

**Marina Coast Water District
Ord Wastewater Treatment Plant
Blight Removal Project**

BIOLOGICAL RESOURCES REPORT

October 2025

Prepared by



Denise Duffy & Associates, Inc.
947 Cass St. Suite 5
Monterey, California 93940

Prepared for



Marina Coast Water District
11 Reservation Road
Marina, CA 93933-2099

This page left intentionally blank

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Summary of Results	1
1.1 Project Background	4
1.2 Project Description	4
2.0 METHODS	4
2.1 Personnel and Survey Dates	4
2.2 Special-Status Species	5
2.3 Sensitive Habitats	6
2.4 Data Sources	6
2.5 Regulatory Setting	7
3.0 RESULTS	12
3.1 Natural Communities	12
3.2 Special-Status Species	14
3.3 Sensitive Habitats	17
3.4 Protected Trees	17
4.0 IMPACTS AND MITIGATION MEASURES	18
4.1 Thresholds of Significance	18
4.2 Approach to Analysis	18
4.3 Areas of No Impact	20
4.4 Impacts and Mitigation Measures	20
5.0 REFERENCES	29

Figures

Figure 1. Project Location.....	2
Figure 2. Project Site.....	3
Figure 3. Natural Communities.....	13
Figure 4. Special-Status Plant Species Observations.....	16

Appendices

APPENDIX A: Special-Status Species Table	
APPENDIX B: California Natural Diversity Database Report	
APPENDIX C: IPaC Resource List	

1.0 INTRODUCTION

The Marina Coast Water District (MCWD or District) is proposing to implement the Ord Wastewater Treatment Plant Blight Removal Project (project or proposed project), located within Fort Ord Dunes State Park (FODSP) in unincorporated Monterey County (County), California (**Figures 1 and 2**). Specifically, the project site is located on a disturbed site on the west side of Highway 1 along Beach Range Road, on County Assessor's Parcel Number (APN) 031-031-001-000. The project includes the demolition of existing facilities associated with the existing out of service wastewater treatment plant (WWTP). The existing facilities have exceeded their service life and are no longer functional. The project does not include the restoration of facilities following demolition. The site is currently used by the California Department of Parks and Recreation (State Parks) as a staging area and will continue to be used following demolition.

This report presents the findings of a biological resource assessment conducted by Denise Duffy & Associates, Inc. (DD&A) for the proposed project. The emphasis of this study is to describe existing biological resources within and surrounding the project site, identify the presence or potential presence of special-status species and sensitive habitats within and adjacent to the site, assess potential impacts to biological resources that may result from the project, and recommend appropriate avoidance, minimization, and mitigation measures necessary to reduce those impacts to a less-than-significant level in accordance with the California Environmental Quality Act (CEQA).

1.1 Summary of Results

One natural community—ruderal/disturbed—was observed within undeveloped portions of the project site.

Several special-status species are known or have the potential to occur within the project site based on observations, presence of appropriate habitat, and known occurrences within the vicinity. All other species evaluated have a low potential to occur, are assumed unlikely to occur, or were determined not present within the project site for the species-specific reasons presented in **Appendix A**.

The following special-status wildlife species are assumed to be present or have the potential to occur within the project site:

- Northern California legless lizard (*Anniella pulchra*) – CSC/HMP¹,
- Coast horned lizard (*Phrynosoma blainvillii*) – CSC,
- Smith's blue butterfly (SBB; *Euphilotes enoptes smithi*) – FE/HMP, and
- Nesting raptors and other protected avian species.

The following special-status plant species are known to occur within the project site:

- Monterey spineflower (*Chorizanthe pungens* var. *pungens*) – FT/1B/HMP,
- Sandmat manzanita (*Arctostaphylos pumila*) – 1B/HMP, and

Habitats for the special-status species listed above may be considered an Environmentally Sensitive Habitat Area (ESHA) under the California Coastal Act (CCA).

¹ Definitions: CSC: California species of special concern; HMP: species identified in the Fort Ord Habitat Management Plan; FE: listed as endangered under ESA; FT: listed as threatened under ESA; 1B: California Rare Plant Rank List 1B species: rare, threatened, or endangered in California.



Project Location	Date 9/22/2025	 Denise Duffy & Associates, Inc. Planning and Environmental Consulting	Figure 1
	Scale 1:16,500		



Project Site

Date
9/24/2025

Scale
1:825



Denise Duffy & Associates, Inc.
Planning and Environmental Consulting

Figure
2

1.1 Project Background

The MCWD is a County Water District organized and operating under the County Water District Law, Water Code §30000. The MCWD is located on the coast of Monterey Bay at the northwest end of the Salinas Valley and occupies an area of about 4.5 square miles. The District was formed in 1960 and provides potable water, wastewater collection, and reclaimed water services within the City of Marina and the Ord Community. In 1992 the District joined the Monterey Regional Water Pollution Control Agency, now Monterey One Water (M1W), and connected to the Regional Treatment Plant. In 2018, the District conveyed approximately 2,200 acre-feet of sewage to M1W for treatment. In 2001, the U.S. Army conveyed ownership of the water and wastewater infrastructure on the former Fort Ord through the Fort Ord Reuse Authority (FORA) to the MCWD.²

1.2 Project Description

A large diameter wastewater force main extends the entire length of FODSP, from north to south, conveying wastewater from the Monterey Peninsula to a regional wastewater treatment plant located north of the City of Marina. The force main, and an associated pump station located in the northeast portion of FODSP, are owned and operated by the Monterey Regional Water Pollution Control Agency. A wastewater treatment facility is located within FODSP, near Beach Range Road and 8th Street. The plant is not in operation, nor could it be returned to operation in its current condition.

The proposed project includes the demolition of sludge control buildings, primary and secondary sedimentation, pump facility, and other related WWTP infrastructure. As described above, the existing facilities have exceeded their service life, and the plant is no longer in operation. Existing trickling filter facilities would be maintained. No trees are proposed for removal; however, trees would be trimmed in accordance with the Tree Pruning Guidelines (International Society of Arboriculture) and/or the ANSI A300 Pruning Standard (American National Standard for Tree Care Operations). If tree removal is determined to be required to facilitate the project at a later date, an arborist report would be required.

Surveys for special-status species were conducted prior to developing project plans to avoid and minimize impacts to special-status species to the greatest extent possible. The project has been designed to avoid the federally endangered Smith's blue butterfly and its habitat, which is known to occur within the project site.

2.0 METHODS

2.1 Personnel and Survey Dates

DD&A conducted surveys of the project site on May 29, 2025. Botanical survey methods included walking the project site and using aerial maps to identify general vegetation types and potential sensitive vegetation types, and conducting focused surveys for special-status plant species. Concurrently, reconnaissance-level wildlife habitat surveys were conducted to identify suitable habitat and observe any special-status wildlife species. Data collected during the surveys were used to assess the environmental conditions of the project site and its surroundings, evaluate environmental constraints at the site and within the local vicinity, and provide a basis for recommendations to minimize and avoid impacts.

² Assignment of Easements on Former Fort Ord and Ord Military Community, County of Monterey, and Quitclaim Deed for Water and Wastewater Systems, as and between FORA and MCWD, dated October 24, 2001.

The project site was surveyed for botanical resources following the applicable guidelines outlined in: *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (U.S. Fish and Wildlife Service [USFWS], 2000), *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018), and *CNPS Botanical Survey Guidelines* (CNPS, 2001). All special-status plant species identified were mapped using a Trimble Pro XH GPS unit. Populations of plants with greater than six individuals were mapped as a polygon and the density of the population was documented. Densities were recorded as low (1-33% cover), medium (34-66% cover), and high (67-100% cover). Individual plants or populations of less than six individuals were mapped as a point and a count of the number of individual plants was documented. Populations included all individuals within approximately three feet of another individual; individual plants further than three feet apart were mapped as a separate polygon or point. General and sensitive vegetation types were also mapped during the survey effort using a combination of GPS and hand drawing on aerial maps, which were later digitized using ArcGIS software.

2.2 Special-Status Species

Special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Section 15380 are also considered special-status species. Animals on the CDFW's list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) and avian species on USFWS's "Birds of Conservation Concern" list (birds that, without additional conservation actions, are likely to become candidates for listing under ESA) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. Additionally, the CDFW also includes some animal species that are not assigned any of the other status designations in the CNDDDB "Special Animals" list; however, these species have no legal or protection status.

Plants listed as rare under the California Native Plant Protection Act (CNPPA) or included in California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR; formerly known as CNPS Lists) 1A, 1B, 2A, and 2B are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380.³ In general, the CDFW requires that plant species on CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); and CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2025) be fully considered during the preparation of environmental documents relating to CEQA.⁴ In addition, species of vascular plants, bryophytes, and lichens listed as having special-status by the CDFW are considered special-status plant species (CDFW, 2025a). CNPS CRPR 4 species (plants of limited distribution) may, but generally do not, meet the definitions of Sections

³ CNPS initially created five CRPR to categorize degrees of concern; however, to better define and categorize rarity in California's flora, the CNPS Rare Plant Program and Rare Plant Program Committee have developed the new CRPR 2A and CRPR 2B.

⁴ CRPR 3 species (Plants about which we need more information - a review list) and CRPR 4 species (Plants of limited distribution - a watch list) may, but generally do not, meet the definitions of Sections 2062 and 2067 of CESA, and are not typically considered in environmental documents relating to CEQA.

2062 and 2067 of CESA, and are not typically considered in environmental documents relating to CEQA. While other species (i.e., CRPR 3 or 4 species) are sometimes found in database searches or within the literature, these were not included within the analysis as they did not meet the definitions of Section 2062 and 2067 of CESA.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto.”

In addition, fully protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline may also be considered special-status animal species in some cases, depending on project-specific analysis and relevant, localized conservation needs or precedence.

2.3 Sensitive Habitats

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted vegetation types. Vegetation types considered sensitive include those listed on the CDFW’s *California Natural Communities List* (i.e., those habitats that are rare or endangered within the borders of California) (CDFW, 2025b), those that are occupied by species listed under ESA or are critical habitat in accordance with ESA, and those that are defined as ESHA under the CCA. Specific habitats may also be identified as sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the Clean Water Act [CWA] and Executive Order [EO] 11990 – Protection of Wetlands), state regulations (such as CEQA and the CDFW Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

2.4 Data Sources

The primary literature and data sources reviewed in order to determine the occurrence or potential for occurrence of special-status species at the project site are as follows:

- Current agency status information from USFWS and CDFW for species listed, proposed for listing, or candidates for listing as threatened or endangered under ESA or CESA, and those considered CDFW “species of special concern”, including:
 - CNDDDB occurrences reports from the Marina quadrangle and the six surrounding quadrangles, including Monterey, Moss Landing, Prunedale, Salinas, Seaside, and Spreckels (CDFW, 2025a; **Appendix B**); and
 - USFWS IPaC Resource List (USFWS, 2025; **Appendix C**).
- CDFW’s Special Animals List (CDFW, 2025c);
- The CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2025);
- The *Flora and Fauna Baseline Study of Fort Ord* (U.S. Army Corps of Engineers [ACOE], 1992); and
- The *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (HMP) (ACOE, 1997).

From these resources, a list of special-status plant and wildlife species known or with the potential to occur in the vicinity of the project site was created (**Appendix A**). This list presents these species along with their legal status, habitat requirements, and a brief statement of the likelihood to occur within the project site.

2.4.1 Botany

Vegetation types identified in *A Manual of California Vegetation* (Sawyer et.al., 2009) were utilized to determine if vegetation types identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025b) are present within the project site. Information regarding the distribution and habitats of local and state vascular plants was also reviewed (Howitt and Howell, 1964 and 1973; Munz and Keck, 1973; Baldwin et al., 2012; Matthews and Mitchell, 2015; Jepson Flora Project, 2025). All plants observed within the project site during the surveys were identified to species or intraspecific taxon necessary to eliminate them as being special-status species using keys and descriptions in *The Jepson Manual: Vascular Plants of California, Edition 2* (Baldwin et al., 2012) and *The Plants of Monterey County an Illustrated Field Key* (Matthews and Mitchell, 2015). Scientific nomenclature for plant species identified within this document follows Baldwin, et. al, (2012); common names follow Matthews and Mitchell (2015). A full botanical inventory was not recorded for the project site but the dominant species within each habitat were noted. Dominant plant species are those which are more numerous than its competitors in an ecological community or makes up more of the biomass; generally, the species that are most abundant. Most ecological communities are defined by their dominant species.

The California Invasive Plant Council (Cal-IPC) Inventory (Cal-IPC, 2025) was reviewed to determine if any invasive plant species are present within the project site.

2.4.2 Wildlife

The following literature and data sources were reviewed: CDFW reports on special-status wildlife (Remsen, 1978; Williams, 1986; Jennings and Hayes, 1994; Thelander, 1994; Thomson et. al, 2016); California Wildlife Habitat Relationships Program species-habitat models (Zeiner et al., 1988 and 1990); and general wildlife references (Stebbins, 1972, 1985, and 2003).

2.5 Regulatory Setting

2.5.1 Federal Regulations

Federal Endangered Species Act

Provisions of the ESA of 1973 (16 USC 1532 et seq., as amended) protect federally listed threatened or endangered species and their habitats from unlawful take. Listed species include those for which proposed and final rules have been published in the Federal Register. The ESA is administered by USFWS or National Oceanic and Atmospheric Administration Marine Fisheries Service (NMFS). In general, the NMFS is responsible for the protection of ESA-listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction.

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered or threatened. Take, as defined by ESA, is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the fish or wildlife...including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.” In addition, Section 9 prohibits removing, digging up, and

maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under federal jurisdiction. If there is the potential for incidental take of a federally listed fish or wildlife species, take of listed species can be authorized through either the Section 7 consultation process for federal actions or a Section 10 incidental take permit process for non-federal actions. Federal agency actions include activities that are on federal land, conducted by a federal agency, funded by a federal agency, or authorized by a federal agency (including issuance of federal permits).

Recovery Plans

The ultimate goal of the ESA is the recovery (and subsequent conservation) of endangered and threatened species and the ecosystems on which they depend. A variety of methods and procedures are used to recover listed species, such as protective measures to prevent extinction or further decline, consultation to avoid adverse impacts of federal activities, habitat acquisition and restoration, and other on-the-ground activities for managing and monitoring endangered and threatened species. The collaborative efforts of USFWS and its many partners (federal, state, and local agencies, tribal governments, conservation organizations, the business community, landowners, and other concerned citizens) are critical to the recovery of listed species.

Two recovery plans have been prepared for listed species known or with the potential to occur within the project site:

- Smith's Blue Butterfly Recovery Plan (USFWS, 1984), and
- Seven Coastal Plants and the Myrtle's Silverspot Butterfly Recovery Plan (USFWS, 1998a).

2.5.2 State Regulations

California Fish and Game Code

Birds. Section 3503 of the Fish and Game Code states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3503.5 prohibits the killing, possession, or destruction of any birds in the orders Falconiformes or Strigiformes (birds-of-prey). Section 3511 prohibits take or possession of fully protected birds. Section 3513 prohibits the take or possession of any migratory nongame birds designated under the federal MBTA. Section 3800 prohibits take of nongame birds.

Species of Special Concern. As noted above, the CDFW also maintains a list of animal "species of special concern." Although these species have no legal status, the CDFW recommends considering these species during analysis of project impacts to protect declining populations and avoid the need to list them as endangered in the future.

Native Plant Protection Act

The CNPPA of 1977 directed the CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in the state." The CNPPA prohibits importing rare and endangered plants into California, taking rare and endangered plants, and selling rare and endangered plants. The CESA and CNPPA authorized the Fish and Game Commission to designate endangered, threatened and rare species and to regulate the taking of these species (§2050-2098, Fish and Game Code). Plants listed as rare under the CNPPA are not protected under CESA.

California Coastal Act

The California Coastal Commission (CCC) was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the CCA of 1976. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards. Development activities, which are broadly defined by the CCA to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a Coastal Development Permit (CDP) from either the CCC or the local government if a Local Coastal Program (LCP) has been certified. After certification of a LCP, coastal development permit authority is delegated to the appropriate local government, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The Commission also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments. The project site is located within CCC jurisdiction and a CDP may be required for the proposed project.

The CCC or the local government may designate areas of rare or unique biological value, such as wetland and riparian habitat and habitats for special-status species, as ESHA. Section 30107.5 of the CCA defines an "environmentally sensitive area" as any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Development is restricted within the coastal zone and prohibited within designated ESHA, unless the development is coastal dependent and does not have a significant effect on the resources. Section 30240 of the CCA states that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." This section also states that "development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."

2.5.3 Local Regulations

Fort Ord Dunes State Park General Plan and Environmental Impact Report

The project site is located within an easement on State Parks land within FODSP, which is governed by the FODSP General Plan. The FODSP General Plan identifies the project site as a resource management zone.

The FODSP General Plan Environmental Impact Report (EIR) evaluated the potential impacts of demolition and blight removal activities within the Park at a programmatic-level and requires that future proposed activities be reviewed at the time they are proposed for implementation to determine the potential for project-specific impacts and to identify appropriate mitigation measures. The FODSP General Plan identified guidelines to address potential biological resources concerns within the FODSP and minimize potential impacts to biological resources in connection with the implementation of the General Plan. The FODSP General Plan also contains a number of management guidelines to address potential concerns related to biological resources. Applicable guidelines include BIO-1, BIO-2, BIO-4, BIO-5, BIO-10, and

BIO-17. These policies generally promote identifying, protecting, and ensuring perpetuation of park plant and wildlife species populations.

The FODSP General Plan EIR considered potential impacts associated with the implementation of the FODSP General Plan at a programmatic level. Where appropriate, the FODSP General Plan EIR identified potential mitigation measures for future projects. The FODSP General Plan EIR determined that potential impacts would be less than significant with the implementation of mitigation measures. Applicable mitigation measures include Mitigation Measure Bio-1 and Mitigation Measure Bio-2, which address potential impacts to native habitats and species, including special-status species by requiring the preparation of project-specific biological evaluations and associated biological protection measures prior to development. This report and the project-specific mitigation measures identified herein have been prepared in accordance with these requirements. These mitigation measures are in addition to applicable guidelines intended to address biological resources constraints. The project would be required to comply with all applicable guidelines, as well as mitigation measures contained in the FODSP General Plan EIR to the extent they are applicable.

Fort Ord Habitat Management Plan

The U.S. Army's decision to close and dispose of the Fort Ord military base was considered a major federal action that could affect listed species under the ESA. In 1993, USFWS issued a BO on the disposal and reuse of former Fort Ord requiring that a HMP be developed and implemented to reduce the incidental take of listed species and loss of habitat that supports these species (USFWS, 1993, updated to USFWS, 2017b). The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss associated with the disposal and reuse of former Fort Ord (ACOE, 1997).

The HMP establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying lands that are available for development, lands that have some restrictions with development, and habitat reserve areas. The intent of the plan is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at former Fort Ord; parcels are designated as "development with no restrictions," "habitat reserves with management requirements," or "habitat reserves with development restrictions." The HMP sets the standards to assure the long-term viability of former Fort Ord's biological resources in the context of base reuse so that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. This plan has been approved by USFWS; the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure HMP implementation. It is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures.

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors and habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP will be obligated to implement those specific measures through the HMP and through deed covenants. However, the HMP does not provide specific authorization for incidental take of federal or state

listed species to existing or future non-federal land recipients under the ESA or CESA. As such, impacts to applicable federal and state listed species require incidental take authorization under Section 7 or Section 10 from the USFWS and/or a Section 2081 incidental take permit (ITP) from the CDFW.

The project site is located within a designated “development within reserve areas or development with restrictions” parcel. Within these parcels, the HMP requires preservation and restoration of native vegetation and HMP species habitat outside of areas identified for development. Additionally, these parcels must be managed so that the adjacent habitat areas are not adversely affected.

Monterey County Code

The project site is located within the Greater Monterey Peninsula Planning Area (GMPPA). County Code Chapter 21.64.260 regulates the removal of native oak trees within the GMPPA. Removal of a protected oak tree as defined (six [6] inches or greater in diameter when measuring two [2] feet above the ground) requires a tree removal permit from the County. The removal of more than three (3) protected oak trees requires the preparation and implementation of a forest management plan. The County also prohibits the removal of any landmark oak tree except if approved by the Director of Planning. Landmark oak trees are defined as those trees which are 24 inches or more in diameter when measured two (2) feet above the ground, or trees which are visually significant, historically significant, or exemplary of their species.

3.0 RESULTS

3.1 Natural Communities

One natural community was identified within a majority of the project site: ruderal/disturbed (**Figure 3**). Remaining areas of the project site are developed with existing wastewater treatment facilities. A brief description of each natural community can be found below. In addition, each natural community description identifies the vegetation classification from *A Manual of California Vegetation* (Sawyer et al., 2009) and whether the natural community is identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025b).

3.1.1 Ruderal/Disturbed

- *A Manual of California Vegetation* classifications: None
- CDFW's *California Natural Communities List*: Not listed

Ruderal areas are those areas which have been disturbed by human activities and are dominated by non-native annual grasses and other “weedy” species. Ruderal areas within the project site include vegetation dominated by Monterey cypress (*Hesperocyparis macrocarpa*), hottentot fig (*Carpobrotus* sp.), ripgut brome (*Bromus diandrus*), and slender oat (*Avena barbata*). Approximately 2.3 acres of ruderal areas are present within the project site.

This natural community is considered to have low biological value as it is generally dominated by non-native plant species and consists of relatively low-quality habitat from a wildlife perspective. However, common wildlife species which do well in urbanized and disturbed areas, such as the American crow (*Corvus brachyrhynchos*), California ground squirrel (*Otospermophilus beecheyi*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), western scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), coast range fence lizard (*Sceloporus occidentalis bocourtii*), and rock pigeon (*Columba livia*), may forage within this natural community.

3.1.2 Developed

- *A Manual of California Vegetation* classifications: None
- CDFW's *California Natural Communities List*: Not listed

Approximately 1.5 acres of the project site is developed. Developed areas within the project site include paved areas and existing WWTP facilities (**Figure 3**). No vegetation is present within these areas and they are considered to have little biological value. However, some common wildlife species that do well in urbanized areas, including American crow, California ground squirrel, raccoon, striped skunk, western scrub jay, European starling, and rock pigeon, may be found foraging within developed areas.



Natural Communities

Date
9/24/2025

Scale
1:800



Denise Duffy & Associates, Inc.
Planning and Environmental Consulting

Figure
3

3.2 Special-Status Species

Published occurrence data within the project area and surrounding USGS quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the project site (see “Methods” and **Appendix A**). Each of these species was evaluated for their likelihood to occur within and immediately adjacent to the project site (**Appendix A**). The special-status species that are known to or have been determined to have a moderate or high potential to occur within or immediately adjacent the project site are discussed below. All other species are assumed unlikely to occur or have a low potential to occur based on the species-specific reasons presented in **Appendix A**, are therefore unlikely to be impacted by the project, and are not discussed further.

3.2.1 Special-Status Wildlife Species

Northern California Legless Lizard

The Northern California legless lizard is a CDFW species of special concern, as well as an HMP species.⁵ This fossorial (burrowing) species typically inhabits sandy or loose (friable) soils. Habitats known to support Northern California legless lizard include (but are not limited to) coastal dunes, valley and foothill grasslands, chaparral, and coastal scrub at elevations from near sea level to approximately 1800 meters (6000 feet). The Northern California legless lizard forages on invertebrates beneath the leaf litter or duff layer at the base of bushes and trees or under wood, rocks, and slash in appropriate habitats. The diet of this species likely overlaps to some extent with that of juvenile alligator lizards and perhaps some other salamanders. This species may be preyed upon by alligator lizards, snakes, birds, and small mammals. Little is known about the specific habitat requirements for courtship and breeding; however, the mating season for this species is believed to begin late spring or early summer, with one to four live young born between September and November.

The CNDDDB reports 56 occurrences of Northern California legless lizard within the seven quadrangles reviewed, the nearest of which (#138) is located approximately 0.3 miles north of the project site. Additionally, this species is known to occur in several areas of the former Fort Ord. Suitable habitat for Northern California legless lizard is present throughout all undeveloped areas of the project site where appropriate soil conditions occur. Therefore, there is a moderate potential for Northern California legless lizard to occur within the project site.

Coast Horned Lizard

The coast horned lizard is a CDFW species of special concern. Horned lizards occur in valley-foothill hardwood, conifer, and riparian habitats, as well as in pine-cypress, juniper, chaparral, and annual grass habitats. This species generally inhabits open country, especially sandy areas, washes, flood plains, and wind-blown deposits in a wide variety of habitats. Coast horned lizards rely on camouflage for protection

⁵ The HMP identifies this species as black-legless lizard (*Anniella pulchra* ssp. *nigra*) in order to differentiate it from the previously identified silvery-legless lizard (*A. p. ssp. pulchra*). These subspecies are based primarily on phenotypic differences (black-legless lizard being much darker, having fewer scales on the back, and a relatively shorter tail) and very limited genetic work. Further, the range of the black-legless lizard has historically been classified as “restricted to coastal and interior dune sand other areas of sandy soils in the vicinity of Monterey Bay and the Monterey Peninsula” (USFWS, 1998b), while the range of silvery-legless lizard has been classified as widespread throughout central California (Parham and Papenfuss, 2008). However, recent genetic studies have revealed five lineages of this species that correspond with different geographic areas of California (Parham and Papenfuss, 2008). These studies do not, however, identify the legless lizards occurring on the coast of Monterey Bay (i.e. the currently designated black-legless lizard) as a separate lineage. Currently, CDFW identifies both subspecies as the Northern California legless lizard and this document, therefore, follows the current regulatory identification.

and will often lay motionless when approached. Horned lizards often bask in the early morning on the ground or on elevated objects such as low boulders or rocks. Predators and extreme heat are avoided by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed into the soil or under surface objects. Little is known about the habitat requirements for breeding and egg-laying of this species. Prey species include ants, beetles, wasps, grasshoppers, flies, and caterpillars.

The CNDDDB reports five occurrences of the coast horned lizard within the seven quadrangles reviewed, the nearest of which (#591) is located approximately 2.3 miles northeast of the project site. Additionally, this species has been observed throughout Fort Ord by DD&A biologists. Suitable habitat for this species is present throughout all undeveloped areas of the project site where appropriate soil conditions occur. Therefore, there is a moderate potential for coast horned lizard to occur within the project site.

Smith's Blue Butterfly

The SBB was listed as a federally Endangered species on June 1, 1976 (41 FR 22041 22044). SBB is also an HMP species. This species historically ranged along the California coast from Monterey Bay south through Big Sur to near Point Gorda, occurring in scattered populations in association with coastal dune, coastal scrub, chaparral, and grassland habitats. The primary limiting factor for SBB populations is the occurrence of their host plants, seacliff buckwheat and coast buckwheat (*Eriogonum latifolium*), in which they are associated with for their entire life span. The presence of the host plant, however, is not always an indication of the occurrence of the butterfly, as the host plant distribution is much more extensive than that of the butterfly.

Individual adult males and females live approximately one week. Adult emergence and seasonal activity is synchronized with the blooming period of the particular buckwheat used at a given site. Dispersal data from capture-recapture studies (Arnold, 1983) indicate that most adults are quite sedentary, with home ranges no more than a few acres. SBB has only one generation per year. Females lay single eggs into buckwheat flower heads, which hatch in approximately one week. Caterpillars mature over a span of approximately three to four weeks, feeding on petals and seeds of the buckwheat plant. Chrysalis formation then takes place in the buckwheat flower head and the chrysalis eventually falls into the leaf litter and topsoil beneath the plant where it remains for approximately 47 weeks until the cycle begins again (Dixon, 1999).

The CNDDDB reports 14 occurrences of the SBB within the seven quadrangles reviewed, the nearest of which (#49) is located approximately 0.7 miles south of the project site. Approximately 0.002 acre (75ft²) plus six individuals of seacliff buckwheat were identified within ruderal habitat during botanical surveys in May 2025 (**Figure 4**). As such, this species is assumed present where its host plant occurs.

Nesting Raptors and Other Protected Avian Species

Raptors, their nests, and other nesting birds are protected under California Fish and Game Code. While the life histories of these species vary, overlapping nesting (approximately February through mid-September) and foraging similarities allow for their concurrent discussion. Most raptors are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest habitats, as well as open grasslands, are used most frequently for nesting. Breeding occurs February through mid-September, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges.



Special-Status Plant Species Observations

Date
9/24/2025

Scale
1:800



Denise Duffy & Associates, Inc.
Planning and Environmental Consulting

Figure
4

Various species of raptors, such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), great horned owl (*Bubo virginianus*), American kestrel (*Falco sparverius*), and turkey vulture (*Cathartes aura*), have a potential to nest within any of the large trees present within the project site.

3.2.2 Special-Status Plant Species

Monterey Spineflower

Monterey spineflower is a federally threatened, CNPS CRPR 1B, and HMP species. It is a small, prostrate annual herb in the Polygonaceae family that blooms from April to June. Monterey spineflower typically occurs on open sandy or gravelly soils on relic dunes in coastal dune, coastal scrub, and maritime chaparral habitats, though it can also be associated with cismontane woodlands and valley and foothill grasslands, within a range of 3-450 meters in elevation.

The CNDDDB reports 34 occurrences of this species within the quadrangles reviewed, one of which (#2) overlaps a portion of the project site. Approximately 0.04 acre (1,960 ft²) plus 11 individuals of Monterey spineflower were identified within the project site during botanical surveys in May 2025 (**Figure 4**).

Sandmat Manzanita

Sandmat manzanita is a CNPS CRPR 1B and HMP species. This evergreen shrub in the Ericaceae family blooms from February to May. Sandmat manzanita is associated with openings in chaparral, coastal scrub, closed cone coniferous forest, coastal dunes and cismontane woodland habitats on sandy soils at elevations between 3-205 meters.

The CNDDDB reports 17 occurrences of this species within the quadrangles reviewed, the nearest of which (#15) is located approximately 0.01 mile from the project site. Two individuals of sandmat manzanita were identified within the project site during botanical surveys in May 2025 (**Figure 4**).

3.3 Sensitive Habitats

3.3.1 Environmentally Sensitive Habitat Areas

Habitats for special-status species may be considered ESHA under the CCA. As such, areas containing special-status plant species and habitat for SBB within the project site may be considered ESHA subject to the jurisdiction of the CCC.

3.3.2 HMP Habitat Reserve

The project site is not located within an approved HCP or NCCP area. However, it is located within the Fort Ord HMP boundaries. The project site is designated for development (with restrictions) in the HMP for Fort Ord. However, the western boundary of the project site is located immediately adjacent to a parcel designated as “habitat reserve” in the HMP.

3.4 Protected Trees

Oak trees are protected under Monterey County Code; however, no oak trees are present within the project site. Additionally, no tree removal is proposed as a result of the project. Therefore, the project does not require a forest management plan.

4.0 IMPACTS AND MITIGATION MEASURES

4.1 Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- a. 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;
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- c. Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling hydrological interruption, or other means;
- d. 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 nursery sites;
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.2 Approach to Analysis

The following impact analysis addresses direct and indirect impacts that may result from the construction and operation of the proposed project. Direct impacts are those effects of a project that occur at the same time and place of project implementation, such as removal of habitat from ground disturbance. Indirect impacts are those effects of a project that occur either later in time or at a distance from the project location but are reasonably foreseeable, such as loss of aquatic species from upstream effects on water quality. Direct and indirect impacts can also vary in duration and result in temporary, short-term, and long-term effects on biological resources. A temporary effect would occur only during the activity. A short-term effect would last from the time an activity ceases to some intermediate period of approximately one to five years (i.e., repopulation of habitat following restoration). A long-term or permanent effect would last longer than five years after an activity ceases. Long-term effects may include the ongoing maintenance and operation of a project, or may result in a permanent change in the condition of a resource, in which case it could be considered a permanent impact.

As discussed in Section 2.5.3 Local Regulations, the FODSP General Plan EIR evaluated the potential impacts of demolition and blight removal activities within the Park at a programmatic-level and require that future proposed activities be reviewed at the time they are proposed for implementation to determine the potential for project-specific impacts and to identify appropriate mitigation measures. Where appropriate, the FODSP General Plan EIR identified potential mitigation measures for future projects. The FODSP General Plan EIR determined that potential impacts would be less than significant with the implementation of mitigation measures. Applicable mitigation measures for the proposed project include Mitigation Measure Bio-1 and Mitigation Measure Bio-2, which address potential impacts to native habitats and species, including special-status species by requiring the preparation of project-specific biological

evaluations and associated biological protection measures prior to development. This report and the project-specific mitigation measures identified herein have been prepared in accordance with these requirements. These mitigation measures are in addition to applicable mitigation measures and guidelines intended to address impacts to biological resources. The proposed project will be required to comply with all applicable guidelines and mitigation measures from the FODSP General Plan EIR, as well as the project-specific mitigation measures identified in this report.

The HMP identifies two zones and four parcels on the west side of SR 1 as the responsibility of State Parks: the Coastal Dune Zone (CDZ) (parcel S3.1.2), the Disturbed Habitat Zone (DHZ) (parcels S3.1.1 and S3.1.3), and one development parcel (S3.1.4). The project site is located within one of the DHZ parcels (S3.1.1), which is designated as development with reserve areas or restrictions to accommodate future development plans and also includes access for minor improvements to existing utilities and infrastructure. The HMP identifies management requirements and development restrictions within the DHZ parcel.

The project site is located within parcels designated under the HMP as “development with reserve areas or development with restrictions.” Additional management restrictions are identified for parcels designated as “development with reserve areas or development with restrictions” within the HMP.

As a result of implementing the HMP, impacts to HMP species were anticipated and mitigated through the establishment of habitat reserves and corridors and the implementation of habitat management requirements within habitat reserve parcels on the former Fort Ord, including the 468-acre CDZ habitat reserve parcel within the FODSP directly adjacent to the project site. The HMP species that are known or have a moderate to high potential to occur within the proposed project site include Monterey spineflower, sandmat manzanita, Northern California legless lizard, and SBB. With the designated habitat reserves and corridors and habitat management requirements of the HMP in place, the loss of these species is not expected to jeopardize the long-term viability of these species and their populations on the former Fort Ord (USFWS, 1993). This is such because the recipients of disposed land with restrictions or management guidelines designated by the HMP will be obligated to implement those specific measures through the HMP and deed covenants. The proposed project is:

1. Located within a designated “development with reserve areas or restrictions” parcel;
2. Required to comply with the habitat management restrictions identified in the HMP; and
3. Would not result in any additional impacts to HMP species and habitats beyond those anticipated in the HMP.

Pursuant to HMP and deed covenants, the local land use jurisdictions that receive disposed land with restrictions or management guidelines identified in the HMP, including State Parks, are required to prepare resource management plans following land transfer and acquisition. The FODSP General Plan incorporates the requirements of the HMP by providing guidelines for avoiding, minimizing, or mitigating impacts to sensitive resources, including requiring consultation with the USFWS for potential project impacts to federally listed species. Through the implementation of the FODSP General Plan guidelines, State Parks remains in compliance with the HMP. Therefore, through compliance with the deed covenants and FODSP General Plan, impacts to HMP special-status species within the project site are considered less than significant and no additional mitigation measures for these HMP species are required.

However, as described above, the HMP does not exempt existing or future land recipients from the federal and state requirements of ESA and CESA. Of the HMP species known or with a potential to occur within the project site, two federally listed species, SBB and Monterey spineflower, may be directly impacted by the project. As described in Section 2.5 “Regulatory Setting,” if there is the potential for incidental take of a federally listed fish or wildlife species, take of the listed species (i.e., SBB) can be authorized through either the Section 7 consultation process for federal actions, or a Section 10 incidental take permit process for non-federal actions. The ESA does not prohibit incidental take of federally listed plant species; therefore, no take authorization is required for impacts to Monterey spineflower.

Where suitable habitat exists within the project site, the proposed project has the potential to impact special-status species that were not addressed in the HMP. The non-HMP species that are known or have a moderate to high potential to occur within and be impacted by the project include coast horned lizard and nesting raptors and other protected avian species.

4.3 Areas of No Impact

Criterion “c” is not evaluated for construction or operational impacts to State or Federally protected wetlands as there are none present within or adjacent the project site, and thus, would not be impacted by the proposed project.

4.4 Impacts and Mitigation Measures

Impact BIO-1: *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.*

HMP Special-Status Species

Implementation of the project could result in impacts to the following HMP species: SBB, Northern California legless lizard, Monterey spineflower, and sandmat manzanita. The project site is located within the DHZ on parcels designated as “development with reserve areas or restrictions.” As described in the HMP, the DHZ is intended for the preservation of restored coastal dunes habitats and for visitor service facilities but also includes access for minor improvements to existing utilities and infrastructure. As discussed above, through compliance with the deed covenants and FODSP General Plan, impacts to HMP special-status species within the project site are considered less than significant and no additional mitigation measures for these HMP species are required.

While not required to reduce a significant impact, **Mitigation Measure BIO-1** would be implemented to further reduce impacts to SBB. This measure would require that SBB habitat be avoided and if avoidance is not feasible, that compliance with the ESA occurs in advance of construction. Therefore, although SBB is an HMP species, **Mitigation Measure BIO-1** acknowledges that the take of this species is prohibited under the ESA and may require Section 10 consultation or other authorization. Impacts resulting in take of SBB would need to be authorized by the USFWS through the issuance of an incidental take permit from the USFWS to avoid violation of ESA.

Mitigation Measures BIO-2, BIO-3, and BIO-4 have been identified to reduce potentially significant impacts to non-HMP special-status species and habitat; however, HMP special-status species and habitats

would also benefit from the implementation of these measures, and, therefore, would further reduce impacts to HMP species. These measures would reduce construction-related impacts through a combination of protective measures during construction, education, monitoring, and invasive species controls. Please see the **Non-HMP Special-Status Species** discussion below for details regarding these measures.

The HMP and the 2017 Programmatic BO require salvage of HMP species if feasible to support reseeding and restoration efforts on- or off-site in habitat reserve areas. Monterey spineflower occurs along the western project boundary and adjacent to existing facilities throughout the project site. Two sandmat manzanita individuals occur on the western side of the project. Therefore, if impacts cannot be avoided and if determined feasible, seed and topsoil salvage could occur in these areas. However, while not required to reduce a significant impact, **Mitigation Measure BIO-5** would be implemented to further reduce impacts to special-status plant species by avoiding areas known to support this species to the greatest extent feasible.

Therefore, potential impacts to HMP special-status species resulting from implementation of the project would be less than significant. Implementation of **Mitigation Measures BIO-1** through **BIO-5** would further reduce impacts to these species.

Non-HMP Special-Status Wildlife Species

Suitable habitat for several non-HMP special-status wildlife species is present within the project site. The non-HMP wildlife species that are known or have a moderate to high potential to occur within and be impacted by the project include coast horned lizard and nesting raptors and other protected avian species. **Mitigation Measures BIO-2, BIO-3, BIO-4, BIO-6, and BIO-7** have been identified to reduce potentially significant impacts to non-HMP special-status species and habitat. These measures would reduce construction-related impacts through a combination of protective measures during all phases of construction by providing construction crew education, construction-phase monitoring, and invasive species controls.

The project site contains suitable habitat for the coast horned lizard. Project implementation could result in direct impacts to individuals if present during construction. This is a potentially significant impact. Implementation of **Mitigation Measures BIO-2** through **BIO-4**, which avoid and minimize impacts through implementing construction best management practices, construction-phase monitoring, and invasive species controls, would reduce potentially significant impacts to the coast horned lizard to a less-than-significant level.

Large trees within the project site provide suitable nesting habitat for tree-nesting raptors and other protected avian species. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration) that result in harm, injury, or death of individuals, or abandonment of an active nest would be a significant impact. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of California law and would be a significant impact under CEQA. This is a potentially significant impact that would be reduced to a less-than-significant level with implementation of **Mitigation Measures BIO-2** through **BIO-4** and species-specific **Mitigation Measure BIO-6**, which includes surveys to identify the presence of active nests prior to construction and measures to avoid active nests if found.

Therefore, potentially significant impacts to non-HMP special-status wildlife species would be reduced to a less-than-significant level with implementation of **Mitigation Measures BIO-2** through **BIO-4**, **BIO-6**, and **BIO-7**.

Mitigation Measure BIO-1 Smith's Blue Butterfly

SBB habitat (i.e. seacliff buckwheat) shall be avoided to the greatest extent feasible. SBB habitat that will not be impacted by the project shall be protected prior to and during construction to the maximum possible through the use of exclusionary fencing and/or flagging. A biological monitor will supervise the installation of protective fencing/flagging and monitor at least once per week until construction is complete to ensure that the protective fencing/flagging remains intact. If all SBB habitat is avoided, no additional mitigation is necessary.

If the project will impact SBB habitat, compliance with the ESA shall occur in advance of construction. The MCWD will comply with the ESA and obtain necessary authorizations prior to construction due to the assumed presence of the Federally listed SBB. The MCWD shall be required to initiate consultation with the USFWS to receive take authorization. Take authorization would be granted through the issuance of an individual, project-specific incidental take permit, which requires preparation and implementation of an HCP. Mitigation for take likely would require restoration at a 3:1 ratio of impacted habitat. Buckwheat plants and/or seed salvage may also be required prior to ground disturbing activities.

Mitigation Measure BIO-2: Construction Best Management Practices

The following best management practices will be implemented during all identified phases of construction (i.e., pre-, during, and post-) to reduce impacts to special-status plant and wildlife species:

- A qualified biologist will conduct an Employee Education Program for the construction crew prior to any construction activities. The qualified biologist will meet with the construction crew at the onset of construction at the project site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review project boundaries; 2) how a biological monitor will examine the area and agree upon a method which will ensure the safety of the monitor during such activities, 3) the special-status species that may be present; 4) the specific mitigation measures that will be incorporated into the construction effort; 5) the general provisions and protections afforded by USFWS and CDFW; and 6) the proper procedures if a special-status species is encountered within the project site.
- Trees and vegetation not planned for removal or trimming will be protected prior to and during construction to the maximum possible through the use of exclusionary fencing, such as hay bales for herbaceous and shrubby vegetation, and protective wood barriers for trees. Only certified weed-free straw will be used to avoid the introduction of non-native, invasive species. A biological monitor will supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.

- Following construction, disturbed areas will be restored to pre-project contours to the maximum extent possible and revegetated using locally-occurring native species and native erosion control seed mix, per the recommendations of a qualified biologist. Any revegetation on State Park property shall be conducted in coordination with State Parks.
- Grading, excavating, and other activities that involve substantial soil disturbance will be planned and implemented in consultation with a qualified hydrologist, engineer, or erosion control specialist, and will utilize standard erosion control techniques to minimize erosion and sedimentation to native vegetation (pre-, during, and post-construction).
- No firearms will be allowed on the project site at any time.
- All food-related and other trash will be disposed of in closed containers and removed from the project area at least once a week during the construction period, or more often if trash is attracting avian or mammalian predators. Construction personnel will not feed or otherwise attract wildlife to the area.

Mitigation Measure BIO-3: Construction-Phase Monitoring

The MCWD will retain a qualified biologist to monitor all ground disturbing construction activities (i.e., vegetation removal, grading, excavation, or similar activities) to protect any special-status species encountered. Any handling and relocation protocols of special-status wildlife species will be determined in coordination with CDFW prior to any ground disturbing activities, and will be conducted by a qualified biologist with appropriate scientific collection permit. No handling of ESA- or CESA-listed species will be permitted without appropriate authorization from the USFWS or CDFW. After ground disturbing project activities are complete, the qualified biologist will train an individual from the construction crew to act as the on-site construction biological monitor. The construction biological monitor will be the contact for any special-status wildlife species encounters, will conduct daily inspections of equipment and materials stored on site and any holes or trenches prior to the commencement of work, and will ensure that all installed fencing stays in place throughout the construction period. The qualified biologist will then conduct regular scheduled and unscheduled visits to ensure the construction biological monitor is satisfactorily implementing all appropriate mitigation protocols. Both the qualified biologist and the construction biological monitor have the ability cease construction contractor work and/or redirect project activities to ensure protection of resources and compliance with all environmental permits and conditions of the project.

Mitigation Measure BIO-4: Non-Native, Invasive Species Controls

The following measures will be implemented to reduce the introduction and spread of non-native, invasive species:

- Any landscaping or replanting required for the project will not use species listed as noxious by the California Department of Food and Agriculture (CDFA) or invasive by the California Invasive Plant Council (Cal-IPC).
- Bare and disturbed soil will be landscaped with CDFA recommended seed mix or plantings from locally adopted species to preclude the invasion on noxious weeds in the

project site. Species to be seeded or planted within State Parks property shall be approved by State Parks prior to planting.

- Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds, before mobilizing to arrive at the construction site and before leaving the construction site.
- All non-native, invasive plant species will be removed from disturbed areas prior to replanting.

Mitigation Measure BIO-5: Special-Status Plant Species Avoidance

Monterey spineflower and sandmat manzanita shall be avoided to the greatest extent feasible. Areas of Monterey spineflower that will not be impacted by the project shall be protected prior to and during construction to the maximum possible through the use of exclusionary fencing and/or flagging. A biological monitor will supervise the installation of protective fencing/flagging and monitor at least once per week until construction is complete to ensure that the protective fencing/flagging remains intact.

Mitigation Measure BIO-6: Pre-Construction Surveys for Protected Avian Species

Construction activities that may directly (e.g., vegetation removal) or indirectly (e.g., noise/ground disturbance) affect protected nesting avian species will be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 15 and before February 1. Alternatively, a qualified biologist will be retained by the MCWD to conduct pre-construction surveys for nesting raptors and other protected avian species within 500 feet of proposed construction activities if construction occurs between February 1 and September 15. Pre-construction surveys will be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through mid-September). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys will be determined by the qualified biologist based on review of the final construction plans and in coordination with the CDFW, as needed.

If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist will notify the MCWD and an appropriate no-disturbance buffer will be imposed within which no construction activities or disturbance should take place (generally 500 feet in all directions for raptors; other avian species may have species-specific requirements) until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.

Impact BIO-2: Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Areas occupied by special-status plant species or habitat for SBB may be considered ESHA by the CCC. As such, impacts to these areas could be considered a potentially significant impact. Therefore, **Mitigation Measure BIO-1 and BIO-5** would be implemented to reduce impacts to sensitive habitats. These measures would require avoidance of special-status species populations and habitat to the greatest extent feasible. In addition, if a CDP is required for the proposed project, implementation of permit requirements would further reduce impacts to sensitive habitats.

Impact BIO-3: 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 nursery sites.

Wildlife movement corridors are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or man-made factors, such as urbanization. The fragmentation of natural habitat creates isolated “islands” of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, and, therefore, adversely affect both genetic and species diversity. Corridors often partially or largely mitigate the adverse effects of fragmentation by 1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available; 2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (e.g., fire and disease) would result in population or species extinction; and 3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

The 2010 Monterey County General Plan EIR identified a number of significant wildlife movement corridors and linkages within the vicinity of the former Fort Ord, including Linkage 308: Fort Ord – Ventana; Linkage 322: Highway 68 Western Crossing; Linkage 350: Sierra de Salinas – Toro Peak; Linkage 339: Salinas Valley Floor; and Linkage 378: Salinas River – Pinnacles National Monument (County of Monterey, 2010). Of particular importance for wildlife movement from the former Fort Ord lands to outlying areas are Linkages 308 and 322. Specifically, Linkage 322 runs along El Toro Creek in the southeastern portion of former Fort Ord and through a large, bridge undercrossing Highway 68. This corridor has been identified as a significant wildlife corridor for mammals, amphibians, and reptiles moving between former Fort Ord lands and connecting to the Sierra de Salinas and Santa Lucia Ranges.

The HMP considered conservation area connectivity as an essential component of the design of the conservation areas and corridors within the former Fort Ord. The HMP created conservation areas and corridors with the purpose of linking the plant and animal populations in the northern portion of the former base at the Marina Municipal Airport to the populations in the south to the Fort Ord National Monument and the El Toro Creek undercrossing of Highway 68. The implementation of the HMP preserves over 18,500 acres of a variety of habitats supporting a variety of common and special-status plant species, and maintains a north-south wildlife corridor across the former Fort Ord lands to connect with the primary, significant wildlife linkages.

The project site is located in the western portion of the former Fort Ord. The project site is surrounded by open space associated with the FODSP and, further west, the Monterey Bay. As discussed in the “Results” section, the project site is partially undeveloped, comprised of ruderal/disturbed habitats; however, portions of the site are also developed (paved roads and structures). The implementation of the proposed project would involve impacts to these habitat types; however, the project site also supports wildlife movement, as there is vegetative cover and the adjacency of open space areas with high quality wildlife habitat.

Chain-link fencing is currently in place surrounding the existing facilities and would be maintained following construction. However, the fencing is not considered a significant structure that would impede wildlife movement as the enclosed area is not very large and the habitat value in the area is low. In addition, the site is surrounded by undeveloped lands which can be utilized by wildlife. Therefore, habitat within the project site supports species movement on-site and would not substantially interfere with wildlife movement across the site. The proposed project would impact only a small percentage of wildlife habitat within the former Fort Ord. The HMP preserves approximately 18,500 acres of large, contiguous areas of wildlife habitat that will remain on the former Fort Ord and will be preserved in perpetuity. As a result, the development of the project, would not disconnect, fragment, or otherwise impede wildlife movement in the primary, significant wildlife movement corridors between the former Fort Ord lands and other lands. This is a less than significant impact. No mitigation is required.

Impact BIO-4: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The Project would be required to comply mitigation measures contained in the FODSP General Plan EIR to the extent they are applicable. Applicable guidelines in the FODSP General Plan include: BIO-1, BIO-2, BIO-4, BIO-5, BIO-10, and BIO-17. These policies generally promote identifying, protecting, and ensuring perpetuation of park plant and wildlife species populations. Applicable mitigation measures in the FODSP General Plan EIR include: Mitigation Measure BIO-1 and Mitigation Measure BIO-2. These measures address potential impacts to native habitats and species, including special-status species by requiring the preparation of project-specific biological evaluations and associated biological protection measures prior to development. This report and the project-specific mitigation measures identified herein have been prepared in accordance with these requirements. Therefore, the Project will not conflict with any local policies or ordinances protecting biological resources. No impact will occur and no mitigation is required. *Impact BIO-5: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

The project site is not located within an approved HCP or NCCP area. However, it is located within the Fort Ord HMP boundaries. The project site is designated for development (with restrictions) in the HMP. As described in the “Approach to Analysis,” the proposed project is consistent with the approved HMP. This is a less than significant impact. No mitigation is required.

A portion of the project site is located adjacent to a parcel designated as “habitat reserve” in the HMP. Impacts to the habitat reserve parcel would be considered a significant impact if work were to be conducted outside of the project boundaries. Therefore, **Mitigation Measure BIO-7** will be implemented to avoid impacts to habitat reserve areas and reduce the impact to less than significant.

Mitigation Measure BIO-7: Habitat Reserve

No work shall occur within areas designated as habitat reserve by the Fort Ord HMP. Habitat reserve areas shall be protected prior to and during construction through the use of exclusionary fencing. A biological monitor will supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.

This page left intentionally blank

5.0 REFERENCES

- Arnold, R. A. 1983. Conservation and management of the endangered Smith's blue butterfly, *Euphilotes enoptes smithi*. *Journal of Research on the Lepidoptera* 22(2): 135–153.
- Baldwin, B. G., et. al. 2012. The Jepson Manual – Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded. University of California Press. Berkeley, CA. 1600 pp.
- California Department of Fish and Wildlife (CDFW). 2025a. California Natural Diversity Database Rare Find Report. Accessed September 2025.
- CDFW. 2025b. California Natural Communities List. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609>
- CDFW. 2025c. California Natural Diversity Database Special Animals List. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406>
- CDFW. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.
- California Invasive Plant Council (Cal-IPC). 2025. The Cal-IPC Inventory. Available online at <https://www.cal-ipc.org/>
- California Native Plant Society (CNPS). 2001. Botanical Survey Guidelines.
- CNPS. 2025. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available online at <http://www.rareplants.cnps.org>
- County of Monterey. 2010. Fort Ord Master Plan Greater Monterey Peninsula Area Plan. Available online at: <http://www.co.monterey.ca.us/Home/ShowDocument?id=47150>
- Dixon. 1999. Dunes Alive—The endangered Smith's blue and Marina blue butterflies. A closer look at coastal dune wildlife of south Monterey Bay. *Tideline*, Volume 19, Number 3, pages 1–3.
- Howitt, B.F. and J.T. Howell. 1964. The vascular plants of Monterey County, California.
- Howitt, B.F. and J.T. Howell. 1973. Supplement to the vascular plants of Monterey County, California. Pacific Grove Museum of Natural History Association, Pacific Grove, CA. 60 pp.
- ICF International, Inc. 2017. Administrative Draft Fort Ord Habitat Conservation Plan. August. San Francisco, CA. Prepared for the Fort Ord Reuse Authority, Marina, CA. Unpublished.
- Jepson Flora Project. 2025. Jepson Online Interchange for California floristics. Available online at <http://ucjeps.berkeley.edu/interchange.html>
- Matthews, M.A. and M. Mitchell. 2015. The Plants of Monterey County, an Illustrated Field Key; Second Edition. California Native Plant Society Press, Sacramento, California. 446 pp.
- Munz, P. A. and D. D. Keck. 1973. A California flora and supplement. University of California Press, Berkeley, CA. 1681 pp., + 224 pp. supplement.

- Parham, J.F. and T.J. Papenfuss. 2008. High genetic diversity among fossorial lizard populations (*Anniella pulchra*) in a rapidly developing landscape (Central California). *Conservation Genetics*, Vol 10. Pp. 169-176.
- Remsen, J.V. Jr. 1978. Bird species of special concern in California. California Dept. of Fish and Wildlife, Nongame Wildlife Investigations, Wildlife Management Branch Administrative Report No. 78-1.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A manual of California vegetation 2nd Edition. California Native Plant Society, Sacramento, CA. 1300 pp.
- Stebbins, R.C. 1972. California Amphibians and Reptiles. University of California Press, Berkeley, CA. 152 pp.
- Stebbins, R.C. 1985. Western reptiles and amphibians. Houghton Mifflin Company, Boston, MA. 336 pp
- Stebbins, R.C. 2003. Western reptiles and amphibians, 3rd edition. Houghton Mifflin Company, New York, NY. 533 pp.
- Thelander, C. (ed.). 1994. Life on the edge: A guide to California's endangered natural resources: wildlife. BioSystems Books, Santa Cruz, CA.
- Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press, Oakland, CA. Co-published with the California Department of Fish and Wildlife. 390 pp.
- U.S. Army Corps of Engineers (ACOE), Sacramento District. 1992. Flora and Fauna Baseline Study of Fort Ord, California. With technical assistance from Jones and Stokes Associates, Inc. Sacramento, California.
- ACOE, Sacramento District. 1997. Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California. April 1997. Sacramento, CA.
- U.S. Fish and Wildlife Service (USFWS). 1993. Biological Opinion for the Disposal and Reuse of Fort Ord, Monterey County, California (1-8-93-F-14).
- USFWS. 1998a. Seven Coastal Plants and the Myrtle's Silverspot Butterfly Recovery Plan. Available online at: <https://ecos.fws.gov/ecp/>
- USFWS. 1998b. Endangered and threatened wildlife and plants; Withdrawal of Proposed Rule to List the Black Legless Lizard, Proposed rule. Federal Register, Vol. 69(149). Pp. 47211-47248.
- USFWS. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants.
- USFWS. 2004. Recovery Plan for Five Plants from Monterey County, California. Available online at: <https://ecos.fws.gov/ecp/>
- USFWS. 2013. Birds Protected by the Migratory Bird Treaty Act. Available online at: <http://www.fws.gov/migratorybirds/RegulationsPolicies/mbta/mbtintro.html>

- USFWS. 2017. *Reinitiation of Formal Consultation for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (Original Consultation 8-8-09-F-74, 81440-2009-F-0334)*. June.
- USFWS. 2025. Information for Planning and Consultation (IPaC) Resources List. Accessed September 2025.
- Williams, D. 1986. Mammalian species of special concern in California. California Department of Fish and Wildlife Report 86-1. 112 pp.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds.). 1988. California's wildlife, Volume I: Amphibians and reptiles. California Department of Fish and Wildlife, Sacramento, California. 272 pp.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds.). 1990. California's Wildlife, Volume II: Birds. California Department of Fish and Wildlife, Sacramento, California. 731 pp.

This page left intentionally blank

APPENDIX A

Special-Status Species Table

Special-Status Species Table

Marina, Monterey, Moss Landing, Prunedale, Salinas, Seaside, and Spreckels Quadrangles

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
MAMMALS			
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	-- / CSC / --	Found primarily in rural settings from inland deserts to coastal redwoods, oak woodland of the inner Coast Ranges and Sierra foothills, and low to mid-elevation mixed coniferous-deciduous forests. Typically roost during the day in limestone caves, lava tubes, and mines, but can roost in buildings that offer suitable conditions. Night roosts are in more open settings and include bridges, rock crevices, and trees.	Low Poor quality foraging and night roost habitat present the evaluation area. No maternity roosting habitat present within the evaluation area.
<i>Neotoma macrotis luciana</i> Monterey dusky-footed woodrat	-- / CSC / --	Forest and oak woodland habitats of moderate canopy with moderate to dense understory. Also occurs in chaparral habitats.	Low Poor quality habitat is present within the project site. Additionally, no nests were observed within the project site during the May 2025 survey.
<i>Sorex ornatus salarius</i> Monterey ornate shrew	-- / CSC / --	Mostly moist or riparian woodland habitats and within chaparral, grassland, and emergent wetland habitats where there is a thick duff or downed logs.	Unlikely No suitable habitat is present within project site.
<i>Taxidea taxus</i> American badger	-- / CSC / --	Dry, open grasslands, fields, pastures savannas, and mountain meadows near timberline are preferred. The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated grounds.	Unlikely No suitable habitat is present within project site.
BIRDS			
<i>Agelaius tricolor</i> Tricolored blackbird (nesting colony)	-- / SC&CSC / --	Nest in colonies in dense riparian vegetation, along rivers, lagoons, lakes, and ponds. Forages over grassland or aquatic habitats.	Unlikely No suitable habitat is present within project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Asio flammeus</i> Short-eared owl (nesting)	-- / CSC / --	Usually found in open areas with few trees, such as annual and perennial grasslands, prairies, meadows, dunes, irrigated lands, and saline and freshwater emergent marshes. Dense vegetation is required for roosting and nesting cover. This includes tall grasses, brush, ditches, and wetlands. Open, treeless areas containing elevated sites for perching, such as fence posts or small mounds, are also needed. Some individuals breed in northern California.	Unlikely No suitable habitat is present within project site.
<i>Athene cunicularia</i> Burrowing owl (burrow sites & some wintering sites)	-- / CSC / --	Year-round resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Frequent open grasslands and shrublands with perches and burrows. Use rodent burrows (often California ground squirrel) for roosting and nesting cover. Pipes, culverts, and nest boxes may be substituted for burrows in areas where burrows are not available.	Unlikely No suitable habitat is present within project site.
<i>Brachyramphus marmoratus</i> Marbled murrelet	FT / SE / --	Occur year-round in marine subtidal and pelagic habitats from the Oregon border to Point Sal. Partial to coastlines with stands of mature redwood and Douglas-fir. Requires dense mature forests of redwood and/or Douglas-fir for breeding and nesting.	Unlikely No suitable habitat is present within project site.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	FT / CSC / --	Sandy beaches on marine and estuarine shores, also salt pond levees and the shores of large alkali lakes. Requires sandy, gravelly or friable soil substrate for nesting.	Unlikely No suitable habitat within the project site. This species is known to nest on the nearby sandy beach at Fort Ord Dunes State Park, but is unlikely to occur within the project site.
<i>Coturnicops noveboracensis</i> Yellow rail	-- / CSC / --	Wet meadows and coastal tidal marshes. Occurs year round in California, but in two primary seasonal roles: as a very local breeder in the northeastern interior and as a winter visitor (early Oct to mid-Apr) on the coast and in the Suisun Marsh region	Unlikely No suitable habitat is present within project site.
<i>Cypseloides niger</i> Black swift	-- / CSC / --	Regularly nests in moist crevice or cave on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. Forages widely over many habitats.	Unlikely No suitable habitat is present within project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Elanus leucurus</i> White-tailed kite (nesting)	-- / CFP / --	Open groves, river valleys, marshes, and grasslands. Prefer such area with low roosts (fences etc.). Nest in shrubs and trees adjacent to grasslands.	Low Poor quality nesting and foraging habitat is present within the project site. The nearest CNDDB occurrence is approximately 13 miles north of the project site; however, this species has been observed at Armstrong Ranch, located approximately 4 miles north of the project site.
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	FE / SE / --	Breeds in riparian habitat in areas ranging in elevation from sea level to over 2,600 meters. Builds nest in trees in densely vegetated areas. This species establishes nesting territories and builds, and forages in mosaics of relatively dense and expansive areas of trees and shrubs, near or adjacent to surface water or underlain by saturated soils. Not typically found nesting in areas without willows (<i>Salix sp.</i>), tamarisk (<i>Tamarix ramosissima</i>), or both.	Unlikely No suitable habitat is present within project site.
<i>Gymnogyps californianus</i> California condor	FE / SE / --	Roosting sites in isolated rocky cliffs, rugged chaparral, and pine covered mountains 2000-6000 feet above sea level. Foraging area removed from nesting/roosting site (includes rangeland and coastal area - up to 19 mile commute one way). Nest sites in cliffs, crevices, potholes.	Unlikely No suitable habitat is present within project site.
<i>Laterallus jamaicensis coturniculus</i> California black rail	-- / ST&CFP / --	Inhabits freshwater marshes, wet meadows & shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year & dense vegetation for nesting habitat.	Unlikely No suitable habitat is present within project site.
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	FE / SE&CFP / --	Salt and brackish marshes.	Unlikely No suitable habitat is present within project site.
<i>Riparia riparia</i> Bank swallow (nesting)	-- / ST / --	Nest colonially in sand banks. Found near water; fields, marshes, streams, and lakes.	Unlikely No suitable habitat is present within project site.
<i>Sterna antillarum browni</i> California least tern	FE / SE / --	Prefers undisturbed nest sites on open, sandy/gravelly shores near shallow-water feeding areas in estuaries. Sea beaches, bays, large rivers, bars.	Unlikely No suitable habitat is present within project site.
<i>Vireo bellii pusillus</i> Least Bell's Vireo	FE / SE / --	Riparian areas and drainages. Breed in willow riparian forest supporting a dense, shrubby understory. Oak woodland with a willow riparian understory is also used in some areas, and individuals sometimes enter adjacent chaparral, coastal sage scrub, or desert scrub habitats to forage.	Unlikely No suitable habitat is present within project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
REPTILES AND AMPHIBIANS			
<i>Actinemys marmorata</i> Northwestern pond turtle	FC / CSC / --	Associated with permanent or nearly permanent water in a wide variety of habitats including streams, lakes, ponds, irrigation ditches, etc. Require basking sites such as partially submerged logs, rocks, mats of vegetation, or open banks. During spring and early summer females move overland for up to 100 meters to lay eggs, typically in compact, dry soils in areas with sparse vegetation. The range for this species is from Washington south to approximately Castroville, the foothills of the Salinas Valley from Salinas to Soledad, and into the central valley and eastern foothills to Lancaster, California.	Unlikely No suitable habitat is present within project site.
<i>Actinemys pallida</i> Southwestern pond turtle	FC / CSC / --	Associated with permanent or nearly permanent water in a wide variety of habitats including streams, lakes, ponds, irrigation ditches, etc. Require basking sites such as partially submerged logs, rocks, mats of vegetation, or open banks. During spring and early summer females move overland for up to 100 meters to lay eggs, typically in compact, dry soils in areas with sparse vegetation. The range for this species is along the coast from Castroville to Baja California in Mexico, including the Salinas Valley to Soledad, the foothills west of the Central Valley to Lancaster, and the southern California mountain ranges.	Unlikely No suitable habitat is present within project site.
<i>Ambystoma californiense</i> California tiger salamander	FT / ST /--	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Need underground refuges and vernal pools or other seasonal water sources.	Unlikely No suitable breeding or upland habitat is present within the project site. The project site is outside of the known dispersal range of any known or potential breeding resources.
<i>Ambystoma macrodactylum croceum</i> Santa Cruz long-toed salamander	FE / SE&CFP /--	Preferred habitats include ponderosa pine, montane hardwood-conifer, mixed conifer, montane riparian, red fir and wet meadows. Occurs in a small number of localities in Santa Cruz and Monterey Counties. Adults spend the majority of the time in underground burrows and beneath objects. Larvae prefer shallow water with clumps of vegetation.	Unlikely No suitable habitat is present within project site. Project site is south of the currently known range of this species.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
Anniella pulchra Northern California legless lizard (includes <i>A. p. nigra</i> as recognized by the HMP)	-- / CSC / --	Requires moist, warm habitats with loose soil for burrowing and prostrate plant cover, often forages in leaf litter at plant bases; may be found on beaches, sandy washes, and in woodland, chaparral, and riparian areas.	Moderate Suitable habitat is present within the project site and this species is known to occur throughout the former Fort Ord.
Phrynosoma blainvillii Coast horned lizard	-- / CSC / --	Associated with open patches of sandy soils in washes, chaparral, scrub, and grasslands.	Moderate Suitable habitat is present within the project site and this species is known to occur throughout the former Fort Ord.
<i>Rana boylei</i> Foothill yellow-legged frog	-- / SC&CSC / --	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats, including hardwood, pine, and riparian forests, scrub, chaparral, and wet meadows. Rarely encountered far from permanent water.	Unlikely No suitable habitat is present within project site.
<i>Rana draytonii</i> California red-legged frog	FT / CSC / --	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent riparian vegetation. During late summer or fall adults are known to utilize a variety of upland habitats with leaf litter or mammal burrows.	Unlikely No suitable breeding or upland habitat is present within the project site. The project site is outside of the known dispersal range of any known or potential breeding resources.
<i>Spea hammondi</i> Western spadefoot	FC / CSC / --	Grasslands with shallow temporary pools are optimal habitats for the western spadefoot. Occur primarily in grassland habitats, but can be found in valley and foothill woodlands. Vernal pools are essential for breeding and egg laying.	Unlikely No suitable habitat is present within project site.
<i>Taricha torosa</i> Coast range newt (Monterey County south only)	-- / CSC / --	Occurs mainly in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub, and mixed chaparral but is known to occur in grasslands and mixed conifer types. Seek cover under rocks and logs, in mammal burrows, rock fissures, or man-made structures such as wells. Breed in intermittent ponds, streams, lakes, and reservoirs.	Unlikely No suitable habitat is present within project site.
<i>Thamnophis hammondi</i> Two-striped garter snake	-- / CSC / --	Associated with permanent or semi-permanent bodies of water bordered by dense vegetation in a variety of habitats from sea level to 2400m elevation.	Unlikely No suitable habitat is present within project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
FISH			
<i>Eucyclogobius newberryi</i> Tidewater goby	FE / CSC / --	Brackish water habitats, found in shallow lagoons and lower stream reaches. Tidewater gobies appear to be naturally absent (now and historically) from three large stretches of coastline where lagoons or estuaries are absent and steep topography or swift currents may prevent tidewater gobies from dispersing between adjacent localities. The southernmost large, natural gap occurs between the Salinas River in Monterey County and Arroyo del Oso in San Luis Obispo County.	Not Present No suitable habitat is present within project site.
<i>Lavinia exilicauda harengus</i> Monterey hitch	-- / CSC / --	Found only within the Pajaro and Salinas River systems. Can occupy a wide variety of habitats, however, they are most abundant in lowland areas with large pools or small reservoirs that mimic such conditions. May be found in brackish water conditions within the Salinas River lagoon during the early summer months when the sandbar forms at the mouth of the river.	Not Present No suitable habitat is present within project site.
<i>Oncorhynchus mykiss irideus</i> Steelhead (south-central California coast DPS)	FT / -- / --	Cold headwaters, creeks, and small to large rivers and lakes; anadromous in coastal streams.	Not Present No suitable habitat is present within project site.
<i>Spirinchus thaleichthys</i> Longfin smelt	FC / ST&CSC / --	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15-30 PPT, but can be found in completely freshwater to almost pure seawater.	Not Present No suitable habitat is present within project site.
INVERTEBRATES			
<i>Bombus crotchii</i> Crotch bumble bee	-- / SC / --	Occurs in open grassland and scrub at relatively warm and dry sites. Requires plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle, which is from early February to late October. Generally nests underground, often in abandoned mammal burrows. Within California this species is known to occur in the Mediterranean, Pacific Coast, Western Desert, as well as Great Valley and adjacent foothill regions.	Low Poor quality habitat is present within the project site due the disturbed nature of the site. There is likely not enough floral resources present to support populations of this species.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Bombus occidentalis</i> Western bumble bee	-- / SC / --	Occurs in open grassy areas, urban parks, urban gardens, chaparral, and meadows. Requires plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle, which is from early February to late November. Generally nests underground, often in abandoned mammal burrows. Populations are currently largely restricted to high elevation sites in the Sierra Nevada; however, the historic range includes the northern California coast.	Low Poor quality habitat is present within the project site due the disturbed nature of the site. There is likely not enough floral resources present to support populations of this species.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT / -- / --	Require ephemeral pools with no flow. Associated with vernal pool/grasslands from near Red Bluff (Shasta County), through the central valley, and into the South Coast Mountains Region. Require ephemeral pools with no flow.	Not Present No suitable habitat is present within project site.
<i>Danaus plexippus</i> Monarch butterfly	FC / -- / --	Overwinters in coastal California using colonial roosts generally found in Eucalyptus, pine and acacia trees. Overwintering habitat for this species within the Coastal Zone represents ESHA. Local ordinances often protect this species as well.	Unlikely No suitable habitat is present within the project site. Populations of this species have not been observed overwintering within the project site.
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	FE / -- / --	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz Counties. Plant hosts are <i>Eriogonum latifolium</i> and <i>E. parvifolium</i> .	Assumed Present This species is assumed present within the project site based on the presence of <i>E. parvifolium</i> populations.
PLANTS			
<i>Agrostis lacuna-vernalis</i> Vernal pool bent grass	-- / -- / 1B	Vernal pool Mima mounds at elevations of 115-145 meters. Annual herb in the Poaceae family; blooms April-May. Known only from Butterfly Valley and Machine Gun Flats of Ft. Ord National Monument.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Allium hickmanii</i> Hickman's onion	-- / -- / 1B	Closed-cone coniferous forests, maritime chaparral, coastal prairie, coastal scrub, and valley and foothill grasslands at elevations of 5-200 meters. Bulbiferous perennial herb in the Alliaceae family; blooms March-May.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Aphyllon robbinsii</i> Robbin's broomrape	-- / -- / 1B	Sandy or loose soils of coastal bluffs at elevations of less than 100 meters. Annual herb in the Orobanchaceae family; blooms April-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i> Hooker's manzanita	-- / -- / 1B	Closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub on sandy soils at elevations of 85-536 meters. Evergreen shrub in the Ericaceae family; blooms January-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Arctostaphylos montereyensis</i> Toro manzanita	-- / -- / 1B	Maritime chaparral, cismontane woodland, and coastal scrub on sandy soils at elevations of 30-730 meters. Evergreen shrub in the Ericaceae family; blooms February-March.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Arctostaphylos pajaroensis</i> Pajaro manzanita	-- / -- / 1B	Chaparral on sandy soils at elevations of 30-760 meters. Evergreen shrub in the Ericaceae family; blooms December-March.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Arctostaphylos pumila</i> Sandmat manzanita	-- / -- / 1B	Openings of closed-cone coniferous forests, maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils at elevations of 3-205 meters. Evergreen shrub in the Ericaceae family; blooms February-May.	Present This species was observed within the project site during the focused botanical survey in May 2025.
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	-- / -- / 1B	Playas, valley and foothill grassland on adobe clay, and vernal pools on alkaline soils at elevations of 1-60 meters. Annual herb in the Fabaceae family; blooms March-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Astragalus tener</i> var. <i>titi</i> Coastal dunes milk-vetch	FE / SE / 1B	Sandy soils in coastal bluff scrub, coastal dunes, coastal prairie (mesic); elevation 3-164 feet. Annual herb in the Fabaceae family; blooms March-May.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Castilleja ambigua</i> var. <i>insalutata</i> Pink Johnny-nip	-- / -- / 1B	Coastal prairie and coastal scrub at elevations of 0-100 meters. Annual herb in the Orobanchaceae family; blooms May-August.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	-- / -- / 1B	Valley and foothill grassland on heavy clay, saline, or alkaline soils at elevations of 0-230 meters. Annual herb in the Asteraceae family; blooms May-November.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Chorizanthe minutiflora</i> Fort Ord spineflower	-- / -- / 1B	Sandy openings of maritime chaparral and coastal scrub at elevations of 55-150 meters. Only known occurrences on Fort Ord National Monument. Annual herb in the Polygonaceae family; blooms April-July.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Chorizanthe pungens</i> var. <i>pungens</i> Monterey spineflower	FT / -- / 1B	Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils at elevations of 3-450 meters. Annual herb in the Polygonaceae family; blooms April-July.	Present This species was observed within the project site during the focused botanical survey in May 2025.
<i>Chorizanthe robusta</i> var. <i>robusta</i> Robust spineflower	FE / -- / 1B	Openings in cismontane woodland, coastal dunes, maritime chaparral, and coastal scrub on sandy or gravelly soils at elevations of 3-300 meters. Annual herb in the Polygonaceae family; blooms April-September.	Not Present Not observed during the focused botanical survey in May 2025.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Clarkia jolonensis</i> Jolon clarkia	-- / -- / 1B	Cismontane woodland, chaparral, riparian woodland, and coastal scrub at elevations of 20-660 meters. Annual herb in the Onagraceae family; blooms April-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Collinsia multicolor</i> San Francisco collinsia	-- / -- / 1B	Closed-cone coniferous forest and coastal scrub, sometimes on serpentinite soils, at elevations of 30-250 meters. Annual herb in the Plantaginaceae family; blooms March-May.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i> Seaside bird's-beak	-- / SE / 1B	Closed-cone coniferous forests, maritime chaparral, cismontane woodlands, coastal dunes, and coastal scrub on sandy soils, often on disturbed sites, at elevations of 0-425 meters. Annual hemi-parasitic herb in the Orobanchaceae family; blooms April-October.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Delphinium californicum</i> ssp. <i>interius</i> Hospital Canyon larkspur	-- / -- / 1B	Openings in chaparral, coastal scrub, and mesic areas of cismontane woodland at elevations of 230-1095 meters. Perennial herb in the Ranunculaceae family; blooms April-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Delphinium hutchinsoniae</i> Hutchinson's larkspur	-- / -- / 1B	Broadleaved upland forest, chaparral, coastal scrub, and coastal prairie at elevations of 0-427 meters. Perennial herb in the Ranunculaceae family; blooms March-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Delphinium umbraculorum</i> Umbrella larkspur	-- / -- / 1B	Cismontane woodland at elevations of 400-1600 meters. Perennial herb in the Ranunculaceae family; blooms April-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Ericameria fasciculata</i> Eastwood's goldenbush	-- / -- / 1B	Openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 30-275 meters. Evergreen shrub in the Asteraceae family; blooms July-October.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Eriogonum nortonii</i> Pinnacles buckwheat	-- / -- / 1B	Chaparral and valley and foothill grassland on sandy soils, often on recent burns, at elevations of 300-975 meters. Annual herb in the Polygonaceae family; blooms May-September.	Not Present No suitable habitat within the project site. Project site is below the known elevation range for this species. Not observed during the focused botanical survey in May 2025.
<i>Eryngium montereyense</i> Fort Ord button-celery	-- / -- / 1B	Vernally moist swales and vernal pools in valley and foothill grassland surrounded by maritime chaparral and coast live oak woodland on marine sedimentary substrate at elevations or 120-180 meters. Perennial herb in the Apiaceae family; blooms March-May.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Erysimum ammophilum</i> Sand-loving wallflower	-- / -- / 1B	Openings in maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 0-60 meters. Perennial herb in the Brassicaceae family; blooms February-June.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Erysimum menziesii</i> Menzies' wallflower	FE / SE / 1B	Coastal dunes at elevations of 0-35 meters. Perennial herb in the Brassicaceae family; blooms March-September.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Fritillaria liliacea</i> Fragrant fritillary	-- / -- / 1B	Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland, often serpentinite, at elevations of 3-410 meters. Bulbiferous perennial herb in the Liliaceae family; blooms February-April.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i> Monterey gilia	FE / ST / 1B	Openings in maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils at elevations of 0-45 meters. Annual herb in the Polemoniaceae family; blooms April-June.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Hesperocyparis goveniana</i> Gowen cypress	FT / -- / 1B	Closed-cone coniferous forest and maritime chaparral at elevations of 30-300 meters. Evergreen tree in the Cupressaceae family. Natively occurring only at Point Lobos near Gibson Creek and the Huckleberry Hill Nature Preserve near Highway 68.	Not Present No suitable habitat within the project site. Project site is outside of the currently known range for this species. Not identified during the focused botanical survey in May 2025.
<i>Hesperocyparis macrocarpa</i> Monterey cypress	-- / -- / 1B	Closed-cone coniferous forest at elevations of 10-30 meters. Evergreen tree in the Cupressaceae family. Natively occurring only at Cypress Point in Pebble Beach and Point Lobos State Park; widely planted and naturalized elsewhere.	Not Present Several Monterey cypress trees are present within the project site; however, the project site is outside of the currently known native range of this species. Individuals are from planted stock are therefore not considered special-status species.
<i>Holocarpha macradenia</i> Santa Cruz tarplant	FT / SE / 1B	Coastal prairies and valley foothill grasslands, often clay or sandy soils, at elevations of 10-220 meters. Annual herb in the Asteraceae family; blooms June-October.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Horkelia cuneata</i> ssp. <i>sericea</i> Kellogg's horkelia	-- / -- / 1B	Openings of closed-cone coniferous forests, maritime chaparral, coastal dunes, and coastal scrub on sandy or gravelly soils at elevations of 10-200 meters. Perennial herb in the Rosaceae family; blooms April-September.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Horkelia marinensis</i> Point Reyes horkelia	-- / -- / 1B	Coastal dunes, coastal prairie, and coastal scrub on sandy soils at elevations of 5-350 meters. Perennial herb in the Rosaceae family; blooms May-September.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE / -- / 1B	Mesic areas of valley and foothill grassland, alkaline playas, cismontane woodland, and vernal pools at elevations of 0-470 meters. Annual herb in the Asteraceae family; blooms March-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Layia carnosa</i> Beach layia	FE / SE / 1B	Coastal dunes and coastal scrub on sandy soils at elevations of 0-60 meters. Annual herb in the Asteraceae family; blooms March-July.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Legenere limosa</i> Legenere	-- / -- / 1B	Vernal pools and wetlands at elevations of 1-880 meters. Annual herb in the Campanulaceae family; blooms April- June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Lupinus tidestromii</i> Tidestrom's lupine	FE / SE / 1B	Coastal dunes at elevations of 0-100 meters. Perennial rhizomatous herb in the Fabaceae family; blooms April-June.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Malacothamnus palmeri</i> var. <i>involucratus</i> Carmel Valley bush-mallow	-- / -- / 1B	Chaparral, cismontane woodland, and coastal scrub at elevations of 30-1100 meters. Perennial deciduous shrub in the Malvaceae family; blooms May-October.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i> Carmel Valley malacothrix	-- / -- / 1B	Chaparral and coastal scrub on rocky soils at elevations of 25-1036 meters. Perennial rhizomatous herb in the Asteraceae family; blooms June-December.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Meconella oregana</i> Oregon meconella	-- / -- / 1B	Coastal prairie and coastal scrub at elevations of 250-620 meters. Annual herb in the Papaveraceae Family; blooms March-April.	Not Present Project site is below the known elevation range for this species. Not observed during the focused botanical survey in May 2025.
<i>Microseris paludosa</i> Marsh microseris	-- / -- / 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations of 5-300 meters. Perennial herb in the Asteraceae family; blooms April-July.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i> Northern curly-leaved monardella	-- / -- / 1B	Chaparral, coastal dunes, coastal scrub, and lower montane coniferous forest (ponderosa pine sandhills) on sandy soils at elevations of 0-300 meters. Annual herb in the Lamiaceae family; blooms April-September.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Monolopia gracilens</i> Woodland woollythreads	-- / -- / 1B	Openings of broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland on serpentinite soils at elevations of 100-1200 meters. Annual herb in the Asteraceae family; blooms February-July.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Pinus radiata</i> Monterey pine	-- / -- / 1B	Closed-cone coniferous forest and cismontane woodland at elevations of 25-185 meters. Evergreen tree in the Pinaceae family. Only three native stands in CA at Ano Nuevo, Cambria, and the Monterey Peninsula; introduced in many areas.	Not Present Not observed during the focused botanical survey in May 2025.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Piperia yadonii</i> Yadon's rein orchid	FE / -- / 1B	Sandy soils in coastal bluff scrub, closed-cone coniferous forest, and maritime chaparral at elevations of 10-510 meters. Annual herb in the Orchidaceae family; blooms February-August.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcorn-flower	-- / -- / 1B	Mesic areas of chaparral, coastal prairie, and coastal scrub at elevations of 15-160 meters. Annual herb in the Boraginaceae family; blooms March-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Potentilla hickmanii</i> Hickman's cinquefoil	FE / SE / 1B	Coastal bluff scrub, closed-cone coniferous forests, vernal mesic meadows and seeps, and freshwater marshes and swamps at elevations of 10-149 meters. Perennial herb in the Rosaceae family; blooms April-August.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Ramalina thrausta</i> Angel's hair lichen	-- / -- / 2B	North coast coniferous forest on dead twigs and other lichens. Epiphytic fructose lichen in the Ramalinaceae family. In northern CA it is usually found on dead twigs, and has been found on <i>Alnus rubra</i> , <i>Calocedrus decurrens</i> , <i>Pseudotsuga menziesii</i> , <i>Quercus garryana</i> , and <i>Rubus spectabilis</i> . In Sonoma County it grows on and among dangling mats of <i>R. menziesii</i> and <i>Usnea</i> spp.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Rosa pinetorum</i> Pine rose	-- / -- / 1B	Closed-cone coniferous forest at elevations of 2-300 meters. Perennial shrub in the Rosaceae family; blooms May-July. Possible hybrid of <i>R. spithamea</i> , <i>R. gymnocarpa</i> , or others; further study needed.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Sidalcea malachroides</i> Maple-leaved checkerbloom	-- / -- / 4	Broadleaved upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, and riparian woodlands, often in disturbed areas, at elevations of 0-730 meters. Perennial herb in the Malvaceae family; blooms March-August.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	-- / -- / 1B	Broadleaved upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and openings in valley and foothill grassland, sometimes on serpentinite, at elevations of 10-500 meters. Annual herb in the Asteraceae family; blooms April-May.	Not Present Not observed during the focused botanical survey in May 2025.
<i>Sulcaria spiralifera</i> Twisted horsehair lichen	-- / -- / 1B	California North Coast coniferous forest at elevations of 0-30 meters. Often found on conifers, including <i>Picea sitchensis</i> , <i>Pinus contorta</i> var. <i>contorta</i> , <i>Pseudotsuga menziesii</i> , <i>Abies grandis</i> , and <i>Tsuga heterophylla</i> . Fruticose lichen in the Parmeliaceae family.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Trifolium buckwestiorum</i> Santa Cruz clover	-- / -- / 1B	Gravelly margins of broadleaved upland forest, cismontane woodland, and coastal prairie at elevations of 105-610 meters. Annual herb in the Fabaceae family; blooms April-October.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Trifolium hydrophilum</i> Saline clover	-- / -- / 1B	Marshes and swamps, mesic and alkaline valley and foothill grassland, and vernal pools at elevations of 0-300 meters. Annual herb in the Fabaceae family; blooms April-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Trifolium polyodon</i> Pacific Grove clover	-- / SR / 1B	Mesic areas of closed-cone coniferous forest, coastal prairie, meadows and seeps, and valley and foothill grassland at elevations of 5-120 meters. Annual herb in the Fabaceae family; blooms April-July.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.
<i>Trifolium trichocalyx</i> Monterey clover	FE / SE / 1B	Sandy openings and burned areas of closed-cone coniferous forest at elevations of 30-240 meters. Annual herb in the Fabaceae family; blooms April-June.	Not Present No suitable habitat within the project site. Not observed during the focused botanical survey in May 2025.

STATUS DEFINITIONS

Federal

FE = listed as Endangered under the federal Endangered Species Act
FT = listed as Threatened under the federal Endangered Species Act
FC = Candidate for listing under the federal Endangered Species Act
-- = no listing

State

SE = listed as Endangered under the California Endangered Species Act
ST = listed as Threatened under the California Endangered Species Act
SC = Candidate for listing under California Endangered Species Act
SR = listed as Rare under the California Endangered Species Act
CFP = California Fully Protected Species
CSC = CDFW Species of Concern
WL = CDFW Watch List

CNDDDB = This designation is being assigned to animal species that are not assigned any of the other status designations defined in this table. These animal species are included in CDFW's CNDDDB "Special Animals" list (2010), which includes all taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special-status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

-- = no listing

California Native Plant Society

1B = California Rare Plant Rank 1B species; plants rare, threatened, or endangered in California and elsewhere
2B = California Rare Plant Rank 2B species; plants rare, threatened, or endangered in California, but more common elsewhere
4 = California Rare Plant Rank 4 species; plants of limited distribution or infrequent throughout a broader area in California, and their status should be monitored regularly
-- = no listing

Bold font indicates Fort Ord HMP Species

POTENTIAL TO OCCUR

- Present = known occurrence of species within the site; presence of suitable habitat conditions; or observed during field surveys
- High = known occurrence of species in the vicinity from the CNDDDB or other documentation; presence of suitable habitat conditions
- Moderate = known occurrence of species in the vicinity from the CNDDDB or other documentation; presence of marginal habitat conditions within the site
- Low = species known to occur in the vicinity from the CNDDDB or other documentation; lack of suitable habitat or poor quality
- Unlikely = species not known to occur in the vicinity from the CNDDDB or other documentation, no suitable habitat is present within the site
- Not Present = species was not observed during surveys

This page left intentionally blank

APPENDIX B

CNDDDB Rare Plant Report

(Marina, Monterey, Moss Landing, Prunedale, Salinas, Seaside, and Spreckels Quadrangles)



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Moss Landing (3612177) OR Prunedale (3612176) OR Marina (3612167) OR Salinas (3612166) OR Monterey (3612158) OR Seaside (3612157) OR Spreckels (3612156))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Actinemys pallida</i> southwestern pond turtle	ARAAD02032	Proposed Threatened	None	G2	SNR	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
<i>Agrostis lacuna-vernalis</i> vernal pool bent grass	PMPOA041N0	None	None	G1	S1	1B.1
<i>Allium hickmanii</i> Hickman's onion	PMLIL02140	None	None	G2	S2	1B.2
<i>Ambystoma californiense</i> pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G3T3	S3	WL
<i>Ambystoma macrodactylum croceum</i> Santa Cruz long-toed salamander	AAAAA01082	Endangered	Endangered	G5T1T2	S2	FP
<i>Anniella pulchra</i> Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
<i>Aphyllon robbinsii</i> Robbins' broomrape	PDORO040Q0	None	None	G1	S1	1B.1
<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i> Hooker's manzanita	PDERI040J1	None	None	G3T2	S2	1B.2
<i>Arctostaphylos montereyensis</i> Toro manzanita	PDERI040R0	None	None	G2?	S2?	1B.2
<i>Arctostaphylos pajaroensis</i> Pajaro manzanita	PDERI04100	None	None	G1	S1	1B.1
<i>Arctostaphylos pumila</i> sandmat manzanita	PDERI04180	None	None	G1	S1	1B.2
<i>Asio flammeus</i> short-eared owl	ABNSB13040	None	None	G5	S2	SSC
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Castilleja ambigua</i> var. <i>insalutata</i> pink Johnny-nip	PDSCR0D403	None	None	G5T2	S2	1B.1
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
<i>Chorizanthe minutiflora</i> Fort Ord spineflower	PDPGN04100	None	None	G1	S1	1B.2
<i>Chorizanthe pungens</i> var. <i>pungens</i> Monterey spineflower	PDPGN040M2	Threatened	None	G2T2	S2	1B.2
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<i>Clarkia jolonensis</i> Jolon clarkia	PDONA050L0	None	None	G2	S2	1B.2
<i>Coelus globosus</i> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i> seaside bird's-beak	PDSCR0J0P2	None	Endangered	G5T2	S2	1B.1
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S2	SSC
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S3	SSC
<i>Danaus plexippus plexippus</i> pop. 1 monarch - California overwintering population	IILEPP2012	Proposed Threatened	None	G4T1T2Q	S2	
<i>Delphinium californicum</i> ssp. <i>interius</i> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
<i>Delphinium hutchinsoniae</i> Hutchinson's larkspur	PDRAN0B0V0	None	None	G2	S2	1B.2
<i>Delphinium umbraculorum</i> umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Dipodomys heermanni goldmani</i> Salinas kangaroo rat	AMAFD03065	None	None	G4T2T3	S2S3	
<i>Dipodomys venustus sanctiluciae</i> Santa Lucia Mountain kangaroo rat	AMAFD03043	None	None	G2T3	S3	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<i>Ericameria fasciculata</i> Eastwood's goldenbush	PDAST3L080	None	None	G2	S2	1B.1
<i>Eriogonum nortonii</i> Pinnacles buckwheat	PDPGN08470	None	None	G2	S2	1B.3
<i>Eryngium montereyense</i> Fort Ord button-celery	PDAP10Z150	None	None	G1	S1	1B.1
<i>Erysimum ammophilum</i> sand-loving wallflower	PDBRA16010	None	None	G2	S2	1B.2
<i>Erysimum menziesii</i> Menzies' wallflower	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Eumetopias jubatus</i> Steller sea lion	AMAJC03010	Delisted	None	G3	S2	
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	IILEPG2026	Endangered	None	G5T2	S2	
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Gilia tenuiflora ssp. arenaria</i> Monterey gilia	PDPLM041P2	Endangered	Threatened	G3G4T2	S2	1B.2
<i>Hesperocyparis goveniana</i> Gowen cypress	PGCUP04031	Threatened	None	G1	S1	1B.2
<i>Hesperocyparis macrocarpa</i> Monterey cypress	PGCUP04060	None	None	G1	S1	1B.2
<i>Holocarpha macradenia</i> Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Horkelia marinensis</i> Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
<i>Lavinia exilicauda harengus</i> Monterey hitch	AFCJB19013	None	None	G4T3	S3	SSC
<i>Layia carnosa</i> beach layia	PDAST5N010	Threatened	Endangered	G2	S2	1B.1
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lupinus tidestromii</i> Tidestrom's lupine	PDFAB2B3Y0	Endangered	Endangered	G1	S1	1B.1
<i>Malacothamnus involucratus</i> Carmel Valley bushmallow	PDMAL0Q0B1	None	None	G2Q	S2	1B.2
<i>Malacothrix saxatilis var. arachnoidea</i> Carmel Valley malacothrix	PDAST660C2	None	None	G5T2	S2	1B.2
<i>Meconella oregana</i> Oregon meconella	PDPAP0G030	None	None	G2	S2	1B.1
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<i>Microtus californicus halophilus</i> Monterey vole	AMAFF11036	None	None	G5T1	S2	
<i>Monardella sinuata ssp. nigrescens</i> northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Neotoma macrotis luciana</i> Monterey dusky-footed woodrat	AMAFF08083	None	None	G5T3	S3	SSC
<i>Oncorhynchus mykiss irideus pop. 9</i> steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	SSC
<i>Pelecanus occidentalis californicus</i> California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G4	S4	SSC
<i>Pinus radiata</i> Monterey pine	PGPIN040V0	None	None	G1	S1	1B.1
<i>Piperia yadonii</i> Yadon's rein orchid	PMORC1X070	Endangered	None	G1	S1	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
<i>Potentilla hickmanii</i> Hickman's cinquefoil	PDROS1B370	Endangered	Endangered	G1	S1	1B.1
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
<i>Ramalina thrausta</i> angel's hair lichen	NLLEC3S340	None	None	G5?	S2S3	2B.1
<i>Rana boylei</i> pop. 6 foothill yellow-legged frog - south coast DPS	AAABH01056	Endangered	Endangered	G3T1	S1	
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys megalotis distichlis</i> Salinas harvest mouse	AMAFF02032	None	None	G5T1	S2	
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Rosa pinetorum</i> pine rose	PDROS1J0W0	None	None	G1Q	S1	1B.2
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Sorex ornatus salarius</i> Monterey shrew	AMABA01105	None	None	G5T1T2	S1S2	SSC
<i>Sorex vagrans paludivagus</i> Monterey vagrant shrew	AMABA01072	None	None	G5T1	S2	
<i>Spea hammondi</i> western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	None	Threatened	G5	S1	
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	PDAST6E050	None	None	G2	S2	1B.2
<i>Sulcaria spiralifera</i> twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
<i>Taricha torosa</i> Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis hammondi</i> two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
<i>Trifolium buckwestiorum</i> Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Trifolium polyodon</i> Pacific Grove clover	PDFAB402H0	None	Rare	G1	S1	1B.1
<i>Trifolium trichocalyx</i> Monterey clover	PDFAB402J0	Endangered	Endangered	G1	S1	1B.1
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 104

This page left intentionally blank

APPENDIX C

IPaC Resource List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Monterey County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📅 (805) 644-3958

✉ FW8VenturaSection7@FWS.Gov

2493 Portola Road, Suite B

Ventura, CA 93003-7726

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Southwestern Pond Turtle <i>Actinemys pallida</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

Amphibians

NAME	STATUS
------	--------

California Red-legged Frog *Rana draytonii*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/2076>

Western Spadefoot *Spea hammondi*

Proposed Threatened

No critical habitat has been designated for this species.

Fishes

NAME

STATUS

Tidewater Goby *Eucyclogobius newberryi*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/57>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/9743>

Smith's Blue Butterfly *Euphilotes enoptes smithi*

Endangered

Wherever found

There is **proposed** critical habitat for this species.

<https://ecos.fws.gov/ecp/species/4418>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

Contra Costa Goldfields *Lasthenia conjugens*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7058>

Menzies' Wallflower *Erysimum menziesii*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2935>

Monterey Gilia *Gilia tenuiflora* ssp. *arenaria*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/856>

Monterey Spineflower *Chorizanthe pungens* var. *pungens*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/396>

Yadon's Piperia *Piperia yadonii*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/4205>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

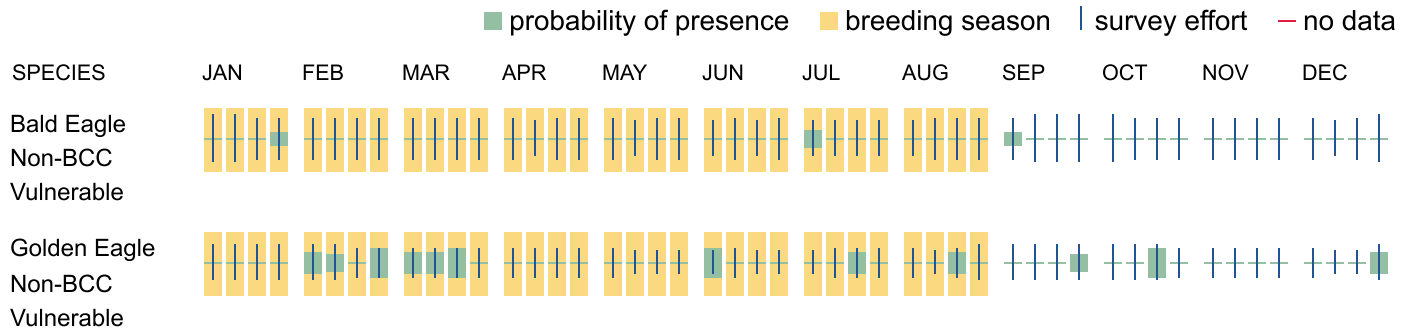
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15

Black Oystercatcher *Haematopus bachmani*

Breeds Apr 15 to Oct 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9591>

Black Swift *Cypseloides niger*

Breeds Jun 15 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8878>

Black Tern *Chlidonias niger surinamensis*

Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3093>

Black Turnstone *Arenaria melanocephala*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Brandt's Cormorant *Urile penicillatus*

Breeds Apr 15 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Bullock's Oriole *Icterus bullockii*

Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher *Toxostoma redivivum*

Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe *Aechmophorus clarkii*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat *Geothlypis trichas sinuosa*

Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Elegant Tern *Thalasseus elegans*

Breeds Apr 5 to Aug 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8561>

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Heermann's Gull *Larus heermanni*

Breeds Mar 15 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lawrence's Goldfinch *Spinus lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Northern Harrier *Circus hudsonius*

Breeds Apr 1 to Sep 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8350>

Nuttall's Woodpecker *Dryobates nuttallii*

Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Santa Barbara Song Sparrow *Melospiza melodia graminea*

Breeds Mar 1 to Sep 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/5513>

Scripps's Murrelet *Synthliboramphus scrippsi*

Breeds Feb 20 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Western Gull *Larus occidentalis*

Breeds Apr 21 to Aug 25

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Western Screech-owl *Megascops kennicottii cardonensis*

Breeds Mar 1 to Jun 30

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

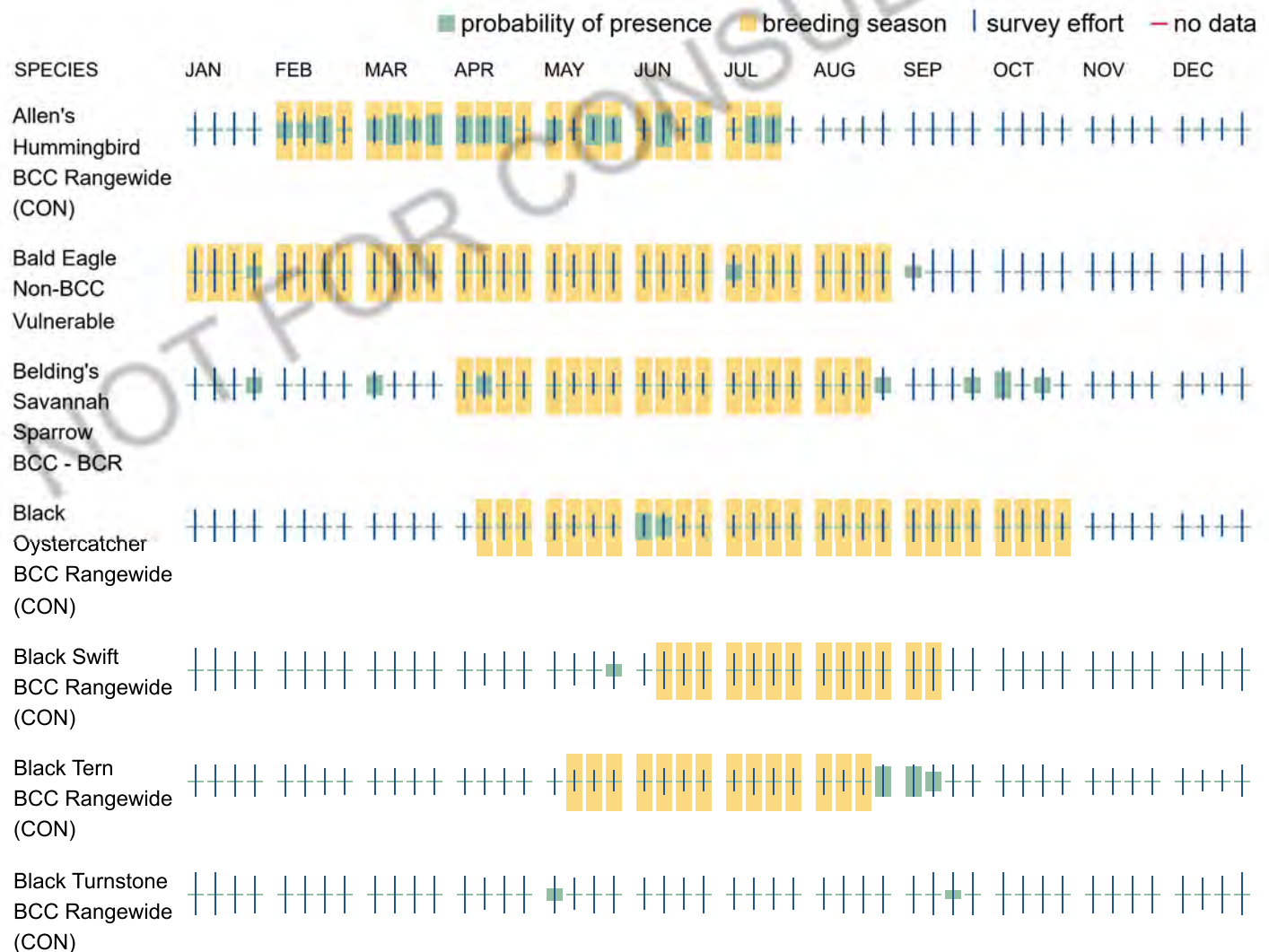
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

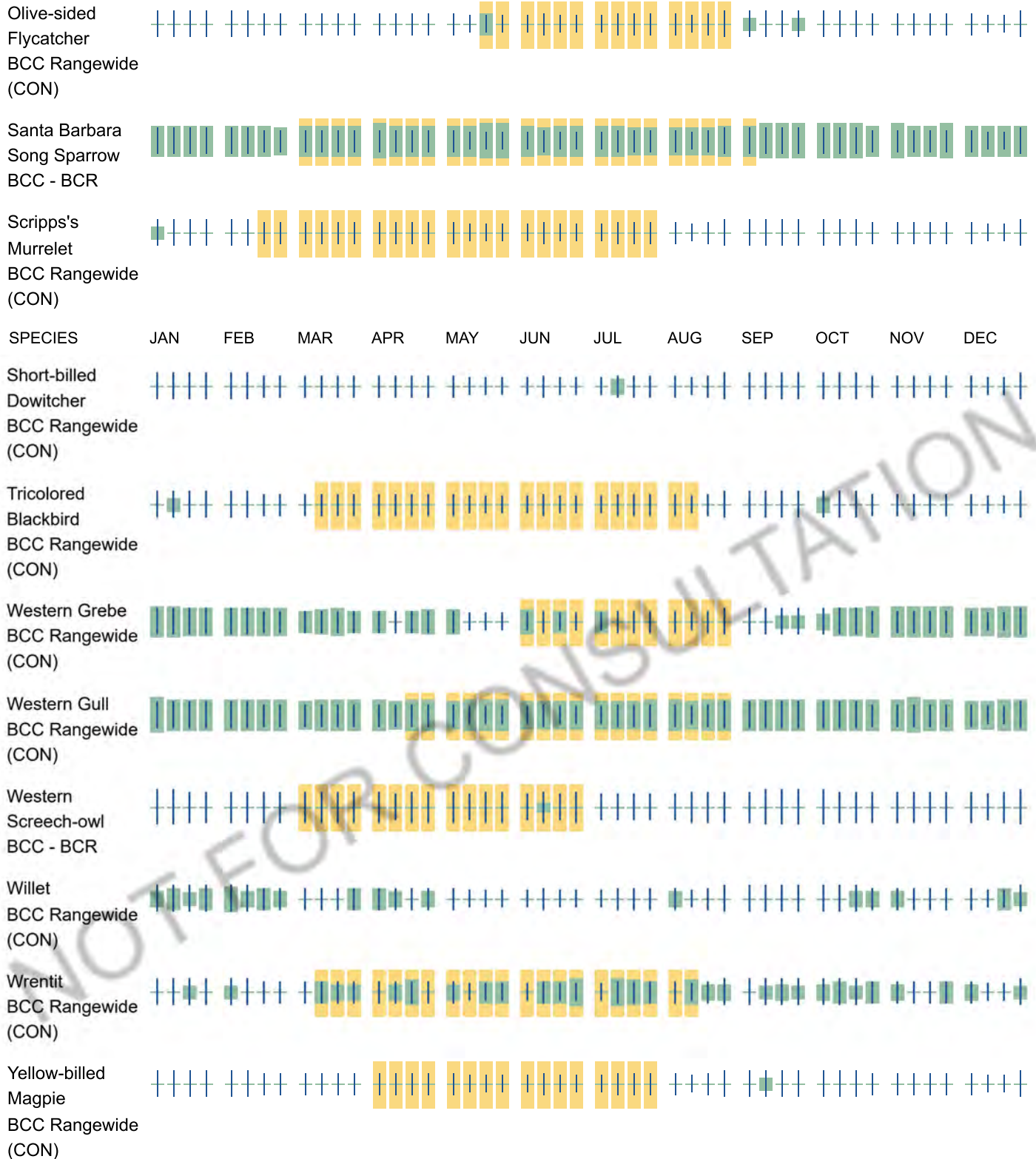
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see

when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in

your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

This page left intentionally blank