoid impacts to native species.

Note: ASMD = Area Specific Management Directive.

Consistency Determination with MSCP

The proposed project will occur within and adjacent to the City of San Diego MSCP Subarea Plan (City of San Diego 1997) MHPA. Table 9 describes the Land Use Considerations and various guidelines and the proposed project's consistency with them.

Table 9. Consistency Determination with MSCP Land Use Considerations and Framework Management Plan

Compatible Land Uses MSCP Subarea Plan Section 1.4.1	Applicability	Implementation
The following land uses are considered conditionally compatible with the biological objectives of the MSCP and thus will be allowed within the City's MHPA: ▪ Passive recreation	The proposed project is for the construction of an essential public facility (Fenton Parkway Bridge), proposed where it minimizes impacts by siting the bridge where it directly connects	The Fenton Parkway Bridge is identified as a roadway connection in the Mission Valley Community Plan Circulation Element and is an essential public facility as

Table 9. Consistency Determination with MSCP Land Use Considerations and Framework Management Plan

Compatible Land Uses MSCP Subarea Plan Section 1.4.1	Applicability	Implementation
▪ Utility lines and roads in compliance with policies described in Section 1.4.2 ▪ Limited water facilities and other essential public facilities ▪ Limited low density residential uses ▪ Brush management (Zone 2) ▪ Limited agriculture	the existing Fenton Parkway to the other side of the San Diego River. The Fenton Parkway Bridge is identified as a roadway connection in the Mission Valley Community Plan Circulation Element. For these reasons, the Fenton Parkway Bridge is a conditionally compatible land use within the MHPA.	well as a road in compliance with policies described in Section 1.4.2. As such, the proposed project is considered a conditionally compatible land use pursuant to MSCP Subarea Plan, Section 1.4.1. Bridge structures (abutments, piers, bridge deck, etc.) have been designed to minimize temporary and permanent impacts to natural resources (shading, wildlife movement, native plant regrowth, etc.), consistent with the San Diego River Park Master Plan bridge design guidelines. Impacts to natural topography and sensitive biological resources are further minimized by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River.

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
Roads and Utilities		
All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and	The proposed project includes the relocation and/or extension of existing storm drains within the MHPA. An existing 96-inch reinforced concrete pipe storm drain located near the northern terminus of the bridge would be extended south and a 54-inch storm drain located near the southern terminus of the bridge would be relocated west of the proposed south bridge abutment.	Both storm drains currently discharge directly into the San Diego River. New headwalls would be installed for both storm drains, with riprap at the outfall of the southern drain for erosion protection and energy dissipation. The storm drain modifications are necessary to accommodate storm drain outfalls into the river without impacting the bridge's structural integrity. For stormwater runoff on

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
disturbed areas, minimizing habitat fragmentation.		the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations, therefore minimizing intrusion into the MHPA. Although no wet utility extensions through the bridge cells are included as a part of the proposed project, the bridge would include 24-inch cells that could accommodate potential future wet utilities, averting the future need for utilities outside the bridge right-of-way.
All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP covered species and wetlands. If avoidance is infeasible, mitigation will be required.	The proposed project includes the installation of a new facility (i.e., the Fenton Parkway Bridge) in the MHPA. The project has been planned, designed, and sited to minimize environmental impacts. However, project activities will disturb the habitat of MSCP covered species and wetlands, which cannot be avoided due to the location of the bridge.	The proposed project would involve construction of a vehicular and pedestrian bridge. The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards. Concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap. Construction of the Fenton Parkway Bridge will result in impacts to MSCP-covered species and wetlands, as described in Section 6. Implementation of mitigation measures described in Section 7, including MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat,

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
		would mitigate for these unavoidable impacts.
Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.	Staging areas are proposed outside of the MHPA in the disturbed portions of the Mission Valley River Park and an undeveloped area south of the river between Mission City Parkway and Camino Del Rio North. Staging in the area south of the river, as well as construction of the bridge in the MHPA, would include unavoidable habitat disturbance.	Temporary staging areas are proposed in the existing disturbed portions of the Mission Valley River Park and an area south of the river. Temporary impact areas around the bridge within the MHPA will be required for the construction of the bridge. Temporary and permanent impacts to habitat and the MHPA are mitigated through implementation of mitigation measures MM-BIO-2, MM-BIO-17 and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporary impacts to their original condition. Additionally, MM-BIO-11 will prevent downstream sedimentation during construction.
Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.	The Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan Circulation Element and is an essential public facility that is considered a conditionally compatible land use pursuant to Subarea Plan Section 1.4.1.	N/A
Development of roads should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully- functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable.	The project is the potential development of an essential public facility (Fenton Parkway bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. The essential public facility is considered a conditionally compatible land use within the MHPA.	The bridge structure provides a much greater openness ratio than the minimum recommended 0.8; therefore, the structure design itself is not expected to affect wildlife movement ability.

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.		
Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.	The project is the potential development of an essential public facility (Fenton Parkway bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. This direct connection is the least-impactful area to build the bridge, with the minimal amount of pilings and bank stabilization required to support the bridge.	The proposed project would involve construction of a vehicular and pedestrian bridge. The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards. The bridge design was modified to reduce the number of lanes to two 11-foot-wide lanes rather than four lanes per the previous plan. Concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap. Because the bridge structure provides a much greater openness ratio than the minimum recommended 0.8, the structure design itself is not expected to affect wildlife movement ability.
For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5.	This project proposes a new road through the MHPA (see above).	N/A
Fencing, Lighting, and Signage		
Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to	No permanent fencing or barriers are required or proposed. The river is already fenced in many of these areas and will be maintained in	MM-BIO-8 requires temporary installation of fencing; MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence,

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
land uses incompatible with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).	place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.	Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if at all. If nighttime work occurs, lighting could impact wildlife movement in and use of the immediate vicinity.	MM-BIO-11 requires all artificial outdoor light fixtures within 100 feet of the Multi-Habitat Planning Area shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure compliance with the Multiple Species Conservation Program's Land Use Adjacency Guidelines and to be in accordance with the Land Development Code Section 142.0740 (Outdoor Lighting Regulations).
Materials Storage		
Prohibit storage of materials (e.g., hazardous or toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.	SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas.	All work will be performed in compliance with the City's Storm Water Standards – Part 2 (2018). Specifically, Project Planning (Table 5-1), Good site Management "Housekeeping" (Table 5-2), Non-Storm Water Management (Table 5-3), Erosion Control (Table 5-4), Sediment Control (Table 5-5), Run-on and run-off Control (Table 5-6). A storm water pollution prevention plan outlining specifics of how this project will comply with each of the above City BMP standards will be prepared to guide the contractor's activities. Examples of BMPs include limitation of in river equipment storage to a single, unvegetated and contained area, installation of drip pans beneath all

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
		equipment and the use of visqueen and fiber rolls around the work areas. These measures will prevent unintended erosion and potential spoil soil spillage into areas outside of the immediate work area, and ensure containment of any potential equipment leakage.
Mining, Extraction, and Processing Facilities		
Mining operations include mineral extraction, processing and other related mining activities (e.g., asphaltic processing). Currently permitted mining operations that have approved restoration plans may continue operating in the MHPA. New or expanded mining operations on lands conserved as part of the MHPA are incompatible with MSCP preserve goals for covered species and their habitats unless otherwise agreed to by the wildlife agencies at the time the parcel is conserved. New operations are permitted in the MHPA if: 1) impacts have been assessed and conditions incorporated to mitigate biological impacts and restore mined areas; 2) adverse impacts to covered species in the MHPA have been mitigated consistent with the Subarea Plan; and 3) requirements of other City land use policies and regulations (e.g., Adjacency Guidelines, Conditional Use Permit) have been satisfied. Existing and any newly permitted operations adjacent to or within the MHPA shall meet noise, air quality and water quality regulation requirements, as identified in the conditions of any existing or new permit, in order to adequately protect adjacent preserved areas and covered species. Such facilities shall also be appropriately	The proposed project does not include any existing, new, or expanded mining operations; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding mining operations in the MHPA.	N/A.

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restored upon cessation of mining activities.		
All mining and other related activities must be consistent with the objectives, guidelines, and recommendations in the MSCP plan, the City of San Diego's Environmentally Sensitive Lands Ordinance, all relevant long-range plans, as well as with the State Surface Mining and Reclamation Act (SMARA) of 1975.	The proposed project does not include any mining or related operations; therefore, the proposed project would not be inconsistent with this planning policy.	N/A.
Any sand removal activities should be monitored for noise impacts to surrounding sensitive habitats, and all new sediment removal or mining operations proposed in proximity to the MHPA, or changes in existing operations, must include noise reduction methods that take into consideration the breeding and nesting seasons of sensitive bird species.	The proposed project does not include any mining operations, sand removal activities, or sediment removal activities; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding proposed activities in proximity to the MHPA.	N/A.
All existing and future mined lands adjacent to or within the MHPA shall be reclaimed pursuant to SMARA. Ponds are considered compatible uses where they provide native wildlife and wetland habitats and do not conflict with conservation goals of the MSCP and Subarea Plan.	The proposed project site does not contain any existing mined lands; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding mined lands in the MHPA.	N/A.
Any permitted mining activity including reclamation of sand must consider changes and impacts to water quality, water table level, fluvial hydrology, flooding, and wetlands and habitats upstream and downstream, and provide adequate mitigation.	The proposed project does not include any permitted mining activity; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines related to these activities.	
Flood Control		
Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan.	The proposed project is for the construction of an essential public facility (Fenton Parkway Bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing	The Fenton Parkway Bridge is an essential public facility and is considered a conditionally compatible land use within the MHPA. The direct connection design is the least-impactful area

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.	Fenton Parkway to the other side of the San Diego River. However, bridge construction will occur in the San Diego River floodplain.	to build the bridge, with the minimal amount of pilings and bank stabilization required to support the bridge. MM-BIO-17 requires restoration of temporarily impacted habitat. In addition, concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap and areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. Implementation of these design features and measures will ensure the floodplain remains in a natural condition to the greatest extent possible.
No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.	No permanent berming or channelization is proposed. The proposed project would involve construction of a vehicular and pedestrian bridge, which would include man-made constraints, such as piers within the river channel and concrete seat-type abutments in the river embankments, that would constrain flows in the San Diego River.	The design and construction of the bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards. The river's low flow channel will remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. The 100-year HEC-RAS analyses show that the project will not cause adverse off-site hydraulic impacts and that it can convey the 100-year flow with several feet of freeboard (Chang Consultants 2023). Concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap. The bridge structure provides a much greater openness ratio than the minimum recommended 0.8 for wildlife movement. No impacts to upstream or downstream habitats are anticipated.

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
		Areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. These restored areas would be monitored consistent with City's Stadium Wetland Mitigation Site and resource agency permit requirements. Implementation of mitigation measures described in Section 7, including MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat, would mitigate for unavoidable impacts to habitat resulting from bridge construction. Additionally, MM-BIO-11 will prevent downstream sedimentation during construction.
No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.	The proposed project is for the construction of an essential public facility (Fenton Parkway Bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. However, bridge construction will require the installation of riprap in the MHPA.	The Fenton Parkway Bridge would be approximately 450 feet long, 58 feet wide, and 7 feet, 6 inches deep, and would consist of up to four spans. Bridge spans would be supported on concrete seat-type abutments in the river embankments at each end. Each abutment would be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap. Riprap will also be required at the outfall of the new southern storm drain alignment for erosion protection and energy dissipation. MM-BIO-17 requires restoration of temporarily impacted habitat. Areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species.

Land Use Adjacency Guidelines MSCP Subarea Plan Section 1.4.3	Applicability	Implementation
Drainage: *All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.*	The river's low flow channel will remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. The bridge will include drainpipes for stormwater and treat it in accordance with water quality regulations. Therefore, the work would be consistent with this policy.	For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations.
Toxics: *Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.*	SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas. Therefore, the work would not be inconsistent with this policy.	As noted above, all work will be performed in compliance with the storm water pollution prevention plan that will be prepared for this project. Vehicles and equipment will be affixed with drip pans while not in use. Temporary best management practices will be employed, including the use of visqueen and fiber rolls around the work areas to prevent erosion or spoil soil spillage into areas outside of the immediate work area, and to prevent potential leakage from the equipment.
Lighting: *Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.*	Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if at all. If nighttime work occurs, lighting could impact wildlife movement in and use of the immediate vicinity.	MM-BIO-11 requires all artificial outdoor light fixtures within 100 feet of the Multi-Habitat Planning Area shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure compliance with the Multiple Species Conservation Program's Land Use Adjacency Guidelines and to be in accordance with the Land Development Code Section 142.0740 (Outdoor Lighting Regulations).
Noise: Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas,	Construction-related noise will result from equipment used during construction. Operation-related noise, including noise from car traffic on the new bridge, can have	MM-BIO-15 addresses short-term noise impacts. The modeled areas with potentially significant noise levels (see Figure 7) that intersect with southern cottonwood willow

Land Use Adjacency Guidelines MSCP Subarea Plan Section 1.4.3	Applicability	Implementation
recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.	the same type of impacts to wildlife. Noise measurements and on-site noise reduction techniques will be used as needed to minimize impacts to breeding areas. Therefore, the work would not be inconsistent with this policy.	riparian forest in the north are within the permanent impact area; modeled noise levels do not result in additional impacts to this habitat beyond the permanent impact area.
Barriers: New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.	No permanent fencing or barriers are required or proposed. The river is already fenced in many of these areas and will be maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
Invasives: No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.	No landscaping or other activities that would introduce non-native plants are proposed as part of this work. Therefore, the work would not be inconsistent with this policy. Any restoration work needed will be conducted in accordance with the City's Biology Guidelines and MSCP Subarea Plan. Therefore, the work is consistent with this guideline.	MM-BIO-14 prohibits landscaping and/or restoration plans to prohibit invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region.
Brush Management: New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA.	The proposed project would not necessitate new brush management zones. Therefore, work would not be inconsistent with this guideline.	N/A
Grading/Land Development: Manufactured slopes associated with site development shall be included within the development	Energy dissipating riprap would be required at the outfall of the new southern storm drain alignment and around the bridge abutments, within the banks of the San Diego River. All	Riprap installed around bridge abutments will be buried to allow for plant growth over the riprap and areas where native vegetation would be removed would be

Land Use Adjacency Guidelines MSCP Subarea Plan Section 1.4.3	Applicability	Implementation
footprint for projects within or adjacent to the MHPA.	slopes and work areas are included in the development footprint. Therefore, proposed work would not be inconsistent with this policy.	reseeded or replanted with appropriate native plant species. Impacts associated with manufactured slopes have been quantified as a part of the development footprint. The design of the bridge minimizes these impacts to the greatest extent possible and implementation of mitigation measures described in Section 7, including MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat, would mitigate for unavoidable impacts to habitat resulting from bridge construction, including manufactured slopes.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Mitigation		
Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.	Mitigation is required to reduce some of the impacts associated with the proposed project to a less than significant level. Mitigation Measures are presented in Section 6.	Mitigation Measures presented in Section 6 outline the mitigation program to reduce impacts associated with the proposed project to below a level of significance, as required in Section B of the Land Development Manual Biology Guidelines. Implementation of these mitigation measures are consistent with the City of San Diego Environmentally Sensitive Lands Ordinance and associated Biology Guidelines as described in Section 6 and Section 7. Indirect impacts from construction-related noise will be reduced to the extent feasible, as described in MM-BIO-15, but may result in significant, unavoidable impacts.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Restoration		
Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.	Vegetation within the MHPA that will be temporarily impacted by the proposed project will be restored/revegetated.	As described in MM-BIO-17, a conceptual restoration plan will be prepared to restore temporarily impacted Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest to their original condition. The conceptual restoration plan will be subject to review and approval by City of San Diego.
Public Access, Trails, and Recreation		
Priority 1		
1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or split rail fencing to direct public access away from sensitive areas. Lands acquired through mitigation may preclude public access in order to satisfy mitigation requirements.	The MHPA/river is already fenced in many areas around the project site; existing fencing will be maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	MM-BIO-8 requires temporary installation of fencing; if fencing is required within the river, it will be constructed to allow for wildlife to continue to move through the river. There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of	No trails or view overlooks are proposed. Staging areas are proposed outside of the MHPA in the disturbed portions of the	Temporary staging areas proposed in portions of the Mission Valley River Park are already disturbed and are outside of both the MHPA

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
urban land uses adjacent to the MHPA, or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.	Mission Valley River Park and within the MHPA in an undeveloped area south of the river between Mission City Parkway and Camino Del Rio North. Staging in the area south of the river, as well as construction of the bridge in the MHPA, would include unavoidable habitat disturbance.	and the river channel. Temporary staging areas proposed south of the river are within the MHPA, but outside of the river channel. Temporary impacts to habitat and the MHPA associated with staging areas south of the river, along with temporary and permanent impacts required for construction of the bridge, are mitigated through implementation of mitigation measures MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat to their original condition.
3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.	No trails are proposed.	N/A.
4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than four feet in core areas or wildlife corridors. Exceptions are in the San Pasqual Valley where other agreements have been made, in Mission Trails Regional Park, where appropriate, and in other areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.	No trails are proposed.	N/A.
5. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA.	No equestrian uses or trails are proposed.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Locate staging areas for equestrian uses at a sufficient distance (e.g., 300-500 feet) from areas with riparian and coastal sage scrub habitats to ensure that the biological values are not impaired.		
6. Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.	No off-road or cross-country vehicle activity is proposed or would occur in association with construction of the bridge.	N/A.
7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.	The proposed project does not include any recreational uses or picnic tables.	N/A.
8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.	N/A.	N/A.
9. Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g., grass-lined) swale or basin to detain runoff and remove pollutants.	N/A.	N/A.
Litter/Trash and Materials Storage		
Priority 1		
Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide	Impacts associated with litter and trash could occur during construction and after bridge construction is complete.	During construction, MM-BIO-11 prohibits trash outside approved construction limits and MM-BIO-9 requires monitoring, which will limit

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
and maintain trash cans and bins at trail access points.		trash on site and ensure covered trash receptacles are present on site. MM-BIO-13 requires signage where appropriate to deter access from the bridge into the San Diego River and prohibit littering.
Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.	N/A.	N/A.
Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.	SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas.	All work will be performed in compliance with the City's Storm Water Standards – Part 2 (2018). Specifically, Project Planning (Table 5-1), Good site Management "Housekeeping" (Table 5-2), Non-Storm Water Management (Table 5-3), Erosion Control (Table 5-4), Sediment Control (Table 5-5), Run-on and run-off Control (Table 5-6). A storm water pollution prevention plan outlining specifics of how this project will comply with each of the above City BMP standards will be prepared to guide the contractor's activities. Examples of BMPs include limitation of in-river equipment storage to a single, unvegetated and contained area, installation of drip pans beneath all equipment and the use of visqueen and fiber rolls around the work areas. These measures will prevent unintended erosion and potential spoil soil spillage into areas outside of the immediate work area, and ensure containment of any potential equipment leakage.
Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.	Construction of the bridge could create shaded, disturbed areas that might increase encampments and access in the river corridor. Increased human activity after	There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. In addition,

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
	bridge construction could also result in increased litter in the river,	abutments will be designed to limit abutment clearance and slopes intersecting with bridge abutments will be angled to limit accessibility and the potential for encampments to be established. During construction, MM-BIO-11 prohibits trash outside approved construction limits and MM-BIO-9 requires monitoring, which will limit trash on site and ensure covered trash receptacles are present on site. MM-BIO-13 requires signage where appropriate to deter access from the bridge into the San Diego River and prohibit littering.
Priority 2		
Evaluate areas where dumping recurs for the need for barriers. Provide additional monitoring as needed (possibly by local and recreational groups on a "Neighborhood Watch" type program), and/or enforcement	N/A.	N/A.
Adjacency Management Issues		
Priority 1		
2. Enforce, prevent and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.	N/A.	N/A.
3.Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.	N/A.	N/A.
4.Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.	No permanent fencing or barriers are required or proposed. The MHPA/river is already fenced in many areas around the project site; existing fencing will be	There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
	maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	is built. MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
Invasive Exotics Control and Removal		
Priority 1		
1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.	No landscaping or other activities that would introduce non-native plants are proposed as part of this work. Therefore, the work would not be inconsistent with this policy. Any restoration work needed will be conducted in accordance with the City's Biology Guidelines and MSCP Subarea Plan.	MM-BIO-14 prohibits landscaping and/or restoration plans to prohibit invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region.
2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control reinvasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations	N/A.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.		
Priority 2		
3. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Peñasquitos Preserve has done). If - 55 - done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated and relevant techniques used. Similarly, tamarisk removal should use the Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference the Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los Peñasquitos Canyon Preserve.	N/A.	N/A.
4. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee	N/A.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
in coordination with the wildlife agencies.		
5. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.	No eucalyptus trees will be removed as part of the proposed project.	N/A.
6. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.	Least bell's vireo and southwestern willow flycatcher are susceptible to nest parasitism from brown-headed cowbirds. Removal of vegetation may reduce the amount of dense riparian cover available for hiding nests, which could increase the risk of brown-headed cowbird nest parasitism.	MM-BIO-16 requires initiation of a brown-headed cowbird trapping program within the project area, as necessary, to mitigate potential indirect impacts resulting from reduced riparian habitat or cover, which could increase flycatcher and/or vireo susceptibility to nest parasitism by cowbirds.
Flood Control		
Priority 1		
7. Perform standard maintenance, such as clearing and dredging of existing flood channels, during the non-breeding or nesting season of sensitive bird or wildlife species	The proposed project does not include standard maintenance of existing flood channels.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
utilizing the riparian habitat. For the least Bell's vireo, the non-breeding season generally includes mid-September through mid-March.		
Priority 2		
8. Review existing flood control channels within the MHPA periodically (every five to ten years) to determine the need for their retention and maintenance, and to assess alternatives, such as restoration of natural rivers and floodplains.	N/A.	N/A.

Deviations to Environmentally Sensitive Lands Regulations

Development subject to ESL regulations ordinarily requires the City to issue a Site Development Permit in accordance with Section 143.0110 and if proposed development does not comply with all applicable ESL Regulations, the proposed development permit may be denied or may be granted a deviation based on specific findings made in accordance with LDC Section 143.0150 and then approved or conditionally approved. As a state agency generally exempt from local permitting requirements, SDSU will not be required to obtain a Site Development Permit from the City for the proposed project, though, pursuant to the terms of the MOU, the City will need to make deviation findings pursuant to LDC Section 143.0150, as applicable, in order for SDSU to proceed with the proposed project.

The City's ESL Regulations, Section 143.0141(b)(5), require impacts to wetlands within an MHPA to be avoided. Per Section 143.0141(a)(5)(C), any development with impacts to wetlands is required to process a deviation in accordance with Section 143.0150(d). Deviations to the wetland regulations in Section 143.0141(b), in particular, may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project (EPP) Option, the Economic Viability (EV) Option, or the Biologically Superior (BS) Option according to the City's LDC Section 143.0150(d).

Essential Public Projects Option

The definition of an Essential Public Project provided in LDC Section 143.0510(d)(1)(B)(ii) includes linear infrastructure, including but not limited to major roads and land use plan circulation element roads and facilities including bike lanes, water and sewer pipelines including appurtenances, and stormwater conveyance systems including appurtenances storm water conveyance systems including appurtenances. The Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan Circulation Element as a proposed roadway connection, and thus qualifies as an Essential Public Project. It is an essential public facility as well as a

road in compliance with policies described in Section 1.4.2 of the Subarea Plan. As such, the proposed project is considered a conditionally compatible land use pursuant to MSCP Subarea Plan, Section 1.4.1 of the Subarea Plan.

According to LDC Section 143.0510(d)(1)(A), a deviation may only be requested for an Essential Public Project where no feasible alternative exists that would avoid impacts to wetlands. There are approximately 1.23 acres of jurisdictional resources on the proposed project site, all of which are considered wetlands under the City's jurisdiction and would be impacted by the proposed project. Construction of Fenton Parkway Bridge necessarily occurs within wetlands and no feasible alternative exists that would avoid impacts to wetlands and allow for development of the bridge.

The Environmental Impact Report (EIR) for the proposed project includes an alternatives analysis (Chapter 5). The SDBG requires analysis of a no project alternative, a wetlands avoidance alternative, and "an appropriate range of substantial wetland impact minimization alternatives."

A wetlands avoidance alternative, other than the No Project (No Build Alternative), could be designed and constructed in a way that bridge components are lifted into place from the banks of the river and no equipment would be needed in the riverbed, thus avoiding wetland impacts. Examples of this type of long-span signature bridge include suspension bridges (similar to the Suspension Bridge Alternative (Section 5.4.4)), but with a longer main span, prefabricated segmental arch bridges, and cable-stay bridges. However, without placing equipment to construct the bridge within the river bottom, a larger impact area on both ends of the bridge would be necessary for temporary towers, cranes, and staging bridge segments. The roadways/intersection south of the bridge (Camino Del Rio North and Mission City Parkway) would need to be realigned and the current location of the intersection would need to be used for the abutments to support the bridge structure. On the north side of the river, the trolley line would need to be relocated and the area where multi-family residential currently exists would be impacted. This type of "lift-into-place" suspension or arch bridge would require coordination with CPUC, MTS, and condemnation of private property and right-of-way would be necessary.

Although this bridge design would avoid impacts to wetlands, realigning the trolley track, obtaining rights of way to relocate the intersection of Camino Del Rio North and Mission City Parkway, and the condemnation of private property, including occupied multi-family housing, is not a feasible option.

Chapter 5, Alternatives, of the EIR does include an alternative that would minimize impacts to wetlands, the Pedestrian/Bicycle Only Alternative (Section 5.4.2), and it was determined to be the environmentally superior alternative. Under this alternative, a smaller construction footprint would be required and a reduced amount of wetlands would be impacted. However, this alternative would not fully achieve the objectives of the project, which aims to provide a vehicle crossing in this location.

The table below provides a summary of the proposed project's compliance with deviation requirements under the Essential Public Projects Option of the LDC.

Summary of Compliance with Wetland Deviation Requirements Under Land Development Code Essential Public Project Option

Requirement	Compliance
Project meets Essential Public Project definition as defined in Land Development Code (LDC) Section 143.0150(d)(1) and the San Diego Biology Guidelines (SDBG)	The proposed project meets the Essential Public Project definition as stated in Land Development Code (LDC) Section 143.0150(d)(1)(ii) and (iii) and the San Diego Biology Guidelines (SDBG) because the activities described are linear infrastructure project identified in the Mission Valley Community Plan as a proposed connection. In addition, the project would provide a high-water crossing in eastern Mission Valley and improve emergency evacuation.
No Project Alternative does not meet project objectives	The No Project Alternative would avoid impacts to wetlands, but would not improve emergency access or provide a high-water crossing in eastern Mission Valley.
Wetlands Avoidance Alternative does not meet project objectives	Wetland avoidance alternatives are not feasible either due to the amount of infrastructure that would need to be rerouted or occupied housing that would need to be demolished in order to accommodate a bridge that did not need piers.
Wetland Impact Minimization Alternatives do not meet project objectives	The wetland impact minimization alternative (Pedestrian/Bicycle Bridge Only Alternative) would result in a smaller bridge that could not accommodate vehicle access.
Wetland impacts are minimized to the maximum extent practicable	Construction of the proposed bridge is entirely within the “no credit area” of the City’s Stadium Wetland Mitigation site, which was reserved for a bridge crossing to be created, and further minimization would not meet the project objectives allowing vehicle access.
All impacts are mitigated in accordance with SDBG Table 2a	TBD - pending the City’s decision about the boundary line adjustment to the MHPA
Project does not have a significant adverse impact to the MSCP or the Vernal Pool Habitat Conservation Plan	TBD - pending the City’s decision about the boundary line adjustment to the MHPA

The City considers the proposed project an Essential Public Project pursuant to the City’s LDC. Several key concepts behind identifying this proposed bridge project as an Essential Public Project from the City’s November 9, 2023 letter are summarized here. General transportation planning principals and the City’s General Plan encourage a grid network of streets to provide accessibility, reduce travel distances, resiliency and to distribute traffic loads. In Mission Valley, steep slopes, the San Diego River, five freeways and the San Diego Trolley tracks have created barriers and limited the opportunities for connectivity within as well as to and from the community. This has resulted in a planned street network that consists of fewer and wider streets and intersections to accommodate the movement of people and goods, which in turn results in less distributed/more concentrated traffic flows, turning many of these streets and intersections into barriers in and of themselves, especially for transit users, cyclists and pedestrians. Given the limited planned north-south street connectivity in Mission Valley, completion of the Fenton Parkway connection is essential to meet the mobility, emergency, utility and equity needs of the community and the City (City of San Diego, November 9, 2023).

Supporting active transportation (walking, biking and transit) mode shifts is an important component of the City’s Climate Action Plan (CAP) which aims to achieve net zero greenhouse gas emissions by Year 2035. The CAP

Targets include resident mode shares of 25% walking, 10% cycling and 15% transit by year 2035. The Fenton Parkway connection is critical to provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets, including providing access for Mid-City residents to the San Diego Trolley and the SDSU Mission Valley Campus via the I-15 bikeway (City of San Diego, November 9, 2023). The lack of a connection at Fenton Parkway also greatly increases the amount of out-of-direction vehicular travel within eastern Mission Valley. Out-of-direction travel from inefficient routing significantly contributes to increased greenhouse gas emissions. Reducing out-of-direction travel through improved local connectivity is a crucial step towards mitigating the detrimental effects of greenhouse gas emissions and meeting the City's Climate Action Planning Goals. (City of San Diego, November 9, 2023).

As stated in the City's November 9, 2023 letter, during recurring flooding events in Mission Valley, every street crossing the San Diego River and some roadways adjacent to the river become impassable. The only way to travel across the San Diego River on the east side of Mission Valley during these events is via I-15. Since pedestrians and cyclists cannot use the freeway, they are unable to cross the river during flooding events. The Fenton Parkway Bridge will remedy this issue providing a high-water crossing of the San Diego River that also provides access to the San Diego Trolley, SDSU Mission Valley Development and the Mid City communities via the I-15 Bike Path (City of San Diego, November 9, 2023).

As land uses within Mission Valley have continued to intensify, largely in part due to the presence of the San Diego Trolley and its central location, a growing strain on emergency services has continued. Based on planned growth in Mission Valley, which is expected to increase by 248% between 2012 and 2050, the City recommended the Fenton Parkway connection over the San Diego River. The proposed bridge would provide multiple approach route options for emergency response and alternate routes for diverting traffic during emergencies thereby avoiding road closures. This planned connection is particularly important because there are often multiple responders to an incident who need access from different directions to the area (City of San Diego, November 9, 2023). In addition, the project site is within the Very High Fire Hazard Severity Zones as mapped by CAL FIRE and a new access point to protect city-owned land including environmentally sensitive habitats would be beneficial.

See the table above for a detailed description of the proposed project's qualification under the Essential Public Projects Option and deviation from the City's ESL regulations.

5.6.2 Direct Impacts

The proposed project will result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas." As described in Section 1.2 of this report, the proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian

connection between the businesses and residential areas north and south of the San Diego River. A full analysis of the project's consistency with Sections 1.4.1, 1.4.2, 1.4.3, and 1.5.2 of the MSCP Subarea Plan are described in Section 5.6.1 above. Therefore, the development of the bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and there is **no impact** to the City of San Diego or other local agencies' abilities to implement the MSCP.

5.6.3 Indirect Impacts

SDSU reviewed 1.4.2, General Planning and Design Guidelines, of Chapter 1.4, Land Use Considerations, of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) to determine if construction of the proposed project would affect the City's ability to comply with the provisions of their Subarea Plan.

Fencing, Lighting, and Signage. Standard cobra-head light fixtures will be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associated habitat will occur due to car headlights from traffic on the new bridge. Based on feedback received during final design, including input from the City, SDSU may adjust, the specific types of light poles, arms, and luminaires to suit aesthetics, if necessary.

The bridge will be span the San Diego River with 20-foot-tall, 6-foot-diameter circular concrete columns at each pier located in the river channel. The San Diego River is approximately 350 feet wide where it flows through the project site, with a low flow channel ranging from 20 feet to 40 feet wide. Given the width of the river floodplain, the columns would not present a barrier within the MHPA. Therefore, the proposed project would avoid conflicts with the Subarea Plan's barriers adjacency guidelines.

The river is fenced around most of the area where the bridge is proposed. No additional fencing is proposed, but all existing fencing will be left in place or replaced as needed during the construction activities. If needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.

Materials Storage. SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas.

Mining or Extraction. The proposed project would not involve any type of mining or extraction activity, so no inconsistency with the Subarea Plan's mining and extraction policies would occur.

Flood Control. The San Diego River serves as a natural outlet for stormwater runoff from the surrounding areas. Table 9 in Section 5.6.1 above describe the project's consistency with the "Flood Control" condition in Section 1.4.2 of the MSCP Subarea Plan. Specifically, the direct connection design is the least-impactful area to build the bridge, with the minimal amount of pilings and bank stabilization required to support the bridge. The river's low flow channel will remain in place, with water flowing unobstructed through the floodplain during higher flood events (see discussion in Section 5.1.2). Concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap and areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. Implementation of these design

features and measures will ensure the floodplain remains in a natural condition to the greatest extent possible. The 100-year HEC-RAS analyses show that the project will not cause adverse off-site hydraulic impacts and that it can convey the 100-year flow with several feet of freeboard (Chang Consultants 2023).

For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations. There are no long-term indirect impacts associated with altered hydrology.

Land Use Adjacency Guidelines. SDSU also reviewed Section 1.4.3, Land Use Adjacency Guidelines, of Chapter 1.4, Land Use Considerations, of the City's MSCP Subarea Plan. Similar to the guidelines above, Section 1.4.3 outlines the City's policies related to eight land development considerations: drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/land development. An analysis of consistency with each provision is provided to ensure that the proposed project does not hinder the City's ability to meet the requirements of their Subarea Plan.

Drainage. Because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations. Therefore, the proposed project would not be inconsistent with the City's drainage guidelines in Section 1.4.3 of the Subarea Plan.

Toxics. Landscaping has not been finalized; however, only plants that do not need fertilizers will be used in the landscape palette. Additionally, no herbicides or pesticides will be used in the landscaped areas. Therefore, the proposed project would not be inconsistent with the City's drainage guidelines in Section 1.4.3 of the Subarea Plan.

Lighting. Standard cobra-head light fixtures will be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associate habitat will occur due to car headlights from traffic on the new bridge. Based on feedback received during final design, including input from the City, SDSU may adjust the specific types of light poles, arms, and luminaires to suit aesthetics, if necessary.

Noise. The City requires uses adjacent to the MHPA be designed to minimize noise impacts. The San Diego River is located in the MHPA. The measured ambient noise levels within the San Diego River near the project area and riparian vegetation adjacent to Fenton Parkway ranged from 51 dBA Leq to 64 dBA Leq (Dudek 2023). Some of these measured levels are higher than the 60 dBA hourly Leq threshold typically used for analyzing impacts to special-status species, such as least Bell's vireo and coastal California gnatcatcher. The predicted "with project" traffic noise levels for the project area in 2035 (the worst-case traffic noise scenario for the project) range from 55 to 72 dBA Leq (Dudek 2023). Dudek analyzed two scenarios to determine if there would be significant impacts to habitat for special-status species: 1) areas that currently have noise levels averaging less than 60 dBA Leq that would exceed 60 dBA Leq under the modeled noise levels in 2035 or 2)

areas where the change between the current average noise levels and modeled noise levels in 2035 exceeds 3 dBA Leq. These areas are depicted on Figure 7, Noise Modeling. The height of the bridge (20 feet) from the ground and the walls of the bridge (7.5 feet) create a scenario where noise levels modeled approximately 2 meters from the ground (with 2035 levels) are almost always less than 60 dBA Leq within the San Diego River. Where higher, the existing ambient conditions are generally higher than 60 dBA Leq at current noise levels; birds in these areas have likely adapted to the higher noise levels through increasing their own vocalization levels (California Department of Transportation 2016).

Vegetation removal will occur outside of the nesting season; however, after the vegetation is removed, some project activities may occur during the nesting season. If these activities occur during the nesting season, pre-construction surveys (see Section 6, Mitigation Measures) will be conducted to determine the presence of sensitive wildlife in adjacent habitat. Construction will follow the guidelines outlined in the mitigation measures to minimize impacts to sensitive wildlife that may be in the riparian areas to a level below significance.

Barriers. The river is fenced around most of the area where the bridge is proposed. No additional fencing is proposed, but all existing fencing will left in place or replaced as needed during the construction activities. If needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River. The bridge will be span the San Diego River with 20-foot-tall, 6-foot-diameter circular concrete columns at each pier located in the river channel. The San Diego River is approximately 350 feet wide where it flows through the project site, with a low flow channel ranging from 20 feet to 40 feet wide. Given the width of the river floodplain, the columns would not present a barrier within the MHPA. Therefore, the proposed project would avoid conflicts with the Subarea Plan's barriers adjacency guidelines.

Invasives. The landscaping plan has not been finalized; however, only plants that do not need fertilizers will be used in the landscape palette. Additionally, no herbicides or pesticides will be used in the landscaped areas. Any landscaping would consist of native plant species where possible and shall not include any plants included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region. Therefore, the proposed project would be consistent with the Subarea Plan's objectives for invasive species avoidance.

Brush Management. No brush management is required.

Grading/Land Development. All grading and land development work that is necessary for the proposed project would be contained within the project impact footprint as described above in the impact evaluation for biological resources. Therefore, the proposed project would be consistent with this provision of the City's Subarea Plan.

Because SDSU is not subject to the policies and ordinances set forth by the MSCP, and the proposed project demonstrates consistency with the Land Use Considerations and Land Use Adjacency Guidelines, there is **no impact** to the City of San Diego or other local agencies' abilities to implement the MSCP.

5.7 Threshold 7

Would the project result in a cumulative impact when considered with other present and probable future projects in the region?

Sensitive Wildlife and Plant Resources

Cumulative projects associated with the development of the SDSU Mission Valley Campus Master Plan Project may result in direct and indirect impacts to sensitive wildlife and plant resources and their habitats in and around Mission Valley. However, as analyzed in the Final Environmental Impact Report prepared for the SDSU Mission Valley Campus Master Plan (Dudek 2020), any impacts from these projects would need to be fully mitigated in order to avoid cumulative impacts. Any impacts to sensitive wildlife and plant resources and their habitat would be regulated by USFWS and/or CDFW, which require full mitigation to offset such impacts. Cumulative projects associated with the development of the "Purple Line" by Metropolitan Transit System and any planned improvements to Caltrans-owned/operated transportation infrastructure, such as I-8, I-15, etc., may result in direct and indirect impacts to sensitive wildlife and plant resources and their habitats in and around Mission Valley. However, any impacts from these projects would need to be fully mitigated in order to avoid cumulative impacts. Any impacts to sensitive wildlife and plant resources and their habitat would be regulated by the US. Fish and Wildlife Service and/or California Department of Fish and Game, which require full mitigation to offset such impacts. Any impacts to these resources as a result of San Diego County Water Authority projects would be offset by the regional conservation planning framework outlined in their Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) (adopted in 2011). All of the Water Authority's capital improvement projects and operations and maintenance activities must be consistent with their NCCP/HCP which, like the San Diego MSCP, provides a coordinated approach to avoiding and mitigating for impacts to sensitive plant and wildlife species and their habitats.

With the exception of projects proposed by state agencies such as Caltrans, special districts, or other regional agencies such as the San Diego County Water Authority or Metropolitan Transit System, all remaining cumulatively considerable projects listed in Table 3.0-1, Cumulative Projects, are reviewed and approved by the City of San Diego. During the City's entitlement review process, all projects are designed to be consistent with the City's regional HCP, which ensures that cumulative impacts to plant, wildlife, and habitat resources as a result of development are minimized. As outlined above, approximately 20 years ago, the San Diego MSCP was established as a regional habitat conservation program to help facilitate planned regional development while at the same time establishing a regional preserve system for the long-term benefit of the region's diverse plant and wildlife resources. In 1998, the City of San Diego adopted their MSCP Subarea Plan, which covers the Mission Valley Community Plan Area, including the stadium site. The City's Subarea Plan implements the regional MSCP and, through the City's development review process, all projects subject to the MSCP, including many of those listed in Table 3.0-1, must be consistent with and contribute to the establishment of this regional preserve system. The City enforces development siting restrictions, limits direct impacts to designated preserve areas, ensures compliance with adjacency and buffering techniques to reduce indirect impacts, and provides for the long-term management of the established preserves. Because all past, present and probable future projects subject to the MSCP must comply with the City's Subarea Plan, cumulative impacts to biological resources from these related projects would be less than significant.

As stated above, the proposed project is located in the San Diego MSCP and within the City's Subarea Plan Area. Direct avoidance of potential sensitive habitat resources, avoidance and minimization measures, and project design features that would reduce the potential for indirect impacts are consistent with the MSCP and City's Subarea Plan.

Due to this consistency with these regional planning tools, the project would not result in cumulative impacts to plant and wildlife resources.

Sensitive Wetland and Riparian Resources

Included in the minor habitat and vegetation impacts described in Section 5.2, the proposed project would impact jurisdictional wetlands and waters of the United States, and thus, would be required to comply with wetlands mitigation requirements pursuant to Sections 401 of the State Clean Water Act, Section 404 of the Federal Clean Water Act, and Section 1600 of the California Fish and Game Code. These regulations are all designed to ensure the "no net loss" of wetlands and riparian resources. As outlined in Mitigation Measure (MM)-BIO-15, these impacts would be mitigated, and would result in no net loss of habitat. Similarly, cumulative projects may impact wetlands and waters of the United States in and around the Mission Valley area and within the greater San Diego River watershed. That said, all of these resources are protected under Section 401 of the State Clean Water Act, Section 404 of the Federal Clean Water Act, and Section 1600 of the California Fish and Game Code. Any project or agency that must impact these resources would need to fully mitigate for impacts to these resources at similar ratios as the proposed project. Accordingly, there would be no net loss of wetland resources from cumulatively considerable projects, and such cumulative impacts would be less than significant.

In summary, all of the project's impacts would be fully mitigated pursuant to state and federal wetland regulations and would be consistent with the mitigation and avoidance and minimization measures spelled out in the City's Subarea Plan. When combined with existing and probable future projects within the cumulative project site, the proposed project **would not contribute to cumulatively considerable impacts** to sensitive biological resources..

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6 Mitigation Measures

The following mitigation measure(s) would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent possible and compensatory mitigation provided to address unavoidable significant impacts. Implementation of the following mitigation measures (MMs) would reduce all potentially significant impacts to a **less-than-significant** level, with the exception of Impact BIO-12, which is described in Section 7.

MM-BIO-1 Listed Species Take Avoidance. Based on observations of least Bell's vireo (*Vireo bellii pusillus*), riparian habitat on-site is considered occupied. Southwestern willow flycatcher (*Empidonax traillii extimus*) and coastal California gnatcatcher (*Polioptila californica californica*) are not currently occupying the proposed impact areas; however, there is suitable habitat within the project site for these species. Habitat impacts will be mitigated at a 3:1 mitigation ratio specified in **MM-BIO-2** or as determined through the consultation process with U.S. Fish and Wildlife Service (USFWS) (if required). Take authorization may be obtained through the federal Section 7 Consultation or Section 10 and state 2081 incidental take permit requirements. California State University/San Diego State University or its designee shall comply with any and all conditions, including pre-construction surveys, that the U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) may require for take of these species pursuant to the federal Endangered Species Act and/or California Endangered Species Act.

To avoid take of least Bell's vireo and/or southwestern willow flycatcher, seasonal avoidance or pre-construction surveys will be conducted as follows unless the USFWS authorizes a deviation from those protocols:

1. Clearing and grubbing in or within 500 feet (152.40 meters) of least Bell's vireo habitat will occur from September 16 [or sooner if a USFWS-approved project biologist demonstrates to the satisfaction of the USFWS and USACE (Agencies) that all nesting is complete] to March 14 to avoid the least Bell's vireo breeding season. If project construction cannot be restricted to outside of the vireo breeding season, construction noise monitoring will be provided as detailed below.
2. To minimize potential adverse impacts to least Bell's vireo from construction-related noise, construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet of occupied habitat would be timed to occur outside of the breeding season if possible. If construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet of occupied habitat must occur during the breeding season, construction-related noise within the occupied habitat areas would not exceed 60 dBA L_{eq} (1 hour) or pre-construction ambient noise levels, whichever is greater, during the breeding season, when feasible. To the extent feasible, on-site noise reduction techniques shall be implemented to minimize construction noise levels so they do not exceed 60 dBA L_{eq} hourly equivalent noise level or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall

be implemented and may include constructing a sound barrier, utilization of quieter equipment, adherence to equipment maintenance schedules, installation of temporary sound barriers, or shifting construction work further from the nest.

3. To the extent feasible, construction noise levels at a least Bell's vireo nest will be kept below 60 dBA L_{eq}, or pre-construction ambient noise levels, whichever is higher, from 5 a.m. to 11 a.m. during the peak nesting period of March 15 – September 15, for the least Bell's vireo. For the balance of the day/season, the noise levels at the nest will not exceed 60 dBA averages, or pre-construction ambient noise levels (whichever is higher) over a 1-hour period on an A-weighted dBA (i.e., 1 hour L_{eq}/dBA).

4. The USFWS-approved project biologist will be on site during: a) initial clearing and grubbing of least Bell's vireo habitat; and b) construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet (152.40 meters) of least Bell's vireo habitat, to ensure compliance with all conservation measures. The project biologist will be familiar with the habitats, plants, and wildlife along the San Diego River to ensure that issues relating to biological resources are appropriately and lawfully managed. The project biologist will perform the following duties:

    a. Perform a minimum of three surveys, on separate days, to determine the presence of least Bell's vireo nest building activities, egg incubation activities, or brood rearing activities within 500 feet (152.40 meters) of construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) proposed during the least Bell's vireo breeding season. The surveys will begin a maximum of seven days prior to project construction 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 construction in the breeding season. These additional surveys may be suspended as approved by the Agencies. The Applicant will notify the Agencies at least 7 days prior to the initiation of surveys, and within 24 hours of locating any vireo.

    b. If an active least Bell's vireo nest is found within 500 feet (152.40 meters) of construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities), the project biologist shall flag and map the nest location and 500-foot avoidance buffer on the construction plans and provide the information to the construction supervisor and any personnel working near the nest buffer. A qualified biological monitor shall monitor the nest(s) for any signs of disturbance. Any signs of disturbance to the bird shall be documented, and trigger noise reduction techniques if applicable. To the extent feasible, on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 A-weighted decibels (dBA) hourly equivalent noise level or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier or shifting construction work further from the nest.

c. Be on site during all construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) in least Bell's vireo habitat to be impacted or within 500 feet (152.40 meters) of least Bell's vireo habitat to be avoided.

d. Halt work, if necessary, and confer with the Agencies to ensure the proper implementation of species and habitat protection measures. The project biologist will report any violation to the Agencies within 24 hours of its occurrence.

e. Submit weekly letter reports (including photographs of impact areas) via regular or electronic mail (email) to the Agencies during clearing of vireo habitat and/or project construction within 500 ft (152.40 m) of avoided habitat. The weekly reports will document that authorized impacts were not exceeded, document any project-related activities within 500 feet (152.40-m) of active least Bell's vireo nests, and general compliance with all conditions. The reports will also outline the duration of vireo monitoring, the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers, locations, and sex of vireos (if present), observed vireo behavior (especially in relation to construction activities), and remedial measures employed to avoid, minimize, and mitigate impacts to vireos. Raw field notes should be available upon request by the Agencies.

f. Submit a final report to the Agencies within 60 days of project completion that includes: 1) as-built construction drawings with an overlay of habitat that was impacted and avoided, 2) photographs of habitat areas that were to be avoided, and 3) other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conditions of this biological opinion was achieved.

Measures to protect coastal California gnatcatcher are outlined in MM-BIO-3.

Documentation: A Biological Opinion and Incidental Take Permit shall be issued by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife prior to clearing and grubbing of habitat within the San Diego River.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

Monitoring: The USFWS-approved project biologist will be on site during the activities specified in condition 4 above.

Reporting: Submit a final report to the Agencies within 60 days of project completion as described in condition 4(f) above.

MM-BIO-2 Habitat Mitigation. Temporary and permanent impacts to southern cottonwood–willow riparian forest will be mitigated at a 3:1 mitigation ratio and non-vegetated channel will be mitigated at a 1:1 or 2:1 mitigation ratio, as determined during the permitting process (see **MM-BIO-17**). Additionally, temporary and permanent impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub shall be mitigated at a minimum of 1.5:1 mitigation ratio. Conservation of habitat shall be by land acquisition, off-site creation and/or enhancement, and/or by purchase of appropriate credits at an approved mitigation bank in San Diego County. If required, any invasive plant removal shall be completed using hand equipment, and removal will be completed outside of the nesting bird season. If invasive removal cannot be completed outside of

the nesting bird season, pre-work surveys shall be conducted per the nesting bird survey noted in **MM-BIO-6**. If off-site creation and/or enhancement is done, California State University/San Diego State University or its designee shall prepare a conceptual mitigation plan outlining the enhancement/restoration of these communities and implement the plan, including monitoring and maintenance, for a period of at least 5 years. The conceptual mitigation plan shall be reviewed and approved by City of San Diego, including PUD and MSCP reviewers. If applicable, the mitigation land would be managed by an approved land manager through a non-wasting endowment.

The mitigation habitat shall be appropriate habitat for special-status amphibians, reptiles, mammals, invertebrates, and birds with potential to occur on-site.

Documentation: The mitigation plan and/or proof of purchase of credits from a mitigation bank shall be provided to the City of San Diego, Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife), Regional Water Quality Control Board, and U.S. Army Corps of Engineers.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-3 Coastal California Gnatcatcher Survey**.** Suitable habitat for coastal California gnatcatcher shall not be cleared between February 15 and August 31 (or sooner if a biologist demonstrates to the satisfaction of the USFWS that all nesting is complete). Prior to the initiation of vegetation clearing activities outside of the nesting season, a biologist will perform a minimum of three focused surveys, on separate days, to determine the presence of gnatcatchers in the project impact footprint and suitable habitat within 500 feet of the impact area where access is granted. Surveys will begin a maximum of 7 days prior to performing vegetation clearing/grubbing and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing. If any gnatcatchers are found within the project impact footprint, the biologist will direct construction personnel to begin vegetation clearing/grubbing in an area away from the gnatcatchers. It will be the responsibility of the biologist to ensure that gnatcatchers are not in the vegetation to be cleared/grubbed by flushing individual birds away from clearing/grubbing. The biologist will also record the number and location of gnatcatchers disturbed by vegetation clearing/grubbing.

Documentation: The biologist shall submit a 15-day notification letter to the U.S. Fish and Wildlife Service prior to conducting the surveys.

Timing: Surveys will begin a maximum of 7 days prior to performing vegetation clearing/grubbing and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing.

Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the survey prior to clearing/grubbing activities, as well as to the U.S. Fish and Wildlife Service within 45 days of completing the surveys.

MM-BIO-4 Bat Surveys and Roost Avoidance or Exclusion**.** Prior to the removal of riparian trees that could support roosting bats, a bat biologist shall survey the areas that could provide suitable roosting habitat for bats to confirm they contain no potential maternity roosts. If a potential maternity roost is present, the following measures shall be implemented to reduce the potential impact to special-status bat species to a less-than-significant level:

1. *Maternity Roosting Season Avoidance*. All proposed demolition activities, including bat roost exclusion, should occur outside the general bat maternity roosting season of March through August to reduce any potentially significant impact to maternity roosting bats. If the maternity roosting season cannot be avoided, then roost exclusion can occur outside the maternity roosting season (September through February) to exclude bats from the demolition area prior to the start of demolition during the maternity roosting season.
2. *Roost Exclusion*. Roost exclusion must only occur during the time when bats are most active (early spring or fall) to increase the potential to exclude all bats from roosts and minimize the potential for a significant impact to occur by avoiding the maternity roosting season. The primary exit points for roosting bats will be identified, and all secondary ingress/egress locations will be covered with a tarp or wood planks to prevent bats from leaving from other locations. The primary exit point will remain uncovered to allow exclusion devices to be installed. Exclusion devices will consist of a screen (poly netting, window screen, or fiberglass screening) with mesh 1/6 of an inch or smaller, installed at the top of the roost location and sealed along the sides and passing 2 feet below the bottom of the primary exit point. The exclusion devices will be installed at night to increase the potential that bats have already left the roost and are less likely to return. Exclusion devices will be left in place for a 1-week period to ensure that any remaining bats in the roost are excluded. A passive acoustic monitoring detector will also be deployed during the exclusion period in order to verify excluded species and monitor if bat activity has decreased during the exclusion period. Periodic monitoring during the exclusion period should also be conducted to observe if any bats are still emerging from additional areas on the project site, and an active monitoring survey conducted on the final night of exclusion to ensure that no bats are emerging and determine that exclusion has been successful. Any continued presence of roosting bats will require an adjustment to the exclusion devices and schedule. The exclusion devices may remain in place until the start of tree removal activities. If any bats are found roosting in any proposed tree removal areas prior to clearing, additional exclusion will be required and will follow the same methodology described in this mitigation measure.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed no more than one week prior to vegetation clearing/grubbing.

MM-BIO-5 Pre-Construction Survey for Crotch's Bumble Bee and Take Avoidance. If ground-disturbing activities occur outside of the overwintering season, a pre-construction survey for Crotch's bumble bee (*Bombus crotchii*) shall occur within the construction area between February and October prior to the start of construction activities. Crotch's bumble bee is a habitat generalist, ground-nesting bee. Surveys and other relevant recommendations will be in accordance with the most recent protocol available at the time of the surveys. The survey shall focus on detecting nests for Crotch's bumble bee within the construction area. If active nests of Crotch's bumble bee are present, an appropriate no disturbance buffer zone should be established around the nest to reduce the risk of disturbance or accidental take.

If active nests cannot be avoided, an Incidental Take Permit may be needed and mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those

impacted by the project, or as otherwise determined through the Incidental Take Permit process. Mitigation will be accomplished either through off-site conservation or through a California Department of Fish and Wildlife (CDFW)-approved mitigation bank. If mitigation is not purchased through a mitigation bank, and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of a maintenance fund to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will take into account all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement(s), which are currently in review and development.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego and Wildlife Agencies (U.S. Fish and Wildlife Service and CDFW) documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed between February and October prior to the start of construction activities.

MM-BIO-6 Nesting Bird Survey**.** Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the breeding season (typically February 1 through September 15) shall require a one-time biological survey for nesting bird species to be conducted within the proposed impact area and a 500-foot buffer within 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk [*Accipiter cooperii*]) and/or birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code, Sections 3503 and 3513. If any active nests are detected, the area shall be flagged and mapped on the construction plans and the information provided to the construction supervisor and any personnel working near the nest buffer. If occupied nests are found, then limits of construction (e.g., 250 feet for passerines to 500 feet for raptors) to avoid occupied nests shall be established by the project biologist in the field with brightly colored flagging tape, conspicuous fencing, or other appropriate barriers and signage; and construction personnel shall be instructed on the sensitivity of nest areas. A biological monitor will be present during those periods when construction activities occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the 250-foot or 500-foot setback at his or her discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). However, if needed, additional qualified monitor(s) shall be provided in order to monitor active nest(s) or other project activities in order to ensure all of the project biologist's duties are completed. Once the nest is no longer occupied for the season, construction may proceed in the setback areas.

If construction activities, particularly clearing/grubbing, grading, and other intensive activities, stop for more than 3 days, an additional nesting bird survey shall be conducted within the proposed impact area and a 500-foot buffer.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed within 72 prior to the start of construction activities during the breeding season (typically February 1 through September 15).

MM-BIO-7 Special-Status Plants. A qualified biologist will be present prior to and during construction to ensure avoidance of impacts on special-status plant species that were found on the project site during protocol plant surveys (San Diego marsh-elder [*Iva hayesiana*] and San Diego County viguiera [*Viguiera laciniata*]) by implementing one or more of the following, as appropriate, per the biologist's recommendation:

1. Flag the population or natural community areas to be protected;
2. Allow adequate buffers; and/or
3. Time construction or other activities during dormant and/or non-critical life cycle periods.

For unavoidable impacts to special-status plant species, compensatory mitigation may be required based on recommendations of the qualified biologist. If deemed necessary based on the type and extent of special-status plant populations affected, compensatory mitigation will entail:

4. The protection, through land acquisition or a conservation easement, of a population of equal or greater size and health. Individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. Or,
5. If it is not feasible to acquire and preserve a known population of a special-status plant to be impacted, suitable unoccupied habitat capable of supporting the species will be acquired and used to create a new population. For population creation, the following considerations will also be met:
    a. Prior to unavoidable and permanent disturbance to a population of a special-status plant species, propagules shall be collected from the population to be disturbed. This may include seed collection or cuttings, and these propagules will be used to establish a new population on suitable, unoccupied habitat as described above. Transplantation may be attempted but will not be used as the primary means of plant salvage and new population creation.
    b. Creation of new populations will require identifying suitable locations and researching and determining appropriate and viable propagation or planting techniques for the species. It will also require field and literature research to determine the appropriate seed sampling techniques and harvest numbers for acquisition of seed from existing populations.
    c. Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:
        i. Plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and
        ii. Reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
        iii. If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term

management requirements, success criteria such as those listed above, and other details, as appropriate, to target the preservation of long-term viable populations.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the monitoring/surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed prior to the start of construction activities.

MM-BIO-8 Temporary Installation of Fencing**.** To prevent inadvertent disturbance to areas outside the limits of grading for each phase, the contractor shall install temporary fencing, or utilize existing fencing, along the limits of grading. The fencing shall be installed to ensure it does not prevent wildlife from moving through the San Diego River channel.

Documentation: The biologist shall submit a report to the City of San Diego documenting the installation of the fencing.

Timing: Prior to clearing/grubbing activities.

Monitoring: The temporary fencing will be examined during monitoring by the project biologist.

Reporting: The temporary fencing will be described in a monitoring report prepared after the construction activities are completed.

MM-BIO-9 Construction Monitoring and Reporting. To prevent inadvertent disturbance to areas outside the limits of grading for each phase, all grading of native habitat shall be monitored by a biologist. The biological monitor(s) shall be contracted to perform biological monitoring during all clearing and grubbing activities.

The project biologist(s) also shall perform the following duties:

1. Attend the pre-construction meeting with the contractor and other key construction personnel prior to clearing and grubbing to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
2. During clearing and grubbing, the project biologist shall conduct meetings with the contractor and other key construction personnel each morning prior to construction activities in order to go over the proposed activities for the day, and for the monitor(s) to describe the importance of restricting work to designated areas and of minimizing harm to or harassment of wildlife prior to clearing and grubbing.
3. Review the construction area in the field with the contractor in accordance with the final grading plan prior to clearing and grubbing.
4. Supervise and monitor vegetation clearing and grubbing weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact.
5. Flush wildlife species (i.e., reptiles, mammals, avian, or other mobile species) from occupied habitat areas immediately prior to brush-clearing activities. This does not include disturbance of nesting birds (see **MM-BIO-6**) or "flushing" of federally or state-listed species (i.e., least Bell's vireo (see MM-BIO-1).
6. Periodically monitor the construction site to verify that the project is implementing the following stormwater pollution prevention plan best management practices: dust control, silt fencing,

removal of construction debris, a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour during daylight and 10 miles per hour during hours of darkness.

7. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures are directed away from open space and are shielded, and to document that no unauthorized impacts have occurred.
8. Keep monitoring notes for the duration of the proposed project for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of the biological resources.
9. Prepare a monitoring report after the construction activities are completed that includes the following: description of the biological monitoring activities, including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed.

Timing: Monitoring responsibilities will occur prior to construction (attendance of pre-construction meeting) and during clearing, grubbing and construction activities.

Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed.

MM-BIO-10 Air Quality Standards. The following guidelines shall be adhered to:

1. No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line (or work area) for a period or periods aggregating more than 3 minutes in any 60-minute period.
2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:
    a. Be minimized by the use of any of the following, or equally effective track-out/carry-out and erosion control measures that apply to the project or operation: track-out grates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material; and
    b. Be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only coarse particulate matter (PM_{10}) efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

Timing: These guidelines shall be adhered to during the construction activities.

Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed and will include documentation of adherence to these guidelines.

MM-BIO-11 Construction Documents. The Multiple Species Conservation Program (MSCP) staff at the City of San Diego shall verify that the Applicant has accurately represented the project's design in or on the Construction Documents and are in conformance with the associated with the City's Multi-

Habitat Planning Area (MHPA) Land Use Adjacency Guidelines (LUAGs). The Applicant shall provide an implementing plan and include references on the Construction Documents of the following:

1. *Enhanced Temporary Stabilization Measures*. Document locations where biodegradable coir mat or other similar erosion control products will be installed to prevent sedimentation downstream of the project site during storm events. Enhanced temporary stabilization measures shall be installed prior to rain events where the flood stage is forecasted to exceed a depth of 4 feet. Predicted depths will be based on the USGS Fashion Valley gage in the San Diego River, as reported here: https://water.weather.gov/ahps2/hydrograph.php?wfo=sgx&gage=fsnc1.

2. *Drainage*. Document the Caltrans Type D-1 deck drains, drainpipes, and storm drain system.

3. *Toxics/Project Staging Areas/Equipment Storage*. Projects that use chemicals or generate by-products such as pesticides, herbicides, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including water) shall incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. No trash, oil, parking, or other construction/development-related material/activities shall be allowed outside any approved construction limits. Provide a note on the Construction Documents that states: "*All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the MHPA*."

4. *Lighting*. Lighting shall be designed to minimize light pollution within native habitat areas, while enhancing safety, security, and functionality. All artificial outdoor light fixtures within 100 feet of the MHPA shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure compliance with the MSCP's LUAGs and to be in accordance with the Land Development Code Section 142.0740 (Outdoor Lighting Regulations). The specific types of light poles, arms, and luminaires can be adjusted to suit aesthetics.

5. *Barriers*. The Construction Documents shall show any new fencing added along the boundaries of the MHPA to reduce public access, as well as any barriers required to provide adequate noise reduction where needed.

6. *Invasives*. No invasive non-native plant species shall be introduced into areas within or adjacent to the MHPA.

Documentation: On the Construction Documents.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-12 Invasive Plant Species Control. To reduce potential effects of invasive species to the adjacent Stadium Wetland Mitigation site, the applicant shall perform the following:

1. Weed control treatments shall occur prior to seed set and/or weed species reaching 12 inches in height, and will include the application of legally permitted herbicide, as well as manual and

mechanical methods of removal. The application of herbicides shall comply with state and federal laws and regulations under the prescription of a Pest Control Advisor and shall be implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of a forecasted measurable rain event or during high wind conditions that could cause spray drift onto native vegetation. Where manual or mechanical methods are used, plant debris shall be disposed of at a certified disposal site. The timing of the weed control treatment shall be determined for each plant species with the goal of controlling populations before they start producing seeds.

2. All straw materials used during project construction and operation shall be weed-free rice straw or other weed-free product, and all gravel and fill material shall be weed free. If straw wattles are used, they shall not be encased in plastic mesh.

3. Prior to entry to the project area for the first time, equipment must be free of soil and debris on tires, wheel wells, vehicle undercarriages, and other surfaces (a high-pressure washer and/or compressed air may be used to ensure that soil and debris are completely removed). Compliance with the provision is achieved by on-site inspection and verification or by demonstrating that the vehicle or equipment has been cleaned at a commercial vehicle or appropriate truck washing facility. In addition, the interior of equipment (cabs, etc.) shall be free of mud, soil, gravel, and other debris (interiors may be vacuumed or washed).

4. All vegetative material removed from the project site shall be transported in a covered vehicle and will be disposed of at a certified disposal site.

Timing: These guidelines shall be adhered to during the construction activities.

Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed and will include documentation of adherence to these guidelines.

MM-BIO-13 Signage and barriers**.** To prevent long-term inadvertent disturbance to sensitive vegetation and species adjacent to the bridge site, signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River. The signage shall state that these areas are native habitat areas, and that no trespassing is allowed. Signage shall also include prohibitions on littering.

Documentation: The locations of these signs will be shown on the Wetlands Habitat Mitigation and Monitoring Plan or similar document.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-14 Invasive Species Prohibition**.** Final landscape and revegetation plans shall be reviewed by the project biologist and a qualified botanist to confirm there are no invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region.

Documentation: Final landscape and/or revegetation plans.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-15 Short-Term Noise. Pre-construction biological and noise surveys shall be conducted for any work between February 1 and September 15. Between 3 and 7 days prior to start of construction activities, a qualified biologist with experience in identifying least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and coastal California gnatcatcher (*Polioptila californica californica*) shall conduct a pre-construction survey for the least Bell's vireo, coastal California gnatcatcher, and, if needed, southwestern willow flycatcher to document presence/absence and the extent of habitat being occupied by the species. The pre-construction survey area for these species shall encompass all suitable habitats within the impact area, as well as suitable habitat within a 500-foot buffer of the construction activities. If active nests for any of these species are detected, a qualified biologist will conduct sound monitoring near the observed nesting position(s) to sample the pre-construction outdoor ambient noise level and document any signs of disturbance prior to construction activities. Nest locations, their horizontal distances to planned construction activities, and the measured outdoor ambient noise levels shall be provided to a qualified acoustician, who shall recommend where implementation of practical noise reduction technique(s) would yield predicted construction noise exposure at the nest location not greater than the allowable threshold of 60 dBA Leq or ambient noise level, whichever is higher. To the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this Leq threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest.

Timing: Surveys will be completed within 72 hours prior to the start of construction activities during the breeding season (typically February 1 through September 15).

Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities. Additionally, a monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed.

MM-BIO-16 Brown-Headed Cowbird Control. A brown-headed cowbird reduction program shall be initiated within the project area. The control program may be achieved by selecting one of the following methods which will be determined by SDSU or its designee:

1. Fair share funding into the San Diego River Endowment Fund (managed by the San Diego Foundation) or other program whose primary purpose is to provide funds to support work of U.S. Fish and Wildlife Service, California Department of Fish and Game, or other governmental or not-for-profit environmental organization for exotic species control, brown-headed cowbird trapping, least Bell's vireo monitoring and other activities to benefit the least Bell's vireo. The exact financial contribution amount will be negotiated with the USFWS during the Incidental Take Permit processing but should cover the cost of cowbird control for the area 0.3 miles downstream and 0.3 miles upstream of the bridge for five years after the bridge has been constructed. Should this option be selected, payment of the negotiated fee shall occur prior to the commencement of construction.

2. *Establishment of a trapping program within and immediately adjacent to the bridge construction work area.* Pre-construction trapping shall begin prior to the first phase of construction to document baseline conditions. The post-construction trapping program will commence the spring after the bridge is constructed and will continue for a period of 5 years, or until such time as an alternative control method is developed, which shall then replace the trapping program through the 5-year period. If brown-headed cowbird populations have increased from baseline conditions during the 5-year trapping program, trapping (or an alternative equally effective control method) shall continue for trapping program continue for up to an additional 10 years, with the right to terminate if brown-headed cowbird populations decrease to the baseline levels or achieves another equivalent metric. If the brown-headed cowbird population decreases during the 5-year trapping program, the program will be deemed successful and trapping beyond the 5-year timeframe will no longer be necessary. The trapping program shall be based on the most currently used trapping methods. Three traps shall be set: one in the bridge construction work area, one approximately 1/3 mile upstream of the bridge work area and one 1/3 mile downstream of the bridge work area. If there are current programs in place within that distance within the 5-year trapping program, then the project-related trapping will end. If the other trapping program ends within the 5-year period, SDSU or its designee will ensure that a trapping program is conducted for the duration of the 5-year period. Trapping shall be performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year.

   Yearly reporting of the trapping results shall be provided to the City and will minimally include the rationale for trap placement, number of target species, non-target species, mortalities of each, sex and age of each as able to be determined, comparison to prior trapping, and suggestions for the following year.

   Documentation/Reporting: Yearly reporting of the trapping results shall be provided to the City for the duration of the trapping/control program.

   Timing: Trapping shall begin the spring after the bridge has been constructed and continue for a period of 5 years (or up to an additional 10 years as described above). Trapping shall be performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year.

3. *Alternative brown-headed cowbird control program*. Given that the science is evolving on the effectiveness of brown-headed cowbird control programs, should another method of control be developed and proved equally or more effective than one of the above methods, this option could be selected. This option would need to include the same performance criteria of ensuring that the brown-headed cowbird populations would be the same or lower than the baseline (season before the bridge construction begins).

MM-BIO-17 Restore Temporary Impacts**.** Temporary impacts to Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest (federally and state-regulated wetlands) shall be restored to their original condition. California State University/San Diego State University or its designee shall prepare a conceptual 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 with a goal to restore temporarily impacted areas to above 80% of pre-project native cover. The conceptual restoration plan shall be reviewed and approved by City of San

Diego, including PUD and MSCP reviewers, and shall be consistent with the long-term maintenance requirements for the City of San Diego Stadium Wetland Mitigation Site.

Documentation: The Habitat Mitigation and Monitoring Plans prepared for the temporary impacts to wetlands and uplands (as applicable).

Timing: Conceptual plans shall be submitted to the City of San Diego prior to approval of any grading plans and issuance of any grading or construction permits.

Monitoring: Monitoring of restoration shall occur over a period of at least 3 years.

Reporting: Reporting will occur upon commencement of the mitigation installation, at the completion of mitigation installation, at the completion of the 120-day plant establishment period, and annually throughout the 3-year to 5-year monitoring period.

MM-BIO-18 Wetland Mitigation. The overall ratio of wetland/riparian habitat mitigation shall be 3:1. Impacts shall be mitigated at a 1:1 impact-to-creation ratio by either the creation, or purchase of credits for the creation, of jurisdictional habitat of similar functions and values. An additional 2:1 enhancement-to-impact ratio shall be required to meet the overall 3:1 impact-to-mitigation ratio for impacts to wetlands/riparian habitat. Impacts to the unvegetated stream channels in the San Diego River shall occur at a 1:1 or 2:1 mitigation ratio, with a 1:1 impact-to-creation ratio. Additional mitigation for unvegetated channels will occur through preservation. Mitigation may occur as off-site enhancement and restoration, and/or purchase of credits at an approved mitigation bank.

If mitigation is proposed outside of an approved mitigation bank, a Conceptual Wetlands Mitigation and Monitoring Plan shall be prepared and implemented. The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation. California State University/San Diego State University shall be responsible for the monitoring and maintenance program.

Prior to impacts occurring to U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdictional aquatic resources, California State University/San Diego State University or its designee shall obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW 1600 Streambed Alteration Agreement.

Documentation: The mitigation plan and/or proof of purchase of credits from a mitigation bank shall be provided to the City of San Diego.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

7 Level of Significance after Mitigation

Implementation of the above mitigation measures would reduce potential impacts to biological resources to **less-than-significant** levels with the exception of Impact BIO-12, which is described further below.

Impacts BIO-1, BIO-2, and BIO-3: Least Bell's Vireo, Southwestern Willow Flycatcher, and Coastal California Gnatcatcher

The direct impacts to suitable habitat for least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher will be reduced to less than significant through implementation of **MM-BIO-1**, which requires habitat mitigation and take avoidance, **MM-BIO-2**, which requires habitat mitigation, and **MM-BIO-3**, which requires focused coastal California gnatcatcher surveys and avoidance of occupied nesting areas.

Impact BIO-4: Other Special-Status Birds

The direct impacts to suitable habitat for Cooper's hawk, yellow-breasted chat, and yellow warbler will be reduced to less than significant through implementation of **MM-BIO-2**, which requires habitat mitigation at a 3:1 mitigation ratio for impacts to southern cottonwood–willow riparian forest and a 1.5:1 mitigation ratio for impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub.

Impact BIO-5: Special-Status Amphibians and Reptiles

The direct impacts to suitable habitat for southern California legless lizard, orange-throated whiptail, southwestern pond turtle, two-striped gartersnake, and western spadefoot will be reduced to less than significant through implementation of **MM-BIO-2**, which requires habitat mitigation at a 3:1 mitigation ratio for impacts to southern cottonwood–willow riparian forest and 1.5:1 mitigation ratio for impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub.

Impact BIO-6: Bat Roosts

There are potential significant impacts to maternity bat roosts, if present, that could occur from the removal of suitable riparian trees on-site. These impacts will be reduced to less than significant through implementation of **MM-BIO-4**, which requires bat surveys, maternity roost season avoidance, and roost exclusion to ensure there are no direct impacts to a maternity roost.

Impact BIO-7: Crotch's Bumble Bee

There are potential significant impacts to habitat that could support Crotch's bumble bee from removal of habitat on-site. These impacts will be reduced to less than significant through implementation of **MM-BIO-5**, which requires pre-construction surveys and avoidance of active nests for Crotch's bumble bee.

Impact BIO-8: Migratory Birds

The potential significant direct impacts to nesting birds protected under the MBTA will be reduced to less than significant through implementation of **MM-BIO-6**, which requires nesting bird surveys when construction activities occur during the bird nesting season and avoidance buffers if active nests are found.

Impact BIO-9: Special-Status Plants

Potentially significant direct impacts to two special-status plants, San Diego County viguiera and San Diego marsh-elder, will be reduced to less than significant through implementation of MM-BIO-7, which requires avoidance, biological monitoring and, if required, agency consultation and compensatory mitigation.

Impact BIO-10: Plants – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to special-status plants will be reduced to less than significant through implementation of MM-BIO-8, MM-BIO-9, and MM-BIO-10, which require temporary installation of construction fencing to delineate the limits of grading, biological monitoring, a monitoring report, and implementation of air quality standards. Additionally, MM-BIO-11 requires Construction Documents to include information regarding equipment storage and language for activities that could result in leakage, sedimentation, or intrusion into the MHPA. Since the low flow channel will remain in place, removal of vegetation will be limited to the impact footprint. In addition, a stormwater pollution prevention plan outlining best management practices (BMPs) to reduce discharges of pollutants in storm water from construction sites to the maximum extent practicable and effectively prohibit non-storm water discharges from the construction site will be developed and implemented. MM-BIO-12 requires weed control through treatments, restrictions on straw materials that can be used, washing of equipment entering the project area, and proper disposal of vegetation removed from the site to reduce potential invasive species entering the adjacent Stadium Wetland Mitigation Site.

Impact BIO-11: Plants – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to special-status plants and sensitive natural communities will be reduced to less than significant through implementation of MM-BIO-13, which requires signage/barriers between the construction area and the San Diego River, and MM-BIO-14, which imposes restrictions on landscape planting and revegetation within and adjacent to the MHPA. Additionally, MM-BIO-11 requires Construction Documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

Impact BIO-12: Wildlife – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to special-status wildlife species associated with inadvertent disturbance to vegetation outside the footprint, dust, non-native animals, etc. will be reduced to less than significant minimized through implementation of MM-BIO-8, MM-BIO-9, and MM-BIO-10, which require temporary installation of construction fencing to delineate the limits of grading, biological monitoring, a monitoring report, and implementation of air quality standards. Additionally, MM-BIO-11 requires Construction Documents to include language for activities that could result in leakage or intrusion into the MHPA. MM-BIO-15 requires surveys for active nests for least Bell's vireo, southwestern willow flycatcher, and/or coastal California gnatcatcher within 500 feet of the impact areas. If active nests are found within 500 feet of construction activities, a qualified biological monitor shall monitor the nest(s) for any signs of disturbance from construction-related noise. To the extent feasible, on-site noise reduction techniques shall be implemented to minimize construction noise levels so they do not exceed 60 A-weighted decibels hourly equivalent noise level or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier, utilization of quieter equipment, adherence to equipment maintenance schedules, installation of temporary sound barriers, or shifting construction work further from the nest. The installation of very tall, solid sound barriers would result in additional impacts to aquatic resources and habitat, and possibly impede

wildlife movement; therefore, this would not be a feasible option. While all feasible actions will be taken to minimize potential noise impacts if nests are present within the buffer, significant, unavoidable impacts associated with construction-related noise may occur.

Impact BIO-13: Wildlife – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of **MM-BIO-12**, **MM-BIO-14**, and **MM-BIO-16** which require signage/barriers, restrictions on landscape planting, and brown-headed cowbird trapping. Additionally, **MM-BIO-11** requires Construction Documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

Impact BIO-14: Sensitive Natural Communities – Temporary Direct Impacts

The proposed temporary direct impacts to Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest will be reduced to less than significant through implementation of **MM-BIO-17**, which requires restoration of these impacts to pre-project condition.

Impact BIO-14: Sensitive Natural Communities – Permanent Direct Impacts

Permanent direct impacts to sensitive vegetation communities and land covers will be reduced to less than significant through implementation of **MM-BIO-2**, which requires habitat mitigation.

Impact BIO-15: Jurisdictional Waters – Temporary Direct Impacts

The proposed temporary impacts to federally and state-regulated wetlands/riparian areas, including within the Stadium Wetland Mitigation Site, will be reduced to less than significant through implementation of **MM-BIO-17**, which requires restoration of these impacts to pre-project conditions, and **MM-BIO-18**, which requires waters and wetland mitigation.

Impact BIO-15: Jurisdictional Waters – Permanent Direct Impacts

Permanent direct impacts to federally and state-regulated wetlands/riparian areas and non-wetland waters, including within the Stadium Wetland Mitigation Site, will be reduced to less than significant through implementation of **MM-BIO-2**, which requires habitat mitigation, and **MM-BIO-18**, which requires waters and wetland mitigation.

Impact BIO-16: Jurisdictional Waters – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to sensitive vegetation communities will be reduced to less than significant through implementation of **MM-BIO-8**, **MM-BIO-9**, and **MM-BIO-10**, which require temporary installation of construction fencing to delineate the limits of grading, biological monitoring, a monitoring report, and implementation of air quality standards. Additionally, **MM-BIO-11** requires Construction Documents to include information regarding equipment storage and language for activities that could result in leakage, sedimentation, or intrusion into the MHPA. Since the low flow channel will remain in place, removal of vegetation will be limited to the impact footprint. In addition, a storm water pollution prevention plan outlining best management practices (BMPs) to reduce discharges of pollutants in storm water from construction sites to the maximum extent practicable and

effectively prohibit non-storm water discharges from the construction site will be developed and implemented. MM-BIO-12 requires weed control through treatments, restrictions on straw materials that can be used, washing of equipment entering the project area, and proper disposal of vegetation removed from the site to reduce potential invasive species entering the adjacent Stadium Wetland Mitigation Site.

Impact BIO-17: Jurisdictional Waters – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to sensitive vegetation communities will be reduced to less than significant through implementation of MM-BIO-13, which requires signage/barriers, and MM-BIO-14, which imposes restrictions on landscape and revegetation planting adjacent to the MHPA. Additionally, MM-BIO-11 requires Construction Documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

Impact BIO-18: Wildlife Movement – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to the native habitat, including the San Diego River, will be reduced to less than significant through implementation of MM-BIO-8 and MM-BIO-9, which require temporary installation of construction fencing to delineate the limits of grading but still allow wildlife to move through the river channel, biological monitoring, and a monitoring report. Additionally, MM-BIO-11 requires Construction Documents to include language for activities that could result in leakage or intrusion into the MHPA.

Impact BIO-19: Wildlife Movement – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to the native habitat, including the San Diego River, will be reduced to less than significant through implementation of MM-BIO-13 and MM-BIO-14, which require signage/barriers where appropriate to deter access from the bridge into the San Diego River and restrictions on landscape and revegetation planting. Additionally, MM-BIO-11 requires Construction Documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

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Appendix A
Plant Compendium

Vascular Species

Eudicots

ANACARDIACEAE – SUMAC OR CASHEW FAMILY

Malosma laurina – laurel sumac
Rhus integrifolia – lemonade berry

APIACEAE – CARROT FAMILY

* *Apium graveolens* – wild celery
* *Conium maculatum* – poison hemlock
* *Foeniculum vulgare* – fennel
* *Torilis arvensis* – spreading hedgeparsley

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia psilostachya – western ragweed
Artemisia californica – California sagebrush
Artemisia douglasiana – Douglas' sagewort
Baccharis pilularis ssp. *consanguinea* – coyotebrush
Baccharis salicifolia ssp. *salicifolia* – mulefat
Baccharis sarothroides – desertbroom
Bidens laevis – smooth beggartick
* *Bidens pilosa* – hairy beggarticks
* *Carduus pycnocephalus* ssp. *pycnocephalus* – Italian plumeless thistle
* *Centaurea melitensis* – Maltese star-thistle
Deinandra fasciculata – clustered tarweed
* *Dittrichia graveolens* – stinkwort
Encelia californica – California brittle bush
Erigeron canadensis – Canadian horseweed
* *Glebionis coronaria* – crowndaisy
* *Hedypnois rhagadioloides* – crete weed
* *Helminthotheca echioides* – bristly oxtongue
Heterotheca grandiflora – telegraphweed
Isocoma menziesii var. *vernonioides* – Menzies' goldenbush
Iva hayesiana – San Diego marsh-elder
* *Lactuca serriola* – prickly lettuce
Pseudognaphalium biolettii – two-color rabbit-tobacco
Pseudognaphalium californicum – ladies' tobacco
* *Pseudognaphalium luteoalbum* – Jersey cudweed
* *Pulicaria paludosa* – Spanish false fleabane

* *Sonchus asper* ssp. *asper* – spiny sowthistle
* *Sonchus oleraceus* – common sowthistle
  Viguiera laciniata – San Diego County viguiera
  Xanthium strumarium – cocklebur

BORAGINACEAE – BORAGE FAMILY

  Amsinckia intermedia – common fiddleneck
  Heliotropium curassavicum var. *oculatum* – seaside heliotrope

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard
* *Hirschfeldia incana* – shortpod mustard
* *Lepidium didymum* – lesser swinecress
* *Raphanus sativus* – cultivated radish
* *Sisymbrium altissimum* – tall tumblemustard

CHENOPODIACEAE – GOOSEFOOT FAMILY

  Atriplex lentiformis – quailbush
* *Atriplex prostrata* – fat hen
* *Dysphania ambrosioides* – Mexican tea

EUPHORBIACEAE – SPURGE FAMILY

* *Euphorbia maculata* – spotted sandmat
* *Euphorbia peplus* – petty spurge
* *Ricinus communis* – castorbean

FABACEAE – LEGUME FAMILY

* *Acacia cyclops* – coastal wattle
* *Medicago polymorpha* – burclover
* *Melilotus albus* – yellow sweetclover
* *Melilotus indicus* – annual yellow sweetclover

FAGACEAE – OAK FAMILY

  Quercus agrifolia – coast live oak
  Quercus berberidifolia – Inland scrub oak

GERANIACEAE – GERANIUM FAMILY

  Geranium carolinianum – Carolina geranium

LAMIACEAE – MINT FAMILY

  Salvia mellifera – black sage

MYRSINACEAE – MYRSINE FAMILY

* *Lysimachia arvensis* – scarlet pimpernel

ONAGRACEAE – EVENING PRIMROSE FAMILY

Oenothera elata ssp. *hirsutissima* – Hooker's evening primrose

Oenothera elata – Hooker's evening primrose

PLANTAGINACEAE – PLANTAIN FAMILY

* *Plantago major* – common plantain

PLATANACEAE – PLANE TREE, SYCAMORE FAMILY

Platanus racemosa – California sycamore

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum var. *foliolosum* – California buckwheat

Persicaria lapathifolia – smartweed

* *Rumex conglomeratus* – clustered dock
* *Rumex crispus* – curly dock

ROSACEAE – ROSE FAMILY

Rosa californica – California rose

RUBIACEAE – MADDER FAMILY

Galium aparine – stickywilly

SALICACEAE – WILLOW FAMILY

Populus fremontii ssp. *fremontii* – Fremont cottonwood

Populus fremontii – Fremont cottonwood

Salix gooddingii – Goodding's willow

Salix lasiolepis – arroyo willow

SAURURACEAE – LIZARD'S-TAIL FAMILY

Anemopsis californica – yerba mansa

SIMAROUBACEAE – QUASSIA OR SIMAROUBA FAMILY

* *Ailanthus altissima* – tree of heaven

SOLANACEAE – NIGHTSHADE FAMILY

* *Nicotiana glauca* – tree tobacco

Solanum americanum – American black nightshade

TAMARICACEAE – TAMARISK FAMILY

* *Tamarix ramosissima* – tamarisk

THEOPHRASTACEAE – THEOPHRASTA FAMILY

Samolus parviflorus – seaside brookweed

TROPAEOLACEAE – NASTURTIUM FAMILY

* *Tropaeolum majus* – nasturtium

VIBURNACEAE – MUSKROOT FAMILY

Sambucus mexicana – blue elderberry

VITACEAE – GRAPE FAMILY

Vitis girdiana – desert wild grape

Monocots

ARECACEAE – PALM FAMILY

* *Phoenix canariensis* – Canary Island date palm
* *Washingtonia robusta* – Washington fan palm

ASPARAGACEAE – ASPARAGUS FAMILY

* *Asparagus aethiopicus* – Sprenger's asparagus fern

CYPERACEAE – SEDGE FAMILY

Cyperus eragrostis – tall flatsedge

Schoenoplectus californicus – California bulrush

POACEAE – GRASS FAMILY

* *Arundo donax* – giant reed
* *Avena barbata* – slender oat
* *Brachypodium distachyon* – purple false brome
* *Bromus diandrus* – ripgut brome
* *Bromus hordeaceus* – soft brome
* *Bromus madritensis* – compact brome
* *Bromus rubens* – red brome
* *Cortaderia selloana* – Uruguayan pampas grass
* *Cynodon dactylon* – Bermudagrass
* *Echinochloa crus-galli* – barnyardgrass
* *Ehrharta erecta* – panic veldtgrass
* *Festuca myuros* – rat-tail fescue
* *Polypogon interruptus* – ditch rabbitsfoot grass
* *Polypogon monspeliensis* – annual rabbitsfoot grass
* *Stipa miliacea* var. *miliacea* – smilograss

TYPHACEAE – CATTAIL FAMILY

Typha domingensis – southern cattail

* signifies introduced (non-native) species

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Appendix B
Wildlife Compendium

Amphibians

Frogs

RANIDAE – TRUE FROGS

* *Lithobates catesbeianus* – American bullfrog

Birds

Blackbirds, Orioles and Allies

ICTERIDAE – BLACKBIRDS

Icterus cucullatus – hooded oriole

* *Molothrus ater* – brown-headed cowbird

Bushtits

AEGITHALIDAE – LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus – bushtit

Cardinals, Grosbeaks and Allies

CARDINALIDAE – CARDINALS AND ALLIES

Pheucticus melanocephalus – black-headed grosbeak

Cormorants

PHALACROCORACIDAE – CORMORANTS

Nannopterum auritus – double-crested cormorant

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Contopus sordidulus – western wood-pewee

Empidonax difficilis – Pacific-slope flycatcher

Sayornis nigricans – black phoebe

Tyrannus vociferans – Cassin's kingbird

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk
Buteo jamaicensis – red-tailed hawk
Buteo lineatus – red-shouldered hawk

PANDIONIDAE – OSPREYS

Pandion haliaetus – osprey

Herons and Bitterns

ARDEIDAE – HERONS, BITTERNS, AND ALLIES

Ardea alba – great egret
Ardea herodias – great blue heron
Butorides virescens – green heron
Egretta thula – snowy egret
Nycticorax nycticorax – black-crowned night-heron

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird
Selasphorus rufus – rufous hummingbird
Selasphorus sasin – Allen's hummingbird
Selasphorus sp. – Allen's/rufous hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos – American crow
Corvus corax – common raven

Kingfishers

ALCEDINIDAE – KINGFISHERS

Megaceryle alcyon – belted kingfisher

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird
Toxostoma redivivum – California thrasher

Nuthatches

SITTIDAE – NUTHATCHES

Sitta carolinensis – white-breasted nuthatch

Old World Sparrows

PASSERIDAE – OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

* *Columba livia* – rock pigeon (rock dove)

* *Streptopelia decaocto* – Eurasian collared-dove

Shorebirds

CHARADRIIDAE – LAPWINGS AND PLOVERS

Charadrius vociferus – killdeer

Starlings and Allies

STURNIDAE – STARLINGS

* *Sturnus vulgaris* – European starling

Swallows

HIRUNDINIDAE – SWALLOWS

Petrochelidon pyrrhonota – cliff swallow

Stelgidopteryx serripennis – northern rough-winged swallow

Tachycineta bicolor – tree swallow

Swifts

APODIDAE – SWIFTS

Aeronautes saxatalis – white-throated swift

Terns and Gulls

LARIDAE – GULLS, TERNS, AND SKIMMERS

Hydroprogne caspia – Caspian tern

Larus occidentalis – western gull

Thrushes

TURDIDAE – THRUSHES

Catharus ustulatus – Swainson's thrush

Vireos

VIREONIDAE – VIREOS

Vireo bellii pusillus – least Bell's vireo
Vireo huttoni – Hutton's vireo

Waterfowl

ANATIDAE – DUCKS, GEESE, AND SWANS

Anas platyrhynchos – mallard

Waxwings

BOMBYCILLIDAE – WAXWINGS

Bombycilla cedrorum – cedar waxwing

Wood Warblers and Allies

PARULIDAE – WOOD-WARBLERS

Geothlypis trichas – common yellowthroat
Setophaga petechia – yellow warbler
Leiothlypis celata – orange-crowned warbler

Woodpeckers

PICIDAE – WOODPECKERS AND ALLIES

Dryobates nuttallii – Nuttall's woodpecker
Dryobates pubescens – downy woodpecker

Wrens

TROGLODYTIDAE – WRENS

Troglodytes aedon – house wren
Thryomanes bewickii – Bewick's wren

Waxbills

ESTRILDIDAE – WAXBILLS

* *Lonchura punctulata* – scaly-breasted munia

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melospiza melodia – song sparrow
Melozone crissalis – California towhee

Chats

ICTERIIDAE – YELLOW-BREASTED CHAT

Icteria virens – yellow-breasted chat

Invertebrates

Butterflies

LYCAENIDAE – BLUES, HAIRSTREAKS, AND COPPERS

Glaucopsyche lygdamus australis – southern blue
Leptotes marina – marine blue

NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Danaus plexippus – monarch
Nymphalis antiopa – mourning cloak

RIODINIDAE – METALMARKS

Apodemia mormo virgulti – Behr's metalmark

PAPILIONIDAE – SWALLOWTAILS

P*apilio eurymedon* – pale swallowtail
Papilio rutulus – western tiger swallowtail

PIERIDAE – WHITES AND SULFURS

Pieris rapae – cabbage white
Pontia protodice – checkered white

Mammals

Canids

CANIDAE – WOLVES AND FOXES

Canis latrans – coyote

Hares and Rabbits

LEPORIDAE – HARES AND RABBITS

Sylvilagus bachmani – brush rabbit

Pocket Gophers

GEOMYIDAE – POCKET GOPHERS

Thomomys bottae – Botta's pocket gopher

Squirrels

SCIURIDAE – SQUIRRELS

Otospermophilus beecheyi – California ground squirrel

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

Sceloporus occidentalis – western fence lizard

Turtles

EMYDIDAE – BOX AND WATER TURTLES

Trachemys scripta – pond slider

* signifies introduced (non-native) species

Appendix C1

Special-Status Plants – Observed

Scientific Name	Common Name	Status[1] (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	Marshes and swamps, playas/ perennial herb/Apr–Oct/30–1640	Present. Observed in the San Diego River during the 2022 botanical survey.
Viguiera laciniata	San Diego County viguiera	None/None/4.3	Chaparral, coastal scrub/ perennial shrub/Feb–June (Aug)/ 195–2460	Present. Observed along the boundary of the coastal sage scrub area south of the river during the 2023 botanical survey.

Notes:

1 Regulatory status is based on the California Department of Fish and Wildlife Special Plants List (CDFW 2023).

2 The potential for occurrence of each species was summarized according to the following categories. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided.
Present = the species has been documented in the project site by a reliable observer.

CRPR: California Rare Plant Rank

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

4: Plants of limited distribution–a watch list

Threat Ranks:

0.2: Fairly threatened in California (moderate degree/immediacy of threat)

0.3: Not very threatened in California (low degree/immediacy of threats or no current threats known)

References

CDFW (California Department of Fish and Wildlife). 2023. Natural Diversity Database. "Special Vascular Plants, Bryophytes, and Lichens List." April 2023. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline.

Appendix C2

Special-Status Plants – Not Expected to Occur

Scientific Name	Common Name	Status[1] (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Abronia maritima	red sand-verbena	None/None/4.2	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. No suitable dune vegetation present within the project area or off-site areas. The closest known occurrence is approximately 5.5 miles west of the project area within coastal dune habitat on Fiesta Island in Mission Bay Park (CCH 2023). This species was not observed during the May or July survey passes.
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	Coastal dunes, coastal scrub (sandy)/annual herb/ Mar–June (July)/0–35	Not expected to occur. No suitable coastal dune habitat is present, but marginally suitable Baccharis-dominated coastal sage scrub occurs in the western corner of the project area. The closest known CNDDB occurrences are approximately 5.5 miles west of the project area within Mission Bay Park (CDFW 2023). This species was not observed during the May or July survey passes.
Adolphia californica	California adolphia	None/None/2B.1	Chaparral, coastal scrub, valley and foothill grassland; clay/perennial deciduous shrub/Dec–May/30–2430	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub occurs in the project area; however, suitable clay soil is not present. The closest CNDDB occurrence is located approximately 1.4 miles southeast of the project area (CDFW 2023). This species was not observed during the May or July survey passes.
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1	Coastal bluff scrub, coastal scrub; maritime succulent scrub/perennial leaf succulent/Sep–May/5–395	Not expected to occur. There is no suitable coastal bluff scrub present within the project area. The closest CNDDB occurrence is located approximately 9.2 miles southwest of the project area (CDFW 2023). As stated by Reiser (2001), this species is almost extirpated within the United States and only occurs in a few documented areas. This species was not observed during the May or July survey passes.
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/2B.1	Coastal scrub/perennial shrub/Apr–June/180–510	Not expected to occur. Although marginally suitable Baccharis-dominated coastal sage scrub occurs in the western portion of the project area, this species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Ambrosia monogyra	singlewhorl burrobush	None/None/2B.2	Chaparral, Sonoran desert scrub; sandy/perennial shrub/ Aug–Nov/30–1640	Not expected to occur. Although the closest CNDDB occurrence is located only approximately 0.9 miles northwest of the project area (CDFW 2023), there is no suitable chaparral or desert vegetation present within the project area. This species was not observed during the May or July survey passes.
Ambrosia pumila	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. This species primarily occurs within upper terraces of rivers or drainages, although it has been documented in a variety of other habitats as well (USFWS 2010a). Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area; however, the closest extant CNDDB occurrence is located approximately 5 miles northeast of the site (CDFW 2023). This species was not observed during the May or July survey passes.
Aphanisma blitoides	aphanisma	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub; sandy or gravelly/annual herb/Feb–June/0–1000	Not expected to occur. No suitable coastal bluff scrub is present within the project area. The closest CNDDB occurrence is located approximately 8 miles northwest of the project area in the Pacific Beach/La Jolla area (CDFW 2023). This species was not observed during the May or July survey passes.
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1	Chaparral (maritime, sandy)/perennial evergreen shrub/ Dec–June/0–1200	Not expected to occur. No suitable chaparral vegetation is present within the project area. The closest CNDDB occurrence is located approximately 5.4 miles northeast of the project area near Fortuna Mountain adjacent to Marine Corps Air Station Miramar (CDFW 2023). This species was not observed during the May or July survey passes.
Artemisia palmeri	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area but lacks particularly sandy soils. This perennial shrub would have been observed during the May survey pass.
Astragalus deanei	Dean's milk-vetch	None/None/1B.1	Chaparral, cismontane woodland, coastal scrub, riparian forest/perennial herb/Feb–May/245–2280	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present within project area; however, this species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernally mesic areas/annual herb/ Mar–May/0–165	Not expected to occur. No suitable coastal bluff scrub vegetation present within the project area. This species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Atriplex coulteri	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. The closest CNDDB occurrence is located 1.2 miles northwest of the project area, within Lower Sandrock Canyon (CDFW 2023). This species was not observed during the May or July survey passes.

Scientific Name	Common Name	Status[1] (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Atriplex pacifica	South Coast saltbush	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/Mar–Oct/0–460	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. The closest CNDDB occurrence is located 4.7 miles northwest of the project area, within Tecolote Canyon (CDFW 2023). This species was not observed during the May or July survey passes.
Baccharis vanessae	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 chaparral or cismontane woodland vegetation present within the project. This species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2	Closed-cone coniferous forest, chaparral, coastal scrub; sandy/perennial stem succulent/May–June/5–1295	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in project area; however, only one CNDDB occurrence is known to occur within the vicinity[3] and is considered to be extirpated (CDFW 2023). This species was not observed during the May or July survey passes.
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial bulbiferous herb/Apr–May/ 160–1525	Not expected to occur. This species is commonly found on clay soils in the vicinity[3] of vernal pools (Reiser 2001), which are not present within the marginally suitable Baccharis-dominated coastal sage scrub in the project area. The closest CNDDB occurrence is located approximately 0.6 miles northwest of the project area along the mesa south of Rhonda Avenue (CDFW 2023). This species was not observed during the May or July survey passes.
Brodiaea filifolia	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	Not expected to occur. This species prefers grassland habitat and clay soils (Reiser 2001), which are not present within the project area or off-site areas. This species is not known to occur within the vicinity[3] (CDFW 2023).
Brodiaea orcuttii	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. No clay soils, vernal pools, or otherwise suitable vegetation are present within the project area or off-site areas. The closest CNDDB occurrence is located 1.3 miles northeast of the project area within Murphy Canyon (CDFW 2023). This species was not observed during the May or July survey passes.
Camissoniopsis lewisii	Lewis's 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	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. The closest known occurrence is located approximately 4.2 miles northeast of the project area (CCH 2023). This species was not observed during the May or July survey passes.
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2	Closed-cone coniferous forest, chaparral/perennial evergreen shrub/Apr–June/770–2475	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable coniferous forest or chaparral vegetation present within the project area. This species was not observed during the May or July survey passes.
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1965–3610	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable chaparral vegetation present within the project area.
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2	Chaparral/perennial evergreen shrub/Dec–May/0–1245	Not expected to occur. No suitable chaparral vegetation present within the project area. The closest CNDDB occurrence is located 0.5 miles southeast of the project area. This species was not observed during the May or July survey passes.
Centromadia parryi ssp. *australis*	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. This species occurs within grasslands, vernal pools, and along the margins of marshes, none of which is present within the project area. This species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1	Coastal bluff scrub (sandy), coastal dunes/annual herb/ Jan–Aug/0–330	Not expected to occur. No suitable coastal bluff or coastal dune vegetation present within the project area. This species was not observed during the May or July survey passes.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2	Coastal dunes, marshes and swamps (coastal salt)/ annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. No suitable coastal marsh or coastal dune vegetation present within the project area. This species was not observed during the May or July survey passes.
Chorizanthe orcuttiana	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. Marginally suitable Baccharis-dominated coastal sage scrub is present within the project area, although sandy soil is absent. This species is considered possibly extirpated within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Chorizanthe polygonoides var. *longispina*	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. This species prefers clay soils, which are absent within the project area, although marginally suitable Baccharis-dominated coastal sage scrub is present. The closest CNDDB occurrence is located approximately 3.8 miles north of the project area (CDFW 2023). This species was not observed during the May or July survey passes.
Clarkia delicata	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 chaparral or cismontane woodland vegetation present within the project area. This species was not observed during the May or July survey passes.

Scientific Name	Common Name	Status[1] (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2	Chaparral, cismontane woodland/perennial evergreen shrub/Apr–June/95–2590	Not expected to occur. No suitable chaparral or cismontane woodland vegetation present within the project area. This species was not observed during the May or July survey passes.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1	Coastal bluff scrub, chaparral, coastal scrub/perennial herb/June–Sep/5–375	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub occurs in the project area. The closest CNDDB occurrence is located approximately 7.6 miles east of the project area in the Pacific Beach area (CDFW 2023). This species was not observed during the May or July survey passes.
Corethrogyne filaginifolia var. *linifolia*	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. This species prefers sandy openings within coastal mixed chaparral (Reiser 2001), which is not present within the project area. The species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1	Chaparral, coastal scrub/perennial stem succulent/ Apr–May/95–490	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub occurs in the project area, although this species typically prefers xeric hillsides of chaparral or coastal sage scrub (Reiser 2001). The species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Deinandra conjugens	Otay tarplant	FT/SE/1B.1	Coastal scrub, valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Not expected to occur. This species prefers clay soils in grasslands or sparse coastal sage scrub, which is not present within the project area. The species is not known to occur within the vicinity[3] (CDFW 2023).
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/2B.1	Coastal scrub/annual herb (hemiparasitic)/ (Mar)Apr–July(Sep)/30–1150	Not expected to occur. This species is known to occur within seasonally dry channels and uplands adjacent to riparian habitat (Reiser 2001). Suitable Baccharis-dominated coastal sage scrub is present within the project area. However, this species is not known to occur within the vicinity[3] (CDFW 2023), and its range appears to be restricted to the Otay River area. This species was not observed during the May or July survey passes.
Dudleya blochmaniae ssp. *blochmaniae*	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. Rocky slopes or shallow clay soils preferred by this species are not present within the project area. The one CNDDB occurrence within the vicinity,[3] recorded in 1949, is located approximately 8 miles northwest of the project area and is considered possibly extirpated (CDFW 2023). This species was not observed during the May or July survey passes.
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1	Chaparral (maritime, openings), coastal scrub; Torrey sandstone/perennial herb/Apr–May/95–820	Not expected to occur. Torrey sandstone soils preferred by this species are not present within the project area. The closest CNDDB occurrence is located approximately 8.6 miles northwest of the project area in the La Jolla hills area (CDFW 2023). This species was not observed during the May or July survey passes.
Dudleya variegata	variegated dudleya	None/None/1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/Apr–June/5–1905	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area, although rocky or clay soils and vernal pool habitat preferred by this species are absent. The closest presumed extant CNDDB occurrence is located approximately 3 miles southwest of the project area (CDFW 2023). This species was not observed during the May or July survey passes.
Dudleya viscida	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. Suitable rocky soils and steep hillsides preferred by this species (Reiser 2001) are not present within the project area. The closest CNDDB occurrence is located approximately 7.8 miles east of the project area in the Ocean Beach area (CDFW 2023). This species was not observed during the May or July survey passes.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1	Chaparral, coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1970	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the western portion of the project area; however, this species prefers granitic soils and steep hillsides, which are not present within the project area. The closest CNDDB occurrence is located 1.6 miles southeast of the project area, within Mahogany Canyon (CDFW 2023). This species was not observed during the May or July survey passes.
Eriodictyon sessilifolium	sessile-leaved yerba santa	None/None/2B.1	Coastal scrub; volcanic/perennial shrub/July/555–560	Not expected to occur. The site is outside of the species' known elevation range and suitable volcanic soils are not present within the project area. A survey for this species is scheduled for July 2023.
Eryngium aristulatum var. parishii	San Diego button-celery	FE/SE/1B.1	Coastal scrub, valley and foothill grassland, vernal pools; mesic/annual / perennial herb/Apr–June/65–2035	Not expected to occur. This species is closely associated with vernal pool habitat and clay soils (USFWS 2010b), which are not present within the project area or off-site areas. The closest presumed extant CNDDB occurrence is located approximately 2 miles north of the project area (CDFW 2023). This species was not observed during the May or July survey passes.
Erysimum ammophilum	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in the western portion of the project area; however, sandy openings preferred by this species is absent in this area. The closest CNDDB occurrence is located approximately 7.1 miles southwest of the project area in Collier Park (CDFW 2023). This species was not observed during the May or July survey passes.

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Erythranthe diffusa	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 chaparral or montane forest vegetation present within the project area or off-site areas. This species was not observed during the May or July survey passes.
Euphorbia misera	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. This species is strongly associated with coastal rocky bluffs, which are not present within the project area. The closest CNDDB occurrence is located approximately 9.5 miles northwest of the project area, in the cliffs of La Jolla Bay (CDFW 2023). This species was not observed during the May or July survey passes.
Ferocactus viridescens	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. This species has been recorded just north of the project area, southeast of Podell Avenue and Yolanda Avenue (CDFW 2023). This species was not observed during the May or July survey passes.
Frankenia palmeri	Palmer's frankenia	None/None/2B.1	Coastal dunes, marshes and swamps (coastal salt), playas/perennial herb/May–July/0–35	Not expected to occur. This species is closely associated with coastal salt marsh and dune habitat, which is not present within the project area. This species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1	Coastal scrub (mesic), vernal pools; soil/ephemeral liverwort/N.A./30–1970	Not expected to occur. This species prefers mesic conditions and is associated with vernal pools, which are absent within the project area. The closest CNDDB occurrence is located approximately 4.0 miles northwest of the project area in seasonally mesic soils just south of Highway 52 (CDFW 2023). This species was not observed during the May or July survey passes.
Grindelia hallii	San Diego gumplant	None/None/1B.2	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/perennial herb/ May–Oct/605–5725	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable chaparral, meadow, grassland, or coniferous forest vegetation present within the project area. This species was not observed during the May or July survey passes.
Harpagonella palmeri	Palmer's grappling-hook	None/None/4.2	Chaparral, coastal scrub, valley and foothill grassland; clay; open grassy areas within shrubland/annual herb/ Mar–May/65–3135	Not expected to occur. This species prefers clay soils, which are not present within the project area. The closest CNDDB occurrence is located approximately 3.7 miles north of the project area south of Highway 52 (CDFW 2023). This species was not observed during the May or July survey passes.
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1	Chaparral (coastal), coastal dunes, coastal scrub/ perennial herb/Mar–Dec/0–4020	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area; however, sandy soils preferred by this species is absent in this area. The closest CNDDB occurrence is located approximately 3.9 miles southeast of the project area within Mission Valley near the Riverpark Golf Club (CDFW 2023). This species was not observed during the May or July survey passes.
Hordeum intercedens	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	Not expected to occur. This species is strongly associated with vernal pools and depressions within grasslands (Reiser 2001), which are not present within the project area or off-site areas. The closest species occurrence is located approximately 4.2 miles north of the project area just northwest of the junction of Highway 52 and Highway 163 (CCH 2023). This species was not observed during the May or July survey passes.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2	Chaparral, coastal scrub (sandy, often in disturbed areas)/ perennial shrub/Apr–Nov/30–445	Not expected to occur. Suitable Baccharis-dominated coastal sage scrub is present in the project area. The closest occurrence is located 1.2 miles southwest of the project area in an upland area adjacent to the San Diego River (CCH 2023). This species was not observed during the May or July survey passes.
Lasthenia glabrata ssp. *coulteri*	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. There is no suitable salt marsh, playa, or vernal pool vegetation present within the project area. This species was not observed during the May or July survey passes.
Lepechinia cardiophylla	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 coniferous forest, chaparral, or cismontane woodland vegetation present within the project area. This species was not observed during the May or July survey passes.
Lepidium virginicum var. *robinsonii*	Robinson's peppergrass	None/None/4.3	Chaparral, coastal scrub/annual herb/Jan–July/0–2905	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. The closest CNDDB occurrence is located approximately 4 miles east of the project area in the coastal scrub adjacent to Lake Murray (CDFW 2023). This species was not observed during the May or July survey passes.
Leptosyne maritima	sea dahlia	None/None/2B.2	Coastal bluff scrub, coastal scrub/perennial herb/ Mar–May/15–490	Not expected to occur. Although suitable coastal bluff scrub is absent, marginally suitable Baccharis-dominated coastal sage scrub is present in the western portion of the project area. The closest CNDDB occurrence is located approximately 4.2 miles west of the project area within Finger Canyon (CDFW 2023). This species was not observed during the May or July survey passes.

Scientific Name	Common Name	Status[1] (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Mobergia calculiformis	light gray lichen	None/None/3	Coastal scrub (?); on rocks/crustose lichen (saxicolous)/ NA/30–35	Not expected to occur. Little is known about the life history and distribution of this species. This species is only known from one site in Baja and one historical occurrence in San Diego (CDFW 2023). This species was not observed during the May or July survey passes.
Monardella viminea	willowy monardella	FE/SE/1B.1	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/160–740	Not expected to occur. This species occurs in sandy washes, benches, and floodplains of perennial and ephemeral streams; however, it requires riparian systems with semi-open canopies and flowing water only after seasonal rains (USFWS 2008). The closest CNDDB occurrences are located approximately 3.6 miles north of the project area within Murphy and Elanus Canyons (CDFW 2023). This species was not observed during the May or July survey passes.
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1	Valley and foothill grassland, vernal pools (alkaline)/ annual herb/Mar–June/65–2100	Not expected to occur. No suitable grassland or vernal pool vegetation present within the project area. This species was not observed during the May or July survey passes.
Nama stenocarpa	mud nama	None/None/2B.2	Marshes and swamps (lake margins, riverbanks)/annual/ perennial herb/Jan–July/15–1640	Not expected to occur. Marginally suitable riverbank habitat is present in the project area. However, this species is not known to occur within the vicinity[3] (CCH 2023; CDFW 2023). This species was not observed during the May or July survey passes.
Navarretia fossalis	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. This species is strongly associated with vernal pools, which are not present within the project area (USFWS 2009). The closest CNDDB occurrence is located approximately 2.3 miles north of the project area within Montgomery Field (CDFW 2023). This species was not observed during the May or July survey passes.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/ Apr–July/5–3970	Not expected to occur. This species is strongly associated with vernal pool habitat (Reiser 2001), which is absent within the project area. The closest CNDDB occurrence is located approximately 4.2 miles north of the project area within vernal pools near the junction of Highway 52 and Highway 163 (CDFW 2023). This species was not observed during the May or July survey passes.
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2	Coastal dunes/annual herb/Apr–Sep/0–330	Not expected to occur. No suitable coastal dune vegetation is present within the project area. This species was not observed during the May or July survey passes.
Nemacaulis denudata var. *gracilis*	slender woolly-heads	None/None/2B.2	Coastal dunes, desert dunes, Sonoran desert scrub/ annual herb/(Mar)Apr–May/-160–1310	Not expected to occur. No suitable dune or desert vegetation is present within the project area. This species was not observed during the May or July survey passes.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1	Vernal pools/annual herb/Apr–Aug/45–2165	Not expected to occur. No suitable vernal pool vegetation is present within the project area. This species was not observed during the May or July survey passes.
Phacelia stellaris	Brand's star phacelia	None/None/1B.1	Coastal dunes, coastal scrub/annual herb/Mar–June/ 0–1310	Not expected to occur. This species is known to occur in sandy openings in coastal sage scrub located near the coast (Reiser 2001). Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area; however, the sandy openings preferred by this species are absent in this area. The closest occurrence is located approximately 5 miles west of the project area within the San Diego Riverbed near Highway 5 (CCH 2023). This species was not observed during the May or July survey passes.
Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/1B.2	Closed-cone coniferous forest, chaparral; sandstone/ perennial evergreen tree/NA/95–525	Not expected to occur. No suitable coniferous forest or chaparral vegetation is present within the project area. This species was not observed during the May or July survey passes.
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1	Vernal pools/annual herb/Mar–July/295–655	Not expected to occur. No suitable vernal pool vegetation is present within the project area. This species was not observed during the May or July survey passes.
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1	Vernal pools/annual herb/May–July/295–820	Not expected to occur. No suitable vernal pool vegetation is present within the project area. This species was not observed during the May or July survey passes.
Quercus dumosa	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in project area. The closest CNDDB occurrence is located approximately 1.4 miles southeast of the project area north of the intersection of Fairmont Avenue and Montezuma Road (CDFW 2023).
Salvia munzii	Munz's sage	None/None/2B.2	Chaparral, coastal scrub/perennial evergreen shrub/ Feb–Apr/375–3495	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. The closest CNDDB occurrence is located approximately 1.3 miles northwest of the project area on the slopes on the east side of Taft Middle School (CDFW 2023). This species was not observed during the May or July survey passes.
Senecio aphanactis	chaparral ragwort	None/None/2B.2	Chaparral, cismontane woodland, coastal scrub; sometimesalkaline/annual herb/Jan–Apr (May)/ 45–2625	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area. The two closest CNDDB occurrences date back to 1903 and 1935, and the remaining CNDDB occurrences within the vicinity[3] are considered possibly extirpated (CDFW 2023). This species was not observed during the May or July survey passes.

Scientific Name	Common Name	Status[1] (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Sidalcea neomexicana	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	Not expected to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the project area; however, this species prefers alkali spring and marsh habitat, which is absent within the project area. The closest CNDDB occurrence is located approximately 8 miles northwest of the project area, west of Miramar Naval Air Station (CDFW 2023). This species was not observed during the May or July survey passes.
Stemodia durantifolia	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. The site is outside of the species' known elevation range and there is no suitable desert vegetation present within the project area. This species was not observed during the May or July survey passes.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	Chaparral, lower montane coniferous forest/perennial herb/May–Aug/2195–8200	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable chaparral or coniferous forest vegetation present within the project area. This species was not observed during the May or July survey passes.
Stylocline citroleum	oil neststraw	None/None/1B.1	Chenopod scrub, coastal scrub, valley and foothill grassland; clay/annual herb/Mar–Apr/160–1310	Not expected to occur. This species is reported primarily from the San Joaquin Valley in Kern County (Reiser 2001), and the only occurrence within the vicinity[3] dates back to 1883 and states that location is within the general San Diego area (CDFW 2023). This species was not observed during the May or July survey passes.
Suaeda esteroa	estuary seablite	None/None/1B.2	Marshes and swamps (coastal salt)/perennial herb/ (May)July–Oct (Jan)/0–15	Not expected to occur. No suitable salt marsh vegetation is present within the project area. This species was not observed during the May or July survey passes.
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2	Chaparral, coastal scrub/perennial deciduous shrub/ Apr–May/540–3280	Not expected to occur. The site is outside of the species' known elevation range. This species is not known to occur within the vicinity[3] (CDFW 2023). This species was not observed during the May or July survey passes.
Texosporium sancti-jacobi	woven-spored lichen	None/None/3	Chaparral (openings); on soil, small mammal pellets, dead twigs, and on Selaginella spp/crustose lichen (terricolous)/N.A./195–2165	Not expected to occur. No suitable chaparral vegetation present within the project area. This species was not observed during the May or July survey passes.
Xanthisma junceum	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. The closest occurrence is located approximately 5 miles northeast of the project area near Mission Gorge Road (CCH 2023). This species was not observed during the May or July survey passes.

Notes: CNDDB = California Natural Diversity Database.

1 Regulatory status is based on the Special Plants List (CDFW 2023).

2 The potential for occurrence of each species was summarized according to the following categories. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Not expected to occur = the project site is outside the known range of the species, habitat for the species is either absent or of low quality, and this species was not observed during focused surveys conducted during the appropriate bloom period for this species.

3 "Vicinity" refers to species recorded in the USGS 7.5-minute La Mesa or La Jolla quadrangles (CDFW 2023; CNPS 2023).

Status Legend

Federal Designations

FE: Species listed as endangered by USFWS

FT: Species listed as threatened by USFWS

State Designations

SE: State endangered

CRPR: California Rare Plant Rank (CRPR)

1A: Plants presumed extinct in California

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

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

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

3: Plants about which we need more information–a review list

4: Plants of limited distribution–a watch list

Threat Rank

0.1: Seriously threatened in California (high degree/immediacy of threat)

0.2: Fairly threatened in California (moderate degree/immediacy of threat)

0.3: Not very threatened in California (low degree/immediacy of threats or no current threats known)

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Appendix D1

Special-Status Wildlife – Observed, High, or Moderate Potential to Occur

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
Amphibians				
Spea hammondii	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	Moderate potential to occur. This species is associated with vernal pools or other ephemeral wetland systems, which are not present in the project site. There is a known occurrence 0.7 miles north of the project site (CDFW 2023). Though overland travel is generally rare and not extensive (Zeiner et al. 1988–1990), the potential for occurrence remains moderate due to proximity to the presumed extant population.
Reptiles				
Anniella stebbinsi	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	Moderate potential to occur. Riparian woodland habitat with moist sandy soils present. The closest CNDDB occurrence is located approximately 3.8 miles southwest of the project site near a ravine about 0.6 miles upslope of the San Diego River plain (CDFW 2023).
Aspidoscelis hyperythra	orange-throated whiptail	None/WL	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Moderate potential to occur. Suitable sandy wash and coastal scrub habitat is present in and adjacent to the San Diego River. Several records exist within 5 miles of the project site, the closest approximately 1 mile to the northwest (CDFW 2023).
Actinemys pallida (Emys)marmorata	southwestern pond turtle	FPT/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs	Moderate potential to occur. Suitable stream habitat adjacent to the San Diego River. Presence of some permanent open water and recorded occurrences within the San Diego River in Mission Trails Regional Park.
Thamnophis hammondii	two-striped gartersnake	None/SSC, SCE	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Moderate potential to occur. Perennial freshwater habitat associated with the San Diego River is present. The nearest CNDDB occurrence is 5.3 miles northwest of the project site, in the Miramar Marine Corps Air Station (CDFW 2023).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats, often near water	Present. Dense riparian habitat of the San Diego River can provide suitable nesting opportunities. This species is known to nest in the vicinity (Unitt 2004), with a 2017 CNDDB occurrence adjacent to the project site (CDFW 2023), and has been observed in the project site during surveys.
Elanus leucurus (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	Moderate potential to occur. Suitable riparian habitat present adjacent to the San Diego River. There are no nearby CNDDB occurrences, with the closest being 11.3 miles northeast of the project site (CDFW 2023).
Empidonax traillii extimus (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	Moderate potential to nest. Focused surveys for this species were conducted May–July 2022 and resulted in no detections for this species. However, potential to occur remains moderate due to suitable habitat being present within the project site. The only CNDDB occurrence in the project site is 10.6 miles to the southeast (CDFW 2023).
Icteria virens (nesting)	yellow-breasted chat	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Present. Species detected during 2022 surveys.
Ixobrychus exilis (nesting)	least bittern	None/SSC	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Moderate potential to nest. Patches of emergent vegetation are present, and this species has been recorded nesting within the San Diego River (Unitt 2004).
Polioptila californica californica	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	High potential to occur. There is suitable habitat on site; however, no coastal California gnatcatcher were observed during focused surveys in 2023. A pair and fledglings were observed approximately 250 northeast of the project site. Given the suitable habitat onsite and known occurrences in the

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
				immediate vicinity, this site could be occupied by this species in the future.
Setophaga petechia (nesting)	yellow warbler	None/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Present. Species detected during 2022 surveys.
Vireo bellii pusillus (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	Present. Species detected during 2022 surveys.
Mammals				
Choeronycteris mexicana	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	Moderate potential to occur. This species is known to occur in the area (Tremor et al. 2017). Riparian woodlands along the San Diego River may provide roosting habitat. The closest CNDDB occurrence, recorded in 1946, is located approximately 2.2 miles southwest of the project site, south of Interstate 8 (CDFW 2023).
Dasypterus xanthinus	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	Moderate potential to occur. This species is strongly associated with roosting in palm trees but has been known to roost in cottonwood trees and yucca (Tremor et al. 2017). Suitable riparian roosting and foraging habitat is present within the San Diego River. The closest CNDDB occurrence is located approximately 5 miles southeast in the La Mesa area (CDFW 2023).
Lasiurus frantzii	western red bat	None/SSC	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy Notes:	Moderate potential to occur. Suitable foraging and roosting habitat is present in the riparian habitat of the San Diego River. This species has been recorded in the San Diego River within the vicinity[3] (Tremor et al. 2017).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
Invertebrates				
Bombus crotchii	Crotch's bumble bee	None/SCE	Open grassland and scrub communities supporting suitable floral resources	Moderate potential to occur in the coastal sage scrub on site.

Notes: CNDDB = California Natural Diversity Database.

1 The potential for occurrence of each species was summarized according to the following categories. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided.
Present = the species has been documented in the project site by a reliable observer.
High likelihood of occurrence = the species has not been documented in the project site but is known to occur in the vicinity, and species habitat is present.
Moderate likelihood of occurrence = the species has not been documented in the vicinity, but the project site is within the known range of the species, and habitat for the species is present.

2 Refers to records within the La Mesa and La Jolla U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps, and the 7 surrounding USGS 7.5-minute quadrangle maps (i.e., Del Mar, Poway, San Vicente Reservoir, El Cajon, Point Loma, National City, and Jamul Mountains).

3 "Vicinity" refers to species recorded in the USGS 7.5-minute La Mesa or La Jolla quadrangles (CDFW 2023; CNPS 2023)

Status Legend

Federal Designations

BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
FE: Federally listed as endangered
FT: Federally listed as threatened
FPT: Federally proposed threatened

State Designations

FP: Fully protected species
SCE: State candidate for listing as endangered
SE: State listed as endangered
SSC: Species of Special Concern
ST: State listed as threatened

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Appendix D2

Special-Status Wildlife – Low Potential or Not Expected to Occur

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
Amphibians				
Anaxyrus californicus	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	Low potential to occur. Marginally suitable sandy riverine habitat present adjacent to the San Diego River. 2002–2003 surveys within the San Diego River Watershed revealed that this species occurs within San Vicente Creek but not at Mission Trails Regional Park and downstream (USFWS 2009). There are no records for arroyo toad in the San Diego River downstream of El Capitan Reservoir (USFWS 2023).
Reptiles				
Arizona elegans occidentalis	California glossy snake	None/SSC	Arid scrub, rocky washes, grasslands, chaparral, open areas with loose soil	Low potential to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the staging area in the southeast portion of the project area. All nearby CNDDB occurrences are over 80 years old, with the nearest being approximately 1.7 miles east of the project site (CDFW 2023).
Aspidoscelis tigris stejnegeri	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 in the San Diego River floodplain within the project site. This species is not known to occur within the immediate vicinity and the closest CNDDB occurrence is 8.5 miles southeast of the project site (CDFW 2023).
Chelonia mydas	green sea turtle	FT/None	Shallow waters of lagoons, bays, estuaries, mangroves, eelgrass, and seaweed beds	Not expected to occur. Suitable shallow estuarine or marine habitat is not present within the project site.
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC	Rocky areas within coastal scrub and chaparral	Low potential to occur. Suitable rocky areas within coastal sage scrub are not present within the project area or off-site areas. This species has a single occurrence within the study area, 13.9 miles northeast of the project site (CDFW 2023).
Crotalus ruber	red diamondback rattlesnake	None/SSC	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Low potential to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present, but it lacks the rocky areas preferred by this species and is isolated from additional upland habitat due to

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
				surrounding development. The closest CNDDB occurrence is located approximately 5.9 miles northeast of the project site within Mission Trails Regional Park (CDFW 2023).
Phrynosoma blainvillii	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	Low potential to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present, however it lacks the rocky areas preferred by this species and is isolated from additional upland habitat due to surrounding development.
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL, SCE	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Low potential to occur. Suitable riparian habitat is present adjacent to the San Diego River. However, substrates consist mainly of sand with no rocky substrate, which this species prefers. The nearest CNDDB occurrence is 3.9 miles north of the project site (CDFW 2023).
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Low potential to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present but lacks connectivity to additional upland habitat due to surrounding development. The closest CNDDB occurrence is located approximately 5.7 miles northeast of the project area within Mission Trails Regional Park (CDFW 2023).
Birds				
Agelaius tricolor (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	Low potential to nest. There are small patches of emergent wetland within the project area; however, ongoing monitoring for this species as part of the tricolored blackbird statewide surveys has not recorded this species in this area. There is a nesting colony occurrence from 1997 approximately 1.9 miles west, within the San Diego River corridor (CDFW 2023).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Low potential to nest. This species primarily occurs in grassland which is not present within the project area or off-site areas. This species is not known to occur within the vicinity (CDFW 2023).
Aquila chrysaetos (nesting and wintering)	golden eagle	None/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 are absent within and around the entire project site. This species is not known to occur within the vicinity (CDFW 2023).
Athene cunicularia (burrow sites and 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 abundant in the project site. The nearest CNDDB occurrence is 2.2 miles north in sage scrub habitat near an airfield (CDFW 2023).
Buteo swainsoni (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian areas, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to nest. Suitable habitat not present. This species has become heavily dependent on agriculture for nesting and foraging. This species is also known to return to nesting areas, and all CNDDB occurrences are historic and extirpated (CDFW 2016; 2023).
Campylorhynchus brunneicapillus sandiegensis (San Diego and Orange Counties only)	coastal cactus wren	None/SSC	Southern cactus scrub patches	Not expected to occur. Suitable cactus scrub habitat is not present within the project area. The closest CNDDB occurrence is located approximately 3.4 miles southwest of the project area (CDFW 2023).
Charadrius nivosus nivosus (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. This species is not known to occur within the vicinity (CDFW 2023).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Low potential to occur. This species prefers dense riparian forests with high canopy cover and dense foliage (CDFW 1987; Laymon 1998), which is present in the project site. However, this species has not been recorded during focused riparian bird surveys and there are no recent occurrences for this species have been recorded, with all CNDDB occurrences historic and extirpated (CDFW 2023).
Coturnicops noveboracensis	yellow rail	BCC/SSC	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow standing water	Not expected to occur. Suitable nesting habitat not present within the project site. There are no occurrences of this species in the vicinity, and no reliable occurrences within the study area (CDFW 2023).
Falco mexicanus (nesting)	prairie falcon	BCC/WL	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to nest. Suitable cliff or bluff nesting habitat with nearby foraging habitat is not present in the project site. This species occurs within the vicinity (CDFW 2023).
Falco peregrinus anatum (nesting)	American peregrine falcon	FPD/FP, SCD	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian areas, meadows, croplands, especially where waterfowl are present	Not expected to nest. Suitable cliff nesting habitat is not present within the project site. The only CNDDB occurrence is south of the project site within the San Diego Bay area (CDFW 2023).
Laterallus jamaicensis coturniculus	California black rail	None/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. This species has been extirpated from San Diego.
Nannopterum auritum (nesting colony)	double-crested cormorant	None/WL	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	This species has been observed flying over the site but it has low potential to nest. No nesting colonies are present on site.
Pandion haliaetus (nesting)	osprey	None/WL	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest	This species has been observed flying over the site but it has low potential to nest. Suitable large bodies of open water are not present in the project site and

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
			habitats, but widely observed along the coast	the open water is obscured by large trees. The nearest CNDDB occurrence is 6.9 miles southwest near the North Island Naval Station (CDFW 2023).
Passerculus sandwichensis beldingi	Belding's savannah sparrow	BCC/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (*Salicornia* spp.)	Not expected to occur. No suitable saltmarsh vegetation is present in the project site.
Pelecanus occidentalis californicus (nesting colonies and communal roosts)	California brown pelican	FPD/FP, SCD	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to nest or roost. This species is largely restricted to coastal habitats away from the project area. The only CNDDB occurrence for this species is 8.8 miles southwest (CDFW 2023).
Rallus obsoletus levipes	Ridgway's rail	FE/FP, SE	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Low potential to occur. This species occurs in coastal wetland habitat, which is not present in the project area or off-site areas. The closest CNDDB occurrence is located approximately 5.4 miles southwest of the project area at the mouth of the San Diego River.
Sternula antillarum browni (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 nest. This species establishes nesting colonies along coastal beach or estuarine habitats, which is not present in the project area. The closest CNDDB occurrence is located approximately 5.6 miles west of the site on Fiesta Island (CDFW 2023).
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in human-made structures and trees	Low potential to occur. Rocky outcrop roosting habitat is absent, although this species could utilize dilapidated urban structures as roosting habitat. This species has not been recorded in urban areas near the coast since 1960 (Tremor et al.2017) and is not known to occur within the vicinity (CDFW 2023).
Chaetodipus californicus femoralis	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in the southeastern staging area but is isolated from other upland habitats due to development. The closest CNDDB occurrence is located approximately 4.9 miles

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
				northeast of the project area, north of Mission Gorge (CDFW 2023).
Chaetodipus fallax fallax	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. Marginally suitable Baccharis-dominated coastal sage scrub is present in the southeastern staging area but is isolated from other upland habitats due to development. The closest CNDDB occurrence is located approximately 4.4 miles northeast of the project area in Shepherd Canyon (CDFW 2023)
Corynorhinus townsendii	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, human-made structures, and tunnels	Low potential to occur. Suitable cavernous roosting habitat is not present, although suitable foraging habitat is present in forested habitat in the San Diego River. This species is not known to occur within the vicinity (CDFW 2023).
Euderma maculatum	spotted bat	None/SSC	Foothills, mountains, desert regions of southern California including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Low potential to occur. This species is rare within San Diego County (Tremor et al. 2017), and suitable arid, rocky habitat with suitable crevice or cliff roosting habitat is absent in the project area. The closest CNDDB occurrence, recorded in 1955, is located approximately 9.5 miles northwest of the project area near University of California San Diego (CDFW 2023).
Eumops perotis californicus	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 roost on site. High potential to forage. Although suitable vertical cliff roosting habitat is absent, suitable riparian and scrub foraging habitat is present in the southwestern portion of the project area. This species was last detected in 1995 within the project area and is presumed to be extant (CDFW 2023). This species has high potential to forage within the adjacent riparian habitat of the San Diego River, as this 1995 CNDDB occurrence is presumably extant (CDFW 2023).
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Low potential to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the staging area in the southeast portion of the project

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
				area but is isolated from other upland habitats due to development. The closest CNDDB occurrence is located approximately 6.3 miles northeast of the project area, north of Mission Gorge (CDFW 2023).
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian areas, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Low potential to occur. This species is strongly associated with preferred rocky outcrop or cliff roosting habitat (Tremor et al. 2017), none of which is present in the project area. The closest CNDDB occurrence, recorded in 1987, is located approximately 3 miles west of the project area in the Linda Vista area (CDFW 2023).
Nyctinomops macrotis	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	Low potential to occur. This species is strongly associated with preferred rocky outcrop, cliff, or occasional tall-structure roosting habitat (Tremor et al. 2017). The closest CNDDB occurrence is located approximately 3.7 miles northeast of the project area in Mission Gorge (CDFW 2023).
Odocoileus hemionus ssp. fuliginatus	Southern mule deer	None/None	Densely vegetated areas interspersed with openings (e.g., meadows, grasslands) and access to water; woodlands, scrub, chaparral	Low potential to occur. Mule deer move through areas of high vegetative cover and could occur in the riparian corridor along the San Diego River. However, this species typically avoids areas with high levels of human activity.
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC	Fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Low potential to occur. There are very few records of this species in San Diego County, and all are further along the coast than the project area (CDFW 2023). This species has low potential to occur in the riparian habitat of the San Diego River. Historical collections are spotty, and the only confirmed occurrences within San Diego County are in San Onofre and the Tijuana River valley (Tremor et al. 2017).
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. Marginally suitable Baccharis-dominated coastal sage scrub is present in the staging area in the southeast portion of the project area but is isolated from other upland habitats due to

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur[1,2]
				development. The closest CNDDB occurrence is located approximately 6.3 miles northeast of the project area, north of Mission Gorge (CDFW 2023).
Invertebrates				
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No vernal pool habitat is present within the project area, although this species has been recorded less than 1 mile northwest of the project area along a mesa just south of Ronda Avenue (USFWS 2023).
Euphydryas editha quino	Quino checkerspot butterfly	FE/None	Annual forblands, grassland, open coastal scrub, and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include *Plantago erecta*, *P. patagonica*, and *Antirrhinum coulterianum*, among others	Not expected to occur. The Baccharis-dominated coastal sage scrub in the staging area in the southeast corner of the project area is constrained by development and lacks nearby open habitat and the clay soils preferred by their host plant. The closest CNDDB occurrence is located approximately 5 miles northeast of the project area within Mission Trails Regional Park (CDFW 2023).
Lycaena hermes	Hermes copper	FT/None	Mixed woodlands, chaparral, and coastal scrub	Not expected to occur. The site is outside of the species' known geographic range, which occurs further east in San Diego County (CDFW 2023).
Streptocephalus woottoni	Riverside fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No vernal pool habitat is present within the project area. This species is not known to occur within the vicinity (CDFW 2023).
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Monarch has been observed during surveys; however, there are no stands of eucalyptus trees onsite, and therefore the project site does not support overwintering populations of monarch butterflies.

Notes: CNDDB = California Natural Diversity Database.

1 The potential for occurrence of each species was summarized according to the following categories. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided.
Low potential to occur = the species has not been documented in the vicinity and the project site is within the known range of the species, and habitat for the species is of low quality.
Not expected to occur = the project site is outside the known range of the species, and habitat for the species is either absent or of low quality.

2 Refers to records within the La Mesa and La Jolla U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps and the 7 surrounding USGS 7.5-minute quadrangle maps (i.e., Del Mar, Poway, San Vicente Reservoir, El Cajon, Point Loma, National City, and Jamul Mountains).

Status Legend

Federal Designations
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
FC: Candidate for federal listing as threatened or endangered
FE: Federally listed endangered
FPD: Federally proposed for delisting
FT: Federally listed as threatened
State Designations
FP: Fully protected species
SCD: State candidate for delisting
SCE: State candidate for listing as endangered
SE: State listed as endangered
SSC: Species of Special Concern
ST: State listed as threatened
WL: CDFW Watch List Species

References

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CDFW (California Department of Fish and Wildlife). 2023. RareFind, Version 5.2.14. California Natural Diversity Database (CNDDB). Accessed June 2023. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018407-rarefind-5.

Tremor, S., D. Stokes, W. Spencer, J. Diffendorfer, H. Thomas, S. Chivers, and P. Unitt. 2017. *San Diego County Mammal Atlas*. San Diego Natural History Museum. December 2017.

U.S. Fish and Wildlife Service (USFWS). 2009. "Arroyo Toad (*Bufo californicus (=microscaphus)*). 5-Year Review: Summary and Evaluation." U.S. Fish and Wildlife Service Ventura Fish and Wildlife Office. Ventura, California. August 2009.

USFWS. 2023. "Critical Habitat and Occurrence Data" [map]. Accessed June 2023. https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

Appendix E

Wetland Data Determination Forms and
Ordinary High Water Mark Transect Form

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDSU Fenton Parkway bridge City/County: San Diego/San Diego Sampling Date: 2023-04-28

Applicant/Owner: SDSU State: California Sampling Point: DP-01

Investigator(s): Callie Amoaku, Dylan Ayers Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR): C 19 Lat: 32.77718074 Long: -117.12563484 Datum: WGS 84

Soil Map Unit Name: Riverwash (Rm) NWI classification: Freshwater Forested/Shrub Wetland

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:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	65	✔	FACW
2. Populus fremontii	5		FAC
3.			
4.			
	70%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Cyperus eragrostis	15	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15%	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		= Total Cover	

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

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		175 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks:

SOIL

Sampling Point: DP-01

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/1	100					Silty Clay Loam	
2 - 13	2.5Y 4/2	90	10YR 4/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ✔ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ 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): 12

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 6

Wetland Hydrology Present? Yes ✔ **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDSU Fenton Parkway bridge City/County: San Diego/San Diego Sampling Date: 2023-04-28

Applicant/Owner: SDSU State: California Sampling Point: DP-02

Investigator(s): Callie Amoaku, Dylan Ayers Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR): C 19 Lat: 32.77717703 Long: -117.12564856 Datum: WGS 84

Soil Map Unit Name: Riverwash (Rm) NWI classification: Freshwater Forested/Shrub Wetland

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:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	65	✔	FACW
2. Populus fremontii	10		FAC
3. Salix lasiolepis	10		FACW
4.			
	85%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Cyperus eragrostis	15	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15%	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		= Total Cover	

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

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks:

SOIL

Sampling Point: DP-02

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 3/1	95	5YR 4/6	5	C	M	Silty Clay Loam	
6 - 14	10YR 4/1	90	10YR 2/1	2	C	M	Silty Clay Loam	
6 - 14			2.5YR 5/6	8	C	M		
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ✔ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ 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): 7

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 5

Wetland Hydrology Present? Yes ✔ **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDSU Fenton Parkway bridge City/County: San Diego/San Diego Sampling Date: 2023-04-28

Applicant/Owner: SDSU State: California Sampling Point: DP-03

Investigator(s): Callie Amoaku, Dylan Ayers Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 30

Subregion (LRR): C 19 Lat: 32.77711083 Long: -117.12565498 Datum: WGS 84

Soil Map Unit Name: Riverwash (Rm) NWI classification: Freshwater Forested/Shrub Wetland

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:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	40	✔	FACW
2.			
3.			
4.			
	40%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5 ft r)			
1. Sambucus nigra	10	✔	FACU
2.			
3.			
4.			
5.			
	10%	= Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Euphorbia peplus	2	✔	UPL
2. Sonchus oleraceus	1	✔	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	3%	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		= Total Cover	

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

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	3	x 5 =	15
Column Totals:	53 (A)		135 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

SOIL

Sampling Point: DP-03

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 7	10YR 4/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ 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:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDSU Mission Valley | City/County: San Diego/San Diego | Sampling Date: Feb 12, 2019

Applicant/Owner: San Diego State University | State: CA | Sampling Point: 1a

Investigator(s): Kathleen Dayton, Mackenzie Forgey | Section, Township, Range: Unsectioned, Township 16s, Range 2w

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

Subregion (LRR): C - Mediterranean California | Lat: 32.77812906820 | Long: -117.12649082000 | Datum: NAD83

Soil Map Unit Name: Riverwash | NWI classification: None

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

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

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

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

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

Remarks: Data station located within channel downstream of a storm drain outlet.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	80	Yes	FACW
2. *Salix gooddingii*	20	No	FACW
3. *Populus fremontii*	10	No	UPL
4.			
Total Cover:	110%		
Sapling/Shrub Stratum			
1. *Cortaderia selloana*	5	Yes	FACU
2.			
3.			
4.			
5.			
Total Cover:	5 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

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

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	100	x 2 =	200
FAC species		x 3 =	0
FACU species	5	x 4 =	20
UPL species	10	x 5 =	50
Column Totals:	115 (A)		270 (B)

Prevalence Index = B/A = 2.35

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Vegetation concentrated along banks of channel. Tree canopy completely covers channel.

SOIL

Sampling Point: 1a

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture[3]	Remarks
0-4	7.5 YR 4/3	85	10 YR 2/2	15	D	M	Loam	
4-8.5	10 YR 2/1	100					Sandy loam	
8.5-11	7.5 YR 4/3	100					Loam	
11-13	10 YR 2/2	100					Sandy loam	
13-15	10 YR 4/2	100					Sand	

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

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

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

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

Indicators for Problematic Hydric Soils:[4]

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ◉ No ○ Depth (inches): 4

Water Table Present? Yes ◉ No ○ Depth (inches): 13

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:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDSU Mission Valley | City/County: San Diego/San Diego | Sampling Date: Feb 12, 2019

Applicant/Owner: San Diego State University | State: CA | Sampling Point: 1b

Investigator(s): Kathleen Dayton, Mackenzie Forgey | Section, Township, Range: Unsectioned, Township 16s, Range 2w

Landform (hillslope, terrace, etc.): Toe of slope | Local relief (concave, convex, none): none | Slope (%): 0-6%

Subregion (LRR): C - Mediterranean California | Lat: 32.77804720520 | Long: -117.12659674300 | Datum: NAD83

Soil Map Unit Name: Riverwash | NWI classification: None

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

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

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

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

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

Remarks: Located on slope above low flow channel.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	25	Yes	FACW
2. *Salix gooddingii*	25	Yes	FACW
3.			
4.			
Total Cover:	50 %		
Sapling/Shrub Stratum			
1. *Cortaderia selloana*	8	Yes	FACU
2. *Baccharis pilularis*	10	Yes	UPL
3. *Encelia californica*	2	No	UPL
4. *Baccharis salicifolia*	3	No	FAC
5.			
Total Cover:	23 %		
Herb Stratum			
1. *Glebionis coronaria*	3	No	UPL
2. *Rumex crispus*	1	No	FAC
3. *Oxalis pes-caprae*	8	Yes	UPL
4. *Galium aparine*	1	No	FACU
5. *Bromus sp.*	4	Yes	UPL
6. *Urtica urens*	1	No	FAC
7.			
8.			
Total Cover:	18 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	50	x 2 =	100
FAC species	5	x 3 =	15
FACU species	9	x 4 =	36
UPL species	27	x 5 =	135
Column Totals:	91 (A)		286 (B)

Prevalence Index = B/A = 3.14

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

SOIL

Sampling Point: 1b

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture[3]	Remarks
0-7	7.5 YR 4/2	100					Sandy loam	
7-11	10 YR 5/4	99	2.5 YR 3/6	1	C	PL	Sandy clay loam	

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

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

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

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

Indicators for Problematic Hydric Soils:[4]

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDSU Mission Valley | City/County: San Diego/San Diego | Sampling Date: Feb 12, 2019

Applicant/Owner: San Diego State University | State: CA | Sampling Point: 1c

Investigator(s): Kathleen Dayton, Mackenzie Forgey | Section, Township, Range: Unsectioned, Township 16s, Range 2w

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

Subregion (LRR): C - Mediterranean California | Lat: 32.77807467000 | Long: -117.12655504100 | Datum: NAD83

Soil Map Unit Name: Riverwash | NWI classification: None

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

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

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

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

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

Remarks: Located on top of slope above low flow channel.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tamarix ramosissima*	5	Yes	UPL
2.			
3.			
4.			
Total Cover:	5 %		
Sapling/Shrub Stratum			
1. *Cortaderia selloana*	1	No	FACU
2. *Baccharis pilularis*	5	Yes	UPL
3. *Encelia californica*	2	No	UPL
4. *Isocoma menziesii*	12	Yes	FAC
5.			
Total Cover:	20 %		
Herb Stratum			
1. *Glebionis coronaria*	1	No	UPL
2. *Urtica dioica*	5	No	FAC
3. *Oxalis pes-caprae*	15	Yes	UPL
4. *Hirschfeldia incana*	1	No	UPL
5. *Bromus sp.*	40	Yes	UPL
6.			
7.			
8.			
Total Cover:	62 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	17	x 3 =	51
FACU species	1	x 4 =	4
UPL species	69	x 5 =	345
Column Totals:	87 (A)		400 (B)

Prevalence Index = B/A = 4.60

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

SOIL

Sampling Point: 1c

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture[3]	Remarks
0-4	7.5 YR 4/3	100					Sandy clay loam	
4-12	7.5 YR 4/2	98	5 YR 4/4	2	C	M	Sandy loam	

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

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

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

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

Indicators for Problematic Hydric Soils:[4]

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

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: Based on site conditions and lack of hydrophytic vegetation, hydrology, and other features indicating an aquatic feature, the concentrations are likely a relic of disturbance/foreign fill material. No evidence of hydrology in vicinity of pit.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Fenton Parkway Bridge
Project Number: 15057
Stream: San Diego River
Investigator(s): Callie Amoaku, Dylan Ayers
Date: 4-28-2023 **Time:**
Town: San Diego **State:** CA
Photo begin file#: **Photo end file#:**

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details:
San Diego River

Projection: 32.777503, **Datum:**
Coordinates: -117.126271

Potential anthropogenic influences on the channel system:
Adjacent roads, homeless activity

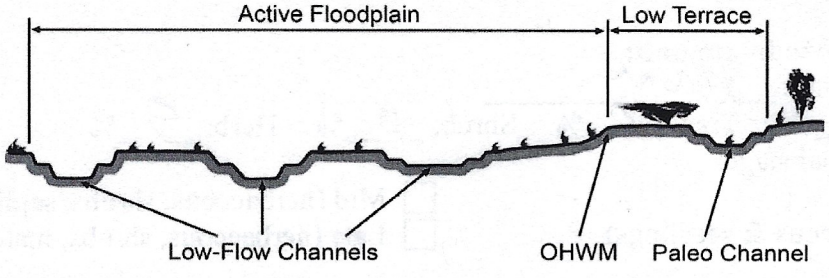
Brief site description:
San Diego River floodplain near Snapdragon Stadium.

Checklist of resources (if available):

- ☑ Aerial photography 2023
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☑ Soils maps
- ☐ Rainfall/precipitation maps
- ☑ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

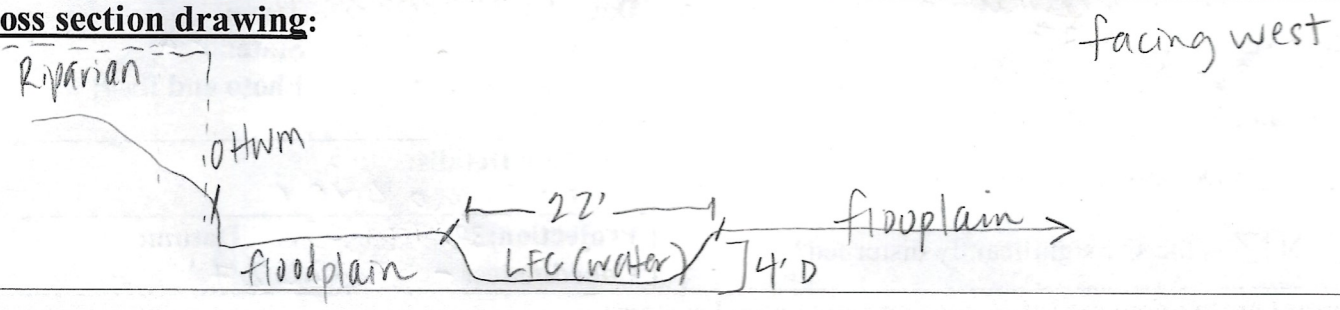


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☑ GPS
   - ☐ Digitized on computer
   - ☐ Other:

Project ID: 15057 **Cross section ID:** T-01 **Date:** 4-28-23 **Time:**

Cross section drawing:



OHWM

GPS point: OHWM

Indicators:

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [ ] Change in vegetation cover
- [x] Break in bank slope
- [x] Other: wracking
- [ ] Other:

Comments:

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point:

Characteristics of the floodplain unit:

Average sediment texture: loam

Total veg cover: 5 % Tree: 0 % Shrub: 0 % Herb: 5 %

Community successional stage:

- [ ] NA
- [x] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [x] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other:
- [ ] Other:
- [ ] Other:

Comments:

Project ID: 15057 **Cross section ID:** T-01 **Date:** 4-28-23 **Time:**

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: loam

Total veg cover: 100 % Tree: 85 % Shrub: 0 % Herb: 15 %

Community successional stage:

- ☐ NA
- ☑ Early (herbaceous & seedlings)
- ☑ Mid (herbaceous, shrubs, saplings)
- ☑ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☑ Drift and/or debris
- ☑ Presence of bed and bank
- ☑ Benches
- ☐ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments: