Appendix B

Biological Assessment

Marina High School Multi-Sports Field Project
Biological Resources Report

December 2023

Prepared for

Monterey Peninsula Unified School District
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1. INTRODUCTION

1.1 Project Description

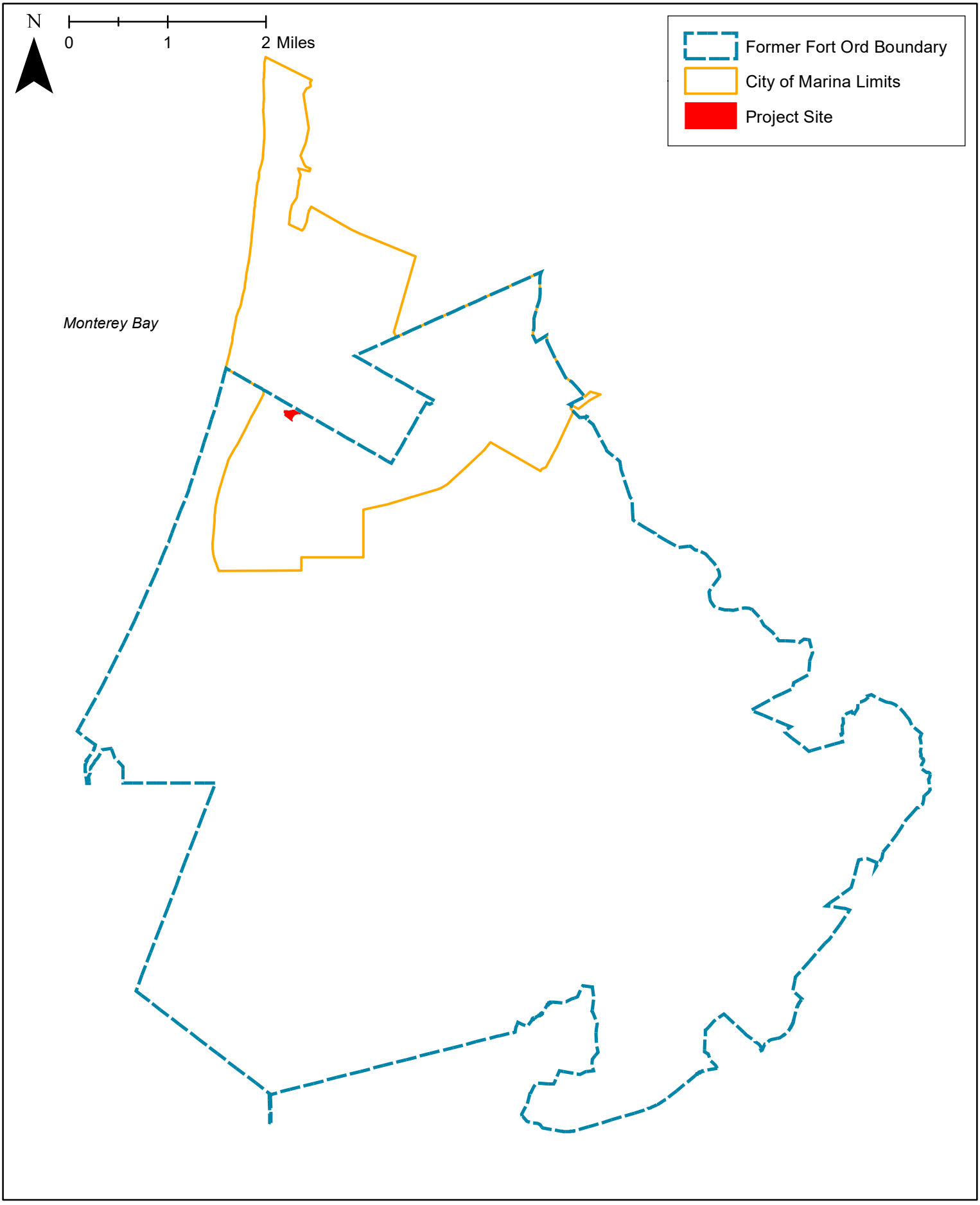
Denise Duffy & Associates, Inc. (DD&A) is contracted by Monterey Peninsula Unified School District (MPUSD) to provide environmental consulting services for the Marina High School Multi-Sports Field Project (project or proposed project), located on the Marina High School campus in the City of Marina (City), California. The project consists of various improvements to approximately 5.6 acres of existing athletic fields and adjacent areas at Marina High School.

To satisfy the reporting criteria of MPUSD and other agencies, DD&A completed a biological assessment of the project site to determine if sensitive biological resources are present or have the potential to occur within and in the vicinity of the site. This report describes the existing biological resources within and adjacent to the project site, including any special-status species or sensitive habitats which occur or have the potential to occur within and adjacent to the site. This report also assesses the potential impacts to biological resources that may result from full buildout of the project and recommends appropriate minimization and mitigation measures necessary to reduce those impacts to a less-than-significant level in accordance with the California Environmental Quality Act (CEQA). In addition, this report includes an overview of applicable federal, state, and local regulation, regulatory, and responsible agencies with jurisdiction over sensitive resources within the project site and the relevant permits for biological resources that could be required for the project.

1.2 Summary of Results

Most of the project site is landscaped or developed; however, two natural communities, ruderal/disturbed and planted Monterey pine forest, occur within the site. No sensitive habitats occur within or directly adjacent to the site. Four special-status plant species, including sandmat manzanita, Monterey ceanothus, Monterey spineflower, and Monterey gilia, are known to occur within and/or directly adjacent to the project site. In addition, several special-status wildlife species, including Townsend's big-eared bat, Monterey dusky-footed woodrat, Northern California legless lizard, coast horned lizard, and raptors and other nesting birds, also have the potential to occur within the site. Finally, trees which are protected by the City are present within and adjacent to the project site.

Avoidance, minimization, or mitigation measures are identified in this report to avoid or reduce potential impacts to these sensitive biological resources to a less than-significant level under CEQA. An incidental take permit (ITP) from the California Department of Fish and Wildlife (CDFW) would be required for potential project impacts to Monterey gilia; however, the project has been designed to avoid impacts to Monterey gilia and preclude the need for an ITP. In addition, a tree removal permit from the City would be required for removal of any living trees within City limits. No other regulatory permits for biological resources are anticipated for the project.



Regional Location

Date
12/18/2023

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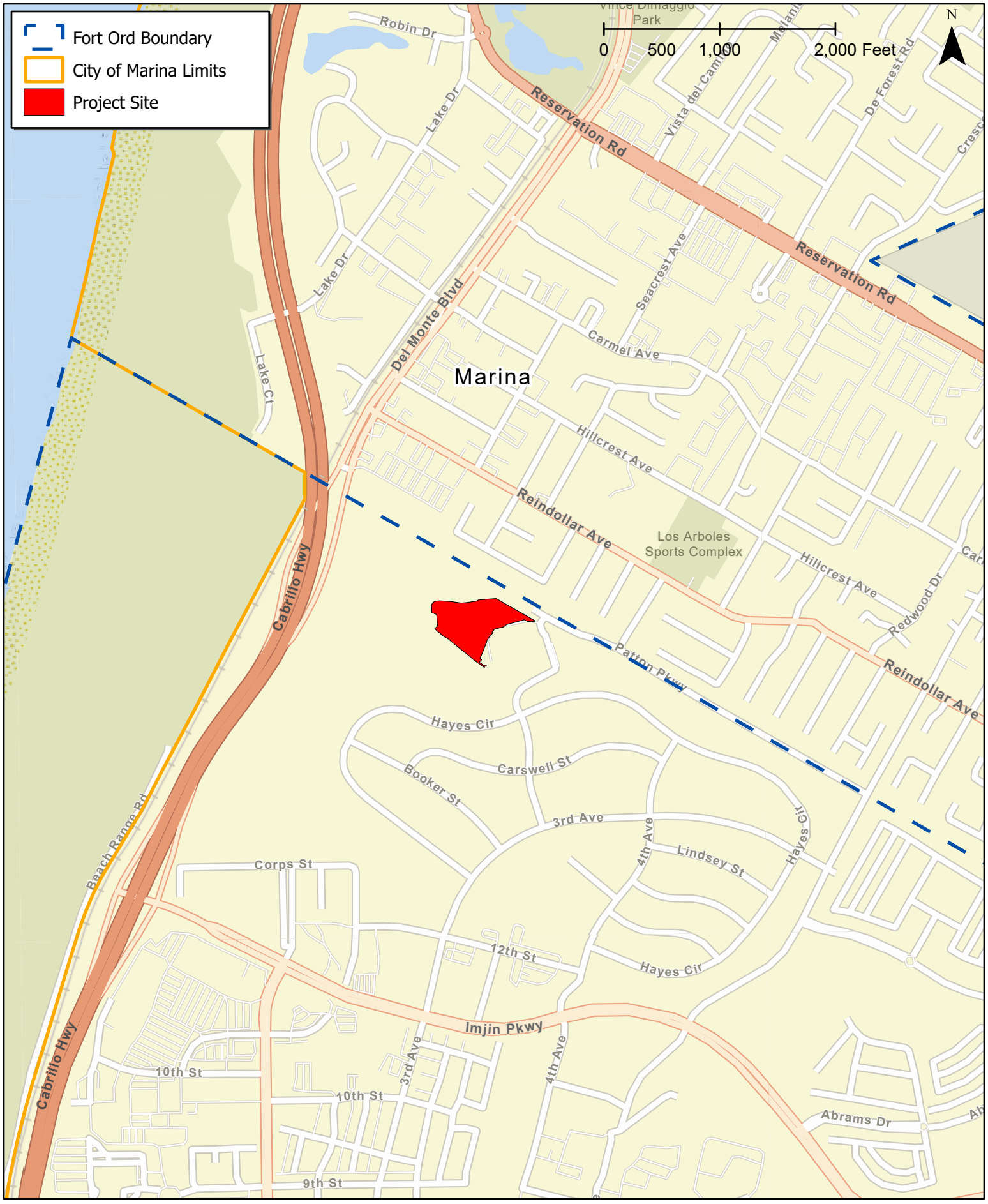

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2. METHODS

2.1 Personnel and Survey Methods

DD&A biologists Patric Krabacher, Liz Camilo, Kimiya Ghadiri, and Rikki Lougee conducted biological surveys of the project site on October 14, November 10, and November 23, 2022, and April 14, June 20, and July 19, 2023. Biological surveys consisted of a reconnaissance-level survey of the project site to characterize habitats present within the site, including any potentially sensitive habitats, and to identify any special-status plant or wildlife species or suitable habitat for these species within the site, focused botanical surveys to identify presence or absence of special-status plant species within the site, and a tree inventory to document all trees within and directly adjacent to the site. Survey methods included walking the entire project site to identify these resources. The results of the tree inventory are documented in the *Arborist Report for the Marina High School Multi-Sports Field Project,* dated October 18, 2022. In support of the adjacent Del Monte Boulevard Extension Project (DMB Extension Project), DD&A biologists also conducted focused surveys for Monterey gilia within a portion of the project site in 2021. The dates of each of these surveys are outlined in **Table 1**. Data collected during these surveys were used to assess the environmental conditions of the project site and its surroundings, evaluate environmental constraints in the site and within the local vicinity, and provide a basis for recommendations to minimize and avoid impacts.

Table 1. Biological Surveys within the Project Site

Date	Survey	Project
April 2021	Focused Monterey gilia survey	DMB Extension Project
October 2022	Tree inventory	Proposed Project
November 2022	Reconnaissance-level wildlife and habitat survey	Proposed Project
November 2022	Focused botanical survey for perennial plants	Proposed Project
April 2023	Focused botanical survey for early spring-blooming plants	Proposed Project
June 2023	Focused botanical survey for spring-blooming plants	Proposed Project
July 2023	Focused botanical survey for summer-blooming plants	Proposed Project

In focused botanical surveys for the proposed project and the DMB Extension Project, the survey areas were surveyed for botanical resources following the applicable guidelines outlined in the U.S. Fish and Wildlife Service (Service) *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (Service, 2000), the CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018), and California Native Plant Society (CNPS) *Botanical Survey Guidelines* (CNPS, 2001). Populations of five or fewer special-status plants were mapped as a point and the number of individual plants was documented, while populations of plants with more than five individuals were mapped as a polygon. Populations included all individuals within approximately three feet of another individual; individual plants further away than three feet were mapped as a separate polygon or point.

2.2 Data Sources

DD&A conducted a desktop literature review to determine the presence or potential presence of special-status species and other sensitive biological resources within the project site. Primary data sources include:

- Current agency status information from the Service and CDFW for species listed, proposed for listing, or candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA), and those considered CDFW "species of special concern", including:
  - California Natural Diversity Database (CNDDB) occurrences reports from the U.S. Geological Survey (USGS) Marina, Monterey, Moss Landing, Prunedale, Salinas, Seaside, and Spreckels quadrangles (**Appendix A**; CDFW, 2022b), and
  - The Service's Information for Planning and Consultation (IPaC) Resource List for the project site (**Appendix B**; Service, 2022a);
- The California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2022);
- The National Wetlands Inventory Wetlands Mapper (Service, 2022b);
- The National Hydrographic Dataset (USGS, 2022);
- *Flora and Fauna Baseline Study of Fort Ord* (U.S. Army Corps of Engineers [ACOE], 1992);
- *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (HMP) (ACOE, 1997);
- *Del Monte Boulevard Extension Project Biological Resources Report* (DD&A, 2020); and
- *Arborist Report for the Marina High School Multi-Sports Field Project* (DD&A, 2022).

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 C**). 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

2.2.1 Botany

The classification and characterization of the vegetation of the project site is based on field observations and the *Manual of California Vegetation* (Sawyer et.al., 2009). Vegetation types identified in the *Manual of California Vegetation* were utilized to determine if communities identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2022a) 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, 2022). All plants observed within the project site during the field observations 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 their 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, 2022) was reviewed to determine if invasive plant species are present within the project site.

2.2.2 Wildlife

The presence or potential presence of special-status wildlife within the project site were determined using field observations of habitat and local occurrence data. The following literature and data sources were reviewed: CDFW reports on special-status wildlife (Remsen, 1978; Williams, 1986; Thelander, 1994); California Wildlife Habitat Relationships Program species-habitat models (CDFW, 2008; Zeiner et al., 1988 and 1990); *Flora and Fauna Baseline Study of Fort Ord* (ACOE, 1992); the HMP (ACOE, 1997); and general wildlife references (Stebbins, 1985).

2.3 Definitions

2.3.1 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 CDFW's *California Natural Communities List* (i.e., those habitats that are rare or endangered within the borders of California) (CDFW, 2022a), those that are occupied by species listed under the ESA or are critical habitat in accordance with the ESA, and those that are defined as Environmentally Sensitive Habitat Areas under the California Coastal Act. 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 and Executive Order 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).

2.3.2 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 ESA or CESA. Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Guidelines 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) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. CDFW also includes some animal species that are not assigned any of the other status designations in the CNDDB "Special Animals" list; however, these species have no legal or protection status and are not analyzed in this document.

Plants listed as rare under the California Native Plant Protection Act (CNPPA) or included in 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.[1] 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, 2021) be fully considered during the preparation of environmental documents relating to CEQA. CNPS CRPR 4 species (plants of limited distribution) 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. While other species (i.e., CRPR 3 or 4 species) are sometimes found in database searches or within the literature, these do not meet the definitions of Section 2062 and 2067 of CESA and are not analyzed in this document.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under California 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, protected species under 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.

2.4 Regulatory Setting

The following discussion describes the major federal, state, and local laws regulating biological resources that may be applicable to the project.

2.4.1 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 the Service or National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). In general, NMFS is responsible for the protection of ESA-listed marine species and anadromous fish, whereas other listed species are under Service 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

[1] 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.

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).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in permanent or temporary possession of a protected species constitute violations of the MBTA. The Service is responsible for overseeing compliance with the MBTA and implements Conventions (treaties) between the United States and four countries—Canada, Mexico, Japan, and Russia—for the protection of migratory birds. The Service maintains a list of migratory bird species that are protected under the MBTA.

Fort Ord Installation-Wide Multispecies 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, the Service issued a Biological Opinion (BO) in accordance with Section 7 of the ESA on the disposal and reuse of former Fort Ord requiring that an HMP be developed and implemented to reduce the incidental take of listed species and loss of habitat that supports these species (Service, 1993, Service, 2017b). The *Fort Ord Installation-Wide Multispecies Habitat Management Plan* (Fort Ord HMP or 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 the Service; 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 are 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 Service and/or a Section 2081 incidental take permit (ITP) from the CDFW.

The project site is located within a designated "development" parcel under the HMP. Parcels designated as "development" do not have management requirements relative to HMP species. However, the 2017 Programmatic BO and HMP require the identification of sensitive botanical resources within the development parcels that may be salvaged for use in restoration activities in reserve areas (Service, 2017b and ACOE, 1997). In addition, 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 the City of Marina, are required to prepare their respective resource management plans (RMPs) within six (6) months of land transfer and acquisition. However, in 1997, instead of preparing RMPs, the local jurisdictions jointly initiated a base-wide incidental take permit application process with the Service that included the preparation of a habitat conservation plan, which effectively incorporated the requirements of the HMP. Thus, in coordination with the Service, over a period of over 20 years, the local jurisdictions prepared a Draft Fort Ord Habitat Conservation Plan (HCP). In June 2020, the local jurisdictions decided not to approve the Fort Ord HCP and not to collectively pursue base-wide incidental take permits. As a result, the Service has requested that the local jurisdictions initiate the steps necessary to comply with the HMP now that the Fort Ord HCP and base-wide incidental take permits are no longer proposed. The City of Marina is currently preparing their RMP and anticipate approval by the Service in Spring of 2024, which would comply with the requirements of the HMP. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO at the time of project approval and adoption of the IS/MND, no additional mitigation measures for HMP species would be required for impacts within the project site. If the City of Marina is not in compliance with the HMP and 2017 Programmatic BO at the time of project approval and adoption of the IS/MND, additional mitigation measures would be required.

2.4.2 State Regulations

California Endangered Species Act

The CESA was enacted in 1984. The California Code of Regulations (Title 14, §670.5) lists animal species considered endangered or threatened by the state. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." A Section 2081 Incidental Take Permit from the CDFW may be obtained to authorize "take" of any state listed species.

California Native Plant Protection Act

The CNPPA of 1977 directed 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; however, these plants may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research.

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 Migratory Bird Treaty Act (MBTA). Section 3800 prohibits take of nongame birds.

Fully Protected Species. The classification of fully protected was the state's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish (§5515), mammals (§4700), amphibians and reptiles (§5050), and birds (§3511). Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research, relocation of the bird species for the protection of livestock, and for certain renewable energy and infrastructure projects.

Species of Special Concern. As noted above, the CDFW also maintains a list of wildlife "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.

2.4.3 Local Regulations

Tree Preservation

Marina Municipal Code Chapter 17.62 (Tree Removal, Preservation, and Protection) requires a tree removal permit to remove, damage, or relocate, or cause to be removed, damaged, or relocated any living tree on any property within City limits, unless exempted by Sections 17.62.040 or 17.62.050. Section 17.62.030 also prohibits construction activities within the dripline of any tree, unless these activities are conducted in compliance with tree protection guidelines adopted by resolution of the planning commission.

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3. RESULTS

3.1 Natural Communities

Most of the project site is developed with landscaping, paved roads, and structures; however, two natural communities, ruderal/disturbed and planted Monterey pine forest, occur within the project site (**Figure 3**). The following discussion provides an overview of these communities and their distribution within the site.

3.1.1 Landscaped/Developed

- *A Manual of California Vegetation* classification: None
- *California Natural Communities List*: Not listed

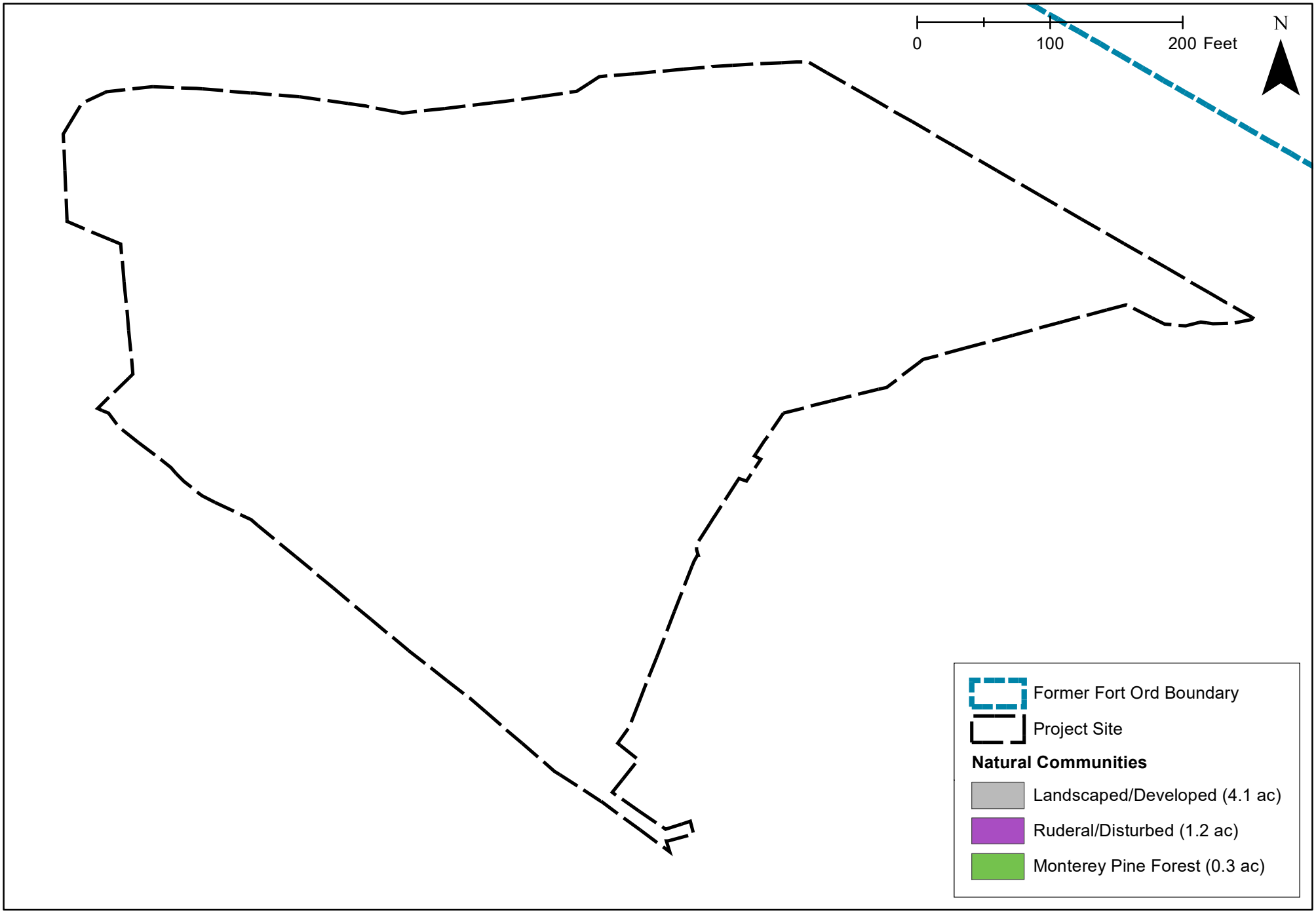
Most of the project site (approximately 4.1 acres) is landscaped or developed with a grassy, maintained sports field and paved roads and sidewalks (**Figure 3**). Very little natural vegetation is present within these areas, and they are considered to have little biological value. However, some common wildlife species that do well in urbanized areas, including American crow (*Corvus brachyrhynchos*), California ground squirrel (*Otospermophilus beecheyi*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), western scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), western fence lizard (*Sceloporus occidentalis*), and rock pigeon (*Columba livia*), may be found foraging within developed areas.

3.1.2 Ruderal/Disturbed

- *A Manual of California Vegetation* classification: Ice plant mats (*Mesembryanthemum* spp. – *Carpobrotus* spp. herbaceous semi-natural alliance)
- *California Natural Communities List*: Not sensitive

Ruderal areas are those areas which have been developed or have been subject to historic and ongoing disturbance by human activities and are devoid of vegetation or dominated by non-native and/or invasive weed species. Ruderal areas within the project site surround landscaped and developed areas and consist of areas denuded of vegetation or sandy areas dominated by ice plant (*Carpobrotus edulis*), deerweed (*Acmispon glaber*), rush-rose (*Crocanthemum scoparium*), cut-leaved plantain (*Plantago coronopus*), and long-beaked filaree (*Erodium botrys*). Species typical of coastal scrub, including silver bush lupine (*Lupinus albifrons*), mock heather (*Ericameria ericoides*), black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and sandmat manzanita (*Arctostaphylos pumila*), are also present or common but are not dominant. The presence of these species suggests that ruderal areas may return to native coastal scrub if disturbances (e.g., non-native ice plant) are removed. Approximately 1.2 acres of ruderal habitat occurs within the project site (**Figure 3**).

Ruderal areas are considered to have low biological value as they are generally dominated by non-native plant species and consist of relatively low-quality habitat from a wildlife perspective. In this case, common wildlife species which may be found in coastal scrub (including California quail [*Callipepla californica*], blue-gray gnatcatcher [*Polioptila caerulea*], Anna's hummingbird [*Calypte anna*], northern pacific rattlesnake [*Crotalus oreganus*], gopher snake [*Pituophis catenifer*], brush rabbit [*Sylvilagus bachmani*], western fence lizard, and California ground squirrel) may also occur in ruderal areas.



Natural Communities

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Figure
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3.1.3 Monterey Pine Forest

- *A Manual of California Vegetation* classification: Monterey cypress – Monterey pine woodlands stand (*Hesperocyparis macrocarpa – Pinus radiata* forest and woodland semi-natural alliance)
- *California Natural Communities List*: Not sensitive

Monterey pine forest within the project site is a moderate-canopy natural community dominated by planted Monterey pine (*Pinus radiata*) and Monterey cypress (*Hesperocyparis macrocarpa*) trees. The understory is dominated by pine needles and iceplant. Other species observed include coast live oak (*Quercus agrifolia*) bushes, kikuyu grass (*Pennisetum clandestinum*), chamise, and sandmat manzanita. Approximately 0.3 acre of Monterey pine forest occurs within the project site (**Figure 3**).

Due to relatively short life span of closed-cone pines, dead trees and trunks are characteristic of Monterey pine forests. These attract a wide variety of common wildlife, including red-tailed hawk (*Buteo jamaicensis*), chestnut-backed chickadee (*Poecile rufescens*), mule deer (*Odocoileus hemionus*), American robin (*Turdus migratorius*), scrub jay, and raccoon.

3.2 Sensitive Habitats

No sensitive habitats (e.g., wetlands or other waters of the U.S. and/or state, riparian corridors, critical habitat for ESA-listed species, natural communities listed on CDFW's *California Sensitive Natural Communities List* [CDFW, 2022a]) occur within or directly adjacent to the project site. The Monterey pine forest vegetation alliance occurring within the site is a semi-natural alliance of horticultural origin and is not listed as sensitive by CDFW.

3.3 Special-Status Species

Published occurrence data within the project site and surrounding quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the project site (see *Section 2, Methods*). Each of these species was evaluated for their likelihood to occur within and immediately adjacent to the project site. The special-status species that are known to occur within the project site or that were determined to have a moderate or high potential to occur within the site are identified 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 C**, are therefore unlikely to be impacted by the project, and are not discussed further.

3.3.1 Special-Status Wildlife

Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is a CDFW species of special concern. The Townsend's big-eared bat is a year round resident in California occurring from low desert to mid-elevation montane habitats. It is 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. Townsend's big-eared bats typically roost during the day in caves 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. It hibernates in mixed sex aggregations of a few to several hundred individuals. Hibernation is more prolonged in colder areas. This species arouses periodically and moves to alternative roosts and actively forages and drinks throughout the winter. A single young is born per year between May

and July. Females form maternity colonies of 35 to 200 individuals, while males roost individually. Townsend's big-eared bats feed primarily on small moths that are gleaned from vegetation.

The CNDDB reports one occurrence of Townsend's big-eared bat within the quadrangles reviewed, located approximately 4.3 miles east of the project site. This species may utilize any of the large trees within the project site for night roosts and may forage over all undeveloped areas of the site.

Monterey Dusky-Footed Woodrat

The Monterey dusky-footed woodrat (*Neotoma macrotis luciana*, MDFW) is a CDFW species of special concern. This is a subspecies of the dusky-footed woodrat *(Neotoma macrotis)*, which is common to oak woodlands and other forest types throughout California. Dusky-footed woodrats are frequently found in forest habitats with moderate canopy cover and a moderate to dense understory, including riparian forests; however, they may also be found in chaparral communities. Relatively large nests are constructed of grass, leaves, sticks, and feathers and are built in protected spots, such as rocky outcrops or dense brambles of blackberry and/or poison oak. Typical food sources for this species include leaves, flowers, nuts, berries, and truffles. Dusky-footed woodrats may be a significant food source for small- to medium-sized predators. Populations of this species may be limited by the availability of nest material. Within suitable habitat, nests are often found in close proximity to each other.

Suitable habitat for MDFW is present within the project site in the ruderal/disturbed and Monterey pine forest communities. The CNDDB reports only one occurrence of MDFW within the quadrangles reviewed; however, this species is known to occur throughout the former Fort Ord. Nests of this species were not observed within the project site during the November 2022 biological survey; however, MDFWs have the potential to move into undeveloped areas within the site prior to construction.

Northern California Legless Lizard

The Northern California legless lizard is a CDFW species of special concern, as well as an HMP species.[2] 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 1,800 meters (6,000 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

[2] The HMP identifies this species as black-legless lizard (*Anniella pulchra* ssp. *nigra*) 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" (Service, 1998), 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.

for this species is believed to begin late spring or early summer, with one to four live young born between September and November.

Suitable habitat and soils for Northern California legless lizard is present in ruderal/disturbed areas of the project site where appropriate cover conditions occur. The CNDDB reports 56 occurrences of this species within the quadrangles reviewed, the nearest located less than one mile west of the project site within Fort Ord Dunes State Park (FODSP). Therefore, this species has a high potential to occur within the undeveloped areas of the project site.

Coast Horned Lizard

The coast horned lizard (*Phrynosoma blainvillii*) 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 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.

Suitable habitat for coast horned lizard is present throughout all undeveloped areas of the project site. The CNDDB reports five occurrences of this species within the quadrangles reviewed, the nearest located approximately 1.2 miles north of the project site. In addition, DD&A biologists have observed this species throughout the former Fort Ord. Therefore, this species has a high potential to occur within the undeveloped areas of the project site.

Raptors and Other Protected Avian Species

Raptors, their nests, and other nesting birds are protected under California Fish and Game Code and the MBTA. While the life histories of these species vary, overlapping nesting 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 September, with peak activity May through July. Prey for these species include small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges.

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

3.3.2 Special-Status Plants

Sandmat Manzanita

Sandmat manzanita (*Arctostaphylos pumila)* is a CNPS CRPR 1B and HMP species in the Ericaceae family. This evergreen shrub blooms from February through May and is associated with openings in chaparral, coastal scrub, closed cone coniferous forest, coastal dunes, and cismontane woodland habitats on sandy soils at elevations of three to 205 meters. A large and important portion of this species' range is found on the former Fort Ord (Army, 1992), where it grows near the similar Hooker's manzanita (*A. hookeri* ssp. *hookeri)*. Over twenty years of weed abatement within Fort Ord National Monument (FONM) have resulted in improved habitat quality for sandmat manzanita and other rare plants within the former Fort Ord; however, continued expansion of exotic species is also an on-going threat to this species.

Suitable habitat for sandmat manzanita is present within the project site in the ruderal/disturbed and Monterey pine forest communities. This species was observed within both communities during the November 2022 biological surveys; DD&A mapped eight individuals plus approximately 1,336 square feet of sandmat manzanita within the project site (**Figure 4**).

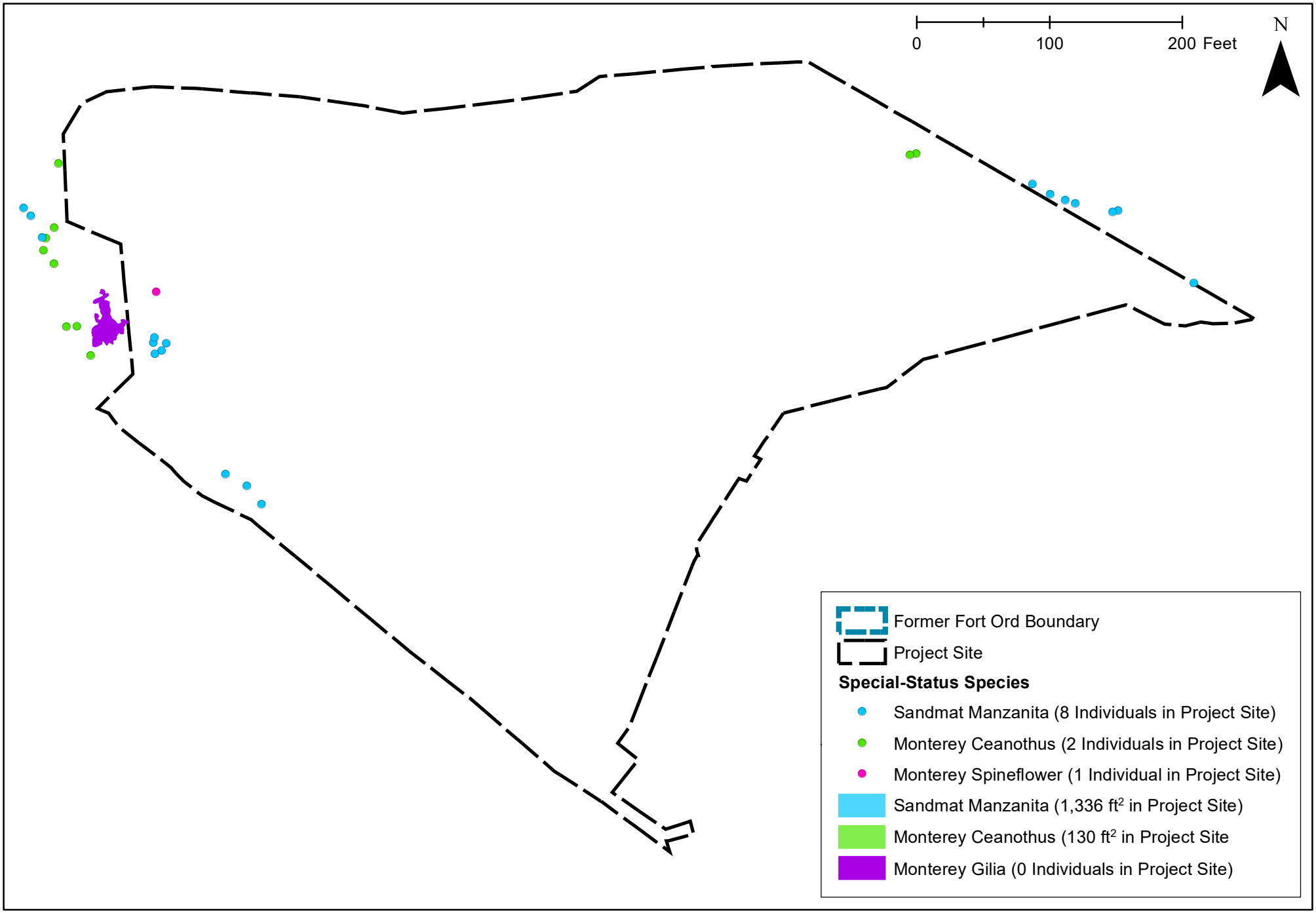
Monterey Ceanothus

Monterey ceanothus (*Ceanothus rigidus*) is a CNPS CRPR List 4 and HMP species in the Rhamnaceae family. This evergreen shrub blooms from February through April (sometimes through June) and is associated with closed-cone coniferous forests, chaparral, and coastal scrub on sandy soils at elevations of three to 550 meters. It is endemic to the central California coast in Monterey, San Luis Obispo, and Santa Cruz Counties; however, it is presumed extirpated from the latter (Elkhorn Slough CTP, 2007). The most abundant and probably the most vigorous population of Monterey ceanothus is found on the former Fort Ord (Army, 1992).

Suitable habitat for Monterey ceanothus is present within the project site in the ruderal/disturbed and Monterey pine forest communities. This species was observed within both communities during the November 2022 biological surveys; DD&A mapped 2 individuals plus approximately 130 square feet of Monterey ceanothus within the project site (**Figure 4**).

Monterey Spineflower

Monterey spineflower (*Chorizanthe pungens* var. *pungens*) 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. The white to rose floral tube of Monterey spineflower distinguishes it from the more common, but closely related, diffuse spineflower (*Chorizanthe diffusa*), which has a lemon-yellow floral tube. Monterey spineflower is likely self-pollinated in addition to being insect pollinated. It produces small seeds that are dropped or shaken by wind from their capsule and may then be dispersed with blowing sand or by fur-bearing animals to which the spiny fruits may attach and be carried. It 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, at elevations of three to 450 meters. This species colonizes recently disturbed sandy soils. In chaparral, scrub, and oak woodland habitats, Monterey spineflower occurs in sandy openings between shrubs. In grasslands, it occurs along roadsides, in firebreaks, and other disturbance patches; it is crowded out of mature grassland vegetation.



Special-Status Plant Species Occurrences

Date
12/18/2023

Scale
1 in = 90 ft

Denise Duffy & Associates, Inc.
Planning and Environmental Consulting

Figure
4

Path: D:\GIS\GIS_Projects\2022-52 Marina High Stadium\Final Products\Bio Report\Fig 4 - Special-Status Plants 12-18-23.mxd

In older stands that have avoided fire long enough to have dense, closed shrub or tree canopies, it is restricted to roadsides and firebreaks. In dune habitats at the former Fort Ord, Monterey spineflower prefers disturbed sites within otherwise stabilized dunes (Army, 1992).

Monterey spineflower occurs along the coast of southern Santa Cruz and northern Monterey Counties and inland to the coastal plain of the Salinas Valley. It is abundant within undeveloped areas of the former Fort Ord, which likely supports the largest known populations of the species. It has been identified on 12,978 acres of the former Fort Ord, located primarily within undeveloped areas of the western half of the base (Army, 1992). The highest densities are in the central portion of the firing range, where disturbance has historically been the most frequent. Although studies were not conducted on factors that determine the pattern of distribution and the densities of the plant in the former Fort Ord, a correlation exists between open conditions resulting from activities that disturb habitat and high densities of the plant (54 FR 5499). The introduction, and later invasion, of ice plant and European beach grass (*Ammophila arenaria***)** for dune stabilization has greatly reduced spineflower populations and suitable habitat for this species within the former Fort Ord. In addition, urban development in coastal cities, and to a lesser extent within the former Fort Ord, have resulted in loss of large portions of its range. Historic occurrences in the Salinas Valley have been extirpated, primarily due to conversion of natural habitat to agricultural land use (Army, 1992).

Suitable habitat for Monterey spineflower is present within ruderal/disturbed areas of the project site. This species was observed within this community during the June 2023 biological survey; DD&A mapped one individual Monterey spineflower within the project site (**Figure 4**).

Monterey Gilia

Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*) is a federally endangered, state threatened, CNPS CRPR 1B, and HMP species endemic to the Monterey Bay area. This small, erect annual herb in the Polemoniaceae family typically germinates from December to February and blooms from April through June. It can self-pollinate as well as outcross, and fruit is set from the end of April to the end of May (ICF, 2019). It produces small seeds that are dropped or shaken from their capsules and are then dispersed, likely by gravity or wind. Monterey gilia is found in sandy openings of maritime chaparral, cismontane woodland, coastal dune, and coastal scrub habitats at elevations of zero to 45 meters. It occurs at scattered locations throughout most of the former Fort Ord, which constitutes a substantial portion (at least half) of its range (Army, 1992). Most populations are small and localized, occurring on roadsides, on the cut banks of sandy ephemeral drainages, in recently burned chaparral, and in other disturbed patches; however, large populations are known from the southern portion of Marina Municipal Airport. Although it often co-occurs with Monterey spineflower, it is much more restricted and differs in microhabitat requirements. It is also found with virgate eriastrum (*Eriastrum virgatum*), a species that appears to have similar ecological requirements.

Many of the populations of Monterey gilia found at Fort Ord support individuals with characteristics intermediate with the related subspecies slender-flowered gilia (*G. tenuiflora* ssp. *tenuiflora*), which is an inland species known to occur near Fort Ord in sandy washes of woodlands in the Salinas Valley (Army, 1992). It is possible that Fort Ord is a zone of intergradation between these two subspecies. Current research from the CSUMB Department of Applied Environmental Science suggests that *G. tenuiflora* ssp. *arenaria* plants within the former Fort Ord comprise two distinct, equally endangered sub-species of *G. tenuiflora*, with characteristics of *G. tenuiflora* ssp. *arenaria* found in more coastal

populations and those of *G. tenuiflora* ssp. *tenuiflora* found in more inland populations (pers. comm. Dr. Fred Watson, CSUMB).

Extremely limited in its range, Monterey gilia is critically endangered due to removal of its habitat for human development, degradation of its habitat from invasive, non-native plants, and trampling by recreational users (Service, 2020). Loss of populations and habitat have resulted from coastal urban development, sand mining operations, and golf course construction. Recreational users, such as off-road vehicle users, hikers, and equestrians, threaten populations and habitat. The introduction of the aggressive ice plant and European beach grass for dune stabilization has altered habitats to unsuitable conditions for sand gilia. Commercial and residential development in and near Marina, Seaside, Sand City, and the Monterey Peninsula threaten remaining gilia populations.

Suitable habitat for Monterey gilia is present within ruderal/disturbed areas of the project site. This species was observed directly abutting the project during the April 2023 biological survey; DD&A mapped 137 Monterey gilia plants adjacent to the project site (**Figure 4**).

3.4 Protected Trees

DD&A inventoried 78 trees within and adjacent to the project site in October 2022 (DD&A, 2022). Tree species identified include 36 Monterey cypresses, 21 Monterey pines, 18 coast live oaks, and three acacias (*Acacia* sp.). As described in *Section 2.4 Regulatory Setting*, the City of Marina regulates the removal, relocation, and damage of all living trees within City limits. If the project would result in impacts to trees, MPUSD would be required to obtain a tree removal permit from the City prior to ground-disturbing activities.

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4. IMPACTS AND MITIGATION

4.1 Approach to Analysis

The following section describes potential impacts that may result from the project. The project site is located within a parcel designated by the HMP as "development" and no uses beyond what is permissible by the HMP are proposed with the project. As described above, parcels designated as "development" do not have management requirements. However, MPUSD is required to identify sensitive biological resources within development parcels that may be salvaged for use in restoration activities in habitat reserve areas. Through implementation of the HMP, impacts to HMP species and habitats occurring within the designated development parcels were anticipated and mitigated off-site through the establishment of habitat reserves and corridors and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord.

The HMP resources which are known or have the potential to occur within the project site include Northern California legless lizard, sandmat manzanita, Monterey ceanothus, Monterey spineflower, and Monterey gilia. With the designated off-site habitat reserves and corridors and habitat management requirements of the HMP in place, the loss of these species associated with development in the Fort Ord area is not expected to jeopardize the long-term viability of these species and their populations on the former Fort Ord (Service, 1993). This is such because the recipients of disposed land with habitat management requirements and development restrictions designated by the HMP will be obligated to implement those specific measures through the HMP and deed covenants. Because the Project is: 1) only proposing development activities within designated development parcels; 2) required to comply with the HMP; and 3) would not result in any additional impacts to HMP species beyond those anticipated in the HMP, no additional mitigation measures for these HMP species are required.

The recipients of former Fort Ord lands, including the City of Marina, are required to implement HMP requirements in accordance with the deed covenants. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO, impacts to HMP special-status species and sensitive habitats are considered less-than-significant and no additional mitigation measures for these resources would be required for impacts within the project site. However, if the City of Marina is not in compliance with the HMP and 2017 Programmatic BO, then impacts to HMP species and habitats may be considered significant and additional mitigation measures may be required.

As described earlier in this report, the HMP does not exempt existing or future land recipients from the federal and state requirements of ESA and CESA. Monterey gilia, an HMP species which is known to occur within the project site, is a state listed species that may require take authorization from the CDFW under CESA if impacts cannot be avoided. Therefore, although Monterey gilia is an HMP species, the take of this species is prohibited under the CESA without authorization. Development resulting in take of this species would need to be authorized by the CDFW through the issuance of an incidental take permit from the CDFW to avoid violation of the CESA.

The HMP, as well as the BO, require the identification of sensitive biological resources within development parcels that may be salvaged for use in restoration activities in habitat reserve areas. MPUSD is required to implement HMP requirements in accordance with the deed covenants, which apply to all parcels within the

City boundaries. Therefore, this analysis assumes that salvage of HMP species will be conducted in accordance with this requirement.

4.2 Thresholds of Significance

For the purposes of this analysis, an impact is significant and requires 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 the Service;
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 the Service;
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.

4.3 Areas of No Impact

Criteria "b" and "c" are not evaluated for impacts to riparian habitat, state or federally protected wetlands or other waters, or any other sensitive habitat as none are present within or directly adjacent to the project site.

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 the Service.

Impacts to Special-Status Wildlife

Three non-HMP special-status wildlife species (Townsend's big-eared bat, MDFW, and coast horned lizard) and one HMP wildlife species (Northern California legless lizard) have the potential to occur within and directly adjacent to the project site. In addition, raptors and other nesting birds have the potential to nest within any of the large trees present within and directly adjacent to the project site. If present within or directly adjacent to the site, construction activities could result in injury, nest abandonment, or mortality of individuals. This is a potentially significant impact.

Implementation of **Mitigation Measures BIO-1** through **BIO-3** and species-specific **Mitigation Measures BIO-4** through **BIO-6** would reduce potentially significant impacts to Townsend's big-eared bat, MDFW,

coast horned lizard, and raptors and other nesting birds to a less-than-significant level through a combination of education; implementation of protective measures during construction; monitoring; invasive species control; pre-construction surveys; and avoidance, preservation, and protection of active nests/roosts, if found during pre-construction surveys.

As described in the Approach to Analysis, impacts within development parcels to special-status species addressed in the HMP are considered less than significant if the recipients of former Fort Ord land are in compliance with the HMP and 2017 Programmatic BO. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO at the time the project is approved and IS/MND adopted, impacts to Northern California legless lizard would be less than significant. However, if the City of Marina is not in compliance with the HMP and 2017 Programmatic BO at the time the project is approved and IS/MND adopted, impacts to Northern California legless lizard would be potentially significant. The implementation of **Mitigation Measures BIO-1** through **BIO-3**, which reduce construction-related impacts through a combination of education, protective measures during construction, monitoring, and invasive species control, would reduce potentially significant impacts to this species a less-than-significant level.

Operation of the stadium lights component of the proposed project would result in new light pollution in the area. Research indicates that urban nighttime lighting can adversely affect birds. There is evidence to show that in some cases, lighting can impact bird species by drawing them toward development, where they may collide with structures; however, these studies largely relate to sources of light that are substantially prominent and intense in comparison to their surroundings, such as offshore oil platforms (Huppop et al., 2016) and the light beams that are part of the September 11 memorial in New York City (Furuya, 2017). The latter study found that the light installation "strongly concentrates and disorients migrants flying over a heavily urbanized area" (Furuya, 2017). Even if birds do not collide with structures, there is a concern that once a bird is within a light beam, they are reluctant to return to darker areas and will fly until exhaustion (Ogden, 1996). The lighting component of the proposed project would be directly focused on the field and would be designed to minimize light spillover. Stadium lighting would be limited to the months of August through March, outside of the peak bird nesting season (approximately May through July,) and would generally not be used past 8pm with the exception of six (6) football games per year and an occasional soccer and/or baseball game, where the lights could be used until 10:30 pm. In addition, the project site lies directly adjacent to existing residential and commercial uses, which are also sources of diffuse light. As a result, the project does not mimic the conditions in studies of avian deaths associated with light sources.

Foraging bats have the potential to occur within the project site. Nighttime lighting can adversely affect bats while foraging at night. For example, insects may be attracted to certain kinds of light, which would then attract bats and expose them to predators. Some bat species avoid LED lights, so they are unable to cross or feed at sites with artificial lighting. Nighttime lighting studies generally focus on overall urban lighting (e.g., Rowse et al., 2015), although at least one study has focused on sport stadiums and concluded that light pollution at stadiums may homogenize urban bat diversity by favoring select urban exploiter species (Schoeman, 2015). However, similar to lighting impacts to birds described above, lighting at the site would be directly focused on the field and would be designed to minimize light spillover into adjacent habitat, and the number of nighttime activities would be limited in quantity and duration. As a result, the project has been sufficiently designed such that nighttime lighting would not result in significant impact to

foraging bats or on bat diversity. Therefore, operational impacts to wildlife would be less than significant and no mitigation is required..

Mitigation Measure BIO-1: The following best management practices will be implemented during construction (i.e., pre-, during, and post-construction) to reduce impacts to special-status 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 and sensitive habitats that are known or may be present; 4) the specific mitigation measures that will be incorporated into the construction effort; 5) the general provisions and protections afforded by the Service 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 with exclusionary fencing, such as Environmentally Sensitive Area (ESA) fencing for herbaceous and shrubby vegetation or 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 will be revegetated using locally occurring native species and native erosion control seed mix, per the recommendations of a qualified biologist.
- 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 site 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-2: MPUSD 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 conducted by a qualified biologist with an appropriate scientific collection permit. 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. The qualified biologist and the construction monitor shall complete a daily log summarizing activities and environmental compliance throughout the duration of the project. The log will also include any special-status wildlife species observed and relocated.

Mitigation Measure BIO-3: 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.
- 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-4: To avoid and reduce impacts to Townsend's big-eared bat, any tree limbing or removal operations should occur between September 15 and November 1. If tree limbing or removal operations must occur outside the period of September 15 through November 1, MPUSD will retain a qualified biologist to conduct a survey for roosting bats, as follows:

- For any trees, snags, or buildings that could provide roosting space for cavity- or foliage-roosting bats, potential bat roost features shall be thoroughly evaluated to determine if bats are present. Visual inspection and/or acoustic surveys shall be utilized as initial techniques.
- If roosting bats are found, the biologist shall develop and implement acceptable passive exclusion methods in coordination with or based on CDFW recommendations. If feasible, exclusion shall take place during the appropriate windows (September 15 and November 1) to avoid harming bat maternity roosts and/or winter hibernacula. Authorization from CDFW is required to evict winter hibernacula for bats.
- If established maternity colonies are found, the biologist will coordinate with CDFW to establish a buffer around the colony that protects pre-volant young from construction disturbances until the young can fly or to implement other measures acceptable to CDFW.

- If a tree is determined not to be an active roost site for roosting bats, it may be immediately limbed or removed. If foliage- roosting bats are determined to be present, limbs shall be lowered, inspected for bats by a qualified biologist, and chipped immediately or moved to a dump site. Alternately, limbs may be lowered and left on the ground until the following day, when they can be chipped or moved to a dump site. No logs or tree sections shall be dropped on downed limbs or limb piles that have not been in place since the previous day.

Mitigation Measure BIO-5: Not more than thirty (30) days prior to the start of construction, a qualified biologist shall conduct a survey of suitable habitat within the project site to locate existing MDFW nests. Any MDFW nests identified within the project site shall be mapped and flagged for avoidance. Graphics depicting all MDFW nests shall be provided to the construction contractor. Any MDFW nests that cannot be avoided shall be relocated according to the following procedures:

- Each active nest shall be disturbed by the qualified biologist to the degree that the woodrats leave the nest and seek refuge elsewhere.
- Nests shall be dismantled during the non-breeding season (between October 1 and December 31), if possible.
- If a litter of young is found or suspected, nest material shall be replaced and the nest left alone for 2-3 weeks; after this time, the nest will be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling.

Mitigation Measure BIO-6: 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 project applicant 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 September). Because some bird species nest early in spring and others nest later in summer, and because some species breed multiple times in a season, surveys for nesting birds may be required to continue during construction to address new arrivals. The necessity and timing of these continued surveys will be determined by the qualified biologist based on review of the final construction plans.

If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist will notify MPUSD 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.

Impacts to Special-Status Plants

Three HMP plant species, sandmat manzanita, Monterey ceanothus, and Monterey spineflower, are known to occur within the project site; eight individuals plus approximately 1,336 square feet of sandmat manzanita, 2 individuals plus approximately 130 square feet of Monterey ceanothus, and one Monterey spineflower individual were observed within the project site during focused botanical surveys in 2022 and 2023. In addition, a population of 137 Monterey gilia plants was observed directly abutting the project site. These species are also known to occur directly adjacent to the project site in suitable habitat. Where present within or directly adjacent to the project site, construction activities could result in adverse impacts to these species, including loss of individuals, soil compaction, dust, loss of habitat, erosion, and introduction and spread of non-native, invasive species. The project could also result in impacts to special-status plant populations outside of the project site if construction activities occur outside of the proposed work limits. Impacts to Monterey gilia would be considered take of a state listed species. This is a potentially significant impact.

As described in the Approach to Analysis, impacts within development parcels to special-status species addressed in the HMP are considered less than significant if the former Fort Ord land recipients are compliance with the HMP and 2017 Programmatic BO. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO at the time of project approval and adoption of the IS/MND, impacts to sandmat manzanita, Monterey ceanothus, Monterey spineflower, and Monterey gilia would be less than significant. However, the take of Monterey gilia would still be prohibited under the CESA without authorization from the CDFW and, therefore, MPUSD would be required to acquire an incidental take permit for impacts to this species prior to construction. The project has been designed to avoid impacts to Monterey gilia. Implementation of **Mitigation Measures BIO-1** through **BIO-3** and **BIO-7** and **BIO-8** would further avoid all potential project impacts to Monterey gilia and preclude the need for an ITP.

If the City of Marina is in compliance with the HMP and 2017 Programmatic BO at the time of project approval and adoption of the IS/MND, while not required to reduce a significant impact, **Mitigation Measures BIO-1** through **BIO-3** and **BIO-9** and **BIO-10** would be implemented to further reduce less-than-significant impacts to other special-status HMP plant species within the project site. **Mitigation Measure BIO-10** acknowledges that MPUSD will determine whether salvage of special-status HMP plant populations which would be impacted by the project is feasible and if so, seed and topsoil salvage would occur to support reseeding and restoration efforts on- or off-site. However, if the City of Marina is not in compliance with the HMP and 2017 Programmatic BO, implementation of **Mitigation Measures BIO-1** through **BIO-3** and **BIO-9** would reduce impacts to a less-than-significant level by requiring education; protective measures during construction; monitoring; invasive species control; avoidance; and, if avoidance if all individuals is not possible, replacement of any individuals impacted following construction.

> ***Mitigation Measure BIO-7****:* To avoid all impacts to the Monterey gilia population abutting the project site, the population shall be enclosed with temporary ESA fencing prior to vegetation removal and ground-disturbing activities. Fencing shall be installed under the supervision of a qualified biologist. A qualified biologist shall be onsite throughout all initial vegetation removal and ground-disturbing activities to ensure the Monterey gilia population is avoided. Following initial vegetation removal and ground-disturbing activities, a qualified biologist shall train a member of the construction crew to act as the daily on-site monitor, and the qualified biologist shall monitor protective fencing at least once per week throughout the duration of construction to ensure

that fencing remains intact and the Monterey gilia population remains undisturbed. Any damaged fencing shall be repaired immediately. The qualified biologist shall keep daily logs and shall prepare monthly reports documenting the status of protective fencing and the Monterey gilia population.

Mitigation Measure BIO-8*:* To prevent impacts to special-status plant populations outside of the project site, temporary ESA fencing shall be installed along the entire perimeter of the project site where it abuts natural (i.e., not developed or landscaped) habitat prior to construction. Construction activities, including access or staging, shall be prohibited beyond the fenceline. A qualified biologist shall monitor the installation of protective fencing and shall monitor fencing at least once per week throughout the duration of construction to ensure that fencing remains intact, and that adjacent habitat remains undisturbed. Any damaged fencing shall be repaired immediately. The qualified biologist shall prepare monthly reports documenting the status of protective fencing.

Mitigation Measure BIO-9*:* Sandmat manzanita, Monterey ceanothus, and Monterey spineflower shall be avoided to the greatest extent feasible. Individuals or populations within or adjacent to the project site which are not scheduled for removal shall be protected prior to and during construction to the maximum possible through the use of exclusionary fencing or flagging. 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. If avoidance is not feasible, the impacted area for each species shall be quantified during final design and each species shall be replaced at a 1:1 success ratio for the acreage or individuals impacted (depending on species impacted) and a Restoration Plan shall be prepared by a qualified biologist and implemented. The plan shall include, but is not limited to:

- A description of the baseline conditions of the habitats within the work site, including the presence of any special-status species, their locations, and densities;
- Procedures to control and/or eliminate non-native invasive species within the work site;
- A detailed description of on-site and/or off-site restoration areas, salvage of seed and/or soil bank, plant salvage, seeding and planting specifications, which may include but is not limited to, an increased planting ratio to ensure the 1:1 success ratio; and
- A monitoring program that describes annual monitoring efforts which incorporate success criteria and contingency plans if success criteria are not met.

Mitigation Measure BIO-10: Salvage efforts for HMP species that do not require take authorization from the Service or CDFW (i.e., sandmat manzanita, Monterey ceanothus, and Monterey spineflower) shall be evaluated by a qualified biologist in coordination with MPUSD to further reduce impacts per the requirements of the HMP and BO. Where salvage is determined feasible and proposed, seed collection should occur from plants within the project site and/or topsoil should be salvaged within occupied areas to be disturbed. Seeds shall be collected during the appropriate time of year for each species by qualified biologists. The collected seeds and topsoil shall be used to revegetate temporarily disturbed construction areas and reseeding and restoration efforts on- or off-site, as determined appropriate by the qualified biologist and MPUSD.

Impact BIO-2: 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) will 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, 2010). 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 General Plan for the City of Marina does not specify important wildlife corridors.

The project site is not located within any of the significant wildlife movement corridors or linkages identified above. As discussed in the *Section 3, Results*, most of the project site is comprised of ruderal and/or developed areas. In addition, the project site lies adjacent to existing roads and residential uses, which in general isolates the project site from other undeveloped areas. As such, the project site provides little use as a corridor for wildlife movement. Therefore, the proposed project would not disconnect, fragment, or otherwise impeded wildlife movement in the area. This impact is less than significant, and no mitigation is required.

Impact BIO-3: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

DD&A identified 78 trees within and directly adjacent to the project site (DD&A, 2022). Construction of the proposed project could result in permanent impacts to trees within the project site; however, the number and type of trees proposed for removal have not been determined at the time of report preparation as design plans have not been finalized. As discussed in *Section 2, Methods*, the City of Marina requires a tree removal permit to remove, relocate, or damage a living tree within its limits. MPUSD will comply with Marina Code

and obtain a tree removal permit prior to construction. Therefore, this impact is less than significant, and no mitigation is required.

Impact BIO-4: 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, the site is located within the former Fort Ord and the plan area of the HMP. As described in the "Approach to Analysis", the proposed land use is consistent with the approved HMP as it is located within parcels designated for "development". The project will comply with the requirements of the HMP, as applicable. Therefore, this impact is less than significant. Additionally, while not required to reduce a significant impact, implementation of **Mitigation Measure BIO-10** (which acknowledges that MPUSD will determine whether salvage of special-status HMP plants is feasible and if so, seed and topsoil salvage would occur to support reseeding and restoration efforts on- or off-site) will further ensure compliance with the HMP.

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APPENDIX A

California Natural Diversity Database Report

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Marina (3612167) OR Monterey (3612158) OR Moss Landing (3612177) OR Prunedale (3612176) OR Salinas (3612166) 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 OR Fungi)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Agrostis lacuna-vernalis vernal pool bent grass	PMPOA041N0	None	None	G1	S1	1B.1
Allium hickmanii Hickman's onion	PMLIL02140	None	None	G2	S2	1B.2
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Ambystoma macrodactylum croceum Santa Cruz long-toed salamander	AAAAA01082	Endangered	Endangered	G5T1T2	S1S2	FP
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Arctostaphylos hookeri ssp. hookeri Hooker's manzanita	PDERI040J1	None	None	G3T2	S2	1B.2
Arctostaphylos montereyensis Toro manzanita	PDERI040R0	None	None	G2?	S2?	1B.2
Arctostaphylos pajaroensis Pajaro manzanita	PDERI04100	None	None	G1	S1	1B.1
Arctostaphylos pumila sandmat manzanita	PDERI04180	None	None	G1	S1	1B.2
Asio flammeus short-eared owl	ABNSB13040	None	None	G5	S3	SSC
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Astragalus tener var. titi coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Castilleja ambigua var. insalutata pink Johnny-nip	PDSCR0D403	None	None	G4T2	S2	1B.1
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chorizanthe minutiflora Fort Ord spineflower	PDPGN04100	None	None	G1	S1	1B.2
Chorizanthe pungens var. pungens Monterey spineflower	PDPGN040M2	Threatened	None	G2T2	S2	1B.2
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
Clarkia jolonensis Jolon clarkia	PDONA050L0	None	None	G2	S2	1B.2
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Collinsia multicolor San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
Cordylanthus rigidus ssp. littoralis seaside bird's-beak	PDSCR0J0P2	None	Endangered	G5T2	S2	1B.1
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	Candidate	None	G4T1T2	S2	
Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
Delphinium hutchinsoniae Hutchinson's larkspur	PDRAN0B0V0	None	None	G2	S2	1B.2
Delphinium umbraculorum umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ericameria fasciculata Eastwood's goldenbush	PDAST3L080	None	None	G2	S2	1B.1
Eriogonum nortonii Pinnacles buckwheat	PDPGN08470	None	None	G2	S2	1B.3
Erysimum ammophilum sand-loving wallflower	PDBRA16010	None	None	G2	S2	1B.2
Erysimum menziesii Menzies' wallflower	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	
Eumetopias jubatus Steller sea lion	AMAJC03010	Delisted	None	G3	S2	
Euphilotes enoptes smithi Smith's blue butterfly	IILEPG2026	Endangered	None	G5T1T2	S2	
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Gilia tenuiflora ssp. arenaria Monterey gilia	PDPLM041P2	Endangered	Threatened	G3G4T2	S2	1B.2
Hesperocyparis goveniana Gowen cypress	PGCUP04031	Threatened	None	G1	S1	1B.2
Hesperocyparis macrocarpa Monterey cypress	PGCUP04060	None	None	G1	S1	1B.2
Holocarpha macradenia Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
Horkelia marinensis Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
Lasiurus cinereus hoary bat	AMACC05030	None	None	G3G4	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
Lavinia exilicauda harengus Monterey hitch	AFCJB19013	None	None	G4T3	S3	SSC
Layia carnosa beach layia	PDAST5N010	Threatened	Endangered	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lupinus tidestromii Tidestrom's lupine	PDFAB2B3Y0	Endangered	Endangered	G1	S1	1B.1
Malacothamnus palmeri var. involucratus Carmel Valley bush-mallow	PDMAL0Q0B1	None	None	G3T2Q	S2	1B.2
Malacothrix saxatilis var. arachnoidea Carmel Valley malacothrix	PDAST660C2	None	None	G5T2	S2	1B.2
Meconella oregana Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
Microseris paludosa marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
Monardella sinuata ssp. nigrescens northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Neotoma macrotis luciana Monterey dusky-footed woodrat	AMAFF08083	None	None	G5T3	S3	SSC
Oncorhynchus mykiss irideus pop. 9 steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	
Pelecanus occidentalis californicus California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S4	SSC
Pinus radiata Monterey pine	PGPIN040V0	None	None	G1	S1	1B.1
Piperia yadonii Yadon's rein orchid	PMORC1X070	Endangered	None	G1	S1	1B.1
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
Potentilla hickmanii Hickman's cinquefoil	PDROS1B370	Endangered	Endangered	G1	S1	1B.1
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S1	FP
Ramalina thrausta angel's hair lichen	NLLEC3S340	None	None	G5?	S2S3	2B.1
Rana boylii pop. 6 foothill yellow-legged frog - south coast DPS	AAABH01056	Proposed Endangered	Endangered	G3T1	S1	
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Reithrodontomys megalotis distichlis Salinas harvest mouse	AMAFF02032	None	None	G5T1	S1	
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Rosa pinetorum pine rose	PDROS1J0W0	None	None	G2	S2	1B.2
Sidalcea malachroides maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
Sorex ornatus salarius Monterey shrew	AMABA01105	None	None	G5T1T2	S1S2	SSC
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Stebbinsoseris decipiens Santa Cruz microseris	PDAST6E050	None	None	G2	S2	1B.2
Sulcaria spiralifera twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Trifolium buckwestiorum Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Trifolium polyodon Pacific Grove clover	PDFAB402H0	None	Rare	G1	S1	1B.1
Trifolium trichocalyx Monterey clover	PDFAB402J0	Endangered	Endangered	G1	S1	1B.1
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 97

APPENDIX B

IPaC Resource List

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IPaC **U.S. Fish & Wildlife Service**

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

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 species[1] 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 Fisheries[2]).

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.

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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 Gymnogyps californianus 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 Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Least Bell's Vireo Vireo bellii pusillus 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
Marbled Murrelet Brachyramphus marmoratus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover Charadrius nivosus nivosus 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 Coccyzus americanus — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/3911

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

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

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

Marsh Sandwort Arenaria paludicola — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2229

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.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

Allen's Hummingbird Selasphorus sasin — Breeds Feb 1 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/9637

Bald Eagle Haliaeetus leucocephalus — 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.

Belding's Savannah Sparrow Passerculus sandwichensis beldingi — Breeds Apr 1 to Aug 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/8

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 — 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.

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 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

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

Lawrence's Goldfinch Carduelis 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

Nuttall's Woodpecker Picoides 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

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

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.

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 and understand the FAQ "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.

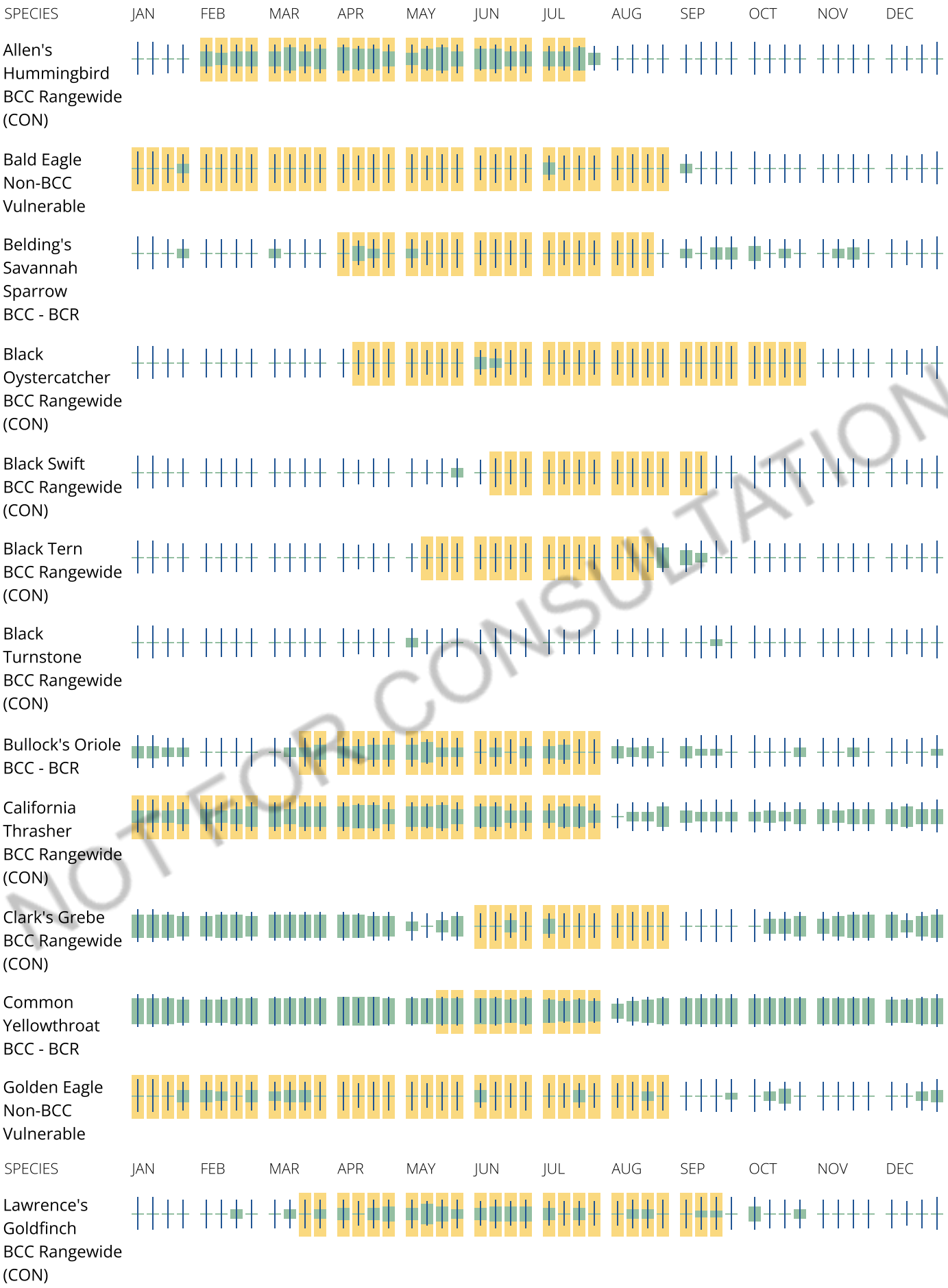
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

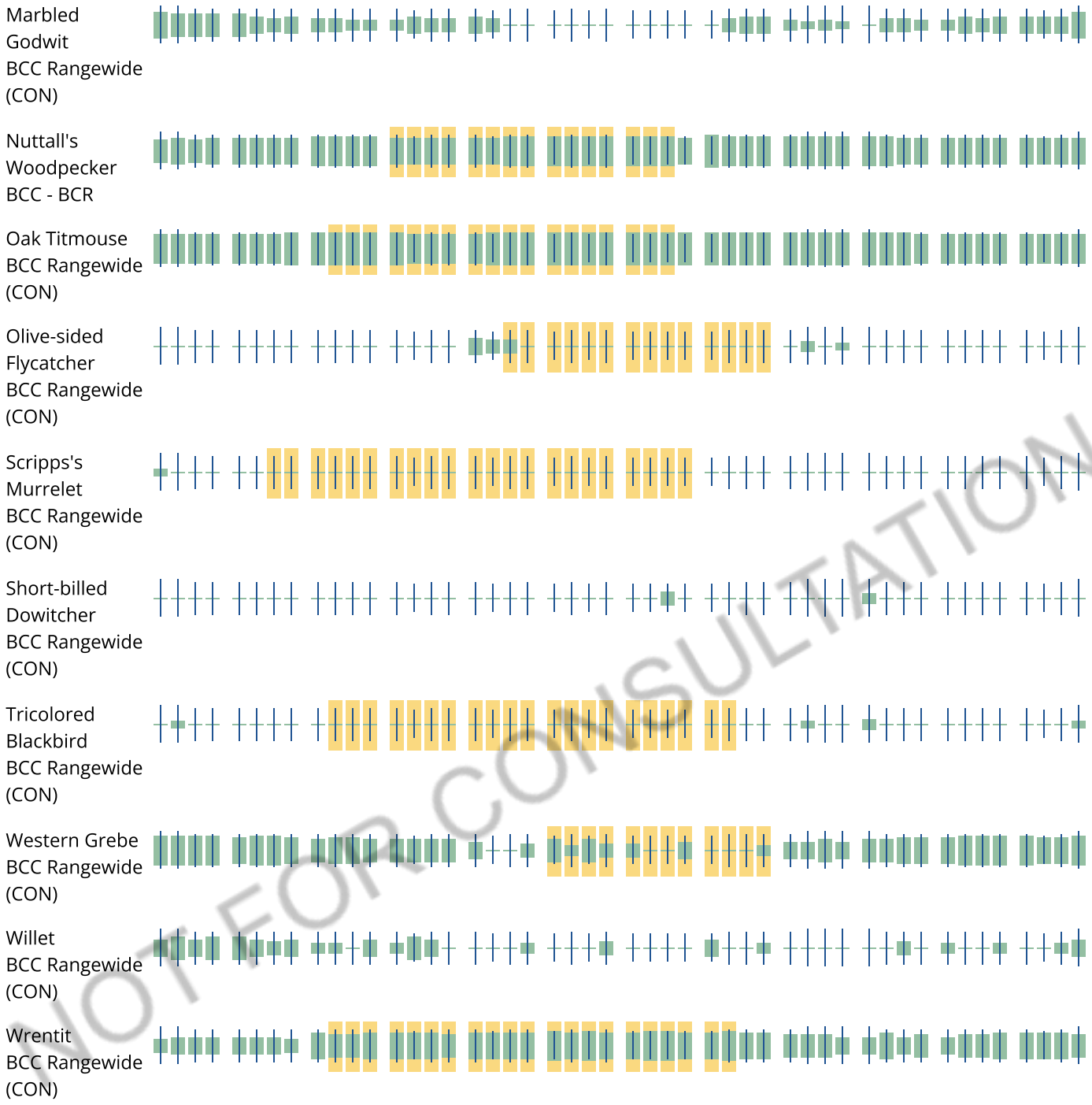
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.

▪ probability of presence ▪ breeding season | survey effort – no data





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

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding 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 USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

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) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle 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, please visit the Rapid Avian Information Locator (RAIL) Tool.

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 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 year-round), you may query your location using the RAIL Tool and look at 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 migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, 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 Eagle 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 try 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 eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

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 also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). 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 is not perfect; 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 helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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 tuberficid 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.

APPENDIX C

Special-Status Species Table

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Special-Status Species Table

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

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
MAMMALS			
Corynorhinus townsendii 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.	**Moderate** Suitable foraging and night roost habitat present within the project site. No maternity roosting habitat is present within project site. The CNDDB reports one occurrence of this species within the quadrangles reviewed, located approximately 4.3 miles east of the project site.
Neotoma macrotis luciana Monterey dusky-footed woodrat	— / CSC / —	Forest and oak woodland habitats of moderate canopy with moderate to dense understory. Also occurs in chaparral habitats.	**Moderate** Suitable habitat is present within the project site. The CNDDB reports one occur of this species within the quadrangles reviewed, located approximately 7.8 miles east of the project site. However, this species is known to occur throughout the former Fort Ord. Nests of this species were not observed within the project site during the biological surveys; however, MDFWs have the potential to move into the site prior to construction.
Sorex ornatus salarius **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 the project site.
Taxidea taxus 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 the project site.
BIRDS			
Agelaius tricolor 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.
Asio flammeus 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.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Athene cunicularia Burrowing owl (burrow sites and 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** Marginal, very low-quality habitat is present within the existing landscaped field. A non-specific CNDDB occurrence overlaps the project site; however, this occurrence is associated with the Fort Ord Natural Reserve. In addition, only a few mammal burrows were observed within the field during the biological surveys and no owl signs (e.g., soil mounds, owl pellets, bones, footprints, etc.) were observed near burrows or within the project site. Burrowing owls would likely be deterred from utilizing the site due the presence of tree stands surrounding the field, which can attract raptor predators, and due to on-going human disturbance.
Brachyramphus marmoratus 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.
Charadrius alexandrinus nivosus 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 is present within the project site.
Coturnicops noveboracensis 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.
Cypseloides niger 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.
Elanus leucurus 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.	**Unlikely** No suitable habitat is present within project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Empidonax traillii extimus 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 (*Salix sp*.), tamarisk (*Tamarix ramosissima*), or both.	**Unlikely** No suitable habitat is present within project site.
Falco peregrinus anatum American peregrine falcon (nesting)	— / CFP / —	Forages for other birds over a variety of habitats. Breeds primarily on rocky cliffs.	**Unlikely** No suitable habitat is present within project site.
Gymnogyps californianus 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.
Laterallus jamaicensis coturniculus California black rail	— / ST+CFP / —	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat.	**Unlikely** No suitable habitat is present within project site.
Pelecanus occidentalis californicus California brown pelican	— / CFP / —	Found in estuarine, marine subtidal, and marine pelagic waters along the California coast. Usually rests on water or inaccessible rocks, but also uses mudflats, sandy beaches, wharfs, and jetties.	**Unlikely** No suitable habitat is present within project site.
Rallus obsoletus obsoletus California Ridgway's rail	FE / SE+CFP / —	Salt and brackish marshes.	**Unlikely** No suitable habitat is present within project site.
Riparia riparia 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.
Sterna antillarum browni 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.
Vireo bellii pusillus 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
REPTILES AND AMPHIBIANS			
Ambystoma californiense **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 aquatic or upland habitat is present within project site. In addition, the project site is outside of the known dispersal range of any known breeding resources.
Ambystoma macrodactylum croceum 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. The project site is outside the currently known range of this species.
Anniella pulchra **Northern California legless lizard**	— / 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.	**High** Suitable habitat is present within the project site. The CNDDB reports 56 occurrences of this species within the quadrangles reviewed, the nearest located less than one mile from the project site within Fort Ord Dunes State Park.
Emys marmorata Western pond turtle	— / 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.	**Unlikely** No suitable habitat is present within project site.
Phrynosoma blainvillii Coast horned lizard	— / CSC / —	Associated with open patches of sandy soils in washes, chaparral, scrub, and grasslands.	**High** Suitable habitat is present within the project site. The CNDDB reports five occurrences of this species within the quadrangles reviewed, the nearest located approximately 1.2 miles north of the project site. In addition, DD&A biologists have observed this species throughout the former Fort Ord.
Rana boylii 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. The project site is likely outside the currently known range of this species.
Rana draytonii **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 aquatic or upland habitat is present within project site. In addition, the project site is outside of the known dispersal range of any known breeding resources.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Taricha torosa Coast Range newt	— / 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** Suitable upland habitat is present within the project site; however, the project site is outside of the known dispersal range of any known breeding resources.
Thamnophis hammondii 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.
FISH			
Eucyclogobius newberryi 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 obligate habitat is present within project site.
Oncorhynchus mykiss irideus 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 obligate habitat is present within project site.
Spirinchus thaleichthys Longfin smelt	FC / ST+CSC / —	Euryhaline, nektonic and 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 obligate habitat is present within project site.
INVERTEBRATES			
Bombus crotchii 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.	**Unlikely** No suitable habitat is present within project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Bombus occidentalis Western bumble bee	— / SC / —	Found in a range of habitats, including mixed woodlands, farmlands, urban parks and gardens, montane meadows, and prairie grasslands. 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.	**Unlikely** No suitable habitat is present within project site. The project site is outside the current range of this species.
Danaus plexippus 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** Suitable habitat is present within the project site; however, no overwintering occurrences are known within the project site.
Branchinecta lynchi 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 obligate habitat is present within project site.
Euphilotes enoptes smithi **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 *Eriogonum latifolium* and *E. parvifolium*.	**Not Present** Suitable habitat is present within the project site. The CNDDB reports 14 occurrences of this species within the quadrangles reviewed, the nearest located less than one mile from the project site within Fort Ord Dunes State Park. However, the obligate host plants were not identified within the project site during the biological surveys.
Linderiella occidentalis **California linderiella (fairy shrimp**)	— / — / —	Ephemeral ponds with no flow. Generally associated with hardpans.	**Not Present** No suitable obligate habitat is present within the project site.
PLANTS			
Agrostis lacuna-vernalis 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** Not observed within the project site during biological surveys. The project site is outside the known elevation range of this species.
Allium hickmanii 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Arctostaphylos hookeri* ssp. *hookeri **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** Not observed within the project site during the biological surveys. The project site is outside the known elevation range of this species.
Arctostaphylos montereyensis **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** Not observed within the project site during the biological surveys.
Arctostaphylos pajaroensis Pajaro manzanita	— / — / 1B	Chaparral on sandy soils at elevations of 30-760 meters. Evergreen shrub in the Ericaceae family; blooms December-March.	**Not Present** Not observed within the project site during the biological surveys.
Arctostaphylos pumila **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** Suitable habitat is present within the project site. This species was observed within the project site during biological surveys.
Arenaria paludicola Marsh sandwort	FE / SE / 1B	Known from only two natural occurrences in Black Lake Canyon and at Oso Flaco Lake. Sandy openings of freshwater of brackish marshes and swamps at elevations of 3-170 meters. Stoloniferous perennial herb in the Caryophyllaceae family; blooms May-August.	**Not Present** Not observed within the project site during biological surveys. No suitable habitat is present within the project site. The project site is outside of the currently known range for this species.
Astragalus tener var. *tener* 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Astragalus tener var. *titi* 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Bryoria spiralifera Twisted horsehair lichen	— / — / 1B	California North Coast coniferous forest at elevations of 0–30 meters. Often found on conifers, including *Picea sitchensis*, *Pinus contorta* var. *contorta*, *Pseudotsuga menziesii*, *Abies grandis*, and *Tsuga heterophylla*. Fruticose lichen in the Parmeliaceae family.	**Not Present** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Castilleja ambigua var. insalutata 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** Not observed within the project site during biological surveys.
Ceanothus rigidus **Monterey ceanothus**	— / — / —	Closed cone coniferous forest, chaparral, and coastal scrub on sandy soils at elevations of 3-550 meters. Evergreen shrub in the Rhamnaceae family, blooms February-June.	**Present** Suitable habitat is present within the project site. This species was observed within the project site during biological surveys.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Centromadia parryi ssp. *congdonii* 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Chorizanthe minutiflora 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 within the project site during biological surveys. The project site is marginally outside the known distribution range of this species.
Chorizanthe pungens* var. *pungens **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** Suitable habitat is present within the project site. This species was observed within the project site during biological surveys.
Chorizanthe robusta var. *robusta* 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 within the project site during biological surveys. The project site is outside of the known distribution range of this species.
Clarkia jolonensis 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** Not observed within the project site during biological surveys. No occurrences of this species are known on the Former Fort Ord.
Collinsia multicolor 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** Not observed within the project site during biological surveys.
Cordylanthus rigidus* ssp. *littoralis **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 within the project site during biological surveys.
Delphinium californicum ssp. *interius* 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** Not observed within the project site during biological surveys. The project site is outside the known elevation range of this species.
Delphinium hutchinsoniae 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** Not observed within the project site during biological surveys.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Delphinium umbraculorum Umbrella larkspur	— / — / 1B	Cismontane woodland at elevations of 400-1600 meters. Perennial herb in the Ranunculaceae family; blooms April-June.	**Not Present** Not observed within the project site during biological surveys. No suitable habitat is present within the project site. The project site is outside the known elevation range of this species.
Ericameria fasciculata **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** Suitable habitat is present within the project site; however, this species was not observed within the project site during the biological surveys.
Eriogonum nortonii 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 is present within the project site. The project site is outside the known elevation range of this species. Not observed within the project site during the biological surveys.
Erysimum ammophilum **Coast 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 within the project site during biological surveys.
Erysimum menziesii 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 within the project site during biological surveys. No suitable habitat is present within the project site.
Fritillaria liliacea 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** Not observed within the project site during biological surveys.
Gilia tenuiflora **ssp. *arenaria*** **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.	**Present Adjacent** Suitable habitat is present within the project site. This species was observed directly abutting the project site during biological surveys.
Hesperocyparis goveniana 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** Not observed within the project site during the biological surveys. In addition, the project site is outside the native range of this species.
Hesperocyparis macrocarpa 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** The project site is outside of the currently known native range of this species. Any Monterey cypress trees within the site are from planted stock and are therefore not considered special-status species.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Holocarpha macradenia 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Horkelia cuneata ssp. *sericea* 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** Low-quality habitat is present within the project site; however, this species was not observed within the project site during the biological surveys.
Horkelia marinensis 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 within the project site during biological surveys.
Lasthenia conjugens 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Layia carnosa 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 within the project site during biological surveys.
Legenere limosa Legenere	— / — / 1B	Vernal pools and wetlands at elevations of 1-880 meters. Annual herb in the Campanulaceae family; blooms April- June.	**Not Present** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Lupinus tidestromii 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 within the project site during biological surveys. No suitable habitat is present within the project site.
Malacothamnus palmeri var. *involucratus* 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** Not observed within the project site during biological surveys.
Malacothrix saxatilis var. *arachnoidea* 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** Not observed within the project site during biological surveys.
Meconella oregana 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** Not observed within the project site during biological surveys. The project site is outside the known elevation range of this species.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Microseris paludosa Marsh microseris	— / — / 1B	Grassy, often moist to wet, areas, usually on slopes; also in wooded areas and on the edge of brush. Rarely found in vernal pool or dune areas. 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 within the project site during biological surveys.
Monardella sinuata ssp. *nigrescens* 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 within the project site during biological surveys.
Monolopia gracilens 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** Not observed within the project site during biological surveys. The project site is outside the known elevation range of this species.
Pinus radiata 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** The project site is outside of the currently known native range of this species. Any Monterey pine trees within the site are from planted stock and are therefore not considered special-status species.
Piperia yadonii **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 within the project site during biological surveys.
Plagiobothrys chorisianus var. *chorisianus* Choris's 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site. In addition, this species is only known to occur within a few vernal pools on the Former Fort Ord.
Potentilla hickmanii Hickman's cinquefoil	FE / SE / 1B	Coastal bluff scrub, closed-cone coniferous forests, vernally 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence
Ramalina thrausta 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 *Alnus rubra*, *Calocedrus decurrens*, *Pseudotsuga menziesii*, *Quercus garryana*, and *Rubus spectabilis*. In Sonoma County it grows on and among dangling mats of *R. menziesii* and *Usnea* spp.	**Not Present** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Rosa pinetorum 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 *R. spithamea*, *R. gymnocarpa*, or others; further study needed.	**Not Present** Suitable habitat is present within the project site; however, this species was not observed within the project site during the biological surveys.
Stebbinsoseris decipiens 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 within the project site during biological surveys.
Trifolium buckwestiorum 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site. The project site is outside the known elevation range of this species.
Trifolium hydrophilum 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** Not observed within the project site during biological surveys. No suitable habitat is present within the project site.
Trifolium polyodon 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** Not observed within the project site during biological surveys.
Trifolium trichocalyx 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** Not observed within the project site during biological surveys.

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 Native Plant Protection Act
CFP = California Fully Protected Species
CSC = CDFW Species of Concern
— = no listing

California Native Plant Society

1B = California Rare Plant Rank 1B species; plants rare, threatened, or endangered in California and elsewhere
— = no listing

Former Fort Ord Habitat Management Plan

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