Biological Resources Assessment for the San Diego Clean Fuels Terminal LLC Project

National City
San Diego County, California

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AOU	American Ornithologists' Union
APN	Assessor's Parcel Number
BNSF	Burlington Northern Santa Fe
BSA	Biological Survey Area
CCA	California Coastal Act
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society's Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Endangered Species Act
FR	Federal Register
GIS	Geographic Information Systems
GNSS	Global Navigation Satellite System
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
LCP	Local Coastal Programs
MBTA	Migratory Bird Treaty Act
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
RWQCB	State Water Resources Control Board
SAA	Streambed Alteration Agreement
sf	Square foot/feet
SSAR	Society for the Study of Amphibians and Reptiles
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

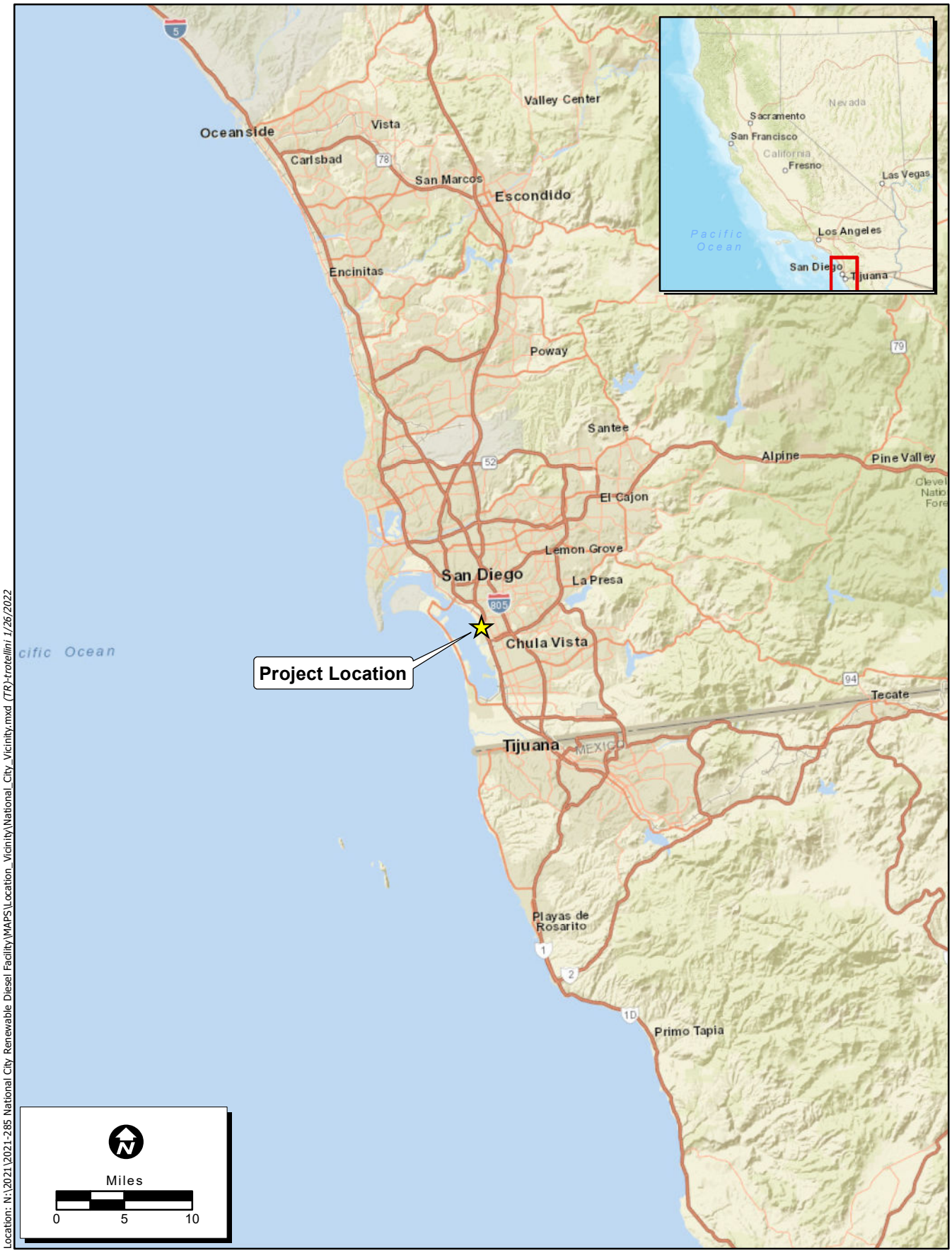
The San Diego Clean Fuels Terminal LLC Project (Project) is a proposed renewable diesel fuel facility located on approximately 10.9 acres of undeveloped land in National City, California. The purpose of this Biological Resources Assessment (also referred to herein as report) is to document the biological resources identified as present or potentially present on the Project site; identify potential biological resource impacts resulting from the proposed Project; and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA).

For the purposes of this report, the term Project Area refers to the areas proposed to be directly affected by implementation of the Project and corresponds to the client-supplied Project boundary. The term Biological Survey Area (BSA) refers to the Project Area and a 500-foot buffer surrounding the Project boundaries, potentially subject to temporary or indirect impacts.

1.1 Location and Setting

The proposed Project is approximately 10.9 acres (473,075.7 square feet [sf]) and is primarily unimproved and undeveloped. The site was formerly used for railroad and industrial purposes. A portion of the site contains four closed release cases. There is one open release case located on the adjoining/adjacent properties. The open remediation case is the Pacific Steel, Inc. property located adjacent and east of the site (herein referred to as Remediation Area). The Project site is located in the Medium Industrial Zone within the Coastal Zone overlay.

The proposed Project is located entirely within the National City Municipal Boundary in San Diego County (County), California (Figure 1). As depicted on the U.S. Geological Survey (USGS) 7.5-minute "National City, California" topographic quadrangle, the proposed Project is located within an un-sectioned portion of the La Nación Land Grant of Township 17 South, Range 2 West, San Bernardino Base and Meridian (USGS 1975). The proposed Project is located at the northeastern corner of the intersection of West 19th Street and the existing Burlington Northern Santa Fe (BNSF) double tracks, approximately 500 feet west of Interstate 5 and 2,000 feet east of the Pacific Ocean (Figure 2). A summary of geographic information is provided in Table 1.



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Map Date: 1/26/2022

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Figure 1. Project Vicinity

2021-285 National City Renewable Diesel Facility

Location: N:\2021\2021-285 National City Renewable Diesel Facility\MAPS\Location_Vicinity\National_City_Location.mxd (TR)-trotellini 5/5/2022

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Figure 2. Project Location

2021-285 National City Renewable Diesel Facility

Table 1. Project Area Location						
County	Survey Area	Approximate Center of BSA		Project Area Acreage	BSA Acreage[1]	APNs within Project Area
		Latitude (Decimal Degrees)	Longitude (Decimal Degrees)			
San Diego County	BSA (Project Area + 500 ft buffer)	32.666320°	-117.113687	10.86	89.53	5590910300, 5590560300, 5590710400, 5590760300, 5590405700, 5550900200, 5590101400, 5590100400, 5590404600, 5590404700, 5590405200, 5590400402, 5590400401, 5590404800, 5590510400, 5590511000, 5590511100, 5590760100, 5590760200, 5590760400, 5590911400, 5590911100, 5590405800

[1]Project Area + 500 Foot buffer
APN = Assessor's Parcel Number

1.2 Project Description

San Diego Clean Fuels Terminal LLC proposes to construct a transloading facility on the BNSF Railway railroad right-of-way located between the existing buildings along Cleveland Avenue and the existing BNSF Railway tracks and between Civic Center Drive and West 19th Street in National City, California. The new National City Rail Terminal will add nine rail spurs and five fixed truck loading spots to transload bio-diesel fuel and renewable diesel fuel directly from rail cars into trucks. The proposed Project consists of the following improvements: complete the remediation of the area behind 1700 Cleveland Avenue, build tracks and turnouts/crossovers to facilitate car movement in/out and within the transload facility, install concrete slab pump pads at each transload spot, install truck load slabs sloped to a drain in the center at each transload spot, install pumps and piping to move fuels from rail cars to truck loading spots, provide a concrete-lined containment basin and pipe each load slab drain to the basin, provide track pans for containment at the rail transloading cars, provide a kiosk for driver check-in and bill of lading printing, provide temporary restroom facilities for driver use, provide all weather (gravel) paving for the facility and circulation, and provide lighting for the site as needed.

1.3 Regulatory Considerations

The biological reconnaissance survey was conducted to identify potential constraints and to determine if biological constraints will be subject to state and federal regulations regarding listed, protected, and sensitive species. The regulations considered are detailed in the sections below.

1.4 Federal Regulations

1.4.1 Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

1.4.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

1.4.3 Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (USEPA) acts as a cooperating agency to set policy, guidance, and criteria for use in evaluation permit applications and also reviews USACE permit applications.

The USACE regulates *fill* or dredging of fill material within its jurisdictional features. *Fill material* means any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the State Water Resources Control Board (SWRCB), administered by each of nine California Regional Water Quality Control Boards (RWQCB).

1.5 State and Local Regulations

1.5.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the federal ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

1.5.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

1.5.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

1.5.4 Porter-Cologne Water Quality Control Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Control Act (hereafter referred to as Porter-Cologne Act). These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region that could affect the water of the state" [Water Code 13260(a)].

Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050[e]). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

On April 2, 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (referred to as the Procedures) for inclusion in the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Resolution No. 2019-0015). The new Procedures include:

- definition of wetlands and aquatic resources that are Waters of the State,
- description of application requirements for individual orders (not general orders) for water quality certification, or waste discharge requirements,
- description of information required in compensatory mitigation plans, and
- definition of exemptions to application procedures.

The Office of Administrative Law approved the procedures on August 28, 2019, and the rule went into effect May 28, 2020.

1.5.5 Coastal Zone Management Act

The Coastal Zone Management Act was passed in 1972 to provide incentives for states and local governments to create diverse planning and protection of coastal natural resources through laws and management programs as stated:

> *...to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well and the needs for compatible economic development programs* (16 U.S. Code 1452(2)).

1.5.6 California Coastal Act

The California Coastal Act of 1976 was created with guidance from the California Coastal Plan to protect natural coastal resources, enhance public access to the coast, and balance conservation and development and to be managed by the newly formed California Coastal Zone Conservation Commission or, as its called today, the California Coastal Commission (CCC). The California Coastal Act (CCA) applies to the government, businesses, and private individuals and regulates all land and water uses from the high tide line of the California coastal out to 3 nautical miles inland, except for the San Francisco Bay. Local governments serve as the regulatory agency within the boundaries of their jurisdiction and are also responsible for creating Local Coastal Programs (LCP) to guide coastal planning, development, and conservation as well as issuing permits. The California Coastal Commission operates under the federal Coastal Zone Management Act and reviews LCPs for approval. It is also important to note, the CCC criteria for wetlands varies from USACE and CDFW. The CCA protects important coastal biological resources including wetlands, riparian habitats and other areas defined as Environmentally Sensitive Habitat Areas by the CCC in accordance with the Coastal Act.

1.5.7 California Fish and Game Code

1.5.7.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

1.5.7.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in Sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and also make it unlawful to take these birds. All raptor species are protected from *take* pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

1.5.8 CEQA Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that

would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

Table 2. Summary Table of Federal, State, and Local Regulations

Regulation	Resource	Regulating Agency
Federal Regulations		
Federal Endangered Species Act	Listed *Endangered* or *Threatened* plant and animal species	USFWS
Migratory Bird Treaty Act	Migratory birds, or their parts, nests, or eggs	USFWS
Clean Water Act	Waters of the State – aquatic resources	USACE
State Regulations		
California Endangered Species Act	Listed *Endangered*, *Threatened*, or *Candidate* native species and their habitats	CDFW

Table 2. Summary Table of Federal, State, and Local Regulations		
Regulation	**Resource**	**Regulating Agency**
Native Plant Protection Act	64 species, subspecies, and varieties of endangered or rare native plants	CDFW
California Fish and Game Code	37 California ESA-threatened or endangered species that are rare or face possible extinction; Section 1600 protection of streambeds and associated riparian habitat; Fully protected species.	CDFW
Porter-Cologne Water Quality Control Act /California Water Code	Waters of the State – aquatic resources	RWQCB
Coastal Zone Management Act/ California Coastal Act	All land and water uses from the high tide line of the California coastal out to 3 nautical miles inland	CCC
Local Regulations		
CEQA Significance Criteria	Special-status species, riparian habitat, or sensitive natural communities, federal	City of National City

2.0 METHODS

2.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review to determine the special-status plant and wildlife species documented in the vicinity of the Project Area. The following databases and resources were reviewed:

- CDFW's California Natural Diversity Data Base (CNDDB; CDFW 2022a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2022);
- National Wetlands Inventory database (USFWS 2022a)
- Information for Planning and Consultation (IPaC; USFWS 2022b)
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) *Web Soil Survey* (NRCS 2022a);
- USGS 7.5-minute topographical maps of the BSA and vicinity;
- *Special Animals List* (CDFW 2022b);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2022c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- various online websites (e.g., CalFlora 2022).

The results of the literature review were then refined through site visits involving habitat assessments for these species and resources. Only special-status species with potential to occur within the BSA are discussed in this report. For the purposes of this report, species are considered to be special-status if they meet at least one of the following criteria:

- Species listed or proposed for listing as threatened or endangered under the ESA (50 CFR, Title 50, Section 17.12 [listed plants]); and 50 CFR 17.11 (listed animals), and various notices in the Federal Register (FR) (proposed species);
- Species that are candidates for possible future listing as threatened or endangered under the ESA (79 FR 72450, December 5, 2014);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 California Code of Regulations, Title 14, Section 70.5);
- Plant species listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900, et seq.);
- Species that meet the definitions of *rare* or *endangered* under CEQA (State CEQA Guidelines Sections 15380 and 15125);
- Animal species of special concern to CDFW;
- Bird species of conservation concern as identified by USFWS in *Birds of Conservation Concern;*
- Animals that are fully protected in California (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]);
- Designated as California Rare Plant Rank (CRPR) 1A (presumed extinct in California), 1B (rare, threatened, and endangered in California and elsewhere), or 2 (rare, threatened, or endangered in California, but more common elsewhere). CRPR 1A, 1B, and 2 species are considered special-status plant species as defined in the NPPA, California Fish and Game Code Section 1901 or the California ESA, California Fish and Game Code Sections 2050 through 2098; and,
- CRPR 3 (plants for which more information is needed [a review list]), or 4 (plants of limited distribution [watch list]) (CNPS 2022). Many CNPS CRPR 3 and 4 species do not meet the definitions of special-status as defined in the NPPA, California Fish and Game Code Section 1901 or the California ESA, California Fish and Game Code Sections 2050 through 2098, but are strongly recommended for consideration under CEQA (CNPS 2001).

2.1.1 Special-Status Species Potential for Occurrence

Using information from the literature review and observations in the field, a list of special-status plant and animal species that have potential to occur within the BSA was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;

- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; and
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Special-status species reported for the region in the literature review or for which suitable habitat occurs in the BSA were assessed for their potential to occur within the BSA based on the following guidelines:

Present: The species was observed on-site during a reconnaissance visit or focused survey.

High: Habitat (including soils and elevation factors) strongly associated with the species occurs within the BSA and a known occurrence has recently been recorded (within the last 20 years) within five miles of the area.

Moderate: Habitat (including soils and elevation factors) for the species occurs within the BSA and a recent documented observation occurs within the database search, but not within five miles of the area; habitat for the species occurs and a historic documented observation (more than 20 years old) was recorded within five miles of the BSA; or a recently documented observation occurs within five miles of the area and marginal or limited amounts of habitat occurs in the Project site.

Low: Limited or no suitable habitat for the species occurs within the BSA but a recently documented observation occurs within the database search; a historic documented observation (more than 20 years old) was recorded within five miles of the BSA and suitable habitat strongly associated with the species occurs on-site.

Presumed Absent: The species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on-site; and/or no records occur within five miles; and/or the known geographic range of the species does not include the BSA.

Note: Location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

2.2 Field Survey

2.2.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire BSA to determine the vegetation communities and wildlife habitats present. Private property and inaccessible areas within the buffer were surveyed utilizing 8x42 magnification binoculars. The biologists documented the plant and animal species present in the BSA and the conditions within the BSA were assessed for their potential to provide habitat for special-status plant and wildlife species, including those from the literature review.

Data was recorded with a Global Navigation Satellite System (GNSS) device capable of submeter accuracy, with data sheets, and field map notes. GNSS devices were set to North American Datum (NAD) 83, Universal Transverse Mercator coordinates, Zone 11S. Photographs were also taken during the survey to provide visual representation of site conditions. The Project site was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife throughout the region.

Surveyors conducted vegetation mapping within the BSA by walking meandering transects and from selected vantage points that allowed an expansive view of the BSA. The information gathered from the survey were then used to assist the biologists with accurate mapping of the vegetation communities. Field biologists used ortho-rectified maps at a scale of 1 inch equals 200 feet and GNSS devices for vegetation mapping. Vegetation classifications were in accordance with *A Manual of California Vegetation* (Sawyer et al. 2009). Vegetation communities that did not fit within the Sawyer classification system were described following Holland (1986) or Cowardin (alternative methods). Areas of the site that had already been graded, developed, and/or disturbed were mapped as such. Acreages of each vegetation community and other land cover types were calculated based on Geographic Information Systems (GIS) data collected during the survey.

Plant and wildlife species were recorded during the survey. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows that of *The American Ornithologists' Union (AOU) Checklist of North American Birds* (AOU 2022), the Society for the Study of Amphibians and Reptiles (SSAR, 2017), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

2.2.2 Aquatic Resources Delineation

An aquatic resources delineation was conducted by ECORP delineation specialists in conjunction with the biological reconnaissance survey, the results of which are presented under separate cover (ECORP 2022).

2.2.3 Focused Rare Plant Survey

Focused rare plant survey methods were devised with consideration of the following resources: 1) USFWS General Rare Plant Survey Guidelines (USFWS 2002); 2) CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and 3) CNPS Botanical Survey Guidelines (CNPS 2001).

The survey was scheduled to coincide with most of the target species' blooming periods and during a period when most target species were readily identifiable. The specific location and abundance of any plants that resembled target rare plant species whose bloom periods had already occurred or were going to occur were recorded for verification at the appropriate time. The highest priority target species was San Diego Ambrosia (*Ambrosia pumila*), a federally listed endangered and CRPR 1B.1 species due to the disturbed nature of the Project Area and recent, close-proximity occurrences within the literature review search.

Pedestrian-based survey transects, spaced approximately 2 meters apart, were walked to provide 100 percent visual coverage within the BSA, where accessible. If vegetation was too dense, the survey spacing

was modified accordingly. A sub-meter Global Positioning System (GPS) device was used during surveys to record the coordinates of any rare plant species observed. Each GPS device displayed a position using the Universal Transverse Mercator (UTM) coordinate system, North American Datum 1983.

A plant species compendium was compiled during the survey event and additional species observed were added to the master plant species compendium for the Project. Plants that could not be identified in the field were sampled so that a dissecting microscope could be used for plant identification. Taxonomy of plant species identified within the BSA followed that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012).

3.0 RESULTS

The results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.

3.1 Property Characteristics

The BSA consists of highly disturbed land surrounded by industrial and commercial development. The area has been developed since at least 1904. A BNSF railroad comprises the western edge of the Project Area. A disturbed lot comprises a majority of the southern portion of the Project Area with a paved parking lot in the southeast portion. The Remediation Area (see Figure 2) comprises a majority of the northern half of the Project Area which is bordered by a brick wall and contains disturbed vegetation communities. An industrial storage yard resides north of 18th street, southeast of the Remediation Area and north of the paved parking lot. Representative site photographs are included in Attachment A.

Topography for the Project Area is generally flat and the elevation is at 8 to 13 feet above mean sea level throughout the Project Area. A search for mapped soils was conducted using data available from the Web Soil Survey website (NRCS 2022a). Two soil units, or types, occur within the BSA (Figure 3). These include:

- HuC - Huerhuero-Urban land complex, 2 to 9 percent slopes
- Md - Made land

Records of mapped soils with hydric components within the BSA (NRCS 2022b) were not found. There is an approximately 0.25-acre area of the BSA that comprises loose and friable sand. The location of this area is in the southwestern portion of the Project Area where a trucking distribution center (building and paved parking lot) used to be located. A summary of characteristics based on official series descriptions for the soil series mapped within the BSA is provided under separate cover in the aquatic resources delineation report (ECORP 2022).

3.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by ECORP biologists Caroline Garcia, Christina Torres, and Kirsten Zornado. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plants and vegetation communities, wildlife, special-status species, and

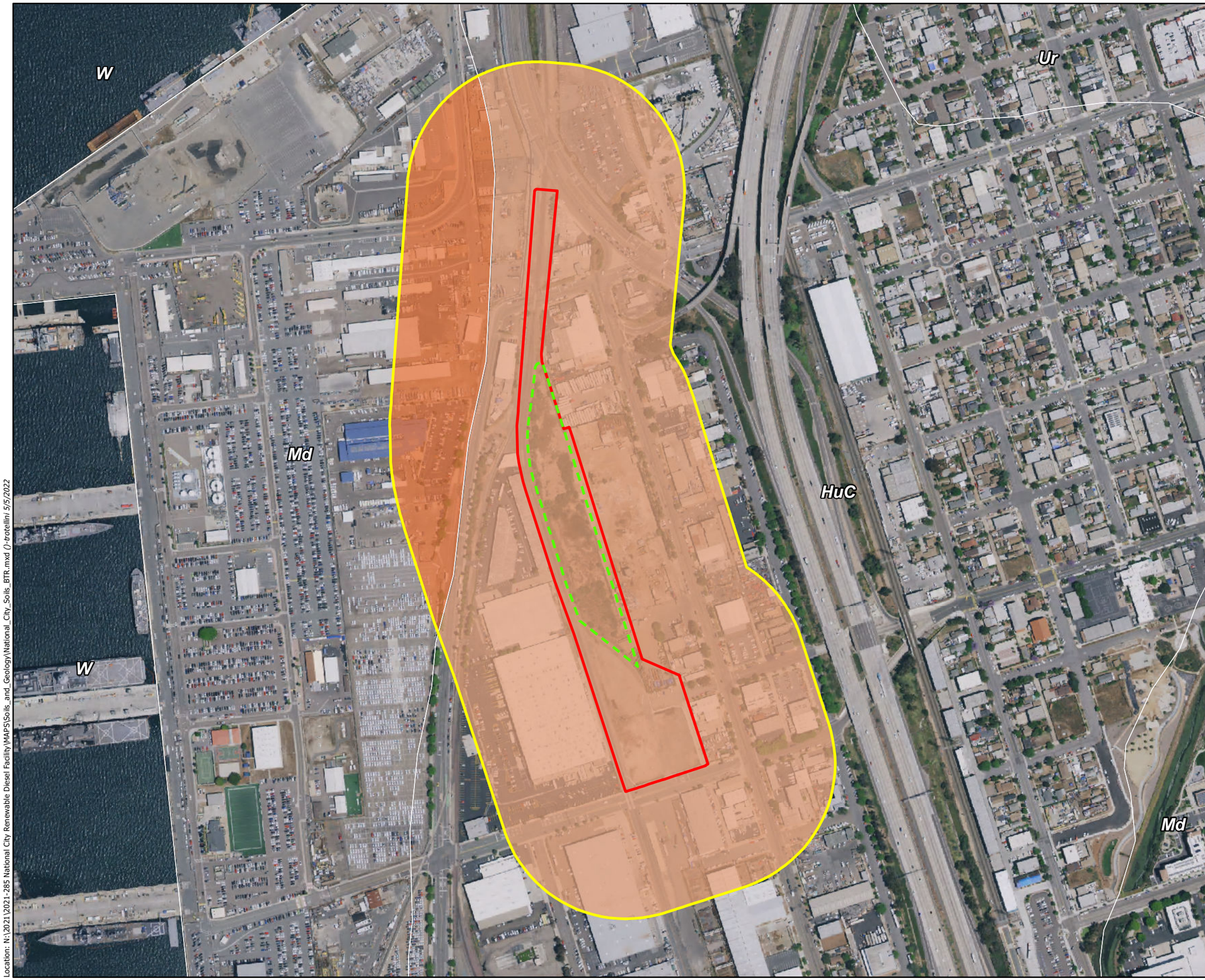

Figure 3. Natural Resources Conservation Service Soil Types

Map Content

- Project
- Remediation
- 500-ft Buffer

Series Designation - Series Description

- HuC - Huerhuero-Urban land complex, 2 to 9 percent slopes
- Md - Made land

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2021-285 National City Renewable Diesel Facility

Scale in Feet
0 400

Photo (or Base) Source: NAIP (2020)

Map Date: 1/26/2022

special-status habitats (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 3.

Table 3. Weather Conditions During the Survey

Date	Biologist(s)*	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
		Start	End	Start	End	Start	End	Start	End
03/17/22	CG, CT, and KZ	0810	1330	58	78	0	0	0-1	5-7

*CG= Caroline Garcia; CT=Christina Torres; KZ= Kirsten Zornado

3.2.1 Vegetation Communities and Land Cover Types

The BSA consists of disturbed mulefat thickets and ornamental vegetation. Two additional land cover types occur within the BSA and include developed and disturbed. The location of each vegetation community in the BSA are described in detail below and presented in Figure 4. Within the disturbed area is an approximately 0.25-acre area of loose sandy soils; located in the southwestern portion of the Project Area. Acreages of each habitat and vegetation community within the Project Area where direct impacts would occur, as well as other land cover types, are presented in Table 4. Representative photographs of the habitats within the BSA are included in Attachment A.

Table 4. Vegetation Communities and Land Cover Types in Project Area

Vegetation Communities and Land Cover Types	Acres
Disturbed Mulefat Thickets	0.82
Ornamental	0.18
Disturbed	4.34
Developed	5.52
Project Area Totals	**10.86**

3.2.1.1 Disturbed Mulefat Thickets (Disturbed Baccharis salicifolia Shrubland Alliance)

Mulefat thickets are characterized as having mulefat dominant or co-dominant in the shrub canopy, typically with other native plant species. Within the Project Area, mulefat thickets are disturbed with sparse cover of mulefat and broom baccharis (*Baccharis sarothroides*) intermixed with nonnative and ornamental species such as red brome (*Bromus madritensis* ssp. *rubens*) and golden wattle (*Acacia pycnantha*). This vegetation community was not associated with any drainages and is present within an upland area of disturbed soils within the Remediation Area. Mulefat is known to be a colonizer of disturbed sites and is not considered a sensitive vegetation community.

Figure 4. Vegetation Communities and Land Cover Types

Map Content

- Project Area
- Remediation Area
- 500-ft Buffer

Vegetation Communities and Land Cover Types

- Disturbed Mulefat Thickets (Disturbed *Baccharis salicifolia* Shrubland Alliance)
- Ornamental
- Disturbed
- Developed

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Location: N:\2021\2021-285 National City Renewable Diesel Facility\MAPS\Vegetation_and_LandCover\National_City_Vegetation.mxd (7/)-trotellini 7/11/2022

2021-285 National City Renewable Diesel Facility

Scale in Feet
0 500

Photo (or Base) Source: NAIP (2020)

Map Date: 5/5/2022

3.2.1.2 Ornamental

The ornamental classification consists of vegetation that has been landscaped. The ornamental area of the Project Area is at the southern end of the Remediation Area and is comprised primarily of golden wattle intermixed with nonnative species such as red brome and sweet fennel (*Foeniculum vulgare*).

3.2.1.3 Other Land Cover Types

Disturbed

The disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions such as grading, trash dumping, and dirt roads, but lacks development. Disturbed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. Disturbed areas of the Project Area included a large portion of the Remediation Area, a majority of the Project Area situated between the railroad and parking lot. Some of these disturbed areas had remnant native plant species present, however cover was scattered and intermittent. An active dump site and an itinerant encampment were observed within the disturbed areas. In areas classified as disturbed, vegetation was absent or consisted primarily of nonnative species, such as tamarisk (*Tamarix* sp.), foxtail barely (*Hordeum murinum*), Russian thistle (*Salsola tragus*), smilo grass (*Stipa miliacea*), yellow sweet clover (*Melilotus indicus*), and crown daisy (*Glebionis coronaria*).

Developed/Urban Lands

Developed lands are those that are heavily affected by human use, including landscaping, residential homes, commercial or industrial buildings and associated infrastructure, and transportation corridors. Within the Project Area this included the parking lot, materials storage yard, and railroad tracks. Within the larger BSA, this included surrounding commercial buildings and roads. Landscaped areas consisted primarily of ornamental species Mexican fan palm (*Washingtonia robusta*) and sea lavender (*Limonium perezii*) as well as nonnative species, including tree tobacco (*Nicotiana glauca*), rabbitsfoot grass (*Polypogon monspeliensis*), and crown daisy.

3.2.2 Plants Observed

Plant species observed within the Project Area were generally characteristic of disturbed and ornamental vegetation communities. Special-status plants were not observed during the reconnaissance survey. Nonnative plant species observed on the proposed Project were dominant within the disturbed areas, intermittently found within the disturbed native vegetation communities and amongst the ornamental vegetation. A full list of plant species observed on the proposed Project is included in Attachment B.

3.2.3 Wildlife Observed

Wildlife species observed within the BSA included those typical of urban environments such as rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), and Anna's hummingbird *(Calypte anna*). Special-status wildlife was not

observed. ECORP biologists observed 17 bird species and four insect species during the reconnaissance survey. A full list of wildlife species observed on the proposed Project is included in Attachment C.

3.3 Special-Status Species Assessment

The literature review resulted in 72 special-status plant and 34 special-status wildlife species that historically have been recorded in the vicinity of the Project Area or that are highly associated with habitat that occurs in the proposed Project Area (Attachments D and E). Special-status plants were evaluated for their potential to occur within the Project Area where impacts could occur. Special-status wildlife were evaluated for their potential to occur within the BSA, a broader area that includes the Project Area and buffer, where direct or indirect impacts could occur.

3.3.1 Special-Status Plants

Numerous special-status plant species have been recorded within five miles of the Project Area, according to the CNDDB (CDFW 2022a), IPaC (USFWS 2022b), and CNPSEI (CNPS 2022). Of all available records, 72 special-status plant species were identified as those with the potential for occurrence within the vicinity of the Project Area. One species was present within the Project Area and the remaining 71 species were presumed absent based on their known habitat not occurring within the Project Area. Descriptions of the CNPS designations are found in Table 5 and a list of the special-status plant species identified in the literature review is presented below (CNPS 2022).

Table 5. California Rare Plant Ranks

Rarity Rank	Criteria
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Review List: Plants About Which More Information is Needed
4	Watch List: Plants of Limited Distribution
Threat Rank	**Criteria**
.1	Seriously threatened in California (more than 80 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

3.3.1.1 Special-Status Plant Species Present

Nuttall's acmispon (*Acmispon prostratus*) is designated as a CRPR 1B.1 plant species. This plant is known to occur at elevations between 0 and 10 meters (0 and 33 feet) and blooms between March and July. Nuttall's acmispon is known to inhabit coastal dunes and sandy soils of coastal scrub. Eight CNDDB observations of this species occur within a 5-mile radius of the Project Area, five of which are within the last twenty years. The nearest record is 0.45 miles south of the Project Area from 2011 where it was observed growing in disturbed vegetation adjacent to the railroad tracks within the San Diego Bay National Wildlife Refuge. Potential habitat occurs within the Project Area for this species in the sandy soils of the disturbed habitats. This species was not observed during the biological reconnaissance survey but was identified during the focused rare plant survey effort growing in the area with loose sandy soils (see Section 3.3.3).

3.3.1.2 Special-Status Plant Species Presumed Absent

The remaining 71 special-status plant species are presumed absent from the Project Area due to the lack of suitable habitat, soil type, and/or elevation range at the proposed Project. Additionally, species originally determined to have potential to warrant focused rare plant surveys, were then demoted to presumed absent when not observed during the focused rare plant survey.

3.3.2 Special-Status Wildlife

The literature search documented 35 special-status wildlife species in the vicinity of the proposed Project, 10 of which are federally and/or state-listed under the federal or California ESAs, respectively. Of the 35 special-status wildlife species identified in the literature review, two were found to have a moderate potential to occur and nine were found to have a low potential to occur; the remaining 24 species are presumed absent from the BSA. None of the wildlife species were determined to have a high potential to occur. Descriptions of the federal and state wildlife designations are found in Table 6, and a brief natural history and discussion of the special-status wildlife species that have a moderate potential to occur in the proposed Project Area are provided below. discussion of the special-status wildlife species that have a moderate potential to occur in the proposed Project Area are provided below.

Table 6. Wildlife Status Designations

Designation	Meaning
Federal	**Jurisdiction under United States Fish and Wildlife Service (USFWS)**
END	Federally listed as Endangered
THR	Federally listed as Threatened
CAN	Federal Candidate Species
FSC	Federal Species of Concern
FPD	Federal Proposed for Delisting
BBC	Bird of Conservation Concern
State	**Jurisdiction under California Fish and Wildlife Service (CDFW)**

Table 6. Wildlife Status Designations	
Designation	**Meaning**
END	State listed as Endangered
THR	State listed as Threatened
SSC	California Species of Special Concern
FP	Fully Protected Species
WL	Watch List

3.3.2.1 Special-Status Wildlife Species with a Moderate Potential to Occur

The following species were found to have moderate potential to occur with the BSA because habitat for the species occurs and a known occurrence exists within the database search, but not within five miles of the site; or a known occurrence exists within five miles of the site and marginal or limited amounts of habitat occurs within the BSA:

- Osprey (*Pandion haliaetus*) is a CDFW WL species. This species is most commonly found soaring over or near shallow, fish-filled waters, including oceans, rivers, lakes, reservoirs, lagoons, swamps, and marshes. There is foraging and nesting habitat within the buffer of the Project Area for this species. Foraging and nesting habitat is not provided within the Project Area for osprey. Within San Diego, they are known to nest within urban areas if near suitable foraging habitat. An osprey was observed flying over the proposed Project during the reconnaissance survey. Five recent observations of this species have been recorded within 5 miles of the Project Area. The closest observation was 0.47 mile south of the Project Area in 2019.
- Western yellow bat (*Lasiurus xanthinus*) is a CDFW Species of Special Concern (SSC). This species is commonly found in desert habitat and more recently their range is extending to urban environments. It is known to roost in the skirts of untrimmed palm trees. Potential roosting habitat for this species is present within the palm trees of the Reclamation Area within the proposed Project as well as palm trees within the buffer. One historic record for this species occurs within five miles of the Project Area.

3.3.2.2 Special-Status Wildlife Species with Low Potential to Occur

Of all available records, nine special-status wildlife species were determined to have a low potential to occur within the BSA due to lack of suitable habitat for the species but a known occurrence has been reported in the database, within five miles of the site, or suitable habitat strongly associated with the species occurs on the site, but no records were found in the database search.

3.3.2.3 Special-Status Wildlife Species Presumed Absent

The remaining 24 special-status wildlife species are presumed absent from the BSA due to the lack of suitable habitat, soil type, and/or elevation range at the proposed Project.

3.3.3 Focused Rare Plant Survey

The focused rare plant survey was conducted by ECORP senior botanist/restoration ecologist Josh Corona-Bennett and biologist Caroline Garcia on June 22, 2022, during the appropriate blooming period for special-status plants species determined to have potential to occur (Attachment D), particularly the target plant species San Diego Ambrosia. This species was originally determined to have potential based on the literature review and habitat present on-site. During the survey, there were no observations of federally or state-listed plants; however, one plant species listed as rare by CNPS was located within the Project Area. Special-status plant species Nuttall's acmispon, a CRPR 1B.1 species, was detected within the southwestern portion of the Project Area where loose sandy soils are located (Figure 5). Nuttall's acmispon is a CRPR 1B species, meaning it is rare, threatened, or endangered in California and elsewhere, and its threat rank is rated 0.1, or seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat). One individual of Nuttall's acmispon (annual species) was observed in proximity to a non-special-status species, Heermann's lotus (*Acmispon heermannii* var. *heermannii*). No other special-status plant species were detected within the Project Area.

3.3.4 U.S. Fish and Wildlife Service Designated Critical Habitat

The BSA is not located within any USFWS-designated critical habitat. The closest designated critical habitat is for western snowy plover (*Charadrius nivosus nivosus*) located approximately one mile to the south and Otay tarplant (*Deinandra conjugens*) located approximately five miles to the southeast of the Project Area.

3.4 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species.

ECORP assessed the proposed Project for its ability to function as a wildlife corridor. The Project Area is surrounded by urban development with major roads that block wildlife movement through the area. Furthermore, the proposed Project does not connect valuable blocks of habitat and lacks valuable habitat itself.

Figure 5. Focused Rare Plant Survey Results

Map Content

- Project Area
- Remediation Area
- Nuttall's acmispon (*Acmispon prostratus*) 1B.1

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Location: N:\2021\2021-285 National City Renewable Diesel Facility\MAPS\Biological_Resources\National_City_Rare_Plant.mxd (TI)-trotellini 6/27/2022

2021-285 National City Renewable Diesel Facility

Scale in Feet
0 300

Photo (or Base) Source: NAIP (2020)

Map Date: 6/27/2022

4.0 IMPACT ANALYSIS

This section provides a Project-level biological resource impact analysis and addresses biological resource issues derived from Appendix G of the CEQA Guidelines, as well as biological resource issues specific to the National City. Direct impacts include the primary effects of construction that displace habitats and species. These impacts will occur in association with proposed Project construction due to grading, paving, and other disturbances associated with general construction activities. Indirect impacts occur from a secondary effect of construction activities. Indirect impacts are those that occur due to the proximity of a disturbance or development to a species or its habitat. These impacts occur over the short term, during construction, and over the long term due to proximity of the new proposed Project features. This type of impact could include habitat isolation or degradation, urban edge effects, nonnative species introduction, runoff, alteration of a wildlife species' normal behaviors and activities, vehicular noise or increased human or pet intrusion. The magnitude of an indirect effect can be as adverse as that of a direct effect, depending on the circumstances. Mitigation, monitoring, and reporting requirements to avoid, eliminate or reduce potentially significant impacts to special-status biological resources to a less than significant level are discussed below. The following sections present impacts to sensitive biological resources resulting from proposed Project activities.

4.1 Sensitive Natural Communities

The proposed Project consists of disturbed vegetation communities, and disturbed and developed land. Vegetation communities mapped within the proposed Project Area include disturbed mulefat thickets and ornamental vegetation. Mulefat thickets are not listed as a sensitive natural community by CDFW, therefore, **no impact** to sensitive natural communities is anticipated.

4.2 Special-Status Species and Vegetation Communities

4.2.1 Special-Status Plants

The literature review resulted in 72 special-status plant species with potential to occur on the proposed Project. Of these 72 special-status plants, one special-status plant species, Nuttall's acmispon, was observed with in the Project Area.

Direct impacts to Nuttall's acmispon may occur as a result of the proposed Project in the form of mortality or injury due to ground-disturbing and vegetation removal activities within the Project Area. Impacts to Nuttall's acmispon would be **less than significant** with the implementation of Mitigation Measure **BIO-1**. Recommended mitigation measures are presented in Section 5.0.

4.2.2 Special-Status Wildlife Species

The results of the literature review identified 35 special-status wildlife species with potential to occur within the BSA. Of these 35 special-status wildlife species, two special-status wildlife species (osprey and western yellow bat), have a moderate potential to occur within the BSA due to the presence of highly suitable habitat and recent occurrences within five miles. Nine special-status wildlife species have a low potential to occur and 24 special-status wildlife species are presumed absent. Special-status wildlife

species were not encountered within the proposed Project Area during the biological resources survey, and focused surveys were not conducted.

An osprey was observed flying to the west of the Project Area during the reconnaissance survey. Osprey are large birds of prey that feed mainly on fish. They tolerate a wide variety of habitats and nest in any location near a body of water providing an adequate food supply. They have been documented in San Diego nesting on utility poles and light fixtures in urban areas adjacent to bodies of water. Although there is low likelihood of nesting of osprey within the Project Area itself, there is potential for nesting within the buffer of the Project Area and the bay nearby provides suitable foraging habitat. Therefore, this species could be indirectly impacted by development of the proposed Project. Implementation of Mitigation Measure **BIO-2** would reduce impacts to osprey and other special-status bird species to a **less than significant** level.

The palm trees located within the Project Area and buffer may provide roosting habitats for bat species, particularly western yellow bat, a SSC species. These trees could function as maternity roost sites for this species. Bat species in California are protected by Section 4150 (protection of non-game mammals from take) of the California Fish and Game Code. Section 4150 of the California Fish and Game Code prohibits the take of any naturally occurring mammals in California that are nongame mammals, which includes all species of the Order Chiroptera (bats).

All bat species with potential for occurrence for the Project are SSC species and Project-related impacts to bat species and bat maternity roosts are potentially significant. Impacts to bat species are expected to be temporary in nature and individual bats are expected to be able to vacate the trees that are removed during construction without being subject to harm if a two-step palm tree removal process is conducted. The two-step removal process for palm trees involves the following:

- The uppermost live fronds (the top of the tree) should be removed entirely on the first day along with the upper 25 percent of the frond skirt. This method would allow for sufficient disturbance of the tree that would encourage any roosting bats within the frond skirt to abandon the tree during evening emergence without directly impacting roosting bats within the skirt. The remainder of the tree should be removed the following day.
- If bats emerge at any time during the tree trimming, trimming activities should cease at that individual tree for the remainder of the day to allow for any additional bats roosting in the tree to emerge during evening hours when it is safe and appropriate for them to do so. Trimming of the tree may resume the following morning.
- Tree trimming activities in the fall should be conducted on days when weather conditions are such that roosting bats are unlikely to be in torpor (i.e., predicted overnight lows on evenings before and after the tree trimming activities are above 45°F) to the extent practicable.

Implementation of Mitigation Measure BIO-3 would reduce impacts to bat species and maternity roosts to a less than significant level.

If present, direct impacts to rare or special-status wildlife species may occur as a result of the proposed Project in the form of mortality or injury due to ground-disturbing and vegetation removal activities

within the Project Area. Indirect impacts to rare or special-status wildlife species may occur due to habitat degradation, edge effects, construction noise, and other associated construction activities if present in the areas adjacent to the Project Area. Impacts to special-status wildlife species would be **less than significant** with the implementation of Mitigation Measure **BIO-2** and **BIO-3**. Recommended mitigation measures are presented below in Section 5.0.

4.2.2.1 Raptors and Migratory Birds

The vegetation within the proposed Project and infrastructure adjacent to the site (e.g., utility poles, existing buildings) could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code, and also provides foraging habitat for songbird and raptor species. If construction of the proposed Project occurs during the bird breeding season (typically February 1 through August 31 for passerines and January 15 through July 31 for raptors), ground-disturbing construction activities could directly affect MBTA-protected birds and their nests through the removal of habitat on the proposed Project, and indirectly through increased noise, ground vibrations, and increased human activity. Implementation of Mitigation Measure **BIO-2** would reduce impacts to a **less than significant** level.

4.3 Wildlife Corridors, Linkages, and Significant Ecological Areas

The proposed Project does not function as a wildlife corridor, linkage, or significant ecological area, therefore there is **no impact** due to the proposed Project.

4.4 Habitat Conservation Plans and Natural Community Conservation Plans

The proposed Project is not located within a HCP or natural community conservation plan area; therefore, the proposed Project does not need to be consistent with these types of plans.

5.0 RECOMMENDATIONS AND MITIGATION MEASURES

The following recommendations have been developed in accordance with the CEQA impacts analysis for the Project but should not be considered mitigation measures at this point in the Project planning process. These actions are recommended prior to Project implementation and would reduce impacts to sensitive biological resources to a less than significant level:

BIO-1 **Rare Plant Salvage.** Rare plant surveys were conducted within suitable habitat on the proposed Project during the appropriate blooming periods (i.e., between April and October) following sufficient rainfall during the previous wet season for the special-status plant species with potential to occur on or immediately adjacent to the proposed Project. The survey was conducted by a botanist and qualified biologist in accordance with the USFWS General Rare Plant Survey Guidelines (USFWS 2002); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). Project related impacts to Nuttall's acmispon are anticipated to be unavoidable, therefore salvage of

seed and donation to a refuge and/or native plant nursery, (e.g. Sweetwater Marsh National Wildlife Refuge and Native West Nursery) is recommended. A qualified biologist shall collect seed from the Nuttall's acmispon during the appropriate time, store under appropriate conditions, and coordinate with the refuge manager in order to apply seed within the refuge boundaries. Seed shall be collected during July 2022 and the subsequent spring (2023), provided that the project has not reached construction phase and the plant is present.

BIO-2 **Pre-Construction Survey for Nesting Birds and Special-Status Avian Species.** Where feasible, ground-disturbing activities, including vegetation removal, shall be conducted during the non-breeding season (approximately September 1 through January 14) to avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. Several species identified as having potential to nest year-round; therefore, regardless of time of year, a pre-construction survey for nesting birds and special-status avian species shall be conducted by a qualified biologist (experienced in the identification of avian species and conducting nesting bird surveys) if activities with the potential to disrupt nesting birds or special-status avian species are scheduled to occur. The survey shall include the proposed Project and adjacent areas where Project activities have the potential to cause nest failure. The pre-construction survey shall be conducted no more than three days prior to the start of ground-disturbing activities (including vegetation removal) within the bird breeding season. Site preparation and construction activities may begin if no nesting birds or special-status avian species are observed during the survey. If nesting birds or raptors or special-status avian species are found to be present, avoidance or minimization measures shall be implemented to avoid potential proposed Project-related impacts to the species. Avoidance and minimization measures shall be developed by the qualified biologist and may include seasonal work restrictions, additional survey and monitoring requirements, or non-disturbance buffers established around active nests until the biologist has determined that the nesting cycle is completed. The width of non-disturbance buffers established around active nests will be determined by the qualified biologist (300 feet is typically recommended for songbirds and 500 feet is typically recommended for raptors). Once nesting is deemed complete by the qualified biologist as determined through periodic nest monitoring, the non-disturbance buffer will be removed by the qualified biologist and proposed Project work may resume in the area.

BIO-3 **Compliance with Section 4150 of California Fish and Game Code.** To avoid impacts to bat species, a qualified bat biologist should conduct an appropriate combination of sampling, exit counts, and acoustic surveys to determine if bats are using the palm tree resources in the Project Area. If Project-related impacts to bat species are unavoidable, additional measures may need to be implemented to reduce or eliminate impacts to bat species, including maternity roosts, such as tree removal occurring outside of bat breeding season (October through February) or two-step, two-day removal of palm trees under supervision of a qualified bat biologist.

6.0 ADDITIONAL RECOMMENDATIONS

In addition to implementing the recommended mitigation measures outlined in Section 5.0, ECORP recommends the following best management practices, which are not mitigation measures pursuant to CEQA but recommended to further reduce impacts to special-status species that have potential to occur on the property:

- Confine all work activities to a pre-determined work area. Stay on previously designated roads or, if not possible, create one-way-in and one-way-out roads during construction.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks should be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored on the site.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project Area.
- Use of rodenticides and herbicides on the Project should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to raptors.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.

Signed: _____ Date: July 13, 2022

Caroline Garcia
Associate III Biologist
ECORP Consulting, Inc.

Under the direction of:

Signed: _____ Date: July 13, 2022

Josh Corona-Bennett
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LIST OF ATTACHMENTS

Attachment A – Representative Site Photographs

Attachment B – Plant Species Observed

Attachment C – Wildlife Species Observed

Attachment D – Special-Status Plant Potential for Occurrence

Attachment E – Special-Status Wildlife Potential for Occurrence

ATTACHMENT A

Representative Site Photographs

Photo 1. Developed area within the southern portion of the Project Area, facing north. March 17, 2022.

Photo 2. Disturbed habitat within the southern portion of the Project Area, facing north. March 17, 2022.

Photo 3. Disturbed vegetation within a depressional feature at the southern end of the Project Area, facing southeast. March 17, 2022.

Photo 4. Disturbed habitat towards the southern end of the Project Area, adjacent to the Remediation Area, facing northwest. March 17, 2022.

Photo 5. Ornamental vegetation within the Project Area, facing north. March 17, 2022.

Photo 6. Disturbed mulefat thickets with ornamental palms of the Project Area, facing southwest. March 17, 2022.

Photo 7. Disturbed habitat in the northern portion of the Project Area, facing northeast. March 17, 2022.

Photo 8. Railroad tracks of developed area in the northern portion of the Project Area, facing north. March 17, 2022.

Photo 9. Conditions of the Project Area during the focused rare plant survey, facing northwest. June 22, 2022.

Photo 10. Rare plant species, Nuttall's acmispon (*Acmispon prostratus)* located in the southwest portion of the Project Area approximately 25-feet from the railroad tracks, facing west. June 22, 2022.

ATTACHMENT B

Plant Species Observed

Scientific Name	Common Name
VASCULAR PLANTS	
ANGIOSPERMS (DICOTYLEDONS)	
Amaranthaceae	**Amaranth Family**
*Amaranthus albus**	pigweed amaranth
Apiaceae	**Carrot Family**
*Foeniculum vulgare**	sweet fennel
Arecaceae	**Palm Family**
*Washingtonia robusta**	Mexican fan palm
Asteraceae	**Sunflower Family**
Baccharis pilularis	coyote brush
Baccharis salicifolia	mule fat
Baccharis sarothroides	broom baccharis
*Bidens pilosa**	hairy beggarticks
*Erigeron bonariensis**	flax-leaved horseweed
*Glebionis coronaria**	crown daisy
Heterotheca grandiflora	telegraphweed
*Sonchus asper**	prickly sow-thistle
Brassicaceae	**Mustard Family**
*Brassica nigra**	black mustard
*Hirschfeldia incana**	short-pod mustard
*Lepidium sp.**	peppergrasses
*Raphanus sativus**	wild radish
*Sisymbrium irio**	London rocket
*Sisymbrium orientale**	hedge mustard
Caryophyllaceae	**Pink Family**
*Spergularia bocconi**	Boccone's sand spurry
Chenopodiaceae	**Goosefoot Family**
*Bassia hyssopifolia**	fivehorn bassia
Chenopod sp.	goosefoot
*Chenopodium murale**	nettle leaf goosefoot
Salicornia pacifica	pickleweed
*Salsola tragus**	Russian thistle
*Ricinus communis**	castor bean
Convolvulaceae	**Morning-Glory Family**
*Cressa truxillensis**	alkali weed
Cyperaceae	**Sedge Family**
Cyperus eragrostis	tall flatsedge
Euphorbaceae	**Spurge Family**
*Euphorbia maculata**	spotted spurge
*Euphorbia serpens**	matted sandmat
Fabaceae	**Legume Family**
*Acacia pycnantha**	golden wattle
Acmispon heermannii var. *heermannii*	Heermann's lotus
Acmispon prostratus [1B.1]	Nuttall's acmispon
Lupinus cf. *bicolor*	bicolor lupine

*Medicago polymorpha**	bur clover
*Melilotus indicus**	yellow sweet clover
Geraniaceae	**Geranium Family**
*Erodium cicutarium**	red stemmed filaree
Juncaceae	**Rush Family**
Juncus bufonius	toad rush
Lilaceae	**Lily Family**
Calochortus macrocarpus	sagebrush mariposa lily
Lythraceae	**Loosestrife Family**
*Lythrum hyssopifolia**	hyssop loosestrife
Malvaceae	**Mallow Family**
*Malva parviflora**	cheeseweed mallow
Oleaceae	**Olive Family**
Fraxinus sp.	ash
Plantaginaceae	**Plantain Family**
*Kickxia elatine**	sharp leaved fluellin
*Plantago lanceolata**	English plantain
Plumbaginaceae	**Leadwort Family**
*Limonium perezii**	sea lavender
Polygonaceae	**Buckwheat Family**
*Polygonum aviculare**	prostrate knotweed
Rumex sp.*	dock
Rosaceae	**Rose Family**
Rubus sp.*	blackberry
Salicaceae	**Willow Family**
Salix lasiolepis	arroyo willow
Saururaceae	**Lizard's Tail Family**
Anemopsis californica	yerba mansa
Solanaceae	**Nightshade Family**
Datura sp.	Jimson weed
*Nicotiana glauca**	tree tobacco
*Solanum elaeagnifolium**	silverleaf nightshade
Tamaricaceae	**Tamarisk Family**
Tamarix sp.*	tamarisk
VASCULAR PLANTS	
ANGIOSPERMS (MONOCOTYLEDONS)	
Poaceae	**Grass Family**
*Avena barbata**	slender wild oat
*Bromus diandrus**	ripgut brome
Bromus madritensis ssp. *rubens**	red brome
Cenchrus echinatus [Watch ; B*]	southern sandbur
*Cortaderia selloana**	pampas grass
*Cynodon dactylon**	Bermuda grass
*Hordeum murinum**	foxtail barley
Schismus sp.*	Mediterranean grass
*Setaria viridis**	green bristlegrass

*Stipa milacea**	smilo grass
*Pennisetum setaceum**	fountain grass
*Pennisetum villosum**	feathertop
*Polypogon monspeliensis**	rabbitfoot grass

*Indicates plant species that is not native to California.
cf. - From the Latin word *conferre*, indicating that the plant appears to be a particular species but could not be identified to specific epithet due to condition of plant.

California Native Plant Society (CNPS) Rare Plant Ranks:

1B: Plants rare, threatened, and endangered in California and throughout their range.

CNPS Threat Ranks:

0.1: Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)

Cal-IPC Rating:
Watch: High risk for becoming invasive in the future.

CDFA Rating:
B: A pest of known economic or environmental detriment and, if present in California, it is of limited distribution.
*: An asterisk next to the rating indicates that a plant is included in the CCR Section 4500 list of California State Noxious Weeds.

Sources:
California Natural Diversity Data Base (CDFW 2022)
CNPS Rare and Endangered Plant Inventory (CNPS 2022)
California Invasive Plant Council (Cal-IPC 2022)
California Department of Food and Agriculture (CDFA 2022)

ATTACHMENT C

Wildlife Species Observed

Scientific Name	Common Name
INSECTS	
Apidae	**Bees**
Apis mellifera	European honeybee (individual + hive)
Coccinellidae	**Ladybugs**
Coccinellid sp.	ladybug
Crabronidae	**Digger Wasps**
Bembix sp.	sand wasp
Hesperiidae	**Skippers**
Lerodea eufala	Eufala skipper
Poanes melane melane	Umber skipper
BIRDS	
Accipitridae	**Hawks, Kites, & Eagles**
Buteo jamaicensis	red-tailed hawk
Anatidae	**Ducks, Geese, and Swans**
Anas platyrhynchos	mallard
Columbidae	**Pigeons and Doves**
Columba livia	rock pigeon
Streptopelia decaocto	Eurasian collared dove
Zenaida macroura	mourning dove
Corvidae	**Jays and Crows**
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Fringillidae	**Finches**
Carpodacus mexicanus	house finch
Hirundinidae	**Swallows**
Stelgidopteryx serripennis	northern rough-winged swallow
Laridae	**Seabirds**
Larus sp.	gull
Larus occidentalis.	western gull
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	mockingbird
Psittacidae	**True Parrots**
*Thectocercus acuticaudatus**	blue-crowned parakeet
Trochilidae	**Hummingbirds**
Archilochus anna	Anna's hummingbird
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus vociferans	Cassin's kingbird

*Naturalized within native environments

ATTACHMENT D

Special-Status Plant Potential for Occurrence

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Acmispon prostratus Nuttall's acmispon	**USFWS**: None **CDFW**: None **CNPS**: 1B.1	Mar-Jul (0-10)	Coastal scrub Coastal dunes Sandy soils	**Present:** This species was present within the Project Area. There have been eight total observations of this species within a 5-mile radius of the Project Area, five of which were recent. The nearest observation was 0.45 miles south of the Project Area in 2011.
Acanthomintha ilicifolia San Diego thorn-mint	**USFWS:** Threatened **CDFW:** Endangered **CNPS:** 1B.1	Apr-Jun (10-960)	Chaparral Coastal scrub Valley and foothill grassland Vernal pools Clay soils; occurs within openings	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species was made in 2014, 4.7 miles east of the Project Area. Two other historic observations of this species have been made within a 5-mile radius of the Project Area, but no other observation records exist.
Adolphia californica California adolphia	**USFWS**: None **CDFW**: None **CNPS**: 2B.1	Dec-May (10-740)	Chaparral Coastal scrub Valley and foothill grasslands Clay soils	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent (2003) observation of this species was found within a 5-mile radius search around Project Area. This observation was 5 miles to the east of the Project Area. Seven additional historic records of this species within 5 miles of the Project exist.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Ambrosia chenopodiifolia San Diego bur-sage	**USFWS**: None **CDFW**: None **CNPS**: 2B.1	Apr-Jun (55-155)	Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. The Project Area does not provide suitable habitat for this species. Two observations of this species, one recent and one historic, exist within 5 miles of the Project Area. The recent observation occurred in 2003 and was 4.5 miles east of The Project Area.
Ambrosia monogyra Singlewhorl burrobrush	**USFWS**: None **CDFW**: None **CNPS**: 2B.2	Aug-Nov (10-500)	Chapparal Sonoran desert scrub Sandy soils	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Three historic observations of this species have been made within a 5-mile radius of the Project Area. The closest observation to the Project Area was in 1999, and was 3.4 miles north of the Project Area.
Ambrosia pumila San Diego ambrosia	**USFWS**: Endangered **CDFW**: None **CNPS**: 1B.1	Apr-Oct (20-415)	Chapparal Coastal scrub Valley and foothill grasslands Vernal pools Sandy and clay soils Disturbed soils Alkaline Areas	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. One recent and four historic observations of this species have been made within 5 miles of the Project Area. The closest observation was in 2019 and was 0.71 miles to the east of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Aphanisma blitoides aphanisma	**USFWS**: None **CDFW**: None **CNPS**: 1B.2	Feb-Jun (1-305)	Coastal bluff scrub Coastal dunes Coastal scrub Sandy and gravelly soils	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project.. Two historic observations of this species have been made within a 5-mile radius of the Project Area. The closest of the two observations was made in 1935, and was observed 2 miles to the southwest of the Project Area.
Artemisia palmeri San Diego sagewort	**USFWS**: None **CDFW**: None **CNPS**: 4.2	Feb-Sep (15-915)	Chaparral Coastal scrub Riparian forest Riparian scrub Riparian woodland Mesic, sandy soils	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of The Project Area. This species appeared within a CNPS quadrant database search.
Asplenium vespertinum western spleenwort	**USFWS**: None **CDFW**: None **CNPS**: 4.2	Feb-Jun (180-1000)	Chaparral Cismontane woodland Coastal scrub Rocky soils	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Astragalus deanei Dean's milk-vetch	**USFWS**: None **CDFW**: None **CNPS**: 1B.1	Feb-May (75-695)	Chapparal Cismontane woodland Coastal sage scrub Riparian forest	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic (1963) observation of this species was made 3.9 miles east of the Project Area. No other observations of this species have appeared in a 5-mile radius of the Project Area.
Astragalus tener* var. *titi coastal dunes milk-vetch	**USFWS:** Endangered **CDFW:** Endangered **CNPS:** 1B.1	Mar-May (1-50)	Coastal bluff scrub Coastal dunes Coastal prairies in mesic soils Vernally mesic areas	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic (1938) observation of this species was made 1.9 miles west of the Project Area. No other observations of this species have appeared in a 5-mile radius of the Project Area.
Atriplex coulteri Coulter's saltbush	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Mar-Oct (3-460)	Coastal bluff scrub Coastal dunes Coastal scrub Valley and foothill grassland Alkaline and clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species have occurred within 5 miles of the Project Area. The nearest observation was in 2001, and was 1.6 miles to the south of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Atriplex pacifica south coast saltscale	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Mar-Oct (0-140)	Coastal bluff scrub Coastal dunes Coastal scrub Playas	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations of this species have occurred within 5 miles of the Project Area. The nearest was in 2003, and was 4.3 miles east of the Project Area. There are also four historic observations of the species within a 5-mile radius of the Project Area.
Bahiopsis laciniata San Diego County viguiera	**USFWS:** None **CDFW:** None **CNPS:** 4.3	Feb-Aug (60-750)	Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Bergerocactus emoryi golden-spined cereus	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	May-Jun (3-395)	Chaparral Closed-cone coniferous forest Coastal scrub Sandy soils	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Bloomeria clevelandii San Diego goldenstar	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Apr-May (50-465)	Coastal scrub Chaparral Valley and foothill grassland Vernal pools Clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has occurred within a 5-mile radius of the Project Area. This observation took place in 1939, and was 4.3 miles northwest of the Project Area.
Camissoniopsis lewisii Lewis' evening-primrose	**USFWS:** None **CDFW:** None **CNPS:** 3.0	Mar-Jun (0-300)	Cismontane woodland Coastal bluff scrub Coastal dunes Coastal scrub Valley and foothill grassland	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Ceanothus verrucosus wart-stemmed ceanothus	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Dec-May (1-380)	Chaparral	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Four recent observations of this species have been made within a 5-mile radius of the Project Area. The closest one was 3.3 miles away, in 2014.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Chaenactis glabriuscula* var. *orcuttiana Orcutt's pincushion	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Jan-Aug (0-100)	Sandy soils Coastal bluff scrub Coastal dunes	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species have occurred within 5 miles of the Project Area.
Chamaebatia australis southern mountain misery	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Nov-May (300-1020)	Chaparral	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Chloropyron maritimum* ssp. *maritimum salt marsh bird's-beak	**USFWS:** Endangered **CDFW:** Endangered **CNPS:** 1B.2	May-Nov (0-30)	Coastal dunes Coastal salt marshes Swamps	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation (2019) of this species 1.1 miles southeast of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Chorizanthe polygonoides* var. *longispina long-spined spineflower	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Apr-Jul (30-1530)	Chaparral Coastal sage scrub Meadows Valley and foothill grassland Vernal pools Clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Four recent observations of this species exist within 5-miles of the Project Area. The closest observation is 3.7 miles northwest of the Project Area in 2011.
Convolvulus simulans small-flowered morning-glory	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-Jul (30-740)	Chaparral Coastal scrub Valley and foothill grassland	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Corethrogyne filaginifolia* var. *incana San Diego sand aster	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Jun-Sep (3-115)	Coastal bluff scrub Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation (2003) and one historic observation of this species have been recorded within a 5-mile radius of the Project Area. The recent observation was 4 miles east of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Cylindropuntia californica* var. *californica snake cholla	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Apr-May (30-150)	Chapparal Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations have been made of this species within a 5-mile radius of the Project Area. The closest of these observations is 4.0 miles northwest of the Project Area. There are also seven historic observations of this species within a 5-mile radius of the Project Area.
Deinandra conjugens Otay tarplant	**USFWS:** Threatened **CDFW:** Endangered **CNPS:** 1B.1	Apr-Jun (25-300)	Coastal scrub Valley and foothill grassland Clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. There have been five recent observations of this species within a 5-mile radius of the Project Area. The nearest is 3.7 miles east of the Project Area.
Deinandra paniculata paniculate tarplant	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-Nov (25-940)	Coastal scrub Valley and foothill grassland Vernal pools Mesic, sandy soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Dichondra occidentalis western dichondra	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Jan-Jul (50-500)	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Dicranostegia orcuttiana Orcutt's bird's-beak	**USFWS:** None **CDFW:** None **CNPS:** 2B.1	Mar-Sep (10-350)	Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Dudleya blochmaniae* ssp. *blochmaniae Blochman's dudleya	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Apr-Jun (5-450)	Coastal bluff scrub Chaparral Coastal scrub Valley and foothill grassland Clay soils Rocky and serpentinite conditions	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of the species was found within a 5-mile radius of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Dudleya variegata variegated dudleya	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Apr-Jun (3-580)	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pools Clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations of this species have been recorded within 5-miles of the Project Area. The nearest observation took place in 2018, and was located 3.7 miles east of the Project Area.
Ericameria palmeri* var. *palmeri Palmer's goldenbush	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Jul-Nov (30-600)	Chaparral Coastal sage scrub Mesic soils	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations of this species have been recorded within 5 miles of the Project Area. The closest observation was 3.0 miles northeast of the Project Area. There have also been three historic observations of this species within that area.
Eryngium aristulatum var. parishii San Diego button-celery	**USFWS:** Endangered **CDFW:** Endangered **CNPS:** 1B.1	Apr-Jun (20-620)	Coastal scrub Valley and foothill grassland Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Erythranthe diffusa Palomar monkeyflower	**USFWS:** None **CDFW:** None **CNPS:** 4.3	Apr-Jun (1220-1830)	Chaparral Lower montane coniferous forest Gravelly, sandy soils	**Presumed Absent:** The Project Area provides suitable habitat; however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Euphorbia misera cliff spurge	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Oct-Aug (10-500)	Coastal bluff scrub Coastal scrub Mojavean desert scrub Rocky soils	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two observations of this species were made within a 5-mile radius of the Project Area. The closest observation was 2.4 miles east of the Project Area.
Ferocactus viridescens San Diego barrel cactus	**USFWS:** None **CDFW:** None **CNPS:** 2B.1	May-Jun (3-450)	Chaparral Coastal scrub Valley and foothill grassland Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Ten recent and seven historic observations of this species exist within a 5-mile radius of the Project Area. The nearest recent observation is 3.6 miles east of the Project Area in 2004.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Frankenia palmeri Palmer's frankenia	**USFWS:** None **CDFW:** None **CNPS:** 2B.1	May-Jul (0-10)	Coastal dunes Coastal salt marshes and swamps Playas	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species is recorded from 2015, 1.5 miles south of the Project Area. There is also one recorded historic observation of this species.
Geothallus tuberosus Campbell's liverwort	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	-- (10-600)	Mesic soils Coastal scrub Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations of this species exist within a 5-mile radius of the Project Area. The nearest recent observation is from 2017, and is 3.9 miles northeast of the Project Area.
Grindelia hallii San Diego gumplant	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	May-Oct (185-1745)	Chaparral Lower montane coniferous forest Meadows and seeps Valley and foothill grassland	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Harpagonella palmeri Palmer's grapplinghook	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-May (20-955)	Chaparral Coastal scrub Valley and foothill grassland	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Hesperevax caulescens hogwallow starfish	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-Jun (0-505)	Valley and foothill grassland Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Heterotheca sessiliflora* ssp. *sessiliflora beach goldenaster	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Mar-Dec (0-1225)	Coastal chapparal Coastal scrub Coastal dunes	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations have been made of this species within 5 miles of the Project Area. The closest one was in 2005, and was 1.0 miles south of the Project Area. There have also been three historic observations of this species within a 5-mile radius of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Holocarpha virgata ssp. elongata graceful tarplant	**USFWS:** None **CDFW:** None **CNPS:** 4.2	May-Nov (60-1100)	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Hordeum intercedens vernal barley	**USFWS:** None **CDFW:** None **CNPS:** 3.2	Mar-Jun (5-1000)	Coastal dunes Coastal scrub Valley and foothill grassland Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Isocoma menziesii* var. *decumbens decumbent goldenbush	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Apr-Nov (10-135)	Chaparral Coastal scrub (within disturbed, sandy areas)	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations of this species have been recorded within 5 miles of the Project Area. The nearest was 1.29 miles east of the Project Area in 2019. Six additional historic observations within a 5-mile radius of Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Iva hayesiana San Diego marsh-elder	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Apr-Oct (10-500)	Marshes and swamps Playas	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species has been made within a 5-mile radius of the Project Area. This was 1.4 miles to the north of the Project Area in 2013.
Juncus acutus* ssp. *leopoldii southwestern spiny rush	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-Jun (3-900)	Coastal dunes Marshes and swamps Meadows and seeps	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Feb-Jun (1-1220)	Coastal salt marshes and swamps Playas Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species have taken place within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Lepidium virginicum* var. *robinsonii Robinson's pepper-grass	**USFWS:** None **CDFW:** None **CNPS:** 4.3	Jan-Jul (1-885)	Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species are within a 5-mile search of the Project Area and The Project Area provides suitable habitat.
Leptosyne maritima sea dahlia	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Mar-May (5-150)	Coastal bluff scrub Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations have been made within a 5-mile radius of the Project Area. The closest of which was made in 2001, and was 1.5 miles south of the Project Area.
Lycium californicum California box-thorn	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-Dec (5-150)	Coastal bluff scrub Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Microseris douglasii* ssp. *platycarpha small-flowered microseris	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Mar-May (15-1070)	Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pools Clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Monardella viminea willowy monardella	**USFWS:** Endangered **CDFW:** Endangered **CNPS:** 1B.1	Jun-Aug (50-225)	Chaparral Coastal scrub Riparian forest Riparian scrub Riparian woodland Alluvial terraces and washes	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Nama stenocarpa mud nama	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Jan-Jul (5-500)	Swamps and marshes Lake margins and riverbanks	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Navarretia prostrata prostrate vernal pool navarretia	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Apr-Jul (3-1210)	Coastal scrub Meadows and seeps Valley and foothill grassland Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Nemacaulis denudata* var. *denudata coast woolly-heads	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Apr-Sep (0-100)	Coastal dunes	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Six recent observations have been made within 5 miles of the Project Area. The closest observation was 0.86 miles south of the Project Area. There are also three recorded historic observations of this species.
Nemacaulis denudata* var. *gracilis slender cottonheads	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Mar-May (-50-400)	Coastal dunes Desert dunes Sonoran desert scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Orobanche parishii* ssp. *brachyloba short-lobed broomrape	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Apr-Oct (3-305)	Coastal bluff scrub Coastal dunes Coastal scrub Sandy soils	**Presumed Absent:** The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Phacelia stellaris Brand's star phacelia	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Mar-Jun (1-400)	Coastal dunes Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species has been recorded 2.1 miles southwest of the Project Area in 2012.
Pogogyne abramsii San Diego mesa mint	**USFWS:** Endangered **CDFW:** Endangered **CNPS:** 1B.1	Mar-Jul (90-200)	Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Pogogyne nudiuscula Otay Mesa mint	**USFWS:** Endangered **CDFW:** Endangered **CNPS:** 1B.1	May-Jul (90-250)	Vernal pools	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Quercus dumosa Nuttall's scrub oak	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Feb-Aug (15-400)	Closed-cone coniferous forest Chaparral Coastal scrub Sandy, clay loam soils	**Presumed Absent**: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. There have been six recent observations of this species within a 5-mile radius of the Project Area. The closest observation was 3.4 miles north of the Project Area in 2006.
Salvia munzii Munz's sage	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Feb-Apr (115-1065)	Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Selaginella cinerascens ashy spike-moss	**USFWS:** None **CDFW:** None **CNPS:** 4.1	--- (20-640)	Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Senecio aphanactis chaparral ragwort	**USFWS:** None **CDFW:** None **CNPS:** 2B.2	Jan-May 15-800	Coastal scrub Cismontane woodland Chaparral	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Sphaerocarpos drewiae bottle liverwort	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	--- (90-600)	Chaparral Coastal Scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species has been recorded within 5 miles of the Project Area. That observation was made in 2017, and was 3.8 miles northeast of the Project Area.
Stemodia durantifolia purple stemodia	**USFWS:** None **CDFW:** None **CNPS:** 2B.1	Jan-Dec (180-300)	Sonoran desert scrub Mesic and sandy soils	**Presumed Absent:** The Project Area provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Stipa diegoensis San Diego County needle grass	**USFWS:** None **CDFW:** None **CNPS:** 4.2	Feb-Jun (10-800)	Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Streptanthus bernardinus Laguna Mountains jewelflower	**USFWS:** None **CDFW:** None **CNPS:** 4.3	May-Aug (670-2500)	Chaparral Lower montane coniferous forest	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
Stylocline citroleum oil neststraw	**USFWS:** None **CDFW:** None **CNPS:** 1B.1	Mar-Apr (50-400)	Chenopod scrub Coastal scrub Valley and foothill grassland Clay soils	**Presumed Absent:** The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
Suaeda esteroa estuary seablite	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Jan-Oct (0-5)	Coastal salt marsh Swamps	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations of this species have been made within a 5-mile radius of the Project Area. The nearest was in 2004, during which an individual was seen 0.99 miles south of the Project Area. There are also four historic observations of this species on file.

Scientific Name **Common Name**	**Status**	**Flowering Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur in the Project Area**
Tetracoccus dioicus Parry's tetracoccus	**USFWS:** None **CDFW:** None **CNPS:** 1B.2	Apr-May (165-1000)	Chaparral Coastal scrub	**Presumed Absent:** The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

California Native Plant Society (CNPS) Designations:
1A: Plants presumed extinct in California.
1B: Plants rare and endangered in CA and throughout their range.
2: Plants rare, threatened, or endangered in CA but more common elsewhere in their range.
3: Plants about which need more information; a review list.
4: Plants of limited distribution; a watch list.
Plants 1B, 2, and 4 extension meanings:
.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Fairly endangered in California (20-80% occurrences threatened)
.3 Not very endangered in CA (<20% of occurrences threatened or no current threats known)

Sources: California Natural Diversity Data Base (CDFW 2022a), California Native Plant Society Electronic Inventory (CNPS 2022)

ATTACHMENT E

Special-Status Wildlife Potential for Occurrence

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
INSECTS			
Danaus plexippus monarch - California overwintering population	**USFWS:** CAN **CDFW:** None	Roosts in wind-protected tree groves (coastal California conifer and eucalyptus) from Northern Mendocino to Baja California. Very high site fidelity.	**Low:** Suitable habitat is not present for this species within the BSA. Four recent records are recorded within 5 miles of the Project Area, with the closest being approximately 1.5 miles southeast from the Project Area in 2014.
Euphydryas editha quino quino checkerspot butterfly	**USFWS:** END **CDFW:** None	Openings within chaparral and coastal sage scrublands in Riverside and San Diego Counties.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. No observations have been recorded within 5 miles of the Project Area.
Panoquina errans salt marsh skipper	**USFWS:** None **CDFW:** None	Coastal salt and brackish marshes, occasionally nearby fields and wood edges.	**Low:** Suitable habitat is not present for this species within the BSA. One recent observation is recorded within 5 miles of the Project Area. This observation was in 2005 and was approximately 5 miles west of the Project Area.
CRUSTACEANS			
Branchinecta sandiegonensis San Diego fairy shrimp	**USFWS:** END **CDFW:** None	Restricted to vernal and shallow ephemeral basins in Orange and San Diego Counties.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA due to lack of vernal pools. One recent record has occurred less than 5 miles south of the Project Area from 2011.
Streptocephalus woottoni Riverside fairy shrimp	**USFWS:** END **CDFW:** None	Occurs in deeper, long-lived vernal pools, tectonic swales, and earth slump basins in southern California.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA due to lack of vernal pools. No observations have been recorded within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
AMPHIBIANS			
Spea hammondii western spadefoot	**USFWS:** None **CDFW:** SSC	Prefers open areas with sandy or gravely soils, requires rain pools free of bullfrogs and crayfish for breeding.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Three historic observations of this species have been recorded within 5 miles of the Project Area.
REPTILES			
Anniella stebbinsi southern California legless lizard	**USFWS:** None **CDFW:** SSC	Moist, loose soil is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	**Low:** Limited suitable habitat occurs within the BSA. Four recent records of eight total occur within 5 miles of the site, with the closest being approximately 1-2 miles south of the Project site in 2018.
Arizona elegans occidentalis California glossy snake	**USFWS:** None **CDFW:** SSC	Loose soils preferred. Arid scrub, rocky washes, grasslands, and chaparral habitats.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic record has occurred within 5 miles of the site.
Aspidoscelis hyperythra orange-throated whiptail	**USFWS:** None **CDFW:** WL	Semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides and coastal chaparral.	**Low:** Limited suitable habitat occurs within the BSA. The Project Area occurs within the known range. One recent and four historic records occur within 5 miles of the Project Area with the recent record being approximately 3-4 miles north of the Project Area from 2004.
Chelonia mydas green sea turtle	**USFWS:** THR **CDFW:** None	Inhabits tropical and subtropical coastal waters.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One recent observation of this species exists within 5 miles of the Project Area. It occurred in 2009, and the individual was less than 2 miles south of the Project Area within the bay.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
Masticophis fuliginosus Baja California coachwhip	**USFWS:** None **CDFW:** SSC	Inhabits scrub, coastal sand dunes, grasslands, marshlands, rocky arroyos, and desert flats of southern San Diego County and Baja California.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic observation recorded within 5 miles of the Project Area.
Phrynosoma blainvillii coast horned lizard	**USFWS:** None **CDFW:** SSC	Inhabits open areas with sandy soils and low vegetation.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Two historic records occur within 5 miles of the Project Area.
Thamnophis hammondii two-striped gartersnake	**USFWS:** None **CDFW:** SSC	Found near water sources, such as pools, creeks, and riparian areas. Associated with oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic observation of this species has been recorded within 5 miles of the Project Area.
BIRDS			
Agelaius tricolor tricolored blackbird (nesting colony)	**USFWS:** CAN END **CDFW:** THR	Inhabits cattails and large freshwater marshes.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.
Athene cunicularia burrowing owl	**USFWS:** None **CDFW:** SSC	Prefers open, sparsely vegetated scrublands and grasslands with burrowing mammals present for burrow construction.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Four historic records of this species occur within 5 miles of the Project Area.
Buteo swainsoni Swainson's hawk (nesting)	**USFWS:** None **CDFW:** THR	This species inhabits open habitat such as shrublands, deserts, croplands, and herbaceous grasslands. Often found in habitats within close proximity to riparian areas.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	**USFWS:** BCC **CDFW:** SSC	Coastal sage scrub with tall opuntia cacti. Nests in opuntia cactus.	**Low:** Suitable habitat is not present for this species within the BSA. One recent record and four historic records of this species exist within 5 miles of the Project Area. The recent record is from 2017 and was located approximately 3 miles northeast of the Project Area.
Charadrius nivosus western snowy plover (nesting)	**USFWS:** BCC **CDFW:** SSC	Beaches, coastal dunes, coastal strand.	**Low:** Suitable habitat is not present for this species within the BSA. Two recent and three historic records have occurred within 5 miles of the Project Area. The nearer recent observation was made in 2015 and was approximately 2 miles west of the Project Area.
Empidonax traillii extimus southwestern willow flycatcher (nesting)	**USFWS:** END **CDFW:** END	Riparian woodlands particularly with willow thickets. Nests in densest areas of shrubs and trees with low-density canopies.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. No observations have been recorded within 5 miles of the Project Area.
Falco peregrinus anatum American peregrine falcon (nesting)	**USFWS:** BCC **CDFW:** FP	Open woodland and fragmented forests. Also found in grasslands, marshes, deserts, lakes, fields, along the coast.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.
Laterallus jamaicensis coturniculus California black rail	**USFWS:** None **CDFW:** THR, FP	Inhabits marshes along the coast and inland.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Three historic observations are recorded within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
Pandion haliaetus osprey (nesting)	**USFWS:** None **CDFW:** WL	Near shallow water bodies including lakes, reservoirs, and swamps with fish but also along the coast. Nests in tall trees, on cliffs, or on man-made structures.	**Moderate:** There is suitable foraging and nesting habitat for this species within the buffer of the Project Area but not within the Project Area itself. One osprey was observed flying over the vicinity to the west during the reconnaissance survey. Five recent observations of this species have been recorded within 5 miles of the Project Area. The closest was approximately less than 1 mile south of the Project Area in 2019.
Passerculus sandwichensis beldingi Belding's savannah sparrow	**USFWS:** None **CDFW:** END	Grasslands, meadows, tidal saltmarshes, estuaries.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Six historical observations of this species exist within 5 miles of the Project Area. The nearest was 0.4 miles southeast of the Project Area in 2001.
Polioptila californica coastal California gnatcatcher	**USFWS:** THR **CDFW:** SSC	Inhabits coastal sage scrub habitat less than 3000' in elevation along the coast.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Ten recent records of twelve total occur within 5 miles of the Project Area with the closest recent record occurring approximately 3 miles northeast of the Project Area in 2015.
Rallus longirostris levipes light-footed Ridgway's rail	**USFWS:** END **CDFW:** END	Inhabits salt and brackish marshes.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Six recent records of eight total occur within 5 miles of the Project Area, with the closest being less than 1 mile southeast of the Project Area in 2007.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
Setophaga petechia yellow warbler (nesting)	**USFWS:** BCC **CDFW:** SSC	Riparian woodlands especially with willows, open scrub, gardens, and thickets often near water.	**Low:** Limited suitable habitat is present within the BSA. One recent observation of this species was recorded approximately 4 miles southeast of the Project Area in 2017.
Sternula antillarum browni California least tern (nesting colony)	**USFWS:** END **CDFW:** END	Inhabits beaches, mudflats, and sand dunes, typically near lagoons or shallow estuaries near the ocean. They roost on the ground in unprotected areas of the coastal environment.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One recent and six historic observations of this species have been recorded within 5 miles of the Project Area. The nearest was approximately 2 miles west of the Project Area in 2015.
Vireo bellii pusillus least Bell's vireo (nesting)	**USFWS:** END **CDFW:** END	Inhabits dense, low shrubby vegetation, generally early successional stages in riparian areas, often near water in arid regions.	**Low:** Suitable habitat is not present for this species within the BSA. Two recent records occur within 5 miles of the Project Area, with the closest occurrence being approximately 1.5 miles east of the Project Area in 2010. There is also an addition historical observation recorded within 5 miles of the Project Area.
MAMMALS			
Antrozous pallidus pallid bat	**USFWS:** None **CDFW:** SSC	Inhabits arid regions with rocky outcroppings, to open, sparsely vegetated grasslands. Water must be available.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
Choeronycteris Mexicana Mexican long-tongued bat	**USFWS:** None **CDFW:** SSC	Typically roosts in caves, can additionally be found in attics, under bridges, and in abandoned buildings.	**Low:** Suitable habitat is not present for this species within the BSA. One recent and three historic records of this species have occurred within 5 miles of the Project Area. The recent observation was made in 2002 and was located approximately 3.5 miles south of the Project Area.
Eumops perotis californicus western mastiff bat	**USFWS:** None **CDFW:** SSC	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Two historic observations are recorded within 5 miles of the Project Area.
Lasiurus xanthinus western yellow bat	**USFWS:** None **CDFW:** SSC	Prefers regions dominated by pasture or croplands, often roosts in trees with an affinity for roosting under palm tree fronds.	**Moderate:** Potential roosting habitat is present within the Project Area and the buffer in the palm trees. Foraging habitat within the vicinity is of lower quality. One historic record occurs within 5 miles of the Project Area.
Nyctinomops femorosaccus pocketed free-tailed bat	**USFWS:** None **CDFW:** SSC	During dry season, utilizes water sources with large available surfaces. Roosts in caves, rock crevices and cliff faces.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. Three historic observations are recorded within 5 miles of the Project Area.
Nyctinomops macrotis big free-tailed bat	**USFWS:** None **CDFW:** SSC	This species is a seasonal migrant, sometimes found in urban areas. Occurs in rocky areas of rugged and hilly country including woodlands, evergreen forests, river floodplain-arroyo habitats, and desert scrub.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**	**Habitat Preferences**	**Potential for Occurrence**
Prognathous longimembris pacificus Pacific pocket mouse	**USFWS:** END **CDFW:** SSC	Inhabits sandy substrates of coastal sage scrub, coastal dunes, and alluvial plains of marine terraces.	**Presumed Absent:** Suitable habitat is not present for this species within the BSA. No CNDDB records occur for this species within 5 miles of the Project Area. The Project is within the historical range of the species but the closest extant population of the species is approximately 55 miles north of the Project Area at Marine Corps Base Camp Pendleton.

Federal Designations
(Federal Endangered Species Act, U.S. Fish and Wildlife Service [USFWS])
END: Federally listed, endangered
THR: Federally listed, threatened
CAN: Federal candidate for listing
BCC: Bird of Conservation Concern
State Designations
(California Endangered Species Act, California Department of Fish and Wildlife [CDFW])
END: State-listed, endangered
THR: State-listed, threatened
SSC: California Species of Special Concern
CAN: State candidate for listing
FP: Fully Protected
WL: Watch List

Sources: California Natural Diversity Data Base (CDFW 2022a), Special Animals List (CDFW 2022b), State and Federally Listed Endangered and Threatened Animals of California (CDFW 2022c), IPAC Trust Resources List (USFWS 2022b)