Appendix 7

Biological Resources Assessment

Monterey-Salinas Transit
SURF! Busway and Rapid Transit Project

Draft
Biological Resources Report

March 2021

Prepared by

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TABLE OF CONTENTS

Figures

Tables

Appendices

1.0 PROJECT SUMMARY

Monterey-Salinas Transit (MST) is proposing the MST SURF! Busway and Bus Rapid Transit Project (project or proposed project) within the Transportation Agency of Monterey (TAMC) Monterey Branch Line rail corridor right of way (ROW) in Monterey County (**Figure 1**). The proposed project would include five segments that extend from the City of Marina's existing Marina Transit Exchange facility, located on Reservation Road at DeForest Road, to Contra Costa Avenue near the intersection with Del Monte Boulevard in the cities of Seaside and Sand City, as well as a new bus station at 5th Street within the former Fort Ord (5th Street Station). The project consists of approximately six linear miles of roadway surface and related improvements to provide dedicated express busway service between these points.

The proposed project includes Segments 1-4, the 5th Street Station, and Segment 5. MST anticipates that the major components of the project would be constructed simultaneously, with sections of busway progressing in increments based on the flow and availability of construction materials. Construction is expected to begin in Summer 2024 and end in Fall 2025. In the future, TAMC and MST may seek to expand the Segment 4 and Segment 5 busways. These potential future extensions are discussed in this document for informational and disclosure purposes but are not currently being designed, funded, or included in any related resource permitting. Any such future project is may require subsequent environmental review and/or re-initiation or reevaluation of approvals and permits. If pursued, these future TAMC projects are not anticipated to occur for three to five years.

Based on the proposed design and timing for the proposed project, the jurisdictions within which the proposed project is located, and the level of biological analysis included, this report analyzes the following project components separately, as follows:

- Segments 1-4: includes Segment 1 from Palm Avenue through Segment 4
- 5th Street Station
- Segment 5 from Playa Avenue to Contra Costa Avenue along Del Monte Boulevard

Segment 1 from the Marina Transit Exchange facility to Palm Avenue and Segment 5 will utilize existing roadway and do not involve ground disturbance. Therefore, these portions of the proposed project will not result in any impacts to biological resources.

1.1 Summary of Results

Three vegetation types were observed within the project site: coastal scrub, dune scrub, and ruderal/disturbed. In addition, a portion of the project site is developed. Dune scrub habitat is listed as sensitive on the California Department of Fish and Wildlife's (CDFW's) *California Natural Communities List*. Dune scrub would also be considered an Environmentally Sensitive Habitat Area (ESHA) as it occurs within the coastal zone. Additional areas that may be considered ESHA include habitat for the Smith's blue butterfly (SBB) (i.e., buckwheat) and areas supporting rare plants.

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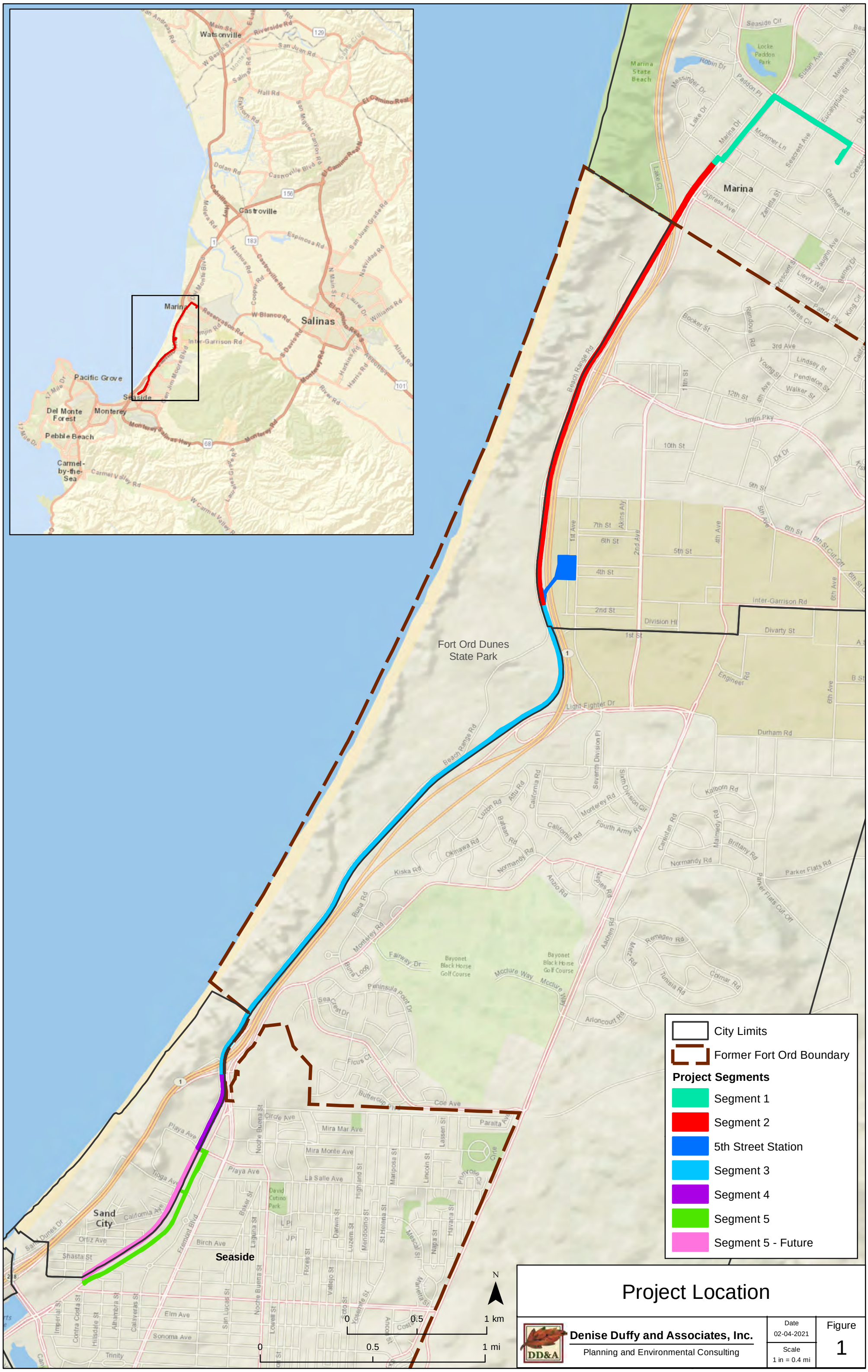

Project Location

Denise Duffy and Associates, Inc.
Planning and Environmental Consulting

Date 02-04-2021
Scale 1 in = 0.4 mi
Figure 1

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\BA\Project Location.mxd

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Several special-status species are known or have the potential to occur within the project site based on observations, presence of appropriate habitat, and known occurrences within the vicinity. Please refer to **Appendix A** and Section 4.0 Results for an analysis of each species. All other species evaluated have a low potential to occur, are assumed unlikely to occur, or were determined not present within the project site for the species-specific reasons presented in **Appendix A**.

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

- Townsend's big-eared bat (*Corynorhinus townsendii*) – CSC,[1]
- Monterey dusky-footed woodrat (*Neotoma macrotis luciana*) – CSC,
- Northern California legless lizard (*Anniella pulchra*) – CSC/HMP,
- Coast horned lizard (*Phrynosoma blainvillii*) – CSC,
- Smith's blue butterfly (SBB; *Euphilotes enoptes smithi*) – FE/HMP,
- Nesting raptors and other protected avian species.

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

- Hooker's manzanita (*Arctostaphylos hookeri*) – CRPR 1B/HMP,
- Sandmat manzanita (*Arctostaphylos pumila*) – CRPR 1B/HMP,
- Monterey spineflower (*Chorizanthe pungens* var. *pungens*) – FT/ CRPR 1B/HMP,
- Coast wallflower (*Erysimum ammophilum*) – CRPR 1B/HMP,
- Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*) – CRPR 1B,
- Yadon's piperia (*Piperia yadonii*) – FE/CRPR 1B/HMP.

[1] Status Definitions – FE: Federally Endangered; ST: State Threatened; CSC: California Species of Concern; HMP: Fort Ord Habitat Management Plan Species; CRPR 1B: California Rare Plant Rank (CRPR) 1B species; CRPR 4: CRPR 4 Species.

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2.0 INTRODUCTION

Monterey-Salinas Transit (MST) is proposing the MST SURF! Busway and Rapid Transit Project (project or proposed project), located within the Transportation Agency of Monterey (TAMC) Monterey Branch Line rail corridor right-of-way (ROW) within multiple jurisdictions in Monterey County (County), California, including the City of Marina, City of Seaside, Sand City, and unincorporated County land (**Figure 1**). This report presents the findings of a biological resource assessment conducted by Denise Duffy & Associates, Inc. (DD&A) for the proposed project. The emphasis of this study is to describe the existing biological resources within and surrounding the proposed project, identify any special-status species and sensitive habitats within and adjacent to the project site, assess potential impacts that may occur to biological resources, and recommend appropriate avoidance, minimization, and mitigation measures necessary to reduce those impacts to a less-than-significant level in accordance with the California Environmental Quality Act (CEQA).

2.1 Project Description

The proposed project consists of approximately six linear miles of roadway surface and related improvements to provide a dedicated express busway service within the TAMC Monterey Branch Line rail corridor ROW in Monterey County, California (**Figure 1**). The primary goals of the proposed project are to reduce congestion and improve on-time transit performance on State Route 1 (SR 1), improve overall mobility for residents and visitors, and provide a safe, reliable, and affordable transit connection.

The proposed project would include five segments that extend from the City of Marina's existing Marina Transit Exchange facility, located on Reservation Road at DeForest Road, to Contra Costa Avenue and Orange Avenue in Sand City (**Figure 1**). However, the majority of Segment 1 would use only the existing roadway north of Palm Avenue in the City of Marina and Segment 5 would use only the existing roadway from Playa Avenue to Contra Costa Avenue. The physical composition of the dedicated bus lanes within the TAMC ROW will consist of two 12-foot asphalt lanes. Busway lanes will be separated from existing rail lines by 12 feet (from center of rail line), except when the busway must cross the rail line to avoid constraints. An overview of each segment is described below.

2.1.1 Project Segments

Segment 1

The northern terminus for the SURF! Busway project will be MST's existing Marina Transit Exchange facility located on Reservation Road at DeForest Road in the City of Marina. Buses would exit the Transit Exchange, turn left on to Reservation Road, and left onto Del Monte Boulevard (southbound) to Palm Avenue. There is no construction proposed at the Marina Transit Exchange location. At Palm Avenue, buses would turn right then left (southbound) onto Marina Drive. Approximately 200 feet south of the Palm Avenue/Marina Drive intersection, SURF! buses would enter the TAMC ROW at an access-controlled entranced point. Once inside the TAMC ROW, vehicles would stop at a new bus platform.

Physical roadway and infrastructure improvements needed to support this segment include transit signal priority along Reservation Road and Del Monte Boulevard, a relocated bus stop on Del Monte Boulevard adjacent to the new platform (to facilitate transfers and system connectivity), a new Class I bicycle path within the TAMC corridor along Marina Drive from Palm Avenue connecting to the Beach Range Road

Class I bicycle path to the south, curb ramps and ADA compliance, signage and striping at the Palm Avenue/Del Monte Boulevard intersection, and turning/traffic controls at the Marina Drive/Palm Avenue intersection. All improvements would be designed to accommodate and anticipate a future roundabout at Palm Avenue/Del Monte Boulevard. The roundabout is a potential future City of Marina project and not a part of the SURF! project.

The portion of Segment 1 between the Marina Transit Exchange facility and Palm Avenue does not include any ground disturbance or other construction activities that would affect biological resources. Only existing roadway and the existing Marina Transit Exchange facility would be utilized within this area. Roadway and infrastructure improvements within Segment 1 will only occur from Palm Avenue south to Segment 2 (approximately 200 feet south of Palm Avenue, as identified above).

Segment 2

After leaving the platform south of Palm Avenue, the route and alignment of the busway, consisting of two lanes of dedicated roadway surface (one lane each direction), would continue southward on the east (inland) side of the railroad tracks within the TAMC ROW. Where the alignment crosses under SR 1 (near the Monterey One Water wastewater pump station), a bicycle/pedestrian crossing will be installed to allow direct access to the Monterey Peninsula Recreation Trail.

The busway would continue southbound and cross under the 8th Street bridge. At a point approximately 200 feet north of the 8th Street bridge, the alignment would shift to the west side of the existing rails to provide adequate clearance and avoid existing bridge supports. Due to topographic constraints and to minimize the use of retaining walls, the alignment south of 8th Street would shift east and west of the tracks in two more locations until its connection with the 5th Street underpass. Where it is necessary for the busway to be constructed over the existing rails for these shifts, the road surface would be built up on top of the rails, leaving them in place below.

5th Street Station

At the 5th Street underpass, buses would make a left turn at a newly constructed junction and transition to a single lane, crossing under SR 1 along a modified undercrossing to access a new bus station and parking area (5th Street Station). This access road into the proposed 5th Street Station creates a loop road approximately 2,000 feet long off the main busway corridor. Note: the 5th Street Station is considered a separate project element and not a part of either Segment 1 or 2 (see **Figure 1**).

Physical improvements necessary for this junction and extension road would include bus active blank out signage, realignment of the existing two-way bike path under SR 1 to maintain bicycle and pedestrian connectivity, bike crossing safeguards across the Busway Extension road, access controls, signage, and striping. Buses within the one lane section would avoid conflicts with access controls/signals and through full line of sight visibility. Public, personal vehicle, and non-rapid transit bus vehicle access will be via 1st Avenue. Bike lane improvements would include a crossing of the recreation trail at the bus extension road, as well as a Class 1 bike path running parallel to the extension road providing access to the station.

The station itself is in preliminary stages of design and could include six bus bays, parking stalls with an estimated six ADA stalls, a bus charging station for (future) electric vehicles, a pick-up/drop off area, electric vehicle charging stations in the parking area for personal vehicles, and real-time bus arrival

informational signage. The parcel for the proposed station is outside of the TAMC right-of-way on property owned by MST. At this time, water is not available to the parcel and any future uses that may require a water connection (such as bathrooms or irrigation) would require coordination with the City of Marina.

This portion of this project component is located on the former Fort Ord within the City of Marina.

Segment 3

Buses departing the 5th Street Station and continuing the route southbound would return via the one-way bus extension road and turn left back onto the main busway road within the TAMC corridor ROW. This segment will continue south for approximately 3 miles, passing 1st Street and Lightfighter Drive, extending parallel to and staying east (inland) of the railroad tracks. This segment of the busway consistently hugs the eastern portion of the TAMC corridor as it approaches the site of the approved Monterey Bay Shores Resort. After passing the future Monterey Bay Shores development project entrance location, the busway alignment will meet California Avenue at the SR 1 southbound on-ramp. Buses will re-enter the public right-of-way via a new roundabout at the junction of California Avenue, the SR 1 southbound on-ramp, and the Monterey Bay Shores access road. The roundabout would be sufficiently sized and designed to allow for safe movement of buses, trucks, and private vehicles. The entrance/exit point for the busway would include controls to prevent access by private vehicles. Buses would navigate the roundabout, proceed through the existing signalized intersection, and continue on California Avenue toward Playa Avenue.

The recreation trail in this segment would be relocated. Connections would be made to the existing trail segments continuing on to Sand City and under SR 1.

Segment 4

After navigating the Segment 3 roundabout, southbound buses would proceed through the signalized intersection, and continue down California Avenue. Once on California Avenue, the project design has considered two options. Option 1 would use California Avenue, with buses simply turning right onto Playa Avenue and utilizing the existing MST bus stop locations near the shopping center at Sand City Station. In Option 2, instead of using California Avenue all the way down to Playa Avenue, buses would make a left turn back into the TAMC corridor just south of the California/Fremont/Del Monte/Monterey intersection. Once back within the corridor, buses would travel on dedicated lanes down to Playa Avenue to a new bus stop and platforms within the TAMC right-of-way. Following this stop, buses would turn left on Playa Avenue and then right back on to Del Monte Boulevard.

To improve traffic operations at the Del Monte Boulevard/Playa Avenue (signalized) and Playa Avenue/California Avenue (stop controlled) intersections, which are very close together, a new signal is proposed at Playa Avenue/California Avenue, with a single controller and geometric design improvements for both intersections to allow for synchronized cycles. Intersection signalization would be required regardless of the options described above. Transit signal priority equipment will be included for the busway lanes and buses. The analysis in this document conservatively assumes implementation of Option 2, which could result in greater environmental construction effects.

Future planning efforts within Segment 4 include the ultimate construction of dual roundabouts at the California/Fremont/Monterey/SR 1 interchange to replace the existing signalized controls at these locations. This dual roundabout project is a future TAMC project and not part of design or funding of the

SURF! busway project as proposed. If this future dual roundabout project is pursued in the future, there is an opportunity for the California Avenue connection from the TAMC right-of-way to be abandoned, with the busway instead continuing on within the TAMC corridor. Rather than negotiate the new roundabouts, the busway could avoid these facilities altogether by entering a new underpass that aligns directly under the center of the two roundabouts, daylighting again within the TAMC corridor between California Avenue and Del Monte Boulevard. Upon exiting the underpass within the TAMC rail corridor, the busway lanes would continue along the west side of the existing rails down to Playa Avenue to a new transit stop south of Playa Avenue as described in Option 2 above.

This potential future roundabout project and underpass project is described for informational purposes only to demonstrate and disclose TAMC's future planning, and the relationship of that planning to the SURF! Busway and Bus Rapid Transit project. Any such project could be eight or more years into the future, is not fully funded, and is not necessary for SURF! busway operations. This future action is not part of the project under review and would not be included in any related resource permitting (such as may be required for biological resources). Any such future roundabout project may require subsequent environmental review and/or re-initiation or reevaluation of approvals and permits.

Segment 5

For this final segment, SURF! line buses would leave the stop on California Avenue, turn left at Playa Avenue through the new signal controls, turn right onto Del Monte Boulevard, and continue on the public roadway southbound toward Sand City, Seaside, and Monterey. Existing stops at Tioga Street and ultimately Contra Costa Street would be utilized. Contra Costa would define the southern terminus of the project; however, SURF! buses would continue on public roadways from this point to service other routes within the MST system. SURF! would not operate as a "closed loop" with vehicles returning immediately northbound.

During the non-peak portions of the day, MST would route SURF! buses within the system where they are needed, with less frequent headways on the dedicated busway. In the afternoon peak period, buses would be scheduled with regular headways back northward in reverse fashion, entering the TAMC dedicated right-of-way at the California roundabout. Bus headways would increase in frequency during the northbound afternoon/evening peak period, returning to the Marina Transit Exchange.

In the future, TAMC and MST may seek to extend the busway lanes southward, across Playa Avenue and continuing within the TAMC right of way all the way to Contra Costa Street. However, similar to the future projects noted in Segment 4, this future extension is discussed for informational and disclosure purposes only, and is not currently being designed, funded, or included in any related resource permitting. Any such future project may require subsequent environmental review and/or re-initiation or reevaluation of approvals and permits.

If this future extension is pursued, buses would exit the new Playa Avenue transit stop (near the existing Costco parking lot), and the final leg of the SURF! busway alignment (Segment 5) would continue southbound to Contra Costa Street within the TAMC rail corridor. To clear the ROW within the Segment 5 corridor in the future, TAMC would need to cancel existing leases to local businesses that are currently using portions of the ROW. However, this extension is not anticipated to be implemented for several years, and is not necessary for the proposed SURF! project operations.

3.0 METHODS

3.1 Personnel and Survey Dates

DD&A Senior Environmental Scientist Jami Davis, Associate Environmental Scientist Patric Krabacher, and Associate Environmental Scientist Liz Camilo conducted biological surveys of Segments 1-4 in April, May, and June 2020.[2] The survey area was defined by the boundaries of the TAMC's ROW along the historic Southern Pacific Railroad Company's (SPRR) Monterey Branch between Palm Avenue in Marina, California and Playa Avenue in Sand City/Seaside, California (**Figure 2**). In addition, Ms. Davis conducted surveys of the 5th Street Station area in September 2020 and Ms. Camilo conducted a reconnaissance-level tree survey at the intersection of Segments 1 and 2 in March 2021 (**Figure 2**). Surveys were not conducted for Segment 5, which will utilize existing roadway and does not involve ground disturbance.

Multiple projects have been proposed within the TAMC ROW within the past two decades, including MST's Monterey Peninsula Light Rail Project and Pure Water Monterey's Groundwater Replenishment Project. As a result, the project alignment has been surveyed extensively (**Table 1**). Biological surveys conducted by DD&A in 2020 confirm previous survey results and identify any changed circumstances or new resources, including vegetation characterization, presence or potential presence of special-status plant and wildlife species, and potentially jurisdictional wetlands and waters.

Table 1: Historic Surveys Completed within Project Site

Project Area	Survey Type	Surveyor	Date
Segments 1-4	Botanical/Rare Plant	Josh Harwayne (DD&A) Jami Davis (DD&A) Jeff Norman (Botanical Consultant)	April, May, & June 2007
Segments 1-4 & 5th Street Station	Botanical/Rare Plant Reconnaissance-Level Wildlife Habitat General and Sensitive Habitats Wetland Assessment	Jami Davis (DD&A) Matthew Johnson (DD&A) Josh Harwayne (DD&A)	April, May, & July 2009 April, May, June, July, & August 2010 April, 2011
Segments 1-3 (Palm Ave to Lightfighter Ave)	Botanical/Rare Plant Reconnaissance-Level Wildlife Habitat General and Sensitive Habitats	Jami Davis (DD&A) Matthew Johnson (DD&A) Shaelyn Hession (DD&A)	April, May, & June 2014

[2] Surveys of Segment 1 were conducted only south of Palm Avenue. No ground disturbance or other construction activities are proposed between Palm Avenue and the Marina Transit Exchange Facility as part of the project and this area includes only use of the existing roadway.

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City Limits

Former Fort Ord Boundary

Survey Timing

April, May, June 2020

September 2020

No Survey (No Construction Proposed)

Marina

Fort Ord Dunes State Park

Seaside

Sand City

Project Survey Areas

N

0 0.5 1 km

0 0.5 1 mi

Denise Duffy and Associates, Inc.

Planning and Environmental Consulting

Date 02-04-2021

Scale 1 in = 0.4 mi

Figure 2

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\Bio Report\Survey Areas.mxd

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Botanical survey methods included walking the survey area and using aerial maps and GPS to identify general vegetation types and potential sensitive vegetation types and conducting focused surveys for special-status plant species. The project site was surveyed for botanical resources following the applicable guidelines outlined in the U.S. Fish and Wildlife Service (USFWS) *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (USFWS, 2000), the CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW, 2018), and the California Native Plant Society (CNPS) *Botanical Survey Guidelines* (CNPS, 2001). Most special-status plant species identified were mapped using a Trimble Pro XH GPS unit. Populations of plants with more than five individuals were mapped as a polygon and the density of the population was documented. Densities were recorded as low (1-33% cover), medium (34-66% cover), and high (67-100% cover). Individual plants or populations of five or fewer individuals were mapped as a point and a count of the number of individual plants was documented. Populations included all individuals within approximately three feet of another individual; individual plants further than three feet apart were mapped as a separate polygon or point. In addition, some special-status species populations, specifically special-status shrubs, were mapped by hand drawing on aerial maps, which were later digitized using ArcGIS software, as their populations covered significant portions of the survey area. General and sensitive vegetation types were also mapped during the survey by hand drawing on aerial maps and later digitizing using ArcGIS software.

Reconnaissance-level wildlife habitat surveys were conducted concurrently with botanical surveys to identify presence of any special-status wildlife species or suitable habitat for those species. Data collected during the surveys were used to assess the environmental conditions of the project site and its surroundings, evaluate environmental constraints at the site and within the local vicinity, and provide a basis for recommendations to minimize and avoid impacts to biological resources.

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 the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Section 15380 are also considered special-status species. Animals on the CDFW's list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. Additionally, the CDFW also includes some animal species that are not assigned any of the other status designations in the California Natural Diversity Database (CNDDB) "Special Animals" list (CDFW, 2020a); however, these species have no legal or protection status.

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. 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, 2020) be fully considered during the preparation of environmental documents relating to CEQA. 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 in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." In addition, protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline may also be considered special-status animal species in some cases, depending on project-specific analysis and relevant, localized conservation needs or precedence.

3.3 Sensitive Habitats

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted vegetation types. Vegetation types considered sensitive include those listed on the CDFW's *California Natural Communities List* (i.e., those habitats that are rare or endangered within the borders of California) (CDFW, 2019), those that are occupied by species listed under ESA or are critical habitat in accordance with ESA, and those that are defined as ESHA under the California Coastal Act (CCA). Specific habitats may also be identified as sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the Clean Water Act [CWA] and Executive Order [EO] 11990 – Protection of Wetlands), state regulations (such as CEQA and the CDFW Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

3.4 Data Sources

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

- Current agency status information from USFWS and CDFW for species listed, proposed for listing, or candidates for listing as threatened or endangered under ESA or CESA, and those considered CDFW "species of special concern", including:
  - CNDDB occurrences reports from the U.S. Geologic Survey (USGS) Marina and Seaside quadrangles and the following surrounding quadrangles: Monterey, Moss Landing, Prunedale, Salinas, and Spreckels (CDFW, 2020a; **Appendix B**); and
  - USFWS IPaC Resource List (USFWS, 2020; **Appendix C**).
- CNDDB Special Animals List (CDFW, 2020b);
- The CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2020);
- Monterey Peninsula Light Rail Project Draft Biological Resources Report (DD&A, 2011; unpublished); and

- Pure Water Monterey Groundwater Replenishment Project Draft Environmental Impact Report (DD&A, 2015).

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

3.4.1 Botany

All plants observed within the project site during the surveys were identified to species or intraspecific taxon necessary to eliminate them as being special-status species using keys and descriptions in *The Jepson Manual: Vascular Plants of California, Edition 2* (Baldwin et al., 2012) and *The Plants of Monterey County an Illustrated Field Key* (Matthews and Mitchell, 2015). Scientific nomenclature for plant species identified within this document follows Baldwin, et. al, (2012), while common names follow Matthews and Mitchell (2015). 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 make up more of the biomass (i.e. the species that are most abundant). Most ecological communities are defined by their dominant species. Vegetation types identified in *A Manual of California Vegetation* (Sawyer et.al., 2009) were utilized to determine if vegetation types identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2019) 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, 2020).

The California Invasive Plant Council (Cal-IPC) Inventory (Cal-IPC, 2020) was reviewed to determine if any invasive plant species are present within the evaluation area.

3.4.2 Wildlife

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

3.5 Level of Analysis and Survey Limitations

The biological analysis herein includes a comprehensive, detailed analysis of the biological resources present, or with the potential to occur, within the proposed project. As described in the Project Description, the proposed project includes five segments. Design Plans have not been finalized for the proposed project; however, the boundaries of the proposed project (i.e., limits of construction) are defined to a level where potential impacts to resources can be evaluated. Thus, a project-level analysis can and has been performed for all segments of the proposed project.

3.6 Regulatory Setting

The following regulatory discussion describes the major laws that may be applicable to the proposed project.

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

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered or threatened. Take, as defined by ESA, is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the fish or wildlife…including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under federal jurisdiction. If there is the potential for incidental take of a federally listed fish or wildlife species, take of listed species can be authorized through either the Section 7 consultation process for federal actions or a Section 10 incidental take permit process for non-federal actions. Federal agency actions include activities that are on federal land, conducted by a federal agency, funded by a federal agency, or authorized by a federal agency (including issuance of federal permits). This analysis assumes that the proposed project would receive federal funding, and, therefore, would be required to comply with Section 7 of the ESA. Therefore, the Federal Transit Authority, acting as the NEPA lead agency, would consult with USFWS under Section 7 of the ESA.

The 5th Street Station component of the proposed project is located within the limits of the former Fort Ord. 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. The USFWS issued a Final Biological Opinion (BO) on the disposal and reuse of former Fort Ord on October 19, 1993. The USFWS issued five additional BOs and one amendment between 1999 and 2014 as a result of consultation reinitiated by the Army. On May 28, 2015, the USFWS issued a Programmatic BO that superseded the previous BOs. Then, on June 7, 2017, the USFWS issued a reinitiated Programmatic BO that supersedes the 2015 Programmatic BO. The 2017 Programmatic BO is the current and relevant BO for activities at the former Fort Ord; the 2017 Programmatic BO contains additional conservation measures and recommendations relating to environmental cleanup actions at former Fort Ord cleanup sites.

Executive Order 13112 - Invasive Species

EO 13112 - Invasive Species requires the prevention of introduction and spread of invasive species. Invasive species are defined as "alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." Each federal agency whose actions may affect the status of invasive species on a project site shall, to the extent practicable and permitted by law, subject to the

availability of appropriations, use relevant programs and authorities to: 1) prevent the introduction of invasive species; 2) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; 3) monitor invasive species populations accurately and reliably; 4) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; 5) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and 6) promote public education on invasive species and the means to address them. A national invasive species management plan was prepared by the National Invasive Species Council and the Invasive Species Advisory Committee (ISAC) that recommends objectives and measures to implement the EO.

3.5.2 State Regulations

California Endangered Species Act

The CESA was enacted in 1984. The California Code of Regulations (Title 14, §670.5) lists animal species that are 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 (ITP) from the CDFW may be obtained to authorize “take” of any state listed species.

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 and relocation of the bird species for the protection of livestock.

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

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 Coastal Act

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

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

The project site is located within the boundaries of the Marina, Sand City, and Seaside LCPs, as well as within CCC's original jurisdiction (**Figure 1**).

3.5.3 Local Regulations

Fort Ord Habitat Management Plan

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

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

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors and habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP 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 federal and state listed species require acquisition of a Section 7 or 10 ITP from the USFWS and/or a Section 2081 ITP from CDFW.

The 5th Street Station is the only portion of the proposed project located on the former Fort Ord. This project component is located within designated "development" parcels and "development within reserve areas or development with restrictions" parcels within the jurisdiction of the City of Marina. Parcels designated as "development" have no management restrictions. 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 (USFWS, 2017 and ACOE, 1997). Within the "development within reserve areas or development with restrictions" parcels, the HMP requires preservation and restoration of native vegetation and HMP species habitat outside of areas identified for development.

Monterey County Code

Title 16, Chapter 16.60, Monterey County Code, provides for the preservation of oaks and other protected tree species within the unincorporated areas of the County. As defined in Chapter 16.60.040 C, removal of more than three protected trees on a lot in a one-year period requires a Forest Management Plan (FMP) and approval of a Use Permit by the Monterey County Planning Commission. The FMP must be prepared by a qualified forester selected from the County's list of consultants. Chapter 16.060.040 D requires that the applicant relocate or replace each removed tree on a one-to-one ratio. This ratio may be varied upon showing that such a requirement will create a special hardship in the use of the site or such a replacement would be detrimental to the long-term health and maintenance of the remaining habitat.

City of Marina Municipal Code Chapter 17.51

The City of Marina Municipal Code Chapter 17.51 (Tree Removal, Preservation, and Protection) outlines the policies regarding tree removal and relocation. The policies applicable to this Project include Section 17.51.030 (Unlawful Action upon Trees) and Section 17.51.060 (Tree Removal Permit), which require a tree removal permit to remove, damage, or relocate, or cause to be removed, damaged, or relocated any tree on any property within City limits, unless exempted by Sections 17.51.040 or 17.51.050. Section 17.51.030 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.

City of Seaside Municipal Code Chapter 8.54

The City of Seaside Municipal Code Chapter 8.54 (Trees) outlines the policies regarding tree removal and planting. The policies applicable to this Project include Section 8.54.030 (Permit—Required for Certain Tree Removal, Alteration, or Planting), Section 8.54.060 (New Construction, Development, Subdivisions, and Site Plans), and Section 8.54.070 (Replacement of Trees). As outlined in Section 8.54.070, if removal of a tree from a site has been authorized on an undeveloped parcel, the developer shall replace the tree with a minimum five-gallon specimen tree of a species and in a location approved by the board of architectural review, if applicable, or other individual or body responsible for the approval of applicant's plans. This requirement may be modified or waived if it is determined that replacement on one-for-one basis constitutes an unreasonable hardship.

City of Sand City Municipal Code Chapter 16.12

The City of Sand City Municipal Code Chapter 16.12 (Significant Tree Protection) outlines the policies regarding tree removal. As defined in Chapter 16.12.030 (Permit Required), removal, cutting down, or trimming of more than one-third of the green foliage of any significant tree requires a significant tree removal permit. A significant tree is defined in Chapter 16.12.020 (Definitions) as any tree which is equal to or greater than 10 inches diameter breast height (dbh). As outlined in Section 16.12.070 (Conditions of Approval), the Community Development Director may attach reasonable conditions to the significant tree removal permit to mitigate visual impacts and ensure compliance with the provisions of the municipal code, including, but not limited to, replacement of trees removed with trees acceptable to the Community Development Director.

Habitat Conservation Plans or NCCP

There are no adopted HCPs or Natural Community Conservation Plans (NCCP) associated with the project site.

4.0 RESULTS

4.1 Vegetation Types

Three vegetation units were mapped within the survey area (**Figure 3**). Additionally, portions of the survey area are developed. **Table 2** provides the acreages of these vegetation types within the limits of construction and survey area of each segment of the project. A brief description of each vegetation type can be found below. In addition, each vegetation type description identifies the vegetation classification from *A Manual of California Vegetation* (Sawyer et al., 2009) and whether the vegetation type is identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2019). Segment 5 will utilize existing roadway and does not contain biological resources; therefore, this segment of the project is not included in the discussion below.

Table 2. Vegetation Types within the Limits of Construction and Survey Area

Vegetation Type	Estimated Acres					
	Limits of Construction			***Survey Area****		
	Segments 1-4	*5th Street Station*	*Total*	*Segments 1-4*	*5th Street Station*	*Total*
Ruderal/Developed	27.4	5.6	***33.0***	65.3	6.3	***71.6***
Coastal Scrub	3.9	0	***3.9***	8.8	0	***8.8***
Dune Scrub	0.1	0	***0.1***	0.3	0	***0.3***
Total	***31.4***	***5.6***	***37.0***	***74.4***	***6.3***	***80.7***
* Includes limits of construction.						

4.1.1 Ruderal/Developed

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

The proposed project site is dominated by ruderal habitat and/or developed areas, as the alignment is within the TAMC ROW, an historic SPRR track corridor (**Figure 3**). Ruderal areas are those areas which have been disturbed by human activities and are dominated by non-native annual grasses and other "weedy" species. These areas range from regularly disturbed open space, dominated by non-native herbaceous species, to areas with buildings and pavement. Most of the ruderal habitat within Segments 1-4 is dominated by bare gravel fill or weedy species, such as iceplant (*Carpobrotus* sp.), cut-leaved plantain (*Plantago coronopus*), English plantain (*P. lanceolata*), sand mat (*Cardionema ramosissimum*), filaree (*Erodium* sp.), and telegraphweed (*Heterotheca grandiflora*). However, native species from surrounding coastal scrub habitat are also present. The 5th Street Station area is mostly paved and includes an abandoned building; however, undeveloped areas include weedy species such as iceplant, telegraph weed, non-native grasses, and large Eucalyptus trees (*Eucalyptus globulus*).

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Project Segments

- Segment 1
- Segment 2
- 5th Street Station
- Segment 3
- Segment 4
- Segment 5

- City Limits

Habitats

- Ruderal/Developed
- Coastal Scrub
- Dune Scrub

Marina
Imjin Parkway
10th Street
2nd Ave
1st Ave
8th Street
Beach Range Rd
Del Monte Blvd
Marina
County of Monterey
Seaside
Marina
Fort Ord Dunes State Park
1

Seaside
Beach Range Rd
Fort Ord Dunes State Park
Monterey Rd
County of Monterey
Sand City
Fremont Blvd
Del Monte Blvd
Seaside
Tioga Ave
Sand City
1

0 0.5 1 km
0 0.5 1 mi

Habitat Types

Denise Duffy and Associates, Inc.
Planning and Environmental Consulting

Date 02-04-2021
Scale 1 in = 0.2 mi
Figure 3

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\Bio Report\Habitat Map.mxd

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

4.1.2 Coastal Scrub

- *A Manual of California Vegetation* classifications: Coyote brush scrub (*Baccharis pilularis* shrubland alliance)
- CDFW's *California Natural Communities List*: Not sensitive

Coastal scrub habitat are areas with dense shrubs, approximately one to two meters tall, that lack grassy openings and are often integrated with other habitat types. Coastal scrub habitat within the project site occurs within Segments 1-4, throughout the area bordering Fort Ord Dunes State Park where shrubs become more dominant than the herbaceous species of the surrounding ruderal habitat (**Figure 3**). Dominant shrub species in the coastal scrub habitat include coyote bush (*Baccharis pilularis*), coffeeberry (*Rhamnus californica*), California lilac (*Ceanothus rigidus*), poison oak (*Toxicodendron diversilobum*), and California sagebrush (*Artemisia californica*). However, these areas also include several of the same herbaceous understory species as the ruderal areas, such as iceplant. No coastal scrub habitat is present within the 5th Street Station.

Coastal scrub communities provide cover and food for a number of wildlife species, including songbirds, snakes, lizards, rodents, and other small mammals. Common species that may occur within coastal scrub include California quail (*Callipepla californica*), blue-gray gnatcatcher (*Polioptila caerulea*), Anna's hummingbird (*Calypte anna*), coast range fence lizard, northern pacific rattlesnake (*Crotalus oreganus* ssp. *oreganus*), gopher snake (*Pituophis catenifer catenifer*), brush rabbit (*Sylvilagus bachmani*), and California ground squirrel (*Spermophilus beecheyi*).

4.1.3 Dune Scrub

- *A Manual of California Vegetation* classification: Silver dune lupine-mock heather scrub (*Lupinus chamissonis - Ericameria ericoides* shrubland alliance)
- CDFW's *California Natural Communities List*: Sensitive

Dune scrub occurs along the California coast, typically in more exposed settings, such as active dunes. Within the project site, this habitat type occurs only in one small area within Segments 1-4, near the southern border of the Fort Ord Dunes State Park (**Figure 3**). Mock heather (*Ericameria ericoides*) is the dominant shrub species within the project site; however, other shrub and subshrub species present include coastal sagewort (*Artemisia pycnocephala*), seacliff buckwheat (*Eriogonum parvifolium*), and golden yarrow (*Eriophyllum confertiflorum*). Annual species occurring between the shrubs include fiddleneck (*Amsinckia* sp.), common phacelia (*Phacelia distans*), and California poppy (*Escholzia californica*). No dune scrub occurs within the 5th Street Station.

Dune scrub communities provide cover and food for a number of wildlife species, including songbirds, snakes, lizards, rodents, and other small mammals. Common species that may occur within dune scrub include western scrub jay, California quail, Anna's hummingbird, song sparrow (*Melospiza melodia melodia*), coast range fence lizard, San Francisco alligator lizard (*Elgaria coerulea coerulea*), gopher snake, deer mouse (*Peromyscus maniculatus*), and California ground squirrel.

4.2 Sensitive Habitats

The project site was evaluated for the presence of sensitive habitats. One sensitive habitat, dune scrub, was identified within Segments 1-4 of the project site. Dune scrub habitat is identified as a sensitive habitat on the CDFW's *California Natural Communities List* (Silver dune lupine-mock heather scrub [*Lupinus chamissonis - Ericameria ericoides* shrubland alliance]; CDFW, 2019). Approximately 0.1 acre of dune scrub occurs within the limits of construction of Segments 1-4 (**Figure 3**). The project site is located within the boundaries of the Marina, Sand City, and Seaside LCPs, as well as CCC original jurisdiction. As such, the dune scrub habitat may also be designated as ESHA. Additional areas within Segments 1-4 that may be considered ESHA include habitat for the Smith's blue butterfly (SBB) (i.e., buckwheat; see **Figure 4** below) and areas supporting rare plants.

No dune scrub or ESHA are present within the 5th Street Station.

4.3 Special-Status Species

Published occurrence data within the project site and surrounding USGS quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the project site (see "Methods" and **Appendix A**). Each of these species was evaluated for their likelihood to occur within or immediately adjacent to the project site (**Appendix A**). The special-status species that are known to or have been determined to have a moderate or high potential to occur within or immediately adjacent the project site are identified in **Tables 3** and **4** and are discussed below. All other species are assumed unlikely to occur or have a low potential to occur based on the species-specific reasons presented in **Appendix A**, and are therefore unlikely to be impacted by the project and not discussed further.

4.3.1 Special-Status Wildlife Species

Table 3 identifies the potential for special-status wildlife species to occur within the proposed project site. A discussion of each species is provided below.

Table 3. Potential for Special-Status Wildlife Species Presence within the Project Site

Species	Segments 1-4	5th Street Station
Townsend's big-eared bat	Moderate	Moderate
Monterey dusky-footed woodrat	Moderate	Moderate
Northern California legless lizard	High	Moderate
Coast horned lizard	Moderate	Unlikely
Smith's blue butterfly	Assumed Present	Not Present
Nesting raptors and other protected avian species	High	High

Townsend's Big-Eared Bat

Townsend's big-eared bat is a CDFW species of special concern. This 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. This species 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.

The CNDDB reports one occurrence of Townsend's big-eared bat within the seven quadrangles reviewed, located approximately 4.5 miles from the project site within the East Garrison housing development. Suitable foraging and night roost habitat for this species is present within Segments 1-4 and the 5th Street Station. Additionally, the abandoned building within the 5th Street Station may provide suitable habitat for day, colonial, or maternal roots.

Monterey Dusky-Footed Woodrat

The Monterey dusky-footed woodrat 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.

The CNDDB reports one occurrence of Monterey dusky-footed woodrat within the seven quadrangles reviewed, located approximately eight miles from the project site. However, this species is known to occur throughout the former Fort Ord and the surrounding areas. Woodrats may occur within the coastal scrub or ruderal areas in Segments 1-4 and the 5th Street Station where shrubs and/or trees provide suitable cover for their nests.

Northern California Legless Lizard

The Northern California legless lizard is a CDFW species of special concern and an HMP species.[3] 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 for this species is believed to begin late spring or early summer, with one to four live young born between September and November.

The CNDDB reports 55 occurrences of Northern California legless lizard within the seven quadrangles reviewed, including two occurrences that overlap with the project site. Additionally, this species has been observed in several areas on the nearby former Fort Ord for Fort Ord Dunes State Park. Suitable habitat for Northern California legless lizard is present throughout all undeveloped areas of the survey area where appropriate soil conditions occur. Therefore, there is a moderate to high potential for the Northern California legless lizard to occur within all segments of the project, including the 5th Street Station.

Coast Horned Lizard

The coast horned lizard is a CDFW species of special concern. Horned lizards occur in valley-foothill hardwood, conifer, and riparian habitats, as well as in pine-cypress, juniper, chaparral, and annual grass habitats. This species generally inhabits open country, especially sandy areas, washes, flood plains, and wind-blown deposits in a wide variety of habitats. Coast horned lizards rely on camouflage for protection and will often lay motionless when approached. Horned lizards often bask in the early morning on the ground or on elevated objects such as low boulders or rocks. Predators and extreme heat are avoided by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed into the soil or under surface objects. Little is known about the habitat requirements for breeding and egg-laying of this species. Prey species include ants, beetles, wasps, grasshoppers, flies, and caterpillars.

The CNDDB reports five occurrences of the coast horned lizard within the seven quadrangles reviewed, the nearest of which is approximately 0.5 mile from the project site. Additionally, this species has been observed throughout the former Fort Ord by DD&A biologists. Suitable habitat for this species is present within the survey area within the coastal scrub and dune scrub habitats. Therefore, there is a high potential

[3] This species was previously split into two subspecies: black-legless lizard (*Anniella pulchra* ssp. *nigra*) and silvery-legless lizard (*A. p.* ssp. *pulchra*). These subspecies are based primarily on phenotypic differences (black-legless lizard being much darker, having fewer scales on the back, and a relatively shorter tail) and very limited genetic work. Further, the range of the black-legless lizard has historically been classified as "restricted to coastal and interior dune sand other areas of sandy soils in the vicinity of Monterey Bay and the Monterey Peninsula" (USFWS, 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 the coast horned lizard to occur within Segments 1-4. No suitable habitat for this species is present within 5th Street Station and this species is unlikely to occur there.

Smith's Blue Butterfly

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

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

The CNDDB reports 14 occurrences of the SBB within the seven quadrangles reviewed, including an occurrence that overlaps with the project site. Additionally, this species is known to occur within the adjacent Fort Ord Dunes State Park. Approximately 0.15 acre and 83 individuals of coast and seacliff buckwheat were identified within the limits of construction of Segments 1-4; approximately 0.24 acre and 208 individuals were identified within the entire survey area of Segments 1-4 (**Figure 4**). As such, this species is assumed present where its host plant is present in Segments 1-4. No host buckwheat plants were identified within the 5th Street Station and, as such, this species does not occur within this area.

Nesting Raptors and Other Protected Avian Species

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

Various species of raptors, such as red-tailed hawk, red-shouldered hawk, American kestrel, and turkey vulture, have a potential to nest within any of the large trees present within the project site or within the abandoned building with the 5th Street Station site.

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Smith's Blue Butterfly Habitat (> 5 individuals)

Smith's Blue Butterfly Habitat (< or = 5 individuals)

Project Segments

Segment 2

Segment 3

Segment 4

10th Street

Marina

1st Ave

8th Street

Imjin Parkway

Beach Range Rd

County of Monterey

Fort Ord Dunes State Park

Seaside

Monterey Rd

Fremont Blvd

Sand City

0 100 200 m

0 500 1,000 ft

Smith's Blue Butterfly Habitat

Denise Duffy and Associates, Inc.

Planning and Environmental Consulting

Date 02-04-2021

Scale 1 in = 0.1 mi

Figure 4

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\Bio Report\SBB Habitat Map.mxd

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4.3.2 Special-Status Plant Species

As identified in Section 3.0 Methods, focused botanical surveys for special-status plant species were conducted during the appropriate blooming period for all species with the potential to occur within Segments 1-4 in April, May, and June 2020. Additionally, focused botanical surveys for summer-blooming and perennial special-status plant species were conducted within the 5th Street Station in September 2020. **Table 4** quantifies the special-status plant species that were observed within Segments 1-4 of the proposed project site and limits of construction during the surveys. In addition, **Table 4** identifies species with a high to moderate potential to occur within the 5th Street Station. **Figure 5** identifies the location of each species within the project site.

Table 4. Known or Potential Presence of Special-Status Plant Species within the Project Site

Species	Segments 1-4				5th Street Station
	Limits of Construction		*Survey Area**		*Potential Presence*
	Area (ac)	*Individuals*	*Area (ac)*	*Individuals*	
Hooker's manzanita	0	1	0	1	Not Present
Sandmat manzanita	0.05	6	0.4	40	Not Present
Monterey spineflower	0.8	111	1.8	245	Moderate
Coast wallflower	0	0	0	3	Unlikely
Kellogg's horkelia	0.1	10	0.1	20	Not Present
Yadon's piperia	0	0	0	0	Moderate
* Includes limits of construction.					

Hooker's Manzanita

Hooker's manzanita is a CNPS CRPR 1B and HMP species in the Ericaceae family. This evergreen shrub is associated with closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub habitats on sandy soils at a range of 85-536 meters in elevation. The blooming period is from January to June.

The CNDDB reports 17 occurrences of hooker's manzanita within the seven quadrangles evaluated, the nearest of which is located approximately 0.7 mile from the project site. One individual hooker's manzanita was observed within ruderal habitat in the limits of construction of Segments 1-4, near the Edgewater Shopping Center (**Figure 5; Table 4**). This species was not observed within the 5th Street Station.

Sandmat Manzanita

Sandmat manzanita is a CNPS CRPR 1B and HMP species in the Ericaceae family. This evergreen shrub blooms from February to 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 between 3-205 meters.

The CNDDB reports 17 occurrences of sandmat manzanita within the seven quadrangles evaluated, including three occurrences that overlap with the project site. Sandmat manzanita was identified within the coastal scrub and ruderal habitats in Segments 1-4; six individuals and 0.05 acre were identified within the limits of construction, and 40 individuals and 0.4 acre were identified within the survey area (**Figure 5; Table 4**). This species was not observed within the 5th Street Station.

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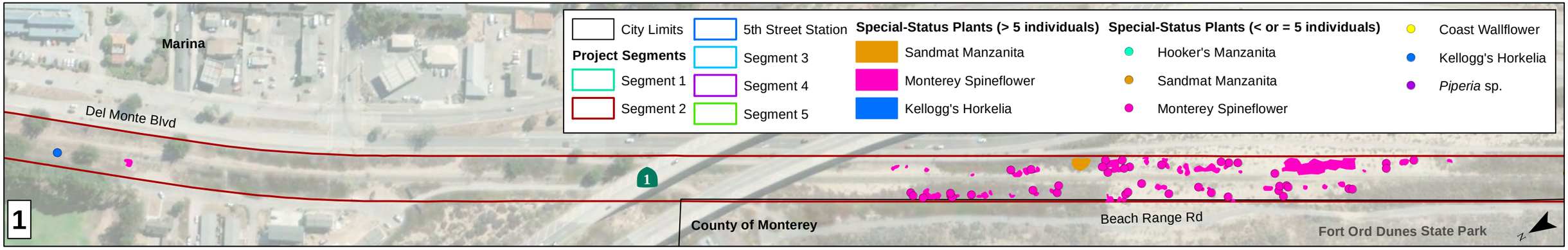


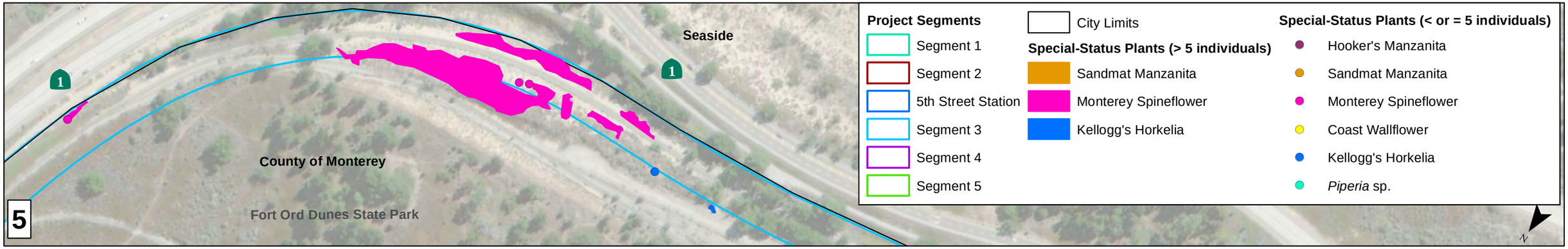
Special-Status Plant Occurrences within Project Site

Denise Duffy and Associates, Inc.
Planning and Environmental Consulting

Date: 02-04-2021
Scale: 1 in = 0 mi

Figure 5a

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\Bio Report\Rare Plant Map_a.mxd



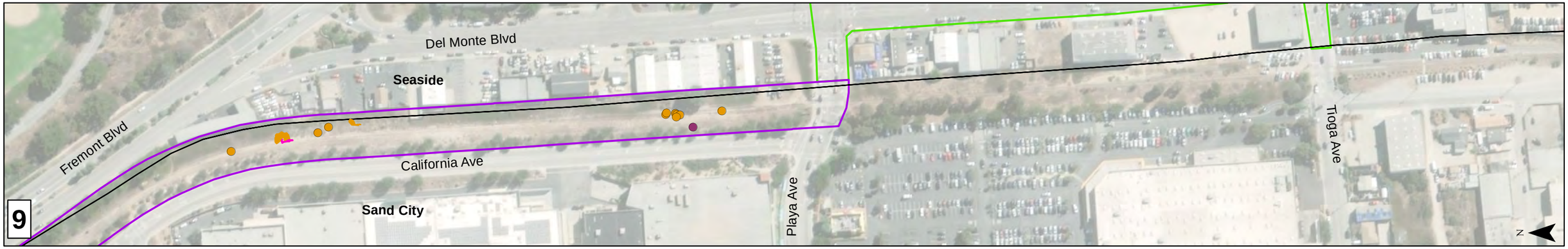
Special-Status Plant Occurrences within Project Site

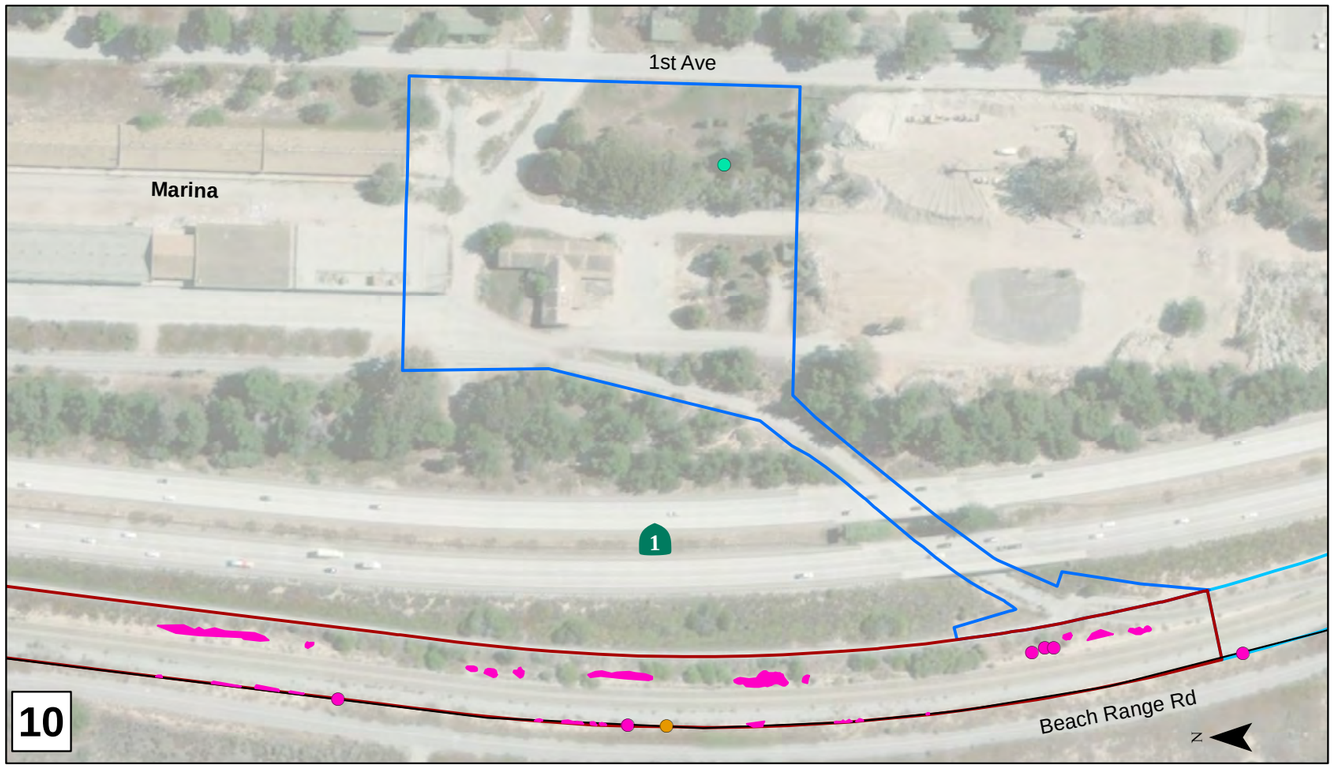
Denise Duffy and Associates, Inc.
Planning and Environmental Consulting

Date: 02-04-2021
Scale: 1 in = 0 mi

Figure 5b

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\Bio Report\Rare Plant Map_b.mxd





City Limits

Project Segments

Segment 1

Segment 2

5th Street Station

Segment 3

Segment 4

Segment 5

Special-Status Plants (> 5 individuals)

Sandmat Manzanita

Monterey Spineflower

Kellogg's Horkelia

Special-Status Plants (< or = 5 individuals)

Hooker's Manzanita

Sandmat Manzanita

Monterey Spineflower

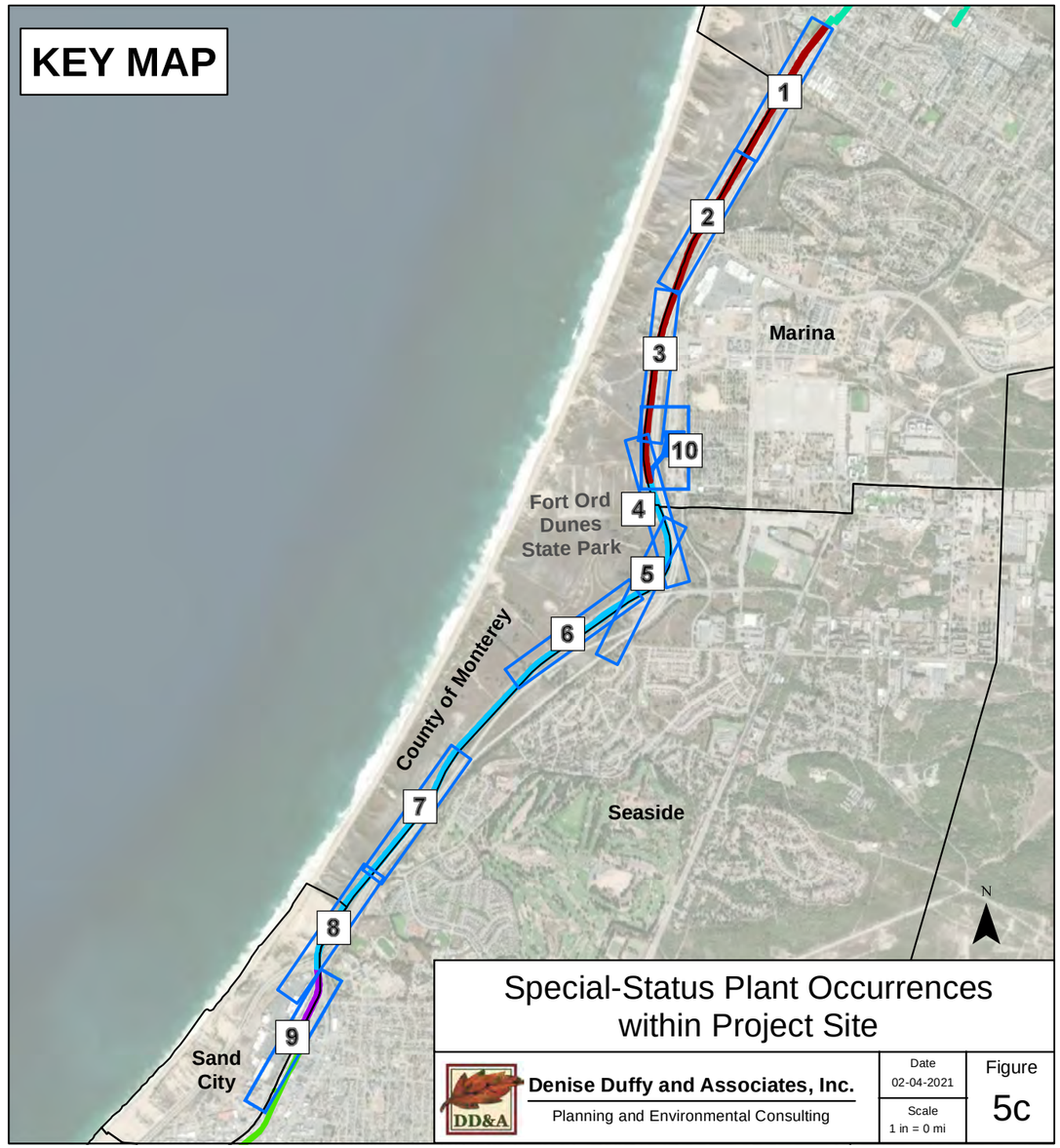
Coast Wallflower

Kellogg's Horkelia

Piperia sp.

0 100 200 m

0 500 1,000 ft



Special-Status Plant Occurrences within Project Site

Denise Duffy and Associates, Inc.

Planning and Environmental Consulting

Date 02-04-2021

Scale 1 in = 0 mi

Figure 5c

Path: C:\GIS\GIS_Projects\2019-59 MST Rapid Transit\Final Products\Bio Report\Rare Plant Map_c.mxd

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Monterey Spineflower

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

The CNDDB reports 34 occurrences of Monterey spineflower within the seven quadrangles reviewed, including an occurrence that overlaps with a large portion of the project site. Monterey spineflower was identified within the coastal scrub, dune scrub, and ruderal habitats within Segments 1-4; 111 individuals and 0.8 acre were identified within the limits of construction, and 245 individuals and 1.8 acres were identified within the survey area (**Figure 5; Table 4**). Additionally, suitable habitat for Monterey spineflower is present within the 5th Street Station .

Coast Wallflower

Coast wallflower is a CNPS CRPR 1B and HMP species in the Brassicaceae family. This perennial herb is associated with openings in maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 0-60 meters. The blooming period is February to June.

The CNDDB reports 20 occurrences of coast wallflower within the seven quadrangles reviewed, including two occurrence that overlap with the project site. Three coast wallflower individuals were identified within the dune scrub habitat in the survey area of Segments 1-4; however, this species was not identified within the project's limits of construction (**Figure 5; Table 4**). No suitable habitat for coast wallflower is present within the 5th Street Station.

Kellogg's Horkelia

Kellogg's horkelia is a CNPS CRPR 1B species. It is a perennial herb in the Rosaceae family and blooms April through June. Kellogg's horkelia is typically associated with openings in closed cone coniferous forest, maritime chaparral, and coastal scrub in sandy or gravelly soils on relic dunes, within a range of 10-200 meters in elevation.

The CNDDB reports 17 occurrences of Kellogg's horkelia within the seven quadrangles reviewed, including an occurrence that overlaps with a portion of the project site. Kellogg's horkelia was identified within the coastal scrub, coastal dune, and ruderal habitats within Segments 1-4; 10 individuals and 0.1 acre were identified within the limits of construction, and 20 individuals and 0.1 acre were identified within the survey area (**Figure 5; Table 4**). This species was not observed within the 5th Street Station.

Yadon's Piperia

Yadon's piperia is a federally endangered, CNPS CRPR 1B, and HMP species. This perennial herb in the Orchidaceae family blooms from May to August and is found in closed-cone coniferous forest, maritime chaparral on sandy soils, and coastal bluff scrub at elevations from 10-510 meters. Overall, this species favors a well-drained, sandy soil substrate with podzolic conditions, and areas that retain moisture during the rainy season but are not subject to inundation. As in some other plant taxa, individual orchids that flower in one year may not have the necessary energy reserves to flower in the following year. As a result, an

unknown proportion of a population may be dormant in any given year, thus making it difficult to track population dynamics through monitoring of population size. However, it would be expected that some percentage of a resident population would flower in any given year. As a result, while it may be difficult to track population dynamics in any given year, determining presence or absence for a specific area is not.

The CNDDB reports 23 occurrences of Yadon's piperia within the seven quadrangles reviewed, the nearest of which is located less than 400 feet from the project site, on the former Fort Ord within the City of Marina. A single *Piperia* sp. was observed within the 5th Street Station site during the survey in September 2020 (**Figure 5**). However, the individual was desiccated and could not be identified to species. As such, Yadon's piperia has a moderate potential to occur within the 5th Street Station. This species was not observed within Segments 1-4 during focused surveys.

4.3 Protected Trees

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. A preliminary review identified approximately 57 Monterey cypress trees (*Hesperocyparis macrocarpa*) and two Eucalyptus trees (*Eucalyptus* sp.) within Segments 1 and 2 that may be impacted by the proposed project. In addition, other protected trees may be impacted in Segments 3 and 4, as well as 5th Street Station. As discussed in Section 3.6 Regulatory Setting, the various jurisdictions have ordinances that apply to tree removal. For example, the City of Marina requires a tree removal permit to remove, relocate, or damage a living tree within its limits. MST will comply with Marina Code, and any other applicable tree removal ordinances, and obtain a tree removal permit prior to construction.

5.0 IMPACTS AND MITIGATION MEASURES

5.1 Thresholds of Significance

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

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

5.2 Approach to Analysis

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

The biological analysis herein includes a comprehensive, detailed analysis of the biological resources present, or with the potential to occur, within the proposed project. As described in the Project Description, the proposed project includes five segments. Design Plans have not been finalized for the proposed project; however, the proposed project's boundaries (i.e., limits of construction) have been defined to a level where potential impacts to resources can be evaluated. Thus, a project-level analysis can and has been performed for all segments of the proposed project. Segment 5 will utilize existing roadway, does not contain biological resources, and does not involve ground disturbance. Therefore, this segment of the proposed project will not result in any impacts to biological resources and is not included in the analysis below.

5.2.1 5th Street Station (HMP Parcels)

The 5th Street Station is located within parcels designated by the HMP as "development" and "development with reserve areas or development with restrictions" within the City of Marina's jurisdiction. Through implementation of the HMP, impacts to HMP species and habitats occurring within designated development parcels were anticipated and mitigated through the establishment of habitat reserves and corridors and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord. As described above, parcels designated as "development" have no management restrictions. However, the 2017 Programmatic BO and HMP require the identification of sensitive botanical resources within these parcels that may be salvaged for use in restoration activities in reserve areas (USFWS, 2017 and ACOE, 1997).

The majority of the 5th Street Station is located within parcels designated as development (L2.1, S4.1.4, L.20.16.1, L20.16.2, and E2b.3.1.1). As described above, parcels designated as "development" have no management restrictions. However, the 2017 Programmatic BO requires the identification of sensitive botanical resources within these parcels that may be salvaged for use in restoration activities in reserve areas. Within parcels L2.1, S4.1.4, L.20.16.1, L20.16.2, the HMP recommends preservation of native vegetation and HMP species habitat outside of areas identified for development. No resource conservation or management requirements are identified in the HMP for parcels E2b.3.1.1 or S4.1.4. As a result of implementing the HMP, impacts to HMP species and habitats occurring within these parcels were anticipated and mitigated through the establishment of habitat reserves and corridors and the implementation of habitat management requirements within habitat reserve parcels on the former Fort Ord.

The remainder of the 5th Street Station is located within "Highway 1 Corridor" parcels S4.1.1 and S4.1.5, which is designated as development with reserve areas or restrictions to accommodate transportation purposes, including "expansion or improvements of transportation systems". The HMP identifies management requirements and development restrictions within this parcel. The HMP identifies that "In conjunction with any transportation projects or work that would have an impact on the native habitat, Caltrans will preserve existing patches of native coastal strand, dune scrub, and sand hill maritime chaparral habitats in the road shoulders and medians in areas that will not conflict with anticipated highway expansion, improvements, operations, or maintenance" (ACOE, 1997).

The HMP species that are known or have a moderate to high potential to occur within or immediately adjacent to the 5th Street Station include Monterey spineflower, Yadon's piperia, and Northern California legless lizard. With the designated habitat reserves and corridors and habitat management requirements of the HMP in place, the loss of these species is not expected to jeopardize the long-term viability of these species and their populations on the former Fort Ord (USFWS, 1993). This is such because the recipients of disposed land with restrictions or management guidelines designated by the HMP are obligated to implement those specific measures through the HMP and deed covenants. The proposed project is:

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

The City of Marina is required to implement HMP requirements in accordance with the deed covenants, which apply to the HMP parcels within the 5th Street Station. The HMP and 2017 Programmatic BO require the identification of sensitive biological resources within development parcels that may be salvaged for use in restoration activities in habitat reserve areas. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO, impacts to these special-status species are considered less-than-significant and no additional mitigation measures for these HMP species would be required for impacts within the 5th Street Station. However, if the City of Marina is not in compliance with the HMP and 2017 Programmatic BO, then impacts to HMP species may be considered significant and additional mitigation measures may be required.

5.3 Areas of No Impact

Criterion "c" is not evaluated for impacts to state or federally protected wetlands as there are none present.

5.4 Impacts and Mitigation Measures

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

Segments 1-4

Special-Status Plant Species

Special-status plant species, including Hooker's manzanita, sandmat manzanita, Monterey spineflower, and Kellogg's horkelia were identified within the limits of construction of Segments 1-4. In addition, coast wallflower was identified within the survey area of Segments 1-4. Construction activities could result in impacts to these species, including loss of individuals, soil compaction, dust, vegetation removal/loss of habitat, erosion, and introduction and spread of non-native, invasive species. This is a potentially significant impact. **Table 5** lists the individual count and acreage of special-status plant species which could be impacted by construction of Segments 1-4.

Table 5. Potential Impacts to Special-Status Species within Segments 1-4

Species	**Potential Direct Impacts (Limits of Construction)**		**Potential Indirect Impacts (Adjacent Areas)**		**Total Potential Impacts**	
	Area (ac)	*Individuals*	*Area (ac)*	*Individuals*	*Area (ac)*	*Individuals*
Hooker's manzanita	0	1	0	0	0	1
Sandmat manzanita	0.05	6	0.4	34	0.4	40
Monterey spineflower	0.8	111	1.0	134	1.8	245
Coast wallflower	0	0	0	3	0	3
Kellogg's horkelia	0.1	10	0	10	0.1	20

Implementation of **Mitigation Measures BIO-1** through **BIO-3,** and **BIO-8** would also reduce potentially significant impacts to special-status plant species within Segments 1-4. These measures would reduce construction-related impacts through a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, avoidance, and for areas where avoidance is

not feasible, replacement of special-status plant species impacted at a 1:1 ratio and preparation and implementation of a Restoration Plan.

Therefore, potentially significant impacts to special-status plant species within Segments 1-4 would be reduced to a less-than-significant level with implementation of **Mitigation Measures BIO-1** through **BIO-3** and **BIO-8**.

Special-Status Wildlife Species

Suitable habitat for Northern California legless lizard and coast horned lizard is present within Segments 1-4. Construction activities could result in direct impacts to individuals and loss of habitat. This is a potentially significant impact. Implementation of **Mitigation Measures BIO-1** through **BIO-3**, which reduce construction-related impacts through a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, would reduce potentially significant impacts to the Northern California legless lizard and coast horned lizard to a less-than-significant level. The operation of Segments 1-4 may result in the potential loss of individuals through direct mortality or injury due to bus collision. However, bus collision is considered a rare event and would not significantly affect the populations of these species. Therefore, this impact is considered less-than-significant and no mitigation is required.

Trees within Segments 1-4 provide suitable nesting habitat for tree-nesting raptors and other nesting birds, as well as Townsend's big-eared bat. Additionally, suitable habitat for Monterey dusky-footed woodrat is present where shrubs and trees provide suitable cover. Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest/roost would be a significant impact. These impacts constitute a violation of California law and would be a significant under CEQA. Implementation of **Mitigation Measures BIO-1** and **BIO-3** and species-specific **Mitigation Measures BIO-4** through **BIO-6** will reduce potentially significant impacts to nesting raptors, other protected avian species, Townsend's big-eared bat, and Monterey dusky-footed woodrat to a less-than-significant level through a combination of implementing protective measures during construction; education; monitoring; and avoidance, preservation, and protection of active nests/roosts, if found during pre-construction surveys. The operation of Segments 1-4 may result in the potential loss of individuals through direct mortality or injury due to bus collision. However, bus collision is considered a rare event and would not significantly affect the populations of these species. Therefore, this impact is considered less-than-significant and no mitigation is required.

The host plant species for the federally endangered SBB (i.e., seacliff and dune buckwheat) were observed within and adjacent to Segments 1-4; approximately 0.15 acre and 83 individuals of coast and seacliff buckwheat were identified within the limits of construction of Segments 1-4, and an additional 0.9 acre and 125 individuals were identified within adjacent areas. This species is assumed present within and adjacent to Segments 1-4 where its host plants occur based on the proximity to known populations within the Fort Ord Dunes State Park. Impacts to SBB could include direct and indirect impacts associated with heavy equipment and construction activities, including harassment or mortality loss of habitat, and introduction and spread of non-native, invasive species. This would be considered "take" under the ESA and is a potentially significant impact under CEQA. Implementation of **Mitigation Measures BIO-1** and **BIO-3** and species-specific **Mitigation Measure BIO-7** will reduce potentially significant impacts to SBB to a less-than-significant level through a combination of implementing protective measures during construction;

education; monitoring; avoidance, preservation, and protection of habitat; and where avoidance is not feasible, replacement of SBB habitat impacted at a 1:1 ratio and preparation and implementation of a Restoration Plan. Additionally, **Mitigation Measure BIO-9** would be implemented to ensure that that compliance with the ESA for impacts to the federally listed SBB occurs in advance of construction. **Mitigation Measure BIO-9** acknowledges that the take of this species is prohibited under the ESA and would require Section 7 consultation. Impacts resulting in take of this species would need to be authorized by the USFWS through the issuance of a Biological Opinion from the USFWS to avoid violation of ESA. The operation of Segments 1-4 may result in the potential loss of individuals through direct mortality or injury due to bus collision. However, bus collision is considered a rare event and would not significantly affect the population of this species. Therefore, this impact is considered less-than-significant and no mitigation is required.

Therefore, potentially significant impacts to special-status wildlife species would be reduced to a less-than-significant level with implementation of **Mitigation Measures BIO-1** through **BIO-7** and **BIO-9**.

Special-Status Species Habitat

The majority of Segments 1-4 is developed or ruderal/disturbed habitat. These areas provide little quality habitat for special-status species; however, some remnant species are known or may occur. Loss of the available potential habitat for special-status species within Segments 1-4 is not expected to have significant impacts of the viability of special-status species population; however, implementation of **Mitigation Measures BIO-1** through **BIO-3, BIO-7,** and **BIO-8** would reduce impacts to a less-than-significant level.

5th Street Station

Special-Status Plant Species

Suitable habitat is present for Monterey spineflower and Yadon's piperia within the 5th Street Station. Construction activities could result in impacts to these species, including loss of individuals, soil compaction, dust, loss of habitat, erosion, and introduction and spread of non-native, invasive species. This is a potentially significant impact.

As described in the Approach to Analysis, impacts within development parcels to special-status plant and wildlife species addressed in the HMP are considered less than significant if the City of Marina is in compliance with the HMP and 2017 Programmatic BO. However, these species also occur in a parcel designated as "development with reserve areas or restrictions." As described in the HMP, the preservation of native coastal strand, dune scrub, and sand hill maritime chaparral habitats within the road shoulders and medians. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO, impacts to Monterey spineflower and Yadon's piperia, if present, within the 5th Street Station would be less-than-significant. While not required to reduce a significant impact, **Mitigation Measures BIO-1** through **BIO-3,** and **BIO-10** would be implemented to further reduce less-than-significant impacts to special-status plant species. **Mitigation BIO-10** acknowledges that the MST will survey for Monterey spineflower and Yadon's piperia within the 5th Street Station area and if present, will determine whether salvage 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-8** would reduce impacts to a less-than-significant level. These measures reduce construction-related impacts through a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, avoidance, and for areas where avoidance is not feasible, replacement of special-status plant species impacted at a 1:1 ratio and preparation and implementation of a Restoration Plan.

Special-Status Wildlife Species

Trees and the abandoned building within the 5th Street Station provide suitable nesting habitat for tree-nesting raptors and other nesting birds, as well as Townsend's big-eared bat and Monterey dusky-footed woodrat. Construction-related activities (e.g., building demolition, trimming and removal of vegetation, and equipment noise, vibration, and lighting) that result in harm, injury, or death of individuals, or abandonment of an active nest/roost would be a significant impact. These impacts constitute a violation of California law and would be a significant under CEQA. Implementation of **Mitigation Measures BIO-1** and **BIO-3** and species-specific **Mitigation Measures BIO-4** through **BIO-6** will reduce potentially significant impacts to nesting raptors, other protected avian species, Townsend's big-eared bat, and Monterey dusky-footed woodrat to a less-than-significant level through a combination of implementing protective measures during construction; education; monitoring; and avoidance, preservation, and protection of active nests/roosts, if found during pre-construction surveys. The operation of the 5th Street Station may result in the potential loss of individuals through direct mortality or injury due to bus collision. However, bus collision is considered a rare event and would not significantly affect the populations of these species. Therefore, this impact is considered less-than-significant and no mitigation is required.

Suitable habitat for Northern California legless lizard is present within the 5th Street Station. Construction activities could result in direct impacts to individuals and loss of habitat. This is a potentially significant impact.

As described in the Approach to Analysis, impacts within development parcels to special-status plant and wildlife species addressed in the HMP are considered less than significant if the City of Marina is in compliance with the HMP and 2017 Programmatic BO. However, this species may also occur in a parcel designated as "development with reserve areas or restrictions." As described in the HMP, this parcel is intended for the preservation of native coastal strand, dune scrub, and sand hill maritime chaparral habitats within the road shoulders and medians. Therefore, if the City of Marina is in compliance with the HMP and 2017 Programmatic BO, impacts to Northern California legless lizard within the 5th Street Station would be less-than-significant. While not required to reduce a significant impact, **Mitigation Measures BIO-1** through **BIO-3,** would be implemented to further reduce less-than-significant impacts to this species.

However, if the City of Marina is not in compliance with the HMP and 2017 Programmatic BO, **Mitigation Measures BIO-1** through **BIO-3**, which reduce construction-related impacts through a combination of protective measures during all phases of construction, education, monitoring, invasive species controls, would reduce impacts to a less-than-significant level. Operational impacts to Northern California legless lizard at the 5th Street Station are not expected and no mitigation is necessary.

Special-Status Species Habitat

The majority of the 5th Street Station site is developed or ruderal/disturbed. These areas provide little to no habitat for special-status species. Therefore, loss of the very limited amount of available potential habitat for special-status species within the 5th Street Station is not expected to have significant impacts of the viability of special-status species population.

In addition, as discussed in Section 3.6 "Regulatory Setting," 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 wildlife 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 and parcels are designated as "development with no restrictions," "habitat reserves with management requirement," 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 USFWS; the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure HMP implementation. It is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures. The 5th Street Station is proposed within designated development and development with reserve areas or restrictions parcels.

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors and habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP will be obligated to implement those specific measures through the HMP and through deed covenants. Approximately 18,500 acres of the former Fort Ord will be preserved in permanent open space through implementation of the HMP.

Therefore, construction of the 5th Street Station would not have a significant impact on special-status species habitat. This is a less than significant impact. No mitigation is required; however, implementation of **Mitigation Measures BIO-1** through **BIO-6** would further reduce less-than-significant impacts to special-status species habitat.

Segments 1-4 and 5th Street Station

Mitigation Measure BIO-1: Construction Best Management Practices

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

- A qualified biologist will conduct an Employee Education Program for the construction crew prior to any construction activities. The qualified biologist will meet with the construction crew at the onset of construction at the project site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review project boundaries; 2) how a biological monitor will examine the area and

agree upon a method which will ensure the safety of the monitor during such activities, 3) the special-status species 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 USFWS and CDFW; and 6) the proper procedures if a special-status species is encountered within the project site.

- Trees and vegetation not planned for removal or trimming will be protected prior to and during construction to the maximum possible through the use of exclusionary fencing, such as hay bales for herbaceous and shrubby vegetation, and protective wood barriers for trees. Only certified weed-free straw will be used to avoid the introduction of non-native, invasive species. A biological monitor will supervise the installation of protective fencing and monitor at least once per week until construction is complete to ensure that the protective fencing remains intact.
- Following construction, disturbed areas will be restored to pre-project contours to the maximum extent possible and revegetated using locally-occurring native species and native erosion control seed mix, per the recommendations of a qualified biologist.
- Grading, excavating, and other activities that involve substantial soil disturbance will be planned and implemented in consultation with a qualified hydrologist, engineer, or erosion control specialist, and will utilize standard erosion control techniques to minimize erosion and sedimentation to native vegetation (pre-, during, and post-construction).
- No firearms will be allowed on the project site at any time.
- All food-related and other trash will be disposed of in closed containers and removed from the project area at least once a week during the construction period, or more often if trash is attracting avian or mammalian predators. Construction personnel will not feed or otherwise attract wildlife to the area.

Mitigation Measure BIO-2: Construction-Phase Monitoring

The applicant will retain a qualified biologist to monitor all ground disturbing construction activities (i.e., vegetation removal, grading, excavation, or similar activities) the project to protect any special-status species encountered. Any handling and relocation protocols of special-status wildlife species will be determined in coordination with CDFW prior to any ground disturbing activities, and will be conducted by a qualified biologist with appropriate scientific collection permit. After ground disturbing project activities are complete, the qualified biologist will train an individual from the construction crew to act as the on-site construction biological monitor. The construction biological monitor will be the contact for any special-status wildlife species encounters, will conduct daily inspections of equipment and materials stored on site and any holes or trenches prior to the commencement of work, and will ensure that all installed fencing stays in place throughout the construction period. The qualified biologist will then conduct regular scheduled and unscheduled visits to ensure the construction biological monitor is satisfactorily implementing all appropriate mitigation protocols. Both the qualified biologist and the construction biological monitor must work through the State Inspector to cease construction contractor work and/or redirect project activities to ensure protection of resources and compliance with all environmental permits and conditions of the project. 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: Non-Native, Invasive Species Controls

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

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

Construction activities that may directly (e.g., vegetation removal) or indirectly (e.g., noise/ground disturbance) affect protected nesting avian species will be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31. 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 August). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys will be determined by the qualified biologist based on review of the final construction plans and in coordination with the CDFW, as needed.

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

Mitigation Measure BIO-5: Pre-Construction Surveys for Monterey Dusky-Footed Woodrat

Not more than thirty (30) days prior to the start of construction of Segments 1-4 and the 5th Street Station (including vegetation removal), a qualified biologist shall conduct a survey of suitable habitat within the work site to locate existing Monterey dusky-footed woodrat nests. All Monterey dusky-footed woodrat nests shall be mapped and flagged for avoidance. Graphics depicting all Monterey dusky-footed woodrat nests shall be provided to the construction contractor. Any Monterey dusky-footed woodrat 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: Pre-Construction Surveys for Townsend's Big-eared Bat

To avoid and reduce impacts to Townsend's big-eared bat, if the project construction is planned during the reproductive season (May 1 through September 15) MST will retain a qualified bat specialist or wildlife biologist to conduct site surveys to characterize bat utilization within and adjacent to the project site and potential species present (techniques utilized to be determined by the biologist) prior to construction. Based on the results of these initial surveys, one or more of the following will occur:

- If it is determined that bats are not present within or adjacent to the site, no additional mitigation is required.
- If it is determined that bats are utilizing the trees or abandoned buildings within or adjacent to the site and may be impacted by the proposed project, pre-construction surveys will be conducted within 50 feet of the limits of construction no more than 30 days prior to the start of construction. If, according to the bat specialist, no bats or bat signs are observed in the course of the pre-construction surveys, construction may proceed. If bats and/or bat signs are observed during the pre-construction surveys, the biologist will determine if disturbance will jeopardize the roost (i.e., maternity, foraging, day, or night).

Segments 1-4

Mitigation Measure BIO-7: SBB Avoidance and Restoration

The host plant species for SBB (i.e., seacliff and dune buckwheat) shall be avoided to the greatest extent feasible. SBB habitat not scheduled for removal shall be protected prior to and during construction to the maximum possible through the use of exclusionary fencing or flagging, such as construction fencing or hay bales. 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.

If avoidance is not feasible:

- The duff and/or associated soil and plant material underneath the presumed-occupied seacliff or dune buckwheat plants that will be impacted by the project will be removed by hand by a USFWS-approved biologist prior to disturbance, and will be placed as close as possible to, but not on, living seacliff or dune buckwheat plants not scheduled for removal, within the boundaries of exclusionary fencing/flagging.
- The number of plants removed will be quantified and shall be replaced at a 1:1 success ratio for the acreage or individuals impacted. A Restoration Plan shall be prepared by a qualified biologist and implemented. The plan shall include, but is not limited to, the following:
    - 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, if required by the USFWS; 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-8: Special-Status Plant Avoidance and Restoration

Rare plants (i.e., Hooker's manzanita, sandmat manzanita, Monterey spineflower, coast wallflower, and Kellogg's horkelia) shall be avoided to the greatest extent feasible. Rare plants not scheduled for removal shall be protected prior to and during construction to the maximum possible through the use of exclusionary fencing or flagging, such as construction fencing or hay bales. 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.

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, the following:

- 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-9: ESA Compliance

MST will comply with the ESA and will obtain necessary authorization prior to construction of Segments 1-4.

Due to the presence and potential presence of federally listed species within the project site, including the SBB and Monterey spineflower, and Federal nexus (i.e., Federal funding), the Federal Transit Authority (FTA), acting as the NEPA lead agency for the proposed project, shall be required to initiate a Section 7 consultation with the USFWS and prepare a written analysis in the form of a Biological Assessment (BA) to determine whether their actions may affect a listed species. Based on the BA, the USFWS will issue a Biological Opinion (BO) regarding likely impacts as a result of implementing the project. Any further avoidance and minimization measures that may be required as a component of the BO will be implemented.

5th Street Station

Mitigation Measure BIO-10: Special-Status Plant Surveys and HMP Compliance

A qualified biologist shall be retained to conduct surveys for Monterey spineflower and Yadon's piperia within the 5th Street Station. The surveys shall be conducted during the appropriate identification period(s) to determine presence or absence, according to USFWS, CDFW, and CNPS protocol. The biologist shall prepare a report that provides the results of the survey, and, if found the number and locations of individuals/populations identified.

- If no Monterey spineflower or Yadon's piperia are found, no further mitigation is necessary.
- If Monterey spineflower or Yadon's piperia are found, salvage efforts for these species will be evaluated by a qualified biologist in coordination with the MST prior to construction to further reduce impacts per the requirements of the HMP and 2017 Programmatic BO. Where salvage is determined feasible and proposed, seed collection should occur from plants within the development site and/or topsoil should be salvaged within occupied areas to be disturbed. Seeds should be collected during the appropriate time of year for each species as determined by the qualified biologist. The collected seeds and topsoil should 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 MST.

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

Segments 1-4

Habitats occurring within Segments 1-4 that are listed as sensitive on the CDFW's *California Natural Communities List* include dune scrub. This habitat would also be considered ESHA under the CCA. Within the site, approximately 0.1 acre of dune scrub could be impacted as a result of project implementation. Impacts to dune scrub would be considered significant under CEQA; however, implementation of **Mitigation Measures BIO-1** through **BIO-4** and **BIO-11** would reduce impacts to dune scrub to a less-than-significant level through a combination of protective measures during construction, education, monitoring, invasive species controls, avoidance, and, if necessary, replacement of habitat at a 1:1 ratio and preparation and implementation of a Restoration Plan.

Mitigation Measure BIO-11: Dune Scrub Restoration

Dune scrub shall be avoided to the greatest extent feasible. If avoidance is not feasible, dune scrub habitat shall be replaced at a 1:1 success ratio for the acreage impacted and a Restoration Plan shall be prepared by a qualified biologist and implemented. The plan shall include, but is not limited to, the following:

- A description of the baseline conditions of the habitat that will be impacted;
- A detailed description of on-site and/or off-site restoration areas, a planting palette, 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;
- Procedures to control and/or eliminate non-native invasive species within the restoration site; and

A monitoring program that describes annual monitoring efforts which incorporate success criteria and contingency plans if success criteria are not met.

5th Street Station

No habitats listed as sensitive on the CDFW's *California Natural Communities List* occur within the 5th Street Station. No impact would occur and no mitigation is required.

Impact BIO-3: *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites.*

Wildlife movement corridors are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or man-made factors, such as urbanization. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, and therefore, adversely affect both genetic and species diversity. Corridors often partially or largely mitigate the adverse effects of fragmentation by 1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available; 2) providing

escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (e.g., fire and disease) 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 2004 City of Seaside General Plan identifies land within the former Fort Ord and the Laguna Grande/Roberts Lake system as important wildlife corridors within the City of Seaside. The General Plans for the Cities of Sand City and Marina do 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 "Results" section, the majority of the project site is comprised of ruderal and/or developed areas and runs adjacent to existing roads, SR 1, and shopping centers, and other businesses, 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 primary, significant wildlife movement corridors in the area. This is a less-than-significant impact. No mitigation is required.

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

Segments 1-4

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. A preliminary review identified approximately 57 Monterey cypress trees and two Eucalyptus trees within Segments 1 and 2 that may be impacted by the proposed project. In addition, other protected trees may be impacted in Segments 3 and 4, as well as 5th Street Station. As discussed in Section 3.6 Regulatory Setting, the various jurisdictions have ordinances that apply to tree removal. For example, the City of Marina requires a tree removal permit to remove, relocate, or damage a living tree within its limits. MST will comply with Marina Code, and any other applicable tree removal ordinances, and obtain a tree removal permit prior to construction. Furthermore, **Mitigation Measure BIO-12** requires that native trees be avoided and protected during construction to the greatest extent feasible and that native trees removed be replaced at a 1:1 mitigation ratio. Implementation of this measure and compliance with local tree protection ordinances would reduce potential impacts to less-than-significant.

Mitigation Measure BIO-12: Native Tree Protection and Replacement Measures

To maximize native tree retention and protection, a forester, arborist, or other tree care professional shall be involved in the review and development of final grading and construction plans wherever trees occur within the site or at the grading margins. To avoid unintended impacts to native trees outside the construction area, the following native tree protection measures shall be implemented:

- Temporary construction fencing shall be placed at approximately 10 feet from the trunk and no grading, trenching, or vegetative alteration shall occur within this environmental exclusion zone. Grading, vegetation removal, and other ground disturbing construction activities may not commence until the project forester has inspected and approved the protective fencing installed by the contractor. No equipment or materials, including soil, shall be stored within the established environmental exclusion zone. Prior to grading within 25 feet of retained trees, the project forester, arborist, or other tree care professional shall be consulted to determine whether pruning is necessary to protect limbs from grading equipment.
- To avoid soil compaction from damaging the roots, heavy equipment shall not be allowed to drive over the root area. If deemed necessary and approved by the forester, equipment may drive across one side of the tree. To reduce soil compaction, wood chips shall be spread 6-12 inches deep to disperse the weight of equipment and plywood sheets shall be placed over the wood chips for added protection.
- Roots exposed by excavation must be pruned and recovered as quickly as possible to promote callusing, closure, and healthy regrowth.
- Retained trees shall be watered periodically in accordance with species need to promote tree health. Transplanted trees and their intended planting areas shall be pre-watered. Post planting watering shall be done as needed to assure establishment.
- When project design is completed, an estimate of the appropriate number of replacement trees shall be made based on available planting space. These replacement trees (minimum five-gallon specimens) shall be planted along boundaries and within landscape areas. Planting density for replacement trees shall be accurately detailed to allow for some unavoidable mortality over time.
- Transplants are encouraged and shall be credited on a 1:1 basis. Final replanting numbers may be modified by additional tree retention and should be made part of the final landscaping plan.

Impact BIO-5: *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

The project site is not located within an approved HCP or NCCP area. However, the 5th Street Station 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" and "development with restrictions". As described in the HMP, the "preservation of native coastal strand, dune scrub, and sand hill maritime chaparral habitats within the road shoulders and medians" is required within the "development with restrictions" parcels. The project will

comply with the requirements of the HMP, as applicable. Additionally, while not required to reduce a significant impact, implementation of **Mitigation BIO-10** (which acknowledges that the MST will survey for Monterey spineflower and Yadon's piperia within the 5th Street Station area and if present, will determine whether salvage 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

Special-Status Species Table

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Special-Status Species Table

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

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Moderate** **5th Street Station: Moderate** Foraging and night roost habitat present within the project site. Potential maternity roost habitat is present within the abandoned buildings within the 5th Street Station area of the project site. The nearest CNDDB occurrence is approximately 4.5 miles from the survey area within former military buildings within the East Garrison development area.
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.	**Segments 1-4: Moderate** **5th Street Station: Moderate** Suitable habitat is present within the project site. The nearest CNDDB occurrence is approximately 8.0 miles from the project site; however, this species is known to occur throughout the former Fort Ord and the surrounding area.
Sorex ornatus salarius Monterey 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** The CNDDB includes an occurrence of this species that overlaps with the project site; however, this is a non-specific occurrence and 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** The CNDDB includes an occurrence of this species that overlaps with the project site; however, this is a non-specific occurrence and 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Athene cunicularia Burrowing owl (burrow sites & some wintering sites)	-- / CSC / --	Year-round resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Frequent open grasslands and shrublands with perches and burrows. Use rodent burrows (often California ground squirrel) for roosting and nesting cover. Pipes, culverts, and nest boxes may be substituted for burrows in areas where burrows are not available.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** The CNDDB includes an occurrence that overlaps with the project site; however, this is a non-specific occurrence that is attributed to Armstrong Ranch, located north of the project site and no suitable habitat is present within the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the 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.	**Segments 1-4: Low** **5th Street Station: Unlikely** Dune scrub within the project site may provide suitable habitat for this species; however, the project site is likely too far from the foredunes for this species. The CNDDB includes an occurrence that overlaps with the project site; however, this is a non-specific occurrence that is likely located within the foredunes and not 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	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** The CNDDB includes an occurrence of this species that overlaps with the project site; however, this occurrence is attributed to the cliffs along the beach and no suitable habitat is present within the project site.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Low** **5th Street Station: Low** No suitable habitat is present within the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Falco peregrinus anatum American peregrine falcon (nesting)	-- / CFP / --	Forages for other birds over a variety of habitats. Breeds primarily on rocky cliffs.	**Segments 1-4: Low** **5th Street Station: Low** No suitable habitat is present within the 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Laterallus jamaicensis coturniculus California black rail	-- / ST&CFP / --	Inhabits freshwater marshes, wet meadows & shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year & dense vegetation for nesting habitat.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Rallus obsoletus obsoletus California Ridgway's rail	FE / SE&CFP / --	Salt and brackish marshes.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Riparia riparia Bank swallow (nesting)	-- / ST / --	Nest colonially in sand banks. Found near water; fields, marshes, streams, and lakes.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable breeding or upland habitat is present within the project site. The project site is outside of the known dispersal range of any known 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site. The project site is outside of the currently known distribution of the 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.	**Segments 1-4: High** **5th Street Station: Moderate** Suitable habitat is present within the project site. The CNDDB reports two occurrences of this species that overlap with the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Phrynosoma blainvillii Coast horned lizard	-- / CSC / --	Associated with open patches of sandy soils in washes, chaparral, scrub, and grasslands.	**Segments 1-4: Moderate** **5th Street Station: Unlikely** Low quality habitat is present within the project site. The nearest CNDDB reports is approximately 0.5 mile from the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable breeding or upland habitat is present within or adjacent to the project site. The project site is outside of the known dispersal range of any known breeding resources.
Spea hammondii Western spadefoot toad	-- / CSC / --	Grasslands with shallow temporary pools are optimal habitats for the western spadefoot. Occur primarily in grassland habitats but can be found in valley and foothill woodlands. Vernal pools are essential for breeding and egg laying.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the 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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Spirinchus thaleichthys Longfin smelt	FC / ST&CSC / --	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15-30 PPT, but can be found in completely freshwater to almost pure seawater.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
INVERTEBRATES			
Bombus occidentalis Western bumble bee	-- / SC / --	Occurs in open grassy areas, urban parks, urban gardens, chaparral, and meadows. This species generally nests underground. Western bumble bee populations are currently largely restricted to high elevation sites in the Sierra Nevada.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** Marginal habitat is present within the project site; however, the project site is outside of the currently known range of this species.
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.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable habitat is present within the project site.
Danaus plexippus Monarch butterfly	-- / CNDDB / --	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.	**Segments 1-4: Unlikely** **5th Street Station: Low** Eucalyptus trees within the 5th Street Station area may provide marginal habitat for this species. However, the no populations are known to use this area.
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*.	**Segments 1-4: Assumed Present** **5th Street Station: Not Present** Host plants were identified within Segments 1-4 of the project site during surveys in 2020 and this species is assumed present where the host plants occur. The CNDDB includes an occurrence of this species that overlaps with the project site and this species is known to occur within the adjacent Fort Ord Dunes State Park. No host plant species are present within the 5th Street Station.
Linderiella occidentalis California fairy shrimp	-- / CNDDB / --	Ephemeral ponds with no flow. Generally associated with hardpans.	**Segments 1-4: Unlikely** **5th Street Station: Unlikely** No suitable 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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Present** **5th Street Station: Not Present** One individual of this species was observed during botanical surveys of Segments 1-4 in 2020. Not observed within the 5th Street Station during botanical surveys in 2020. The nearest CNDDB occurrence is located approximately 0.7 mile from the project site.
Arctostaphylos montereyensis Toro mazanita	-- / -- / 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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Marginal habitat is present within the project site; however, this species was not observed during botanical surveys in 2020.
Arctostaphylos pajaroensis Pajaro manzanita	-- / -- / 1B	Chaparral on sandy soils at elevations of 30-760 meters. Evergreen shrub in the Ericaceae family; blooms December-March.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020. The CNDDB includes an occurrence of this species that overlaps with the project site; however, it is attributed to the "entrance to Ford Ord" which is not within the project site.
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.	**Segments 1-4: Present** **5th Street Station: Not Present** This species was observed during botanical surveys of Segments 1-4 in 2020. Not observed within the 5th Street Station during botanical surveys in 2020. The CNDDB reports three occurrences of this species that overlap with the project site.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020. 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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Marginal habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.
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.	**Segments 1-4: Present** **5th Street Station: Moderate** This species was observed during botanical surveys of Segments 1-4 in 2020. Suitable habitat is also present within the 5th Street Station. The CNDDB reports an occurrence of this species that overlaps with a large portion of the project site.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys in 2020.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site and the CNDDB includes and occurrence that overlaps with the project site; however, the occurrence is identified as extirpated and this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site and the CNDDB reports and occurrence that overlaps with the project site; however, the occurrence is possible extirpated, and this species was not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020. Project site is below the known elevation range for 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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
Delphinium umbraculorum Umbrella larkspur	-- / -- / 1B	Cismontane woodland at elevations of 400-1600 meters. Perennial herb in the Ranunculaceae family; blooms April-June.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020. Project site is below the known elevation range for this species.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site and the CNDDB includes an occurrence from 1906 that overlaps with the project site; however, this species was not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020. Project site is below the known elevation range for this species.
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.	**Segments 1-4: Present** **5th Street Station: Unlikely** This species was observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station. The CNDDB reports two occurrences of this species that overlap with the project site.
Erysimum menziesii Menzies' wallflower	FE / SE / 1B	Coastal dunes at elevations of 0-35 meters. Perennial herb in the Brassicaceae family; blooms March-September.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site and the CNDDB includes an occurrence that overlaps with the project site; however, the location of this occurrence is known to be outside of the project site on the adjacent Fort Ord Dunes State Park and this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020. Project site is outside of the known geographic 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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** The project site is outside of the known native range for this species. Monterey cypress trees are present within the project site; however, all individuals are planted from unknown genetic stock and are not considered special-status.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020.
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.	**Segments 1-4: Present** **5th Street Station: Not Present** This species was observed within Segments 1-4 during botanical surveys in 2020. The CNDDB reports an occurrence of this species that overlaps with the project site.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
Legenere limosa Legenere	-- / -- / 1B	Vernal pools and wetlands at elevations of 1-880 meters. Annual herb in the Campanulaceae family; blooms April- June.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** Suitable habitat is present within the project site; however, this species was not observed during botanical surveys of Segments 1-4 in 2020. No suitable habitat is present within the 5th Street Station. The project site is below the known elevation range for this species.
Microseris paludosa Marsh microseris	-- / -- / 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations of 5-300 meters. Perennial herb in the Asteraceae family; blooms April-July.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Suitable habitat is present within the project site and the CNDDB includes two occurrences (from 1919 and 1925) that overlap with the project site; however, this species was not observed during botanical surveys in 2020.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
Monolopia gracilens Woodland wollythreads	-- / -- / 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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** Monterey pine trees are present within the project site; however, all individuals are planted from unknown genetic stock and are not considered special-status as the project site is outside of the known native range for this species.
Piperia yadonii Yadon's piperia	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.	**Segments 1-4: Not Present** **5th Street Station: Moderate** Suitable habitat is present within the project site. This species was not observed during botanical surveys of Segments 1-4 in 2020. However, suitable habitat is present within the 5th Street Station and a desiccated *Piperia* sp. plant was observed during the survey in September 2020. The nearest CNDDB occurrence is located approximately 400 feet east of the project site, on the former Fort Ord within the City of Marina.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcorn-flower	-- / -- / 1B	Mesic areas of chaparral, coastal prairie, and coastal scrub at elevations of 15-160 meters. Annual herb in the Boraginaceae family; blooms March-June.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Not Present** No suitable habitat is present within the project site. Not observed during botanical surveys in 2020.

Species	Status (USFWS/CDFW/CNPS)	General Habitat	Potential Occurrence within Project
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.
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.	**Segments 1-4: Not Present** **5th Street Station: Unlikely** No suitable habitat is present within the project site. Not observed during botanical surveys of Segments 1-4 in 2020.

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 = plants 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

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

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APPENDIX B

CNDDB Rare Plant Report
(Marina, Seaside, Monterey, Moss Landing, Prunedale, Salinas, and Spreckels Quadrangles)

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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 Seaside (3612157) OR Moss Landing (3612177) OR Prunedale (3612176) OR Spreckels (3612156) OR Salinas (3612166))
 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	G2G3	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 California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	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	G4?	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Bryoria spiralifera twisted horsehair lichen	NLTEST5460	None	None	G1G2	S1S2	1B.1

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	G3T1T2	S1S2	1B.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	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	G3G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
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	SSC
Euphilotes enoptes smithi Smith's blue butterfly	IILEPG2026	Endangered	None	G5T1T2	S1S2	
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	G5	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Layia carnosa beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
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	S3S4	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	PDROS1B0U0	Endangered	Endangered	G1	S1	1B.1
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G5T1	S1	FP
Ramalina thrausta angel's hair lichen	NLLEC3S340	None	None	G5?	S2S3	2B.1
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys megalotis distichlis Salinas harvest mouse	AMAFF02032	None	None	G5T1	S1	
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
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	G3	S3	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Stebbinsoseris decipiens Santa Cruz microseris	PDAST6E050	None	None	G2	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: 94

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APPENDIX C

IPaC Resource List

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
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Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958

In Reply Refer To: June 15, 2020
Consultation Code: 08EVEN00-2020-SLI-0483
Event Code: 08EVEN00-2020-E-00996
Project Name: MST Rapid Transit

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

Project Summary

Consultation Code: 08EVEN00-2020-SLI-0483

Event Code: 08EVEN00-2020-E-00996

Project Name: MST Rapid Transit

Project Type: TRANSPORTATION

Project Description: Transportation project along existing railway

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/36.6529071244914N121.8162660781278W

Counties: Monterey, CA

Endangered Species Act Species

There is a total of 19 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. 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.

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Santa Cruz Long-toed Salamander *Ambystoma macrodactylum croceum* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7405	Endangered

Fishes

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Smith's Blue Butterfly *Euphilotes enoptes smithi* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4418	Endangered

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Clover Lupine *Lupinus tidestromii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4459	Endangered
Contra Costa Goldfields *Lasthenia conjugens* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7058	Endangered
Marsh Sandwort *Arenaria paludicola* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2229	Endangered
Menzies' Wallflower *Erysimum menziesii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2935	Endangered
Monterey Gilia *Gilia tenuiflora ssp. arenaria* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/856	Endangered
Monterey Spineflower *Chorizanthe pungens var. pungens* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/396	Threatened
Yadon's Piperia *Piperia yadonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4205	Endangered

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Monterey Spineflower *Chorizanthe pungens var. pungens* https://ecos.fws.gov/ecp/species/396#crithab	Final

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