BIOLOGICAL RESOURCES ASSESSMENT REPORT

MORRO BAY POWER COMPANY, LLC BATTERY ENERGY STORAGE SYSTEM CITY OF MORRO BAY, CALIFORNIA

Project No. 1902-1173

Prepared for:

EMC Planning Group
301 Lighthouse Avenue, Suite C
Monterey, California 93940

Prepared by:

Padre Associates, Inc.
369 Pacific Street
San Luis Obispo, California 93401

REVISED MARCH 2023

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

Authenticity and Signature Page

Padre Associates, Inc.
369 Pacific Street
San Luis Obispo, California 93401
805-786-2650

Padre Associates, Inc. hereby certifies that all statements furnished in the following Biological Resources Assessment Report and all supporting information reviewed and referenced within this Report are true and correct to the best of our knowledge and belief. Further, we certify that all field surveys associated with this Report were performed by Padre Associates, Inc. using standards accepted by San Luis Obispo County and accurately represent all information retained from field visits to the Morro Bay Power Plant – Battery Energy Storage Solutions Project site located in Morro Bay, California.

Alyssa Berry
Senior Biologist

Christina Santala
Project Biologist

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1.0 INTRODUCTION

Padre Associates, Inc. (Padre) has prepared this Biological Resources Assessment Report (Report), on behalf of EMC Planning Group (EMC) to document the results of a biological resources survey completed in support of the Morro Bay Power Company, LLC – Battery Energy Storage System (BESS) Project (Project) located in the City of Morro Bay, California. This Report presents a review of the biological resources within the Project site that have the potential to be impacted by the Project. The information in this Report was obtained through review of existing literature and focused biological resources surveys. Padre conducted a biological field survey on December 16, 2020, which served to update data from a previous field survey completed within the Morro Bay Power Plant (MBPP) in September 2015 and encompassed a larger biological survey area (BSA) based on the proposed Project plan, followed by additional biological resources field surveys completed in 2021 and 2022. The BSA includes areas outside of the Project site to account for adjacent biological resources that have the potential to be indirectly impacted by the Project. The following information is presented in support of the Project: 1) a comprehensive review of the existing biological resources within the Project site; 2) a review of the anticipated regulatory setting/permitting process; 3) a review of the impacts of Project construction; and 4) recommended avoidance measures.

1.1 PROJECT LOCATION

The approximately 95-acre MBPP property (Project site) (Assessor's Parcel Numbers [APN] 066-331-046, 066-461-044, 066-461-045, and 066-461-016) is located at 1290 Embarcadero south of State Route 1 (SR 1)/Cabrillo Highway and north of Embarcadero and is situated directly north of Morro Bay Harbor and just south of Morro Creek within the City of Morro Bay (Figure 1-1 Project Location). Prominent natural features in the Project vicinity include Morro Creek to the north and Morro Rock Natural Preserve, Morro Bay Harbor, and the Morro Bay National Estuary to the south.

1.2 PROJECT DESCRIPTION

The Proposed Project includes three components (1) construction and operation of a 600 megawatt (MW) Battery Energy Storage System (BESS) on approximately 24 acres of the Project Site (BESS Site), (2) demolition and removal of the existing Power Plant building and stacks, and (3) adoption of a Master Plan that would change the land use designation of the BESS Site from Visitor Serving Commercial to General (Light) Industrial. The Project components are described below (Figure 1-2 Site Plan).

1.2.1 BESS Component

The proposed BESS includes three enclosed buildings with fire protection systems to house the batteries. Construction of the 30-foot tall BESS buildings would require 1,000 to 1,500 steel piles which would be driven into the soil. Piles would be driven to a depth of 75 feet. Once the piles are in place, a 36-inch concrete foundation of would be poured and the buildings would be erected using a steel frame and pre-cast concrete side panels. The BESS would also include three substations with transformers, a transmission line connecting to the existing dead-end structures on the southwestern side of the existing PG&E switchyard (the final structures before the connection with the substation), water supply system improvements, and internal access

roads. At the request of the City of Morro Bay, an area has been identified on the site plan for a multi-use path within an existing easement for a meandering multi-use path along Embarcadero Road within the MBPP property boundary.

The open areas surrounding the buildings will include access roads and paths. According to the Site Plan, the multi-use path is not to exceed 12 feet in width and will not include tree removal, but may include vegetation clean-up and tree trimming, in accordance with the limitation of the strip of land as Environmentally Sensitive Habitat Area (ESHA). Approximately 6 Monterey cypress trees, approximately 17 Monterey pine trees, and vegetation within the former tank farm will be removed as part of the Project.

1.2.2 Demolition Component

Following construction of the BESS, Vistra would remediate and demolish the existing power plant building and stacks. Demolition of the stacks would occur following abatement of any regulated materials, demolition of the interior of the existing buildings, and demolition of any connecting ductwork. The stacks would be removed by conventional means without using explosives, one stack at a time.

1.2.3 Master Plan Component

Plan Morro Bay Policy Land Use-5.4 requires a Master Plan for the redevelopment of the former MBPP property and surrounding area. The proposed project includes a Master Plan that would amend the General Plan and Local Coastal Plan (LCP) Land Use Permit (LUP) designation on the BESS Site from Visitor Serving Commercial to General (Light) Industrial. This is an administrative Project component and as such will not impact biological resources within the proposed Project site.

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FEET
1:24,000

USGS 7.5' Quadrangle: Morro Bay North & Morro Bay South
Legal Description: T29S, R10E, Sec. 25

LEGEND:

- Project Boundary
- Multi-Use Path

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PROJECT NAME: BATTERY STORAGE PROJECT
MORRO BAY POWER PLANT
SAN LUIS OBISPO COUNTY, CA

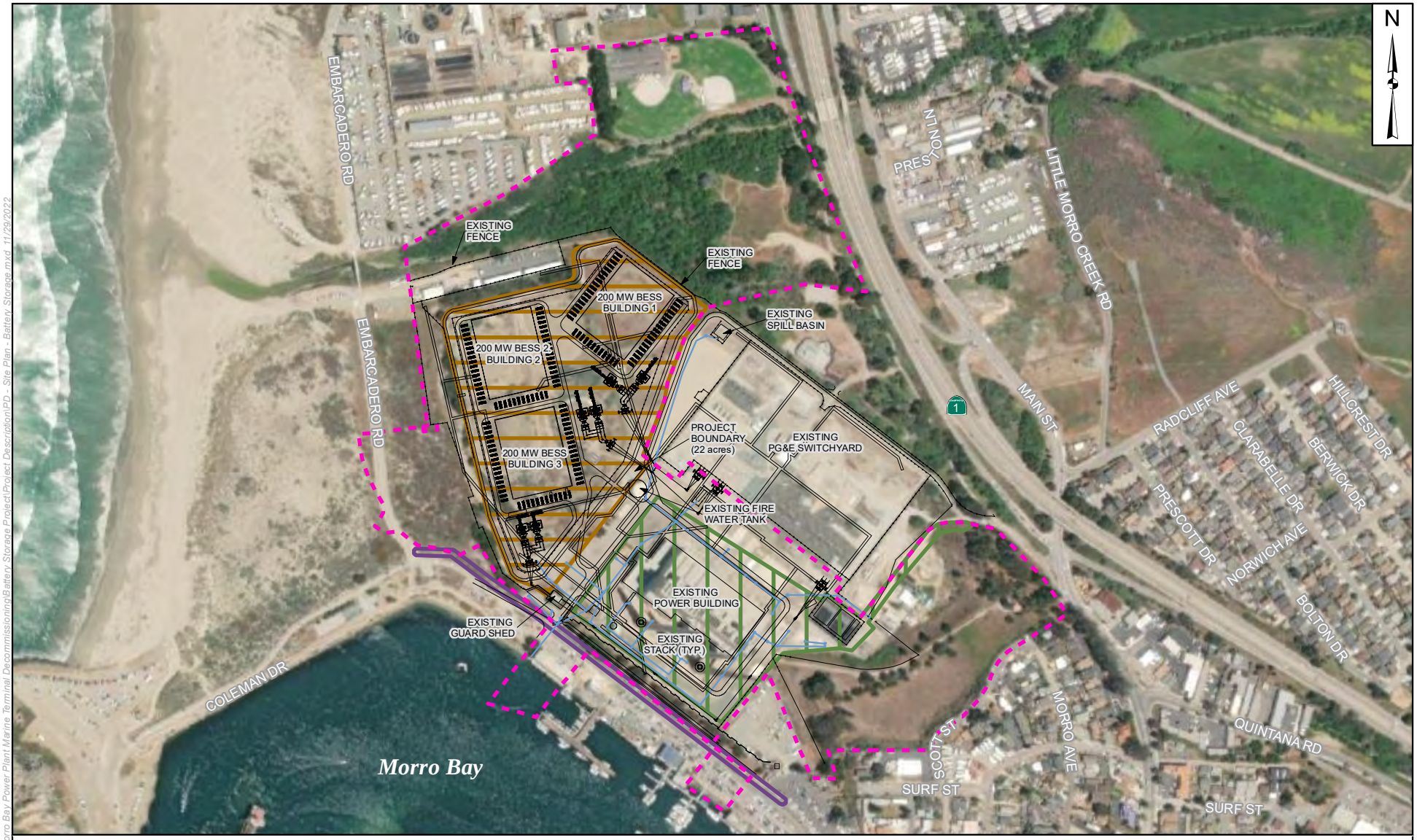
PROJECT NUMBER: 1902-1173

DATE: December 2022

PROJECT LOCATION

FIGURE 1-1

Z:\GIS Projects\GIS Maps\Map Project\Dynegy Morro Bay Power Plant Marine Terminal Decommissioning\Battery Storage Project\Project Description\PD - Project Location - Archeo.mxd - 1/9/2023



LEGEND:

- Site Feature
- Electrical Enclosure
- Stormdrain
- BESS Area
- Multi-Use Path
- Demolition Area
- Parcel Boundary

Source: Vistra / Sargent & Lundy (December 2020), City of Morro Bay NOP Report (June 2022)
Notes: This map was created for informational and display purposes only.

0 300 600
Feet

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PROJECT NAME: BATTERY STORAGE PROJECT
MORRO BAY POWER PLANT
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SITE PLAN

FIGURE 1-2

Z:\GIS Projects\GIS Maps\Map Projects\Dynegy Morro Bay Power Plant Marine Terminal Decommissioning\Battery Storage Project\Project Description\PD - Site Plan - Battery Storage.mxd 11/29/2022

2.0 REGULATORY SETTING

The regulatory setting identifies those laws and policies administered by resource agencies pertaining to those biological resources that are known to exist and/or have the potential to occur within the Project site.

2.1 FEDERAL AUTHORITY

2.1.1 Special-Status Species

The Federal Endangered Species Act (FESA) administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration – Fisheries (NOAA Fisheries), provides protection to species listed as threatened or endangered. FESA also provides protection to those species proposed to be listed under FESA or critical habitats proposed to be designated for such species. In addition to the listed species, the Federal government also maintains lists of species that are neither formally listed nor proposed but could potentially be listed in the future. Species on this list receive "special attention" from federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species include taxa for which substantial information on biological vulnerability and potential threats exist and are maintained in order to support the appropriateness of proposing to list the taxa as an endangered or threatened species.

Section 9 of the FESA prohibits the "take" of any member of a listed species. Take is defined as, "…*to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct*." Harass is "*an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering*." Harm is defined as "…*significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering*."

Projects that would result in the take of a federally listed or proposed species are required to consult with USFWS or NOAA Fisheries. The objective of consultation is to determine whether the project would jeopardize the continued existence of a listed or proposed species, and to determine what mitigation measures would be required to avoid jeopardy.

Consultations are conducted under Sections 7 or 10 of FESA depending on the involvement by the Federal government. Section 7 requires agencies to make a finding on all federal actions, including the approval by an agency of a public or private action, such as the issuance of a permit pursuant to Section 10/404 of the Clean Water Act, on the potential to jeopardize the continued existence of any listed or proposed species potentially impacted by the action. Section 10 is conducted when there is no Federal involvement in a project except compliance with FESA.

Under Section 7, the USFWS and NOAA Fisheries are authorized to issue Incidental Take Permits (ITP) for the take of a listed species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency. The ITP includes measures to minimize the take. Under Section 10(a), the USFWS and NOAA Fisheries can issue ITPs for non-Federal projects.

The USFWS also administers the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). Under the MBTA, it is unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR 10, including feathers or other parts of birds, nests, eggs or products, except as allowed by implementing regulations (50 CFR 21).

2.1.2 Waters and Wetlands

2.1.2.1 Federal Waters

The U.S. Army Corps of Engineers (ACOE) is responsible for the issuance of permits for the placement of dredged or fill material into waters of the U.S. pursuant to Section 404 of the Clean Water Act (33 USC 1344).

In non-tidal waters the lateral extent of federal jurisdiction is determined by the OHWM, which is defined as the: "…*line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."* (33 CFR 328[e]). Additional physical characteristics, including matted vegetation, sediment sorting, multiple observed flow events, water staining, and others, have also been used to determine the OHWM (U.S. Army Corps of Engineers, 2005).

In tidal areas, the ACOE jurisdiction under Section 404 extends to the high tide line (HTL), which, in the absence of actual data, is defined as…" *a line of oil or scum along shore objects, a more or less continuous deposit of fine shells or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide*."

Wetlands could also be regulated as waters of the U.S. if they were adjacent to jurisdictional waters (other than waters that are themselves wetlands). The ACOE regulation concerning wetlands adjacent to jurisdictional waters is defined at 33 CFR 328.4(c)(4).

Current interpretation of "waters of the United States" is consistent with the pre-2015 regulations (United States Environmental Protection Agency, 2021). According to the United States Environmental Protection Agency, under the current implementation of CWA regulation, the term waters of the United States means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

c. Which are used or could be used for industrial purposes by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under this definition;

5. Tributaries of waters identified in (1) through (4) of this section;

6. The territorial sea;

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in (1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

2.1.2.2 Federal Wetlands

Wetlands are a special category of waters of the U.S. and are defined at 33 CFR 328.3(b) as: "*...those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*"

The ACOE utilizes the *Corps of Engineers Wetland Delineation Manual* (1987), herein referred to as *1987 ACOE Manual*, to identify wetlands subject to regulatory jurisdiction (jurisdictional wetlands) under the CWA. In central and southern California, Nevada, Arizona, and the other arid regions of the western U.S. the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* prepared by the ACOE's Engineer Research and Development Center (2008) is used to delineate jurisdictional wetlands.

The ACOE identifies jurisdictional wetlands using a three-parameter definition using vegetation, soil, and hydrological characteristics. Excluding unusual conditions (atypical conditions or disturbed sites), all three parameters must be present for a site to be considered a jurisdictional wetland.

2.1.2.3 Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

The ACOE is also responsible for authorizing work affecting navigable waters of the United States. Structures or work under or over a navigable water of the United States is considered to have an impact on the navigable capacity of the waterbody (33 CFR 322.3[a]).

2.2 STATE AUTHORITY

2.2.1 Special-Status Species

The California Department of Fish and Wildlife (CDFW) administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA - Fish and Game Code Section 2050) that regulates the listing and take of threatened and endangered species. Under Section 2081 of CESA, CDFW may

authorize the take of an endangered and/or threatened species, or candidate species by a permit or Memorandum of Understanding for scientific, educational, or management purposes.

CDFW also maintains lists of "candidate species" which are species that CDFW has formally noticed as under review for addition to the threatened or endangered species lists. California candidate species are afforded the same level of protection as listed species. CDFW also designates "species of special concern" which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species but may be added to official lists in the future. The species of special concern list is intended by CDFW as a management tool to call attention to declining populations and focus efforts on decreasing threats to long-term viability.

CDFW also administers other State laws designed to protect wildlife and plants, including those laws stated within Fish and Game Code Section 3511, 3503, 3503.5. Under Section 3511 of the Fish and Game Code, CDFW designates species that are afforded "fully protected" status. Fish and Game Code 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of *any bird*. Section 3503.5 of the Fish and Game Code states that it is "*unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest of eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto*."

CDFW also manages the California Native Plant Protection Act of 1977 (Fish and Game Code Section 1900, et seq), which was enacted to identify, designate and protect rare plants. In accordance with CDFG guidelines, California Native Plant Society (CNPS) Rare Plant Rank 1B plants are considered "rare" under the Act and are evaluated in California Environmental Quality Act reports.

Project-related adverse impacts on special-status species are considered significant for California Environmental Quality Act (CEQA) purposes. Section 15065 of CEQA states that a Lead Agency shall find that a project may have a significant effect on the environment and thereby require an Environmental Impact Report (EIR) to be prepared for the project where the project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

2.2.2 Waters and Wetlands

Pursuant to Section 1602 of the California Fish and Game Code, CDFW requires a Lake or Streambed Alteration Agreement between CDFW and any State or local governmental agency, public utility, or private entity before the initiation of any construction project that will: 1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake; 2) use materials from a streambed; or 3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake.

The California Fish and Game Commission adopted a modification of the USFWS definition of wetlands on March 9, 1987 as its principal means of wetland identification in conjunction with on-site inspections for implementation of the Fish and Game Commission's

policy. Unlike USFWS, the CDFW definition only requires the presence of one wetland indicator for an area to qualify as a wetland. CDFW does not have a wetland regulatory program but advises other state agencies on wetland issues.

The Regional Water Quality Control Board (RWQCB) issues Water Quality Certifications per Section 401 of the Clean Water Act, and pursuant to the Porter-Cologne Water Quality Control Act of 1969 (CA Water Code §§ 13000-13999.10) that mandates that waters of the State shall be protected. Water quality certification is required prior to issuance of the 404 permit from the USACE. Section 401 of the Clean Water Act gives the RWQCB the authority to prohibit an activity, including any grading or construction project, if that project can impact water quality or have other unacceptable environmental consequences.

The Project site is located within the "coastal zone". Wetlands found in the coastal zone are regulated by the California Coastal Commission (CCC) under the California Coastal Act of 1976 (CCA) and the federal Coastal Zone Management Act. Under the CCA, wetlands are defined as land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. (Pub. Res. Code §30121). Seaward of the mean high tide line is the original jurisdiction of the CCC, and is therefore, also subject to the policies of the CCA.

2.3 LOCAL AUTHORITY

The Project site is located within the Coastal Zone of Morro Bay and is therefore within the jurisdiction of the CCC and City of Morro Bay. The City of Morro Bay adopted its General Plan/Local Coastal Plan on May 25, 2021, referred to as "Plan Morro Bay" (Morro Bay, 2022) which presents a plan for Morro Bay through 2040. The CCC certified Plan Morro Bay on August 12, 2021. Plan Morro Bay includes the following policies related to biological resources.

2.3.1 Environmentally Sensitive Habitat Areas

Special-status species and habitats of the Project site are afforded protection under the CCA through enforcement of goals and policies contained in the City of Morro Bay's LCP. To address Environmentally Sensitive Habitat Areas (ESHAs) consistent with the CCA, the LCP applies the following criteria for designating ESHAs:

- Unique, rare or fragile communities which should be preserved to ensure their survival in the future;
- Rare and endangered species habitats that are also protected by state and federal laws;
- Specialized wildlife habitat which are vital to species survival;
- Outstanding representative natural communities which have an unusual variety or diversity of plant and animal species;
- Areas with outstanding educational values that should be protected for scientific research and education uses now and in the future. (Morro Bay, 1982).

Policy 11.01 provides protections for ESHA, including wetlands. A minimum 100-foot Project setback is required around all wetlands; except for uses listed in Section 30233(c) of the CCA (Morro Bay, 1982).

Policy 11.02 requires development within an ESHA to be "sited and designed to prevent impacts which would significantly degrade such areas, and shall maintain the habitat's functional capacity" (Morro Bay, 1982).

Policy 11.05 requires that all projects within 250 feet of ESHA conform with applicable habitat protection policies with the LCP and depict ESHA boundaries on development plans (Morro Bay, 1982).

Policy 11.06 requires a minimum 100-foot setback from ESHA for permanent structures, with the exception of minor structures such as fences and at-grade improvements (Morro Bay, 1982).

Policy C-1.3 requires biological assessments of proposed developments that are within 100 feet of mapped ESHA (Morro Bay, 2020).

Policy C-1.4 requires preparation of a dune stabilization and/or restoration plan for all new developments that could impact dune ESHA (Morro Bay, 2020).

Policy C-1.5 requires setbacks from ESHA that are sufficient to protect sensitive resources (Morro Bay, 2020). These setbacks range from 100 to 50 feet and may be further reduce to 25 feet with City approval if deemed equally protective of the ESHA (Morro Bay, 2020).

Policy C-1.8 stipulates that if development with ESHA or required ESHA boundary "must be allowed to avoid an unconstitutional taking of private property without just compensation, the amount and type of development allowed shall be the least necessary to avoid a taking, and shall be as consistent with LCP policies as possible". All impacts to ESHA and required ESHA boundaries must be restored and fully mitigated (Morro Bay, 2020).

Policy C-1.16 provides requirements for replacing trees that are native or measure 6 inches at 54 inches above grade (Morro Bay, 2020).

Policy C-1.17 provides guidelines for reducing impacts to wildlife from fencing and light (Morro Bay, 2020).

3.0 METHODS

3.1 DESKTOP REVIEW

The initial desktop review included an aerial imagery review of the BSA and surrounding region. The Project region, for the purposes of this Biological Resources Assessment Report, includes a five-mile radius from the boundaries of the BSA, within United States Geological Survey (USGS) 7.5-minute quadrangles Cayucos, Morro Bay North, and Morro Bay South. These USGS 7.5-minute quadrangles were selected due to the coastal location of the Project site. Additional review included the incorporation of Geographic Information Systems (GIS) layers to analyze potential migratory routes, habitat connectivity and landscape fragmentation, and investigation of surrounding land uses. These layers were also used in the field to further assist in defining and mapping existing vegetation communities and sensitive habitats identified within the BSA.

The desktop review included a query of the CDFW California Natural Diversity Database (CNDDB) to identify reported occurrences of special-status plant and wildlife species and sensitive habitats within the Project region. The CNDDB is a statewide digital database utilized to locate the nearest occurrences of all rare, threatened, endangered, and special-status species and natural communities in California. All wildlife taxa listed in the CNDDB are considered "Special Animals," which the CDFW is interested in tracking, regardless of their legal protection status. The CNDDB occurrences are displayed as polygons and/or points that depict the accuracy of the data that was used to map the occurrence. Each polygon is provided an accuracy class that describes the level of the location detail. A polygon, therefore, does not necessarily reflect that a species occurs in all areas of the polygon, but may represent a non-specific area that documents habitat resources and/or simply a buffer distance around a specific point.

The USFWS Critical Habitat Portal (USFWS, 2022a) was reviewed to determine location of Critical Habitat for federally protected species that may potentially occur in the region. The USFWS Critical Habitat Portal is an online database that provides most recent datasets for federally defined Critical Habitat areas.

The USFWS Information for Planning and Consultation (IPaC) platform was queried as part of the desktop review (USFWS, 2022). An official species list was generated (Ventura Fish and Wildlife Office Project Code 2023-0006632) that documents USFWS Federal special-status plant and wildlife species potentially occurring within the Project region.

The USFWS National Wetland Inventory (NWI) was queried to identify potential wetlands and waters in the BSA and the Project region (USFWS, 2022c). The NWI is an online resource that provides detailed information on the abundance, characteristics, and distribution of USFWS-defined wetlands, and NWI data are used to promote the understanding, conservation and restoration of wetlands throughout the United States.

The desktop review also examined multiple sources of technical survey information completed in the vicinity of the BSA, including the following:

- Dynegy Morro Bay, LLC, Morro Bay Power Plant Marine Terminal Decommissioning Project Initial Study/Mitigated Negative Declaration, prepared by the California State Lands Commission (SLC, 2018);
- Dynegy Morro Bay, LLC Morro Bay Power Plant Marine Terminal Decommissioning Project Execution Plan, prepared by Padre Associates, Inc. (Padre, 2016);
- Morro Shoulderband Snail Protocol Survey Report, Morro Bay Power Plant (APN 066-331-040), Morro Bay, San Luis Obispo County, California (EAM, 2021);
- Chevron/Estero Marine Terminal Source Removal Project Execution Plan, prepared by Padre Associates, Inc. (Padre, 2015);
- Biological Survey Report for Duke Energy, prepared by V.L. Holland, Ph.D. & Villablanca, Ph.D. (Holland and Villablanca, 2000); and
- City of Morro Bay, Morro Creek Multi-Use Trail and Bridge Project, Initial Study-Mitigated Negative Declaration prepared by Rincon Consultants, Inc. (Rincon, 2013).

3.2 FIELD SURVEYS

Several field surveys have been completed by Padre biologists to assess the biological resources of the Project site. These surveys were scheduled to capture various seasons and updates to the Project description. During all field surveys, biologists walked the terrain within the BSA documenting all wildlife species observed. Direct visual observations, indirect signs (e.g., tracks, scat, skeletal remains, and burrows), and auditory cues (i.e., calls and songs) were documented. All identifiable plant species were recorded and presence of suitable habitat for potentially occurring special-status plants was noted. Plant specimens that were not positively identified in the field were further examined using a dissecting microscope and appropriate botanical keys, including The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et al., 2012) and The Jepson Herbarium Online Interchange California Floristics (University of California, 2022). Vegetation types identified during the surveys were classified based on the CNPS A Manual of California Vegetation, Second Edition (Sawyer et al., 2009) (MCVII) and Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986), as appropriate.

Padre biologists, Christina Santala and Shannon Gonzalez, conducted a biological field survey on December 16, 2020, which served to update data from a previous field survey completed within the MBPP in September 2015 and to encompass a larger BSA based on the proposed Project plans.

On March 30, 2021, Padre completed a supplemental spring botanical survey focused on the presence/absence of special-status plant species during the typical blooming period for many of the special-status plant species known to occur in the Project region. A supplemental spring botanical letter-report was prepared to document the results and is included in this Report as Appendix F – Spring Botanical Report.

On October 18, 2022, Padre conducted an additional field survey within the BSA that encompassed the proposed multi-use path alignment and stacks that were not captured during previous field surveys. The survey was focused on the existing biological resources, potentially occurring special-status plant and wildlife species, and the suitability of the habitat to support special-status species. Rare plant species identified within the main Project site were identifiable during the survey and therefore no additional spring botanical surveys were warranted.

4.0 FINDINGS

The following discussion of biological resources is limited primarily to those resources that were observed within the immediate vicinity of the BSA or resources that would be expected to occur and/or frequent a particular area based on the presence of suitable habitat. All documented resources discussed below are based on findings during field surveys completed in September 2015, December 2020, March 2021, and October 2022. Supporting documents include Figure 4-1 – Biological Resources Assessment Results, Figure 4-2 – Sensitive Habitats, Appendix A – Site Photographs, Appendix B – Plant Inventory, Appendix C – Wildlife Inventory, Appendix D – VRAP Data Sheets, Appendix E – CNDDB and IPaC Documentation, and Appendix F – Spring Botanical Report.

4.1 REGIONAL SETTING

The Project is located on the site of the former tank farm within the MBPP in the City of Morro Bay, between State Highway 1 and the Pacific Ocean. The Project site is at an elevation of approximately 20 feet above sea level, approximately 0.2 miles east of the Pacific Ocean with steep topographic relief associated with the former tank locations. The nearest residences are approximately 0.25 miles southeast. West of the Project site and extending north approximately two miles is Morro Strand State Beach. Morro Bay, Morro Bay State Park, Montaña De Oro State Park, and Morro Dunes Natural Preserve are located to the south of the Project site. Northeast of the Project is the valley of Morro Creek and due east of the Project site the hills of the Coast Range rise to heights of 500 to 600 feet within one mile. Approximately 0.6 miles west-southwest of the Project site lies Morro Rock, elevation 578 feet.

4.1.1 Aquatic Resources

The Project site is situated between three water bodies, including Morro Bay estuary to the south, Morro Creek to the north, and the Pacific Ocean to the west. The Morro Bay estuary is located along the Pacific Flyway and is recognized as part of the National Estuary Program. Additionally, a portion of the estuary is considered a bird sanctuary (i.e., within the City of Morro Bay). Morro Creek is a seasonal stream with areas of freshwater emergent wetland and includes mostly willow woodland and scrub habitat along the creek corridor.

Based on the query of the USFWS National Wetlands Inventory (NWI) database and the field survey observations, aquatic features recorded within the vicinity of the BSA included the Pacific Ocean (Estuarine and Marine Deepwater), Estuarine and Marine Wetland, Morro Creek (Riverine) and the surrounding riparian corridor (Freshwater/Forested Shrub Wetland) (USFWS, 2022b). Morro Creek is located along the northern boundary of the proposed Project footprint, Morro Bay Harbor is approximately 200 feet southwest, Morro Bay (Pacific Ocean) is approximately 1,200 feet west of the Project site however, there are no NWI aquatic features located within the Project site footprint. In addition, no aquatic features or vernal pool habitat was observed during the 2020, 2021, or 2022 field surveys within the BSA.

4.1.2 Climate

The region of Morro Bay has a mild climate with coastal fog common especially in the summer months. The prevailing wind direction is northwest to southeast off the Pacific Ocean. Annual average temperatures range from the low 50s to the 70s with little diurnal or seasonal variation. Average rainfall within the area is approximately 18 inches per year (U.S. Climate Data, 2020).

N

LEGEND:

- Blochman's leafy daisy
- Eucalyptus
- Monterey Cypress
- VRAP Location (1-6)
- Potentially Active Roost/Nest Tree (2022)
- Trees to be Removed (Monterey Cypress and Monterey Pine)

Project Components

- BESS Area
- Multi-Use Path
- Demolition Area
- Biological Survey Area (BSA)

Environmentally Sensitive Habitat Areas (ESHA): City of Morro Bay

- Backdune / Dune Scrub
- Foredune
- Freshwater Emergent Wetland
- Monarch Overwintering Site
- Outer Limit of Sea Level Rise-Related Hazard Zones
- Rivers & Streams (Stream Mouth)
- Rookeries
- Shallow Bay / Mudflat / and Eelgrass Potential Habitat
- Willow Woodland and Scrubland

Vegetation Communities

- Arroyo Willow Thicket
- Ruderal/Developed
- Iceplant Mat
- Mixed Dune
- Ornamental
- Silver Bush Lupine Scrub

MAP EXTENT:

0 150 300
FEET

Source: Esri Online Imagery Basemap (2022), City of Morro Bay NOP Report (June 2022), County of San Luis Obispo (2022)
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: BATTERY STORAGE PROJECT
MORRO BAY POWER PLANT
SAN LUIS OBISPO COUNTY, CA

PROJECT NUMBER: 1902-1173

DATE: December 2022

BIOLOGICAL RESOURCES ASSESSMENT RESULTS MAP

FIGURE 4-1

Z:\GIS Projects\GIS Maps\Map Projects\Dynegy Morro Bay Power Plant Marine Terminal Decommissioning\Battery Storage Project\Project Description\PD - Biological Resources Assessment Results Map - Battery Storage.mxd 11/29/2022

4.2 VEGETATION TYPES

Based on species composition, life form, and community membership rules, the vegetation identified within the BSA can be classified into distinct vegetation types (i.e., alliances, associations) as described in the Manual of California Vegetation; Second Edition (MCV2) (Sawyer et al., 2009), or designated as site-specific vegetation types/land use areas. Refer to Appendix B for a list of plants observed within the BSA during the December 2020 field survey. CDFW Vegetation Rapid Assessment Protocol (VRAP) Data Sheets are provided as Appendix D. Vegetation types identified within the BSA are listed in Table 4-1 – Vegetation Types within the BSA, illustrated in Figure 4-1 - Biological Resources Assessment Results, and described in detail in this section.

Table 4-1. Vegetation Types within the BSA

Vegetation Type / (Holland Community)	Sensitivity Status CDFW / City of Morro Bay)
Arroyo willow thickets	None, ESHA
Ice plant mats	None
Silver bush lupine scrub / (Central Dune Scrub)	G3, S3
Mixed dune / (Central Dune Scrub)	G3, S3 / ESHA
Ornamental[1]	None
Ruderal/Developed	None

Notes:
[1]Ornamental vegetation includes mixed and distinct stands of Eucalyptus, Monterey cypress, and Monterey pine. The stands of these species are planted and considered ornamental and are not considered as sensitive communities (CDFW, 2022a); however, individual trees are considered to be special-status species (CNPS, 2022b).
Notes:
ESHA Environmentally Sensitive Habitat Area (Rincon, 2018)
Global and State Rarity Ranks (CDFW, 2020):
G3 S3 Vulnerable - Restricted range, relatively few populations (often 80 or fewer).

4.2.1 Arroyo willow thickets

Arroyo willow thickets (*Salix lasiolepis* Shrubland Alliance) occurs along stream banks and benches, slope seeps, and stringers along drainages and is characterized by presence of arroyo willow as dominant or co-dominant within the shrub or tree canopy; canopy is open to continuous and the herbaceous layer is variable (Sawyer et al., 2009). As observed during the field survey, this alliance occurred along Morro Creek and Willow Camp Creek in the north and northeastern portion of the BSA. The quantitative vegetation assessment (Appendix D: data sheet MBPP003) identified native and non-native tree, shrub, and herbaceous species with arroyo willow as the dominant species. Component and intermittent species observed includes blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), and Monterey cypress (*Hesperocyparis macrocarpa*). Arroyo willow thicket associated with riparian habitat is designated as ESHA by the City of Morro Bay.

4.2.2 Ice plant mats

Ice plant mats (*Carpobrotus edulis* or Other Ice Plants Semi-Natural Herbaceous Stands Alliance) occur on bluffs, disturbed land, sand dunes of immediate coastline, coastal and alkaline terraces characterized by the presence of ice plant as dominant in the herbaceous canopy, emergent trees and shrubs may be present; canopy is intermittent to continuous (Sawyer et al., 2009). As observed during the field survey, this alliance occurred primarily in the southeastern portion of the BSA. The quantitative vegetation assessment (Appendix D: data sheet MBPP006) identified native and non-native, shrub and herbaceous species with ice plant (*Carpobrotus edulis*) as the dominant species. Component species included telegraph weed (*Heterotheca grandiflora*), coyote brush (*Baccharis pilularis*), and remnant annual grasses. This alliance is not considered sensitive by the CDFW and is not protected under CEQA.

4.2.3 Silver bush lupine scrub

Silver bush lupine scrub (*Lupinus chamissonis* Shrubland Alliance) occurs on stabilized dunes, river mouths, and coastal spits, bluffs and terraces (Sawyer et. al., 2009) and is characterized by the presence of silver bush lupine as dominant or co-dominant in the shrub layer, canopy is open to continuous, herbaceous layer is open to intermittent. As observed during the field survey, silver bush lupine occurs in stands intermittently throughout the former tank farm area where the Ruderal/Developed habitat has experienced natural recruitment. The quantitative vegetation assessment (Appendix D: data sheet MBPP001) identified silver dune lupine as the dominant species, with minimal understory comprised of remnant annual grasses and ice plant. Bush lupine (*Lupinus arboreus*) was identified as a component or intermittent species within this Alliance during subsequent field surveys conducted in 2021 and 2022. The Silver bush lupine scrub has established on fill soils within Ruderal/Developed habitat that has been disturbed during operation and decommissioning of the MBPP. As such, Project impacts to this alliance should be evaluated within the context of the stands' limited and fragmented distribution throughout the former tank farm area and not be considered ESHA under the category of Stabilized Dune with Dune Scrub. This alliance is considered sensitive by the CDFW (rarity ranking S3) and impacts to sensitive habitats may be considered significant under CEQA.

4.2.4 Mixed dune

A distinct stand of vegetation comprised of an assemblage of upland coastal species was observed along the northwestern boundary of the BSA. This area has been the focus of past restoration efforts, and existing vegetation varies in degree of establishment. Past studies completed in this location designated this assemblage of vegetation as Mixed dune (Padre, 2015a). As observed during the 2020, 2021, and 2022 field surveys, the composition of species within the Mixed dune vegetation species was similar to previously assessed conditions, and consisted of ice plant, beach bur (*Ambrosia chamissonis*), coyote brush, and remnant annual grasses (Appendix A – Site Photographs, Photo 8). This alliance (referred to as Central Dune Scrub) is considered sensitive by the CDFW and is designated as ESHA (referred to as Back Dune/Dune Scrub in the GIS layer) by the City of Morro Bay. Impacts to Mixed dune may be considered significant under CEQA.

4.2.5 Ornamental

Several stands of trees have been planted as windrows within the BSA, and within this Report, are collectively referred to and mapped as Ornamental. Three quantitative vegetation assessments were conducted to evaluate species composition and cover of this site-specific vegetation type. The quantitative vegetation assessments identified three distinct vegetation types including Monterey cypress stands, Eucalyptus groves, and Monterey pine stands (Appendix D: data sheets MBPP002, MBPP004, and MBPP005) which were comprised of native and non-native tree species including Monterey cypress (*Hesperocyparis macrocarpa*), Monterey pine (*Pinus radiata*), and eucalyptus (*Eucalyptus globulus*) as either the dominant or as components in the tree canopy of a stand. Component shrub and herbaceous species included silver bush lupine, ice plant, and Russian thistle (*Salsola tragus*).

There is a distinct stand of Ornamental vegetation comprised of Eucalyptus and Monterey Cypress located between the Embarcadero and the southeastern MBPP boundary that supports a rookery for multiple species of heron and is designated as ESHA, as well as protected under CEQA. In addition, Monterey cypress is a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1B.1 species, and Monterey pine is a CNPS CRPR 1B.2 species; however, the stands themselves are not considered to be sensitive by the CDFW. Stands of trees often provide suitable nesting habitat for birds and overwintering habitat for monarch butterflies. Refer to Section 4.5.1 Special-Status Plants for further details regarding these special-status tree species.

4.2.6 Ruderal/Developed

Within this Report, Ruderal/Developed habitat is a term used to describe those areas that have been disturbed by past land-use practices, recent ground disturbance or are currently developed. Ruderal/Developed habitat includes office facilities, paved and unpaved roads, industrial and commercial structures, and areas of vegetation along these features and within abandoned facilities. As observed during the December 2020, 2021, and 2022 field surveys, this vegetation type consisted primarily of remnant annual grasses, pampas grass (*Cortaderia jubata*), telegraph weed, ice plant, coyote brush, and scattered volunteer eucalyptus. Developed areas within the Ruderal/Developed habitat type generally do not support vegetative cover due to the presence of impervious surfaces.

4.3 WILDLIFE

Wildlife observed within the BSA during the field studies included both invertebrate and vertebrate species. This includes species seen or detected by tracks, scat, skeletal remains, burrows and/or vocalization during the field surveys conducted within the BSA. Limitations in the quantitative assessment of both terrestrial vertebrate and invertebrate populations include:

- Many species may occur in the area only for short periods during migrations;
- Many species of amphibians and reptiles become inactive during one or more seasons;
- Seasonal or annual fluctuations in climate or weather patterns may confound observations;
- No focused protocol-level surveys, mist-netting, trapping, tracking surveys, aquatic surveys or nocturnal surveys were completed by Padre biologists; and

- Protocol surveys for Morro shoulderband snail were completed during the rainy season of 2020-2021 and are attached to this Report as Appendix G – Morro Shoulderband Snail Protocol Survey Report.

Following are descriptions of several classifications of invertebrate and vertebrate species either observed or considered likely to be present within the BSA. Several wildlife species in the region may inhabit the Project area seasonally such as overwintering monarch butterfly (*Danaus plexippus*), migratory birds, and bats. The comprehensive desktop review and completion of field surveys conducted at various times of the year have provided sufficient information to ensure that resident, seasonal, and migratory wildlife (existing and potentially occurring special-status species) have been evaluated within this Report. Further descriptions of special-status species that have potential to occur within the BSA can be found in Section 4.5.2.

4.3.1 Invertebrates

Invertebrates observed during field surveys within the BSA included European snail (*Helix aspersa*) and dentate stink beetle (*Eleodes dentipes*). In addition, the following special-status species have the potential to occur within the BSA based on their prevalence throughout the region and/or the presence of suitable habitat: monarch butterfly (*Danaus plexippus*), globose dune beetle (*Coleus globosus*), Morro Bay blue butterfly (*Plebejus icarioides moroensis*), Morro shoulderband snail (*Helminthoglypta walkeriana*), obscure bumble bee (*Bombus caliginosus*), and sandy beach tiger beetle (*Cicindela hirticollis gravida*).

4.3.2 Amphibians

Amphibians detected during field surveys were limited to Sierran treefrog (*Pseudacris sierra*) which was heard calling at the north end of the BSA near Morro Creek. No additional amphibians were observed during field surveys within the BSA; however, the following species have the potential to occur within Morro Creek just outside of the BSA based on their prevalence throughout the region and the presence of suitable habitat: black-bellied slender salamander (*Batrachoseps nigriventris*.), arboreal salamander (*Aneides lugubris*), California toad (*Anaxyrus boreas halophilus*), and California red-legged frog (*Rana draytonii*). These salamander species are members of the Plethodontid family, or Lungless Salamandersand are found in damp environments on land, under rocks, logs, and other debris and do not live or breed in water (Nafis, 2022). California toad and California red-legged frog are semi-aquatic species that utilize both wetland and upland habitats for their life/reproductive cycles (Stebbins, 2003). The Project site does not contain suitable aquatic and/or moist habitat for these amphibians however, California toad and California red-legged frog have the potential to disperse and/or migrate through the upland habitat within the Project site.

4.3.3 Fish

No aquatic habitat suitable for fish is present within the BSA.

4.3.4 Reptiles

No reptiles were observed during field surveys; however, coast range fence lizard (*Sceloporus occidentalis bocourtii*) has been previously documented at the MBPP. In addition, the following species have the potential to occur within the BSA based on their prevalence throughout the region and/or the presence of suitable habitat: woodland alligator lizard (*Elgaria*

multicarinata webbii), San Diego gopher snake (*Pituophis catenifer annectens*), gartersnake species (*Thamnophi*s sp.), coast horned lizard (*Phrynosoma blainvillii*), northern legless lizard (*Anniella pulchra*), and southwestern pond turtle (*Actinemys pallida*).

4.3.5 Birds

Birds observed during field surveys within the BSA include Anna's hummingbird (*Calypte anna*), house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), yellow-rumped warbler (*Setophaga coronata*), black phoebe (*Sayornis nigricans*), California thrasher (*Toxostoma redivivum*), Hutton's vireo (*Vireo huttoni*), wrentit (*Chamaea fasciata*), blue-gray gnatcatcher (*Polioptila caerula*), turkey vulture (*Carthartes aura*), red-tailed hawk (*Buteo jamaicensis*), Bewick's wren (*Thrymanes bewickii*), white-crowned sparrow (*Zonotrichia leucophrys*), and great blue heron (*Ardea Herodias*).

In addition, black-crowned night herons (*Nycticorax nycticorax*) were observed within the BSA along the proposed multi-use path area adjacent to Embarcadero. Several large Eucalyptus trees in this area have been identified on Figure 4-1 as potential roost trees, based on observations of white-wash or roosting individuals.

4.3.6 Mammals

Mammals detected during field surveys within the BSA include raccoon (*Procyon lotor*), mule deer (*Odocoileus hemionus*), Virginia opossum (*Didelphis virginiana*), and coyote (*Canis latrans*). Other common mammal species expected to occur within the BSA based on the presence of suitable habitat include California ground squirrel (*Otospermophilus beecheyi*), California vole (*Microtus californicus*), brush rabbit (*Sylvilagus bachmani*), black-tailed jackrabbit (*Lepus californicus*), and striped skunk (*Mephitis mephitis*).

4.3.7 Marine Mammals and Reptiles

Marine mammals or reptiles were not observed during the field surveys within the BSA. The Project site is situated within approximately 0.22 miles of the Morro Bay estuary; however, the Project site does not contain marine or shoreline habitats and therefore is not suitable for marine mammals or reptiles. Special-status marine species that have been documented to occur offshore the BSA are discussed in Section 4.5.2 Special-Status Wildlife.

4.3.8 Wildlife Migratory Corridor

Wildlife migration corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Migration corridors may be local, such as those between foraging and nesting/denning areas, or they may be regional in nature. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous strips of native vegetation between source and receiver areas. These natural linkages provide cover and forage sufficient for temporary inhabitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional fitness of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

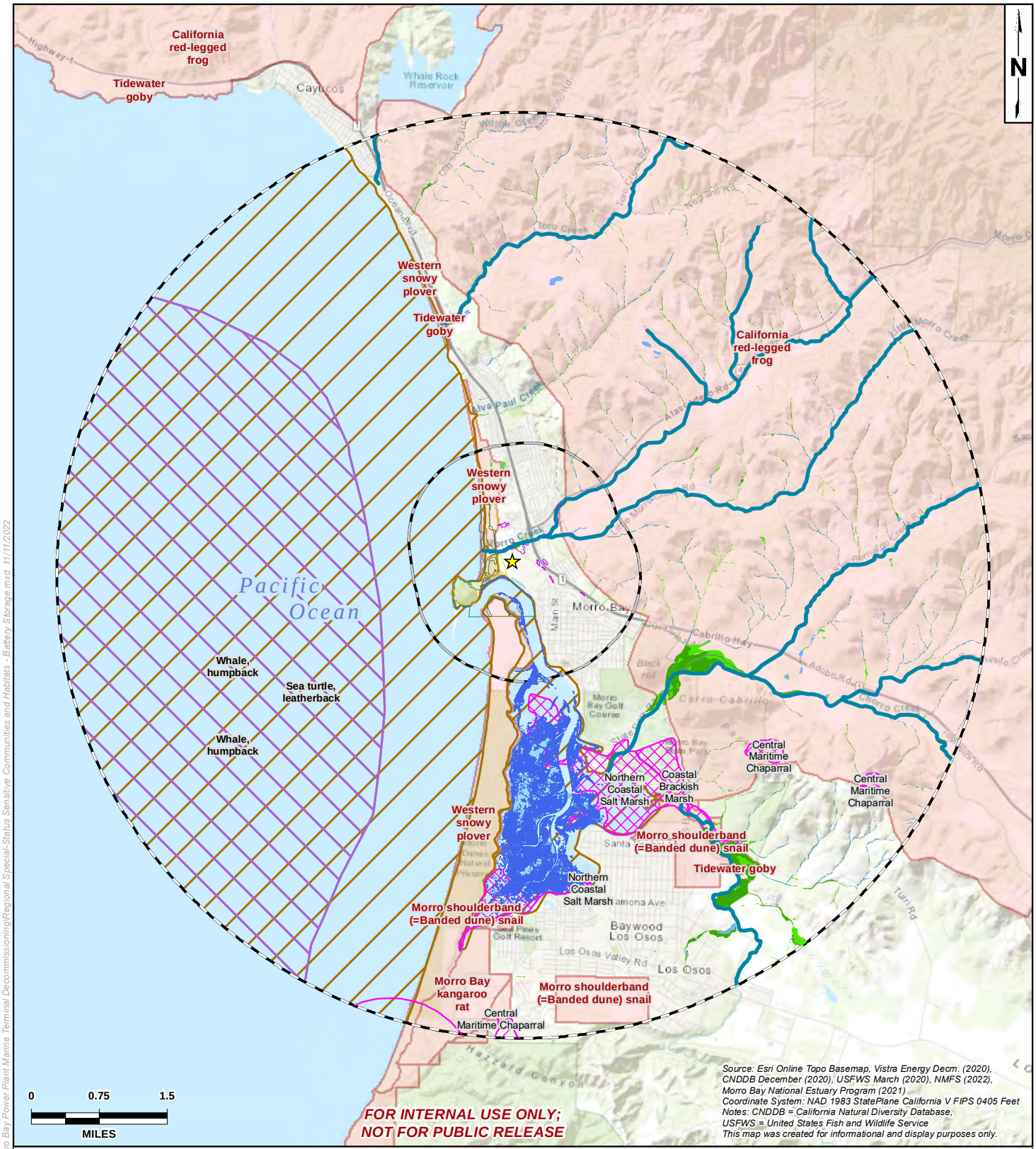
The Project region consists of the coastal range with drainages flowing west into the Pacific Ocean, and coastal bluffs and beach habitat which provide open spaces that serve as movement and dispersal corridors for a variety of wildlife species. However, the Project site is situated in the City of Morro Bay and the land use surrounding the Project site consists of Highway 1, paved streets, residential, and commercial development which restrict regional wildlife movement and dispersal into the Project site area. There is potential for wildlife to migrate through offsite habitats such as Morro Creek and/or mature stands of eucalyptus trees to the west and south to temporarily utilize the Project site for roosting, foraging, and/or denning.

4.4 SENSITIVE HABITATS OF THE PROJECT REGION

Based on information obtained from the desktop review, several habitats occur in the region that are afforded protection by a Federal, State, or local authority, and may support special-status plants and wildlife. For the purpose of this report, sensitive habitats include the following:

- Critical Habitat defined by the FESA under Section 3, and protected by the USFWS and/or National Marine Fisheries Service (Figure 4-2 – Sensitive Habitats);
- Sensitive habitats defined by the CESA and protected by the CDFW and/or local agencies; the CDFW considers vegetation types with an imperilment status of S3/G3 or rarer to be addressed in the environmental review processes of CEQA or its equivalents. (CDFW, 2018b).
- ESHAs protected by the City of Morro Bay and outlined in the City of Morro Bay Environmental Sensitive Habitat Area (ESHA) Analysis: 2050 Sea Level Rise Scenario Plan (Rincon, 2018); and
- Rare habitats identified by local professional organizations and/or the scientific community.

Sensitive habitats occurring within the Project region are summarized in Table 4-2 – Sensitive Habitats in the Project Region and illustrated in Figure 4-1 -Biological Resources Assessment Results Map and Figure 4-2 – Sensitive Habitats.



Source: Esri Online Topo Basemap, Vistra Energy Decm. (2020), CNDDB December (2020), USFWS March (2020), NMFS (2022), Morro Bay National Estuary Program (2021)
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: CNDDB = California Natural Diversity Database,
USFWS = United States Fish and Wildlife Service
This map was created for informational and display purposes only.

LEGEND:

- Project Site
- Project Site Buffer - 1 mile
- Project Site Buffer - 5 mile
- USFWS Critical Habitat
- Eelgrass
- Steelhead Critical Habitat

CNDDB Occurrences
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)

NWI Wetland Type
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

NMFS Critical Habitats
- Sea turtle, leatherback
- Whale, humpback

Environmentally Sensitive Habitat Areas (ESHA)
- Backdune / Dune Scrub
- Foredune
- Freshwater Emergent Wetland
- Monarch Overwintering Site
- Morro Rock (Peregrine Falcon Nest Site)
- Outer Limit of SLR-Related Hazard Zones
- Rivers & Streams (Stream Mouth)
- Rookeries
- Shallow Bay / Mudflat / and Eelgrass Potential Habitat
- Willow Woodland and Scrubland

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PROJECT NAME: BATTERY STORAGE PROJECT
MORRO BAY POWER PLANT
SAN LUIS OBISPO COUNTY, CA

PROJECT NUMBER: 1902-1173

DATE: December 2022

REGIONAL SENSITIVE HABITATS

FIGURE 4-2

Z:\GIS Projects\GIS Maps\Map Project\Dynegy Morro Bay Power Plant Marine Terminal Decommissioning\Regional Special Status Sensitive Communities and Habitats - Battery Storage.mxd 11/11/2022

Table 4-2. Sensitive Habitats of the Project Region

Sensitive Habitat	Protection Status and Critical Habitat Designations	Located within BSA	Located within Project site
USFWS/NMFS Designated Critical Habitat[1]			
California red-legged frog *Rana draytonii*	Federally threatened; USFWS-Designated Critical Habitat	No	No
Tidewater goby; Unit SLO-8, and SLO-9 *Eucyclogobius newberryi*	Federally endangered, USFWS-Designated Critical Habitat	No	No
Morro Shoulderband Snail *Helminthoglypta walkeriana*	Federally endangered; USFWS-Designated Critical Habitat	No	No
Morro Bay Kangaroo Rat *Dipodomys heermanni morroensis*	Federally Endangered, State endangered; USFWS-Designated Critical Habitat	No	No
Steelhead trout, South-Central California Coast DPS *Oncorhynchus mykiss irideus*	Federally threatened; NMFS-Designated Critical Habitat	No	No
Leatherback sea turtle *Dermochelys coriacea*	Federally endangered, State Candidate Endangered; NMFS-Designated Critical Habitat	No	No
Central America and Mexico humpback whale Distinct Population Segments (DPS) *Megaptera novaeangliae*	Federally endangered; NMFS-Designated Critical Habitat	No	No
CDFW CNDDB Sensitive Natural Communities[2]			
Central Dune Scrub (Mixed dune)	G2, S2.2	Yes	Yes
Central Maritime Chaparral	G2, S2.2	No	No
Coastal Brackish Marsh	G2, S2.1	No	No
Northern Coastal Salt Marsh	G3, S3.2	No	No

Table 4-2. Sensitive Habitats of the Project Region

Sensitive Habitat	Protection Status and Critical Habitat Designations	Located within BSA	Located within Project site
Alliances Designated as CDFW Sensitive Natural Communities / ESHA[3]			
Willow Woodland and Scrub [Arroyo willow thickets]	ESHA	Yes	No
Rookeries	ESHA	Yes	Yes[4]
Monarch Overwintering Site	ESHA	Yes	No
Silver bush lupine scrub	G3, S3	Yes	Yes
Back Dune/Dune Scrub (Mixed dune)	ESHA	Yes	Yes

Notes:
[1]USFWS Federal Register
[2]The CDFW Sensitive Natural Communities listed in this table are results of the CNDDB query of the Project region (CDFW, 2022). Site-specific vegetation type equivalent is provided in parentheses and MCV2 equivalent is provide in brackets. The ranking codes are part of the Heritage Methodology that provides information about the status of the taxon/community throughout their entire range and within California.
G Global Rank
S State Rank
G1-G5 Globally critically imperiled (G1) to demonstrably secure (G5)
S1-S5 State critically imperiled (S1) to demonstrably secure (S5)
[3]Communities listed and described in the Natural Communities List based on life form (CDFW, 2019), and ESHA designated by the City of Morro Bay (Rincon, 2018).
[4]The multi-use path will traverse rookeries designated as ESHA.

4.4.1 Critical Habitat

Five USFWS-designated and two NMFS-designated Critical Habitat areas are located within five miles of the Project site; however, none overlap the Project site limits. These Critical Habitats are discussed below.

4.4.1.1 California Red-Legged Frog Critical Habitat

USFWS-designated Critical Habitat for California red-legged frog was finalized in March of 2001 for core areas selected based on the following criteria: 1) areas that are occupied by California red-legged frog; 2) areas where populations of California red-legged frog appear to be source populations; 3) areas that provide connectivity between source populations; and 4) areas that represent areas of ecological significance (USFWS, 2002). Critical habitat may include an area that is not currently occupied by the species but is important for its recovery. Further, California red-legged frog are ultimately protected if occurring outside designated Critical Habitat areas. California red-legged frog Critical Habitat is located less than one mile from the BSA but does not extend into the BSA.

4.4.1.2 Tidewater Goby Critical Habitat

Tidewater goby is federally listed as Endangered under the FESA, and USFWS-designated Critical Habitat includes all locations where this species is known or likely to occur. The nearest tidewater goby Critical Habitats, referred to as SLO-8 and SLO-9, are located within Toro Creek approximately 2.5 miles northwest of the BSA and Los Osos Creek less than five miles south of the BSA. Critical Habitat does not extend into the BSA.

4.4.1.3 Western Snowy Plover Critical Habitat

The Pacific Coast population of western snowy plover is federally listed under the FESA as Threatened. USFWS-designated Critical Habitat for this species was finalized in June of 2012 for areas along the coasts of California, Oregon, and Washington. Critical Habitat areas for western snowy plover consist of sandy beaches, dune systems immediately inland of an active beach face, salt flats, and mud flats, that were selected based on the following criteria: 1) areas that will allow the species to move and expand; 2) known breeding areas; 3) known wintering areas; 4) habitat that is unique or that provides interchange between otherwise widely separated units; 5) areas to maintain connectivity of habitat; and 6) areas in which restoration activities will occur. Western snowy plover Critical Habitat occurs within the coastal dune habitat adjacent to the BSA but does not extend into the BSA.

4.4.1.4 Morro Shoulderband Snail Critical Habitat

USFWS-designated Critical Habitat for Morro shoulderband snail was finalized in March of 2001. Critical Habitat designated by the USFWS includes these elements: 1) sand or sandy soils which are necessary for reproduction 2) to permit movement, no greater than a ten percent slope, 3) and native coastal dune scrub vegetation. Morro shoulderband snail Critical Habitat occurs less than one mile from the BSA but does not extend into the BSA.

4.4.1.5 Morro Bay Kangaroo Rat Critical Habitat

USFWS-designated Critical Habitat for Morro Bay Kangaroo Rat (*Dipodomys heermanni morroensis*) was finalized August 1977. The Critical Habitat was originally delineated because it contained a significant population of the species. Since the designation, the population has decreased and is now restricted to an area of approximately five square miles, generally corresponding to the distribution of Baywood fine sand, south and southeast of Morro Bay. The species has not been observed in the wild since 1986. Morro Bay Kangaroo Rat Critical Habitat occurs less than five miles south of the BSA within Montaña De Oro State Park. Critical Habitat does not extend into the BSA.

4.4.1.6 South-Central California Coast Steelhead Critical Habitat

NMFS-designated Critical Habitat occurs in Morro Creek but does not extend into the BSA or the Project site. Project activities will occur approximately 25 feet south of the riparian vegetation corridor associated with Morro Creek.

4.4.1.7 Marine Critical Habitats

NMFS-designated Critical Habitat occurs offshore of the Project site for leatherback sea turtle and Central America and Mexico humpback whale Distinct Population Segments (DPS);

however, Project activities will only occur within the boundaries of the Project site and will not occur in or impact the marine environment.

4.4.2 Sensitive Natural Communities, Alliances, and ESHA

Based on the CNDDB query conducted during the desktop review, the following Sensitive Natural Communities were documented within the region: Central Dune Scrub, Central Maritime Chaparral, Coastal Brackish Marsh, and Northern Coastal Salt Marsh (CDFW, 2022b), with Central Dune Scrub as the only CDFW Sensitive Natural Community identified within the BSA.

Sensitive vegetation alliances (CDFW, 2022a, CNPS, 2022a) are based on life form of the dominant plant species found within a vegetation type. These vegetation types are described in the MCV2 (Sawyer et.al., 2009, CNPS, 2022a) and are assigned a rarity rank by the CDFW (CDFW, 2022a). The one sensitive vegetation alliance identified within the BSA was Silver bush lupine scrub, which corresponds to the Holland Community, Central Dune Scrub (CNPS, 2022a). The ESHAs as designated by the City of Morro Bay (Rincon, 2018) identified within the BSA included Rookeries, Back Dune/Dune Scrub, Willow Woodland and Scrub, and Monarch Overwintering Site (Rincon, 2018). Table 4-1 above provides a summary of these sensitive natural communities and alliances.

There is an ESHA referred to as Shallow Bay/Mudflat/and Eelgrass Potential mapped within the water off the Coleman Park Beach area (Rincon, 2018). Further, the Morro Bay harbor and estuary supports areas of seagrass beds comprised of eel grass (*Zostera marina*) that are considered to be a valuable coastal habitat worldwide (Morro Bay Estuary Program, 2021). The Project site is located approximately 150 feet east of the harbor and does not contain marine or shoreline habitats and therefore no eelgrass beds or ESHA are present within the BSA.

4.5 SPECIAL-STATUS BIOLOGICAL RESOURCES

4.5.1 Special-Status Plants

Special-status plants are either listed as Endangered or Threatened under FESA or CESA, considered Rare under the California Native Plant Protection Act, or considered rare (but not legally listed) by resources agencies, professional organizations, and the scientific community under the following categories.

- Plants listed or proposed for listing as Threatened or Endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species,).
- Plants that are candidates for possible future listing as Threatened or Endangered under the Federal Endangered Species Act (Federal Register May 3, 2022).
- Plants that meet the definitions of rare or endangered species under the CEQA (State CEQA Guidelines, Section 15380).
- Plants considered by the CNPS to be "Rare, Threatened, or Endangered" in California (Ranks 1B and 2 in CNPS, CNPS, 2022).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Ranks 3 and 4 in CNPS, 2020b).

- Plants listed or proposed for listing by the State of California as Threatened or Endangered under the California Endangered Species Act (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies or jurisdictions.
- Plants considered sensitive or unique by the scientific community or occurring at the limits of their natural range (State CEQA Guidelines).

The results of the desktop review indicated that 49 special-status plant species have been documented within approximately five miles of the BSA (Project region) (CDFW, 2022, CNPS, 2022). Appendix E – CNDDB Documentation lists species documented in the three quadrangles that encompass the region, and IPaC documentation lists species with the potential to occur in the region. Padre evaluated the documented species to identify which species had the potential to occur within the BSA. This evaluation compared the habitat preferences, including elevation, of the documented species to the existing habitats and conditions of the BSA, and nearest documented occurrence to the BSA. Based on the evaluation and field survey, six special-status plant species had the potential to occur. Three special-status plant species were observed within the Project site as shown in Table 4-3 - Special-Status Species of the Project Region and discussed further.

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Abronia maritima Sticky sand verbena	CRPR 4.2	Coastal dunes.	X	X	X	
Agrostis hooveri Hoover's bent grass	CRPR 1B.2	Foothill woodlands, chaparral, valley grassland.				
Arenaria paludicola Marsh sandwort	FE, SE, CRPR 1B.1	Freshwater wetlands, wetland-riparian				
Arctostaphylos luciana Santa Lucia manzanita	CRPR 1B.2	Coastal chaparral and shale outcrops and slopes.				

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Arctostaphylos morroensis Morro manzanita	FT, CRPR 1B.2	Chaparral, cismontane woodland, coastal dunes, coastal scrub in sandy loam.				
Arctostaphylos osoensis Oso manzanita	CRPR 1B.2	Chaparral, cismontane woodland, narrowly endemic to mountains north of Los Osos Valley.				
Arctostaphylos pechoensis Pecho manzanita	CRPR 1B.2	Chaparral, coastal sage scrub, closed-cone coniferous forest.				
Arctostaphylos pilosula Santa Margarita manzanita	CRPR 1B.2	Coastal chaparral and shale outcrops and slopes.				
Arctostaphylos tomentosa ssp. *daciticola* Dacite manzanita	CRPR 1B.1	Chaparral, cismontane woodland.				
Arenaria paludicola Marsh sandwort	FE, SE, CRPR 1B.1	Marshes and swamps.				
Astragalus didymocarpus var. *milesianus* Miles' milk vetch	CRPR 1B.2	Coastal scrub.	X	X	X	
Atriplex coulteri Coulter's saltbush	CRPR 1B.2	Coastal strand, valley grassland, coastal sage scrub, occasionally in wetlands.				
Bryoria spiralifera Twisted horsehair lichen	CRPR 1B.1	North coast coniferous forest.				
Calochortus obispoensis San Luis mariposa-lily	CRPR 1B.2	Coastal sage scrub, chaparral, valley grassland.				
Calystegia subacaulis ssp. *episcopalis* Cambria morning-glory	CRPR 4.2	Chaparral and cismontane woodland.				

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Camissoniopsis hardhamiae Hardham's evening-primrose	CRPR 1B.2	Closed-cone coniferous forest, chaparral in serpentine soils.				
Carex obispoensis San Luis Obispo sedge	CRPR 1B.2	Coastal sage scrub, closed-cone pine forest, chaparral, coastal prairie, coastal prairie, valley grassland.				
Castilleja densiflora var. *Obispoensis* San Luis Obispo owl's-clover	CRPR 1B.2	Meadows and seeps, valley and foothill grassland, sometimes in serpentine soil.		X		
Caulanthus californicus California jewelflower	FE, SE, CRPR 1B.1	Shadescale scrub, valley grassland, pinyon-juniper woodland.				
Ceanothus thyrsiflorus var. *Obispoensis* San Luis Obispo ceanothus	CRPR 1B.1	Chaparral, cismontane woodland.				
Chenopodium littoreum Coastal goosefoot	CRPR 1B.2	Coastal dunes.				
Chloropyron maritimum ssp. *maritimum* Salt marsh bird's-beak	FE, SE, CRPR 1B.2	Coastal salt marsh, coastal dunes.				
Chlorogalum pomeridianum var*. minus* Dwarf soaproot	CRPR 1B.2	Chaparral.				
Chloropyron maritimum ssp *palustre* Point Reyes salty bird's-beak	CRPR 1B.2	Coastal salt marsh, wetland-riparian.				
Chorizanthe breweri Brewer's spineflower	CRPR 1B.3	Coastal sage scrub, closed-cone pine forest, foothill woodland, chaparral.				

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Cirsium fontinale var. *obispoense* Chorro Creek bog thistle	FE, SE, CRPR 1B.2	Chaparral, foothill woodland, wetland-riparian, seeps.				
Cirsium occidentale var. *compactum* Compact cobwebby thistle	CRPR 1B.2	Coastal strand, coastal sage scrub, chaparral, coastal prairie.				
Cirsium occidentale var. *lucianum* Cuesta Ridge thistle	CRPR 1B.2	Chaparral, cypress conifer forests, mixed evergreen forests, oak woodlands.				
Cladonia firma Popcorn lichen	CRPR 2B.2	Maritime habitats, stabilized dunes along the coast.	X			
Clarkia speciosa ssp. immaculata Pismo clarkia	FE, SR, CRPR 1B.1	Openings and edges in foothill woodlands, chaparral, and valley grasslands.				
Cordylanthus maritimus ssp. maritimus Salt marsh birds beak	FE, SE, CRPR 1B.2	Coastal strand, coastal salt marsh, wetland-riparian.				
Delphinium parryi ssp. *blochmaniae* Dune larkspur	CRPR 1B.2	Coastal strand, chaparral, dunes.		X		
Delphinium parryi ssp. *eastwoodiae* Eastwood's larkspur	CRPR 1B.2	Chaparral, valley and foothill grassland.		X		
Dithyrea maritima Beach spectaclepod	ST, CRPR 1B.1	Dunes, coastal strands, coastal sage scrub.	X			
Dudleya abramsii ssp. *bettinae* Betty's dudleya	CRPR 1B.2	Chaparral, coastal scrub, valley and foothill grassland on rocky barren exposures of serpentine.				
Dudleya abramsii ssp. *murina* Mouse-gray dudleya	CRPR 1B.3	Chaparral, cismontane woodland, valley and foothill grassland on rocky barren exposures of serpentine rock/soils.		X		

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Dudleya blochmaniae ssp. *blochmaniae* Blochman's dudleya	CRPR 1B.1	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland with shallow rocky slopes in clays over serpentine.		X		
Dithyrea maritima Beach spectaclepod	ST, CRPR 1B.1	Coastal dunes and coastal scrub.	X			
Erigeron blochmaniae Blochman's leafy daisy	CRPR 1B.2	Coastal dunes, coastal scrub, endemic to San Luis Obispo County.	X	X	X	X
Eriodictyon altissimum Indian Knob mountainbalm	FE, SE, CRPR 1B.1	Maritime chaparral, cismontane woodland, coastal scrub, endemic to San Luis Obispo County.				
Erythranthe serpentinicola Irish Hills monkeyflower	CRPR 1B.1	Serpentine spring and rock outcroppings in shrubland and chaparral.				
Extriplex joaquinana San Joaquin spearscale	CRPR 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland in alkaline. soil.		X		
Fritillaria ojaiensis Ojai fritillary	CRPR 1B.2	Mixed evergreen forests and chaparral.				
Hesperocyparis macrocarpa Monterey cypress[2]	CRPR 1B.2	Closed-cone pine forest.	X	X	X	X
Horkelia cuneata var. *puberula* Mesa horkelia	CRPR 1B.1	Chaparral (maritime), cismontane Woodland, coastal scrub; sandy gravely soils.	X			
Horkelia cuneata var. *sericea* Kellogg's horkelia	CRPR 1B.1	Northern coastal scrub, coastal sage scrub, closed-cone pine forest.	X	X	X	

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Lasthenia californica ssp. *macrantha* Perennial goldfields	CRPR 1B.2	Northern coastal scrub	X			
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	CRPR 1B.1	Coastal salt marsh, playas, vernal pools.				
Layia jonesii Jones' layia	CRPR 1B.2	Chaparral and grasslands areas with clay and serpentine outcrops and soil.		X		
Malacothamnus palmeri var. palmeri Santa Lucia Bush mallow	CRPR 1B.2	Chaparral and interior valley foothills.				
Monardella palmeri Palmer's monardella	CRPR 1B.2	Foothill woodland and chaparral.				
Monardella sinuata ssp. *sinuata* Southern curly-leaved monardella	CRPR 1B.2	Coastal dunes, coastal scrub, chaparral, cismontane woodlands.	X			
Navarretia fossalis Spreading navarretia	FT, CRPR 1B.1	Freshwater marsh, vernal pools.				
Nemacaulis denudata var. *denudata* Coast woolly-heads	CRPR 1B.2	Coastal strand (beach).				
Pinus radiata Monterey pine[2]	CRPR 1B.1	Closed-cone coniferous forest, cismontane woodland.	X	X	X	X
Poa diaboli Diablo Canyon blue grass	CRPR 1B.2	Slopes in shrubland and chaparral.				
Sanicula maritima Adobe sanicle	SR, CRPR 1B.1	Chaparral, coastal prairie, valley grassland, wetland-riparian.				

Table 4-3. Special-Status Plant Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description[1]**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence**	**Observed in Project Site**
Streptanthus albidus ssp. *peramoenus* Most beautiful jewelflower	CRPR 1B.2	Foothill woodland, chaparral, valley grassland.				
Senecio aphanactis Chaparral ragwort	CRPR 2B.2	Foothill woodland, northern coastal scrub, coastal sage scrub.	X			
Senecio blochmaniae Dune ragwort	CRPR 4.2	Coastal sand dunes, sandy floodplains.	X	X[3]	X	
Suaeda californica California seablight	FE, CRPR 1B.1	Coastal salt marshes and swamps.		X		
Sulcaria isidiifer Splitting yarn lichen	CRPR 1B.1	Chaparral, cismontane woodland.				

Notes:
[1]Habitat descriptions found in CDFW, 2022, CalFlora, 2022, and/or CNPS, 2022b. Habitat presence and potential for occurrence based on evaluation of the Project site.
[2]Planted as landscape windrow trees within the BSA.
[3]Observed by Padre in Mixed dune habitat outside of the BSA (Padre, 2015a).
NA Not applicable
FE Federally endangered
FT Federally threatened
SE State endangered
ST State threatened
CNPS Ranking System (CNPS, 2022); CRPR California Rare Plant Rank:
1A Plants presumed extirpated in California and either rare or extinct elsewhere
1B Plants rare, threatened, or endangered in California and elsewhere
2A Plants presumed extirpated in California, but common elsewhere
2B Plants, rare, threatened, or endangered in California, but more common elsewhere
3 Plants about which more information is needed – a review list
4 Plant of limited distribution – a watch list
CRPR Threat Ranks (CNPS, 2022)
0.1 Seriously threatened in California
0.2 Moderately threatened in California
0.3 Not very threatened in California

Three special-status species were observed during the field survey: Monterey cypress (*Hesperocyparis macrocarpa*), Monterey pine (*Pinus radiata*), and Blochman's leafy daisy (*Erigeron blochmaniae*). The initial field survey was conducted in December 2020, outside of the

typical blooming period for most of the special-status species with the potential to occur. However, although not in bloom in December, the perennial species and would likely be identifiable based on the plant's structure and morphological characteristics visible at any time of the year.

A follow-up spring botanical survey was completed in March 2021, and the survey results are attached to this document as Appendix F – Spring Botanical Report. The spring botanical survey focused on the annual special-status plant species that were determined to have potential to occur based on suitable habitat but may not have been identifiable during the December 2020 survey including: Sticky sand verbena (*Abronia maritima*), Miles' milk vetch (*Astragalus didymocarpus* var. *milesianus*), Blochman's leafy daisy, Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), and dune ragwort (*Senecio blochmaniae*). Note that Monterey cypress and Monterey Pine are not included in the blooming table because they are identifiable at all times of the year. The blooming periods for these species are shown in Table 4-4 - Blooming Periods for Potentially Occurring Special-Status Annual Herbs and Lichen. Details on the three species observed within the BSA are described below Table 4-4. In October 2022, a field survey was completed to assess the botanical resources within the BSA including the multi-use path area.

Table 4-4. Blooming Periods for Potentially Occurring Special-Status Species

Common Name	Blooming Period[1] (month)											
	Jan	Feb	Mar*	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov	Dec*
Sticky sand verbena												
Miles' milk vetch												
Blochman's leafy												
Kellogg's horkelia												
Dune ragwort												

Notes:
[1]Blooming period information was provided by Baldwin et al., 2012 and CNPS, 2022.
*Indicates botanical field survey month.

4.5.1.1 Monterey cypress

Monterey cypress is a perennial evergreen tree in the Cypress Family (Cupressaceae) that is native to California and endemic to central coast of California, occurs in coastal pine forest habitats, and is a CNPS CRPR 1B.2 species. This species is widely planted and has been naturalized outside its native range (University of California, 2022). In the wild, this species is limited to two small populations, near Monterey and Carmel, California (Calflora, 2022, CNPS, 2022b). As observed during the field surveys, there were several stands (shown on Figure 4-1 as Ornamental vegetation) and individual trees that appeared to be planted as landscape trees within the BSA. There were approximately 43 individual trees within the stands, all appeared healthy and ranged in height from approximately ten to 30 feet tall. It is expected that approximately six Monterey cypress will be removed as part of Project activities within the BESS area. Refer to Section 5.0 for information on replacement trees plantings.

4.5.1.2 Monterey pine

Monterey pine is a perennial evergreen tree in the Pine Family (Pinaceae) that is native to California, occurs in coastal pine forest habitats, and is a CNPS CRPR 1B.1 species. Monterey pine is native to three very limited areas located in Santa Cruz, Monterey peninsula, and San Luis Obispo Counties, and in these stands is co-dominant with Monterey cypress. This species is extensively cultivated around the world for lumber and can be invasive in parts of California (Calflora, 2022, CNPS, 2022b). As observed during the field surveys, there were several stands (shown on Figure 4-1 as Ornamental vegetation) and individual trees that appeared to be planted as landscape trees within the BSA. There were approximately 17 individual trees within the stand, all appeared healthy and ranged in height from approximately 10 to 20 feet tall. It is expected that all Monterey pine trees will be removed as part of Project activities. Refer to Section 5.0 for information on replacement trees plantings.

4.5.1.3 Blochman's leafy daisy

Blochman's leafy daisy is a perennial herb in the Sunflower Family (Asteraceae) family that occurs in dunes and coastal strand habitat, is a CNPS CRPR 1B.2 species, and typically blooms from June through October. Padre observed this species in Ruderal and Silver bush lupine scrub situated on remnant tank ring berms. Seed was collected from doner plants in August 2021 for future mitigation restoration activities. Refer to Section 5.0 for information on restoration activities.

4.5.2 Special-Status Wildlife

Special-status wildlife species are either listed as Endangered or Threatened under FESA or CESA, or considered rare (but not formally listed) by resources agencies, professional organizations, and the scientific community under the following categories:

- Animals listed or proposed for listing as Threatened or Endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).
- Animals that are candidates for possible future listing as Threatened or Endangered under the Federal Endangered Species Act (Federal Register May 3, 2022).
- Animals that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines*, Section 15380)
- Animal considered Species of Special Concern (SSC) by CDFW (Checklist of the American Ornithologists' Union, 2022 for birds; American Society of Mammologists, 2022 for mammals; Fricke, R., Eschmeyer, W. N. & R. van der Laan (eds), 2022 for fish; and Center for North American Herpetology, 2022 for amphibians and reptiles).
- Animals listed or proposed for listing by the State of California as Threatened and Endangered under the California Endangered Species Act (14 CCR 670.5).
- Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Animal species protected under the Marine Mammal Protection Act (as amended in 1994).

- Birds of Conservation Concern. Migratory and nonmigratory bird species (beyond those already designated as federally Threatened or Endangered) that represent the USFWS highest conservation priorities in effort to draw attention to species in need of conservation action (Shuford and Gardali, 2008).
- Birds on the CDFW Watch List include "Taxa to Watch" (Shuford and Gardali, 2008) 1) not on the current Special Concern list but were on previous lists and they have not been state listed under CESA; 2) were previously state or federally listed and now are on neither list; or 3) are on the list of "Fully Protected" species.
- The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. Species designated as "High Priority" are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

Based on the literature review and species lists obtained from CNDDB, USFWS (IPaC Trust Resource Report) (Ventura Office Project code: 2023-0006632) and from National Marine Fisheries Service (NMFS) for the Project region, 52 special-status wildlife species have been documented and/or have the potential to occur within the Project region (CDFW, 2022, USFWS, 2022c). All species lists are provided in Appendix E. Padre evaluated the documented species to identify which species had a higher potential to occur within the Project site. An analysis of the likelihood of occurrence for each species was conducted on the basis of species ranges, previous observations, contemporary sightings, and presence of suitable habitat elements. Although the Project is located in the coastal zone, Project activities are planned to occur within the boundaries of the Project site and would not impact marine or aquatic environments; therefore, exclusively marine species were not included in the analysis. In addition, the Project is located outside of the known range of some species, or within the geographic range for a certain species, but suitable aquatic or terrestrial habitats, such as nesting, foraging, or migrating corridors are absent from the BSA.

Based on the evaluation and field survey, eleven special-status wildlife species have the potential to occur within the Project site as shown in Table 4-5 - Special-Status Wildlife Species of the Project Region and discussed below.

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Invertebrates					
Bombus caliginosus Obscure bumble bee	SA	Coastal areas from Santa Barbara County north to the state of Washington.	X	X	**This species was not observed during field surveys; however, based on the presence of suitable habitat, as well as nearby occurrences and their transitory nature, this species has the potential to occur within the Project site.**
Branchinecta conservation Conservancy fairy shrimp	FE	The habitat characteristics typical of the pools that support the conservancy fairy shrimp are clear to turbid pools often in alkaline soils. These include clear-water depressions in sandstone outcroppings, grass-bottomed pools, and claypan pools.			No suitable habitat is present on the Project Site and there have been no documented occurrences of vernal pool fairy shrimp within the vicinity to date. This species is not likely to occur within the Project site.

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Branchinecta lynchi Vernal pool fairy shrimp	FT	Grassland vernal pools or similar seasonal wetlands. They require cool water with low alkalinity and low total dissolved solids and tend to be found in smaller pools about six inches (fifteen centimeters) deep that stay flooded for relatively short amounts of time.			No suitable habitat is present on the Project site and there have been no documented occurrences of vernal pool fairy shrimp within the vicinity to date. This species is not likely to occur within the Project site.
Cicindela hirticollis gravida Sandy beach tiger beetle	SA	Habitats adjacent to non-brackish water.		X	The Project site does not support non-brackish water nor is it directly adjacent, this species is not likely to occur within the Project site.
Coelus globosus Globose dune beetle	SA	Coastal sand dune habitat.		X	The Project site is predominantly comprised of previously disturbed soils, no suitable habitat is present. This species is not likely to occur within the Project site.
Danaus plexippus Monarch - California overwintering population (Pop. 1)	SA, FC	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby.	X	X	**Overwintering monarchs were not observed within the Project site, but a nearby overwintering population has been documented southeast of the Project site, this species has the potential to occur within the Project site.**

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Helminthoglypta walkeriana Morro shoulderband snail	FT	Coastal dune and coastal scrub.	X	X	Protocol surveys within the Project site and adjacent habitats were negative from 1999 to 2016, and five out of five protocol surveys conducted in 2020-2021 were negative in the BSA (EAM, 2021). This species is not likely to occur within the Project site.
Plebeius icarioides moroensis Morro Bay blue butterfly	SA	Coastal dune scrub containing silver dune lupine (*Lupinus chamissonis).*	X	X	**This species was not observed during field surveys; however, based on the presence of suitable habitat, as well as nearby occurrences and their transitory nature, this species has the potential to occur within the Project site.**
Tryonia imitator Mimic tryonia	SA	Inhabits coastal lagoons, estuaries and salt marshes.	-	-	No suitable habitat is present on the Project site. This species is not likely to occur within the Project site.
Fish					
Eucyclogobius newberryi Tidewater goby	FE	Brackish water habitats. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	-	X	No suitable habitat is present, the nearest occurrence is located in Morro Creek, north of the Project site. This species is not likely to occur within the Project site;

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
					but have a low potential to occur in Morro Creek outside of the Project site limits.
Oncorhynchus mykiss irideus Steelhead – south-central California coast DPS (Pop. 9)	FT	Coastal streams.	-	X	No suitable habitat is present on the Project site, the nearest occurrence is located in Morro Creek, north of the Project site. This species is not likely to occur within the Project site; but have a low potential to occur in Morro Creek outside of the Project site limits.
Amphibians					
Amystoma californiense California tiger salamander -Central CA DPS Pop.1	FT, ST	Grassland, oak savanna, edges of mixed woodland and lower elevation coniferous forest. Requires temporary breeding ponds and habitat with small mammal burrows.			No suitable habitat is present, the nearest occurrence is greater than five miles from the Project site. This species is not likely to occur within the Project site.

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Rana boylii Foothill yellow-legged frog -South Coast DPS	PFE	Streams with shallow, flowing water with some cobble substrate.			No suitable habitat is present, the nearest occurrence is greater than five miles from the Project site. This species is not likely to occur within the Project site.
Rana draytonii California red-legged frog	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	X	X	**The Project site does not provide aquatic habitat, the nearest occurrence is located in Morro Creek, north of the Project site. There is a low potential for this species to disperse through the Project site during migration between breeding sites.**
Reptiles					
Anniella pulchra Northern California legless lizard	SSC	Sandy soils, sparse vegetation.	X	X	**The Project site is predominantly comprised of previously disturbed soils, however, there is potential for this species to occur within the Silver bush lupine scrub and along the perimeter of the Project site adjacent to Mixed Dune.**

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Actinemys pallida Southwestern pond turtle	SSC	Ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, and adjacent upland habitats.			No suitable habitat is present on the Project site. Morro Creek to the north of the Project site has suitable aquatic habitat for this species, however, there is an existing chain link fence that would prevent entry into the Project site during upland dispersal. This species is not likely to occur within the Project site.
Phrynosoma blainvillii Coast horned lizard	SSC	Wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	X	X	**The Project site is predominantly comprised of previously disturbed soils, however, there is potential for this species to occur within the Silver bush lupine scrub and along the perimeter of the Project site adjacent to Mixed Dune habitat.**

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Birds					
Accipiter cooperii Cooper's hawk	WL	Found in riparian forest and nests in tall trees.	X		**There is potential for this species to nest in trees within Morro Creek and to forage in the Project site.**
Agelaius tricolor Tricolored blackbird	ST	Wetlands with cattails, bulrush, and willows, agricultural fields.			No suitable habitat is present, the nearest occurrence is greater than five miles from the Project site. This species is not likely to occur within the Project site.
Brachyramphus marmoratus Marbled murrelet	FT, SE	Nest in old growth forests in San Francisco area and Pacific Northwest. Forage in nearshore marine habitats on pelagic fish and invertebrates.			Potential transitory presence during late summer/fall migration in nearshore foraging habitat offshore Morro Bay. Nesting habitat is not present in the Project Site. This species is not likely to occur within the Project site.
Charadrius alexandrinus nivosus Western snowy plover	FT, SSC	Sandy beaches, salt pond levees and shores of large alkali lakes.	X	X	**No western snowy plovers were observed within the BSA during field surveys, and it is not likely that this species would occur based on past land use and current disturbance level of the potential suitable. In addition, suitable nesting habitat is not present on the Project site. Individuals may**

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
					occur transiently given the proximity of extant populations.
Coccyzis americanus *Yellow-billed cuckoo*	FT	Wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland and dense thickets along streams and marshes			No suitable habitat is present on the Project Site. This species is not likely to occur within the Project site.
Empidonax traillii extimus Southwestern willow flycatcher	FE, SE	Occurs along rivers and streams in the southwestern United States during May through September.			No suitable habitat is present on the Project site. This species is not likely to occur within the Project site.
Gymnogyps californianus California condor	FE, SE	Require large areas of remote country for foraging, roosting, and nesting. Roost in large trees or snags, or on isolated rocky outcrops and cliffs. Nests are located in shallow caves and rock crevices within cliffs.			No suitable habitat is present on the Project site. This species is not likely to occur within the Project site.
Laterallus jamaicensis coturniculus California black rail	ST, FP	Marshes, swamps, meadows.	-	-	No suitable habitat is present on the Project site. This species is not likely to occur within the Project site.

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Phoebastria albatrus Short-tailed albatross	FE, CSC	Breeding colony occurs on Torishima Island off Japan. Non-breeding population utilized pelagic habitat along Pacific Rim to Gulf of Alaska. Primarily juveniles will use California coastal waters to feed on squid, crustaceans, and fish.			Breeding habitat does not occur on Project Site. Low potential for transitory juvenile birds to occur in offshore marine habitats during fall and early winter. This species is not likely to occur within the Project site.
Pterodroma sandwichensis Hawaiian petrel	FE	Breed on Hawaiian Islands. Documented offshore U.S. West Coast during non-breeding season (December through February).			Rare species offshore U.S. West Coast. Nesting habitat is not present in Project site. This species is not likely to occur within the Project site.
Rallus obsoletus obsoletus California Ridgeway's rail	FE, SE	Tidal and brackish marshes with unrestricted daily tidal flows, well-developed tidal channel networks, and suitable nesting and escape cover to provide habitat during extreme high tides			No suitable habitat is present on the Project site. Species' current distribution is restricted to the San Francisco Bay Estuary. This species is not likely to occur within the Project site.
Sterna antillarum browni California least tern	FE, SE	Breeds on sandy beaches with minimal vegetation close to estuaries and embayments.			Potential nearshore foraging habitat present during early spring migration. Nesting habitat is not present in the Project site. This species is not likely to occur within the Project site.

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Vireo bellii pusillus Least Bell's vireo	FE, SE	Riverine riparian habitats with dense cover, southern willow scrub, cottonwood forest, mulefat scrub			No suitable habitat is present on the Project site. This species is not likely to occur within the Project site.
Mammals					
Antrozous pallidus Pallid bat	SSC	Deserts, grasslands, shrublands, woodlands, and forests, open dry habitats with rocky outcrops for roosting.	X	X	**No bats were observed during the field surveys; however, there is potential for bats to occur within abandoned buildings, structures, and groves of trees within and adjacent to the Project site.**
Corynorhinus townsendii Townsend's big-eared bat	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	X	-	**No bats were observed during the field surveys; however, there is potential for bats to occur within abandoned buildings, structures, and groves of trees within and adjacent to the Project site.**
Dipodomys heermanni morroensis Morro Bay kangaroo rat	FE, SE, FP	Coastal sage scrub on south side of Morro Bay.	-	-	No suitable habitat is present, and the Project site is outside the species range. This species is not likely to occur within the Project site.

Table 4-5. Special-Status Wildlife Species within the Project Region

Scientific Name **Common Name**	**Status**	**Habitat Description**	**Habitat Present**	**Occurrence <1 mile**	**Potential for Occurrence in Project Site**
Dipodomys ingens Giant kangaroo rat	FE, SE	Annual grassland communities with few or no shrubs, well drained, sandy-loam soils in areas with about 6.3 inches or less of annual precipitation.			No suitable habitat is present on the Project site. This species is not likely to occur within the Project site.
Nyctinomops macrotis Big free-tailed bat	SSC	Crevices on cliff faces or mature forests.	X	-	**No bats were observed during the field surveys; however, there is potential for bats to occur within abandoned buildings, structures, and groves of trees within and adjacent to the Project site.**
Vulpes macrotis mutica San Joaquin kit fox	FE, ST	Grasslands; sparsely vegetated with gentle slopes.			No suitable habitat is present, the nearest occurrence is greater than five miles from the Project site. This species is not likely to occur within the Project site.

Status Codes:

SSC	Species of Special Concern (CDFW)	FP	Fully protected under Fish and Game Code (CDFW)
SA	Special Animal (CDFW)	WL	Watch List (CDFW)
SE	State Endangered (CDFW)	FT	Federal Threatened (USFWS)
ST	State Threatened (CDFW)	FE	Federal Endangered (USFWS)
PFE	proposed Federal Endangered		

No special-status wildlife species were observed during the field survey. However, the Project site may provide suitable habitat to support several special-status wildlife species that are documented to occur in the Project region. The following sections provide an overview of the general habitat requirements for these species and further detail on the potential for each of these species to occur in the Project site.

4.5.2.1 Special-status Invertebrates

Sandy beach tiger beetle, globose dune beetle, obscure bumble bee, monarch butterfly, and Morro Bay blue butterfly are considered Special Animals by CDFW and are found in coastal and dune habitats similar to the habitats within the BSA and Project site. Morro shoulderband snail is a federally Endangered species found only in the Morro Bay area. Species with a higher potential to occur within the Project site are discussed below.

Obscure bumblebee. The obscure bumblebee is considered a Special Animal by CDFW. Historically, this species' range extended from Northern Washington to Southern California along the Pacific Coast and inland to the Central Valley of California, but that range is decreasing. Like other species of bumblebees, it lives in annual colonies with only new queens overwintering to nest the following spring. Although, literature on this particular species is limited, many prefer loosely consolidated/disturbed soil or leaf litter for overwintering sites (Xerces et al., 2018). Food plant preference is largely a factor of tongue length for bumblebees, and for this medium long-tonged species, they often include genus' such as *Ceanothus, Lupinus, Rubus, and Cirsium* (Hatfield et al., 2020). This species was not observed during the December 2020, 2021, or 2022 field surveys; however, based on the presence of suitable habitat, as well as nearby occurrences and their transitory nature, this species has the potential to occur within the Project site.

Morro shoulderband snail. Morro shoulderband snail is a federally Endangered species, and USFWS-designated Critical Habitat exists within five miles of the BSA. The Morro shoulderband snail occurs in coastal dune and scrub communities. The snail is most closely associated with the dominant shrub, mock heather (*Ericameria ericoides*); however, several other shrub and succulent species are associated with the habitat of the Morro shoulderband snail, including non-native ice plant. These vegetation communities and suburban landscapes are known to provide shelter for this species. Current range for the snail is in western San Luis Obispo County in Morro Bay; specifically, areas south of Morro Bay, west of Los Osos Creek, and North of Hazard Canyon. This species was reported in Morro Strand State Beach within one mile of the BSA in 2001 (CDFW, 2022b) before the rediscovery of Chorro shoulderband snails. It is possible that the snail was misidentified, given the similarity of these two species and the presumed extirpation of Chorro shoulderband snails at the time of identification. Numerous protocol-level surveys and habitat assessments were completed within the Project site area between 1999 and 2016, and the most recent was completed in 2020-2021, all of which contained negative findings for presence of Morro shoulderband snail (EAM, 2021). Based on the protocol-level survey report negative findings, the species is not likely to occur within the Project site. The northern extent of the proposed multi-use path was not included in past surveys, due to a change in Project plans. There is very low potential for Morro shoulderband snail to occur within the multi-use path given the negative results of protocol surveys within the larger Project site.

Monarch butterfly. This species is not formally listed as an Endangered or Threatened species; however, over-wintering monarch butterflies are considered to be a "special animal" by the CDFW. Monarch butterfly wintering sites are classified as "demonstrably secure" worldwide but within California they are considered of "restricted range; rare." Monarch butterflies will begin to abandon autumnal roosts within northern United States and Canada in early November to December to over-wintering sites in the warmer climates in southern California and Mexico. Monarch butterflies will fly north for breeding as the milkweed plants come into bloom in the spring.

Wintering aggregations of monarch butterflies in California can primarily be found on Monterey pines and in eucalyptus groves (Sakai and Calvert, 1991). Wintering habitat components frequently include sources of moisture such as streams, ponds or abundant morning dew. Other habitat preferences include little direct sunlight, minimal wind, and moist ambient conditions. Monarch butterflies are commonly observed throughout the region and are known to roost in eucalyptus planted within the southeast corner of the MBPP, although these are not considered wintering roosts, but rather fall aggregation sites (Padre, 2005a). As observed during the field survey, there were stands of eucalyptus, Monterey cypress, and Monterey pine (ornamental) trees within the Project site. Although no monarchs were observed, this species has the potential to occur transiently within the Project site during migration or movement throughout the region.

Morro Bay blue butterfly. This species occurs in coastal dune scrub areas within the region and is closely associated with its food host plant, silver bush lupine. Silver bush lupine scrub vegetation occurs scattered throughout the Project site. Focused surveys were not conducted for Morro Bay blue butterfly within the BSA and this species was not observed during the December 2020 field survey; however, due to its close association with silver bush lupine and nearby occurrences, this species has the potential to occur within the Project site.

4.5.2.2 Special-Status Amphibians

California red-legged frog. California red-legged frog is a federally Threatened species, and USFWS-designated Critical Habitat for this species occurs within one mile of the BSA. California red-legged frog use a variety of aquatic and terrestrial habitats, including streams, marshes, ponds, riparian woodlands, springs, lagoons, irrigation canals, wells, reservoirs, and even sewage treatment ponds, as well as upland habitats for dispersal/migration. California red-legged frog have been documented less than one-mile northeast of the BSA within wetland habitat in Morro Strand State Park. Protocol-level surveys were conducted for California red-legged frog in 2000 within a section of Morro Creek intersecting the MBPP (Holland and Villablanca, 2000), resulting in negative findings. Although no California red-legged frog were observed during previous or the recent December 2020 field surveys; due to nearby occurrences, as well as potentially suitable habitat within Morro Creek, California red-legged frog have the potential to occur transiently within the Project site during upland dispersal/migration.

4.5.2.3 Special-Status Reptiles

Sandy soils, areas of sparse vegetation, and occasionally ponded water provide suitable habitat for three special-status reptile species within the Project site.

Northern California legless lizard. The Northern California legless lizard is a State Species of Special Concern. This species lives mostly underground, burrowing in moist warm loose soil

in sparsely vegetated areas of beach dunes, chaparral, sandy washes, and stream terraces with oaks. These lizards range from four to seven inches in snout to vent length and are often found under rocks, boards, driftwood, and logs. This species does not bask in direct sunlight and feeds primarily on larval insects, beetles, termites, and spiders. Legless lizards are sometimes active on the surface at dusk and at night, and remain below ground during the day (Stebbins, 2003). No legless lizards were observed during the December 2020 field surveys; however, due to the presence of suitable habitat within the proposed impact area, as well as nearby occurrences, this species has the potential to occur within the Project site.

Coast horned lizard. Coast horned lizard has been documented in various places throughout San Luis Obispo County, including localities around Morro Bay and Los Osos, specifically at the Morro Bay sand spit (CDFW, 2020). Within its range it can be found in a variety of habitats; along the coast of California this lizard is often associated with shrublands and grasslands (Stebbins, 2003). In addition to being found in sandy washes, they are found in areas with a substrate of fine loose soil. Horned lizard's diet consists of ants and other insects (Stebbins, 2003). In some regions of California, it is thought that exotic ant species, that have displaced and reduced numbers of native ants, are unpalatable to horned lizards and have subsequently reduced the lizard's abundance. Focused surveys were not conducted for coast horned lizard within the BSA, and this species was not observed during the December 2020 field survey; however, due to the presence of suitable habitat, as well as nearby occurrences, this species has the potential to occur within the Project site.

4.5.2.4 Special-Status Birds

The Project site provides suitable nesting and/or foraging habitat for various common and special-status birds and raptors including those documented to occur in the Project region (CDFW, 2020): Western snowy plover, California black rail, California ridgeway rail, and Cooper's hawk. In addition to these special-status birds, a heron and egret rookery has been documented in the eucalyptus and Monterey cypress trees on the southern boundary of the MBPP property along Embarcadero Road (Rincon, 2018).

Western snowy plover. The Pacific coast population of western snowy plover is federally listed as Threatened, and USFWS-designated Critical Habitat for this species includes the beach and foredunes within the BSA. This species inhabits sandy beaches and shores of alkali lakes along the coast of Californian and feeds on small aquatic prey and requires sandy, gravelly, or friable soils for nesting (Sibley, 2014; USFWS, 2022a). Nests, which consist of a shallow scrape lined with bits of shell or stone, are easily disturbed by human activity. Western snowy plovers are also known to be heavily impacted by natural predators, such as raccoons, coyotes, and foxes. Western snowy plovers are known to breed along the Morro Bay Sand Spit and along the dune complex of Morro Strand State Beach. No western snowy plovers were observed within the BSA during the December 2020 field survey, and it is not likely that this species would occur based on past land use and current disturbance level of the potential suitable habitat within the Project site.

Cooper's Hawk and Other Raptors. Cooper's hawk and other raptors such as white-tailed kite and peregrine falcon are well-documented within the Project site region. These species may also utilize habitat within and adjacent to the Project site for nesting, which are often used year after year and are protected by State and Federal agencies, including CDFW and USFWS. No

suitable nesting sites are located within the proposed impact area; however, due to the mobility of these species, as well as nearby occurrences, there is potential for birds of prey to occur transiently within the Project site during foraging and/or movement throughout the region.

American peregrine falcon is listed as a federally Endangered species during its nesting season. This bird of prey species frequently nests near water on ledges of rocky cliffs or buildings, and occasionally will use abandoned nests of other species. Peregrine falcons do not build nests but scrape a small depression in the surface of their nesting site and typically nest year after year in the same locations. American peregrine falcons are fairly uncommon throughout San Luis Obispo County and are generally found along coastal areas. Long-term nest use (over 15 years) has been recorded at the Morro Rock Natural Preserve, approximately less than one mile of the BSA. This is one of only a few sites within the County where nesting peregrines are consistently found, although migrants and winter transients augment wintering populations. Focused surveys were not conducted for American peregrine falcon within the BSA, and this species was not observed during the September 2015 or December 2020 field survey; however, its distribution throughout the region is well documented (Padre, 2015a). Due to the mobility of this species and nearby occurrences, American peregrine falcons have the potential to occur transiently within the Project site during foraging and/or movement throughout the region.

Nesting Birds. No active nesting bird activity was observed within the BSA during field surveys; however, several abandoned nests were observed in shrub habitat during the December 2020 survey. Vegetation and other substrates (e.g., man-made structures, areas of open ground, ornamental trees, etc.) present within the Project site provide suitable nesting habitat for a variety of bird species. Nesting birds and their nests/eggs are protected under the federal Migratory Bird Treaty Act of 1918 and California Fish and Game Code, and nesting bird season generally occurs between February 1 and August 31.

4.5.2.5 Special-Status Mammals

Pallid bat, Townsend's big-eared bat, and big free-tailed bat are all considered Species of Special Concern with the CDFW. These special-status bats occupy a wide-range of different habitats and utilize various types of roosts including but not limited to cliffsides, trees, and man-made structures/buildings. Suitable roosting (including maternity roosts)/foraging habitat for the special-status bats listed above are present throughout the Project site including trees, buildings, and water sources. No bats were observed during the 2020, 2021 or 2022 field surveys; however, there is potential for bats to occur within the existing abandoned Power Plan building and stacks, facility structures, and groves of trees within and adjacent to the Project site.

5.0 POTENTIAL IMPACTS AND APPLICANT PROPOSED MITIGATION MEASURES

The following provides a discussion of the potential impacts to biological resources that may occur as a result of the proposed Project and the applicant's proposed mitigation measures. Potential short-term impacts include ground disturbance from installing the infrastructure and increased construction-related vehicle traffic and noise. Potential long-term impacts are related to habitat loss and indirect impacts to adjacent habitats. Avoidance and minimization measures to reduce and avoid the potential short- and long-term negative impacts are discussed for each resource.

5.1 BOTANICAL RESOURCES

The Project site contains one special-status vegetation type (Silver bush lupine scrub), and two designated ESHAs (Back Dune/Dune scrub and Rookeries, and is in the vicinity of Willow Woodland and Scrub and a Monarch Overwintering Site ESHA. Project activities including vegetation removal, ground disturbance, and construction activities may directly and indirectly impact the existing vegetation, potentially occurring special-status plants, and habitat function.

Approximately 2.27 acres of Silver bush lupine scrub, which established on site after removal of the tank farm in 2014, will be removed within the Project site. The Silver bush lupine scrub has established on fill soils within Ruderal/Developed habitat that had previously been developed and was disturbed during operation and decommissioning of the MBPP. As such, Project impacts to this alliance should be evaluated within the context of the stands' limited and fragmented distribution throughout the former tank farm area. This alliance is considered a sensitive natural community by the CDFW (rarity ranking S3) and impacts should be mitigated with a Project Restoration Plan.

Botanical surveys completed in December 2020, March 2021, and October 2022 identified one special-status plant species (Blochman's leafy daisy) and two native trees (Monterey cypress and Monterey pine). These species will be impacted during vegetation removal, ground disturbances, construction, and habitat loss.

Monterey cypress and Monterey pine are special-status tree species that occur within the MBPP property; approximately 6 mature Monterey cypress and 17 Monterey pine trees will be removed as part of the proposed Project activities. In accordance with City of Morro Bay regulations a Coastal Development Permit is required prior to removal of a tree with a minimum of six-inch diameter at 54-inches above grade. The replacement ratio for tree removal will be specified by the Coastal Development Permit (City of Morro Bay, 2021).

To mitigate impacts to botanical resources, the following mitigation measures are proposed by the applicant:

1. The former tank farm site proposed for redevelopment is adjacent to ESHA to the north and the west. Although redevelopment of the tank farm site would not directly affect ESHA, development adjacent to ESHA does have the potential for inadvertent impacts to ESHA. Therefore, prior to the start of Project construction, all ESHA boundaries that are not separated from work/staging areas or access routes by the existing permanent fencing shall be clearly delineated with orange construction fencing or other high-visibility materials.

2. The use of Best Management Practices (BMPs) during construction to reduce fugitive dust, erosion, runoff, and introduction of non-native invasive plant materials shall be implemented to ensure adjacent ESHA will not be affected;
3. Drainage plans shall be designed to prevent runoff into adjacent ESHA;
4. Landscaping will be maintained free of non-native invasive plant species that have the potential to invade adjacent ESHA and plantings will utilize appropriate native plant species;
5. The use of heavy equipment and vehicles shall be limited to the proposed Project limits, existing roadways, and defined staging areas/access points with the exception of construction activities in support of the multi-use path along the Embarcadero. No unauthorized personnel or equipment shall be allowed within delineated ESHA areas;
6. The use of heavy equipment to construct the pathway under the Rookery ESHA shall be minimized to the greatest extent feasible and shall be scheduled to avoid the nesting bird season, typically February 1 through August 31;
7. All development in and impacts to ESHAs shall be avoided to the maximum extent feasible;
8. If impacts to an ESHA are unavoidable the following measures shall be implemented:
    a. A Restoration/Mitigation Plan shall be prepared and submitted to the appropriate agencies for approval. At a minimum the Restoration/Mitigation Plan shall include: the size of the disturbance area, the proposed location of compensatory mitigation planting if necessary, a description of pre-disturbance conditions, location of reference site(s), revegetation and monitoring methods, success criteria, locations of permanent photo-points, and a list of recommended Best Management Practices (BMPs) for erosion control;
    b. The Project shall be modified, where possible, to minimize environmental damage to the greatest extent feasible;
    c. Quantitative data shall be collected by a qualified botanist to determine pre-disturbance species composition;
    d. Wherever possible native plant species will be salvaged and kept in a well-protected and shaded area until Project completion; and
    e. The extent of disturbance shall be photographed from permanent photographic monitoring points (photo-points).
9. Compensatory replanting shall be conducted for the removal of all native trees that are 6 inches or greater at 54 inches above grade, irrespective of the need for a Restoration/Mitigation Plan as described above. The trees shall be irrigated for a period of three years, or until deemed self-sufficient by a qualified biological monitor;
10. If avoidance of Blochman's leafy daisy is not feasible, seed shall be collected from each individual Blochman's leafy daisy observed within the Project footprint. Seed collection shall be conducted prior to initial grading, when seed is ripe, typically at the end or after the typical blooming season (June through October). In addition, individual plants may be

salvaged and transplanted to containers, if feasible. The seed and salvaged plants would be used for future habitat restoration as mitigation for removal of Blochman's leafy daisy.

11. A Project Restoration Plan shall be prepared to compensate for the removal of Mixed Dune, Silver bush lupine scrub, and Blochman's leafy daisy within the Project site. The Project Restoration Plan will include methodologies for enhancing the Mixed Dune habitat within the MBPP Property through removal of non-native invasive ice plant and establishment of Silver bush lupine scrub and Blochman's leafy daisy. The Project Restoration Plan will provide details on maintenance, monitoring and reporting for a period of three years, and performance criteria for completion.

5.2 AQUATIC FEATURES

The Project site does not contain natural aquatic features; however, the riparian corridor associated with Morro Creek and Willow Camp Creek is located near the Project site to the northwest and northeast. Loose soils generated during ground disturbance may erode and cause sedimentation of these adjacent streams. These aquatic features are considered ESHAs, as well as sensitive habitats by other Federal, State, and local agencies and provide suitable habitat for special-status aquatic and riparian plants and wildlife. Impacts to aquatic resources would be minimized by implementation of Mitigation Measure 2, listed in Section 5.1.

5.3 WILDLIFE

Impacts to wildlife include short-term and long-term impacts associated with construction activities, facilities, and loss of habitat. Potential impacts to wildlife resources, may be minimized by implementation of avoidance and minimization measures.

Short-term impacts are limited to the construction phase. Generally, construction equipment used during Project implementation will temporarily increase noise, increase the potential for vehicle strikes, and may disrupt wildlife behavior. Ground disturbance has the potential to result in injury or death of wildlife and/or destruction of bird nests. Steel piling driving may produce noise levels that would disturb or displace wildlife breeding or nesting in the Project vicinity. Construction activities have the potential to introduce non-native plant and wildlife species that may displace native wildlife. Food waste and other construction related trash has the potential to attract nuisance wildlife and increase presence of predators that may reduce fecundity of special-status wildlife. Wildlife may be temporarily displaced into adjacent habitats and may experience greater competition for food and nest sites.

Special-status wildlife species associated with Morro Creek may be indirectly impacted during construction activities if erosion causes sediment to enter the waterway. South-central California coast steelhead have been observed within Morro Creek as recently as July 2000, and during years of sufficient inundation, portions of Morro Creek may still support inland migrating and/or reproducing fish. Tidewater goby has the potential to occur within Morro Creek due to the periodic formation of a brackish lagoon at the mouth of Morro Creek and identification of individuals during pipeline decommissioning.

California red-legged frog is a semi-aquatic species that utilizes both upland and aquatic habitats for portions of their life cycle. There is the potential for California red-legged frog to be injured during upland migration/nesting. Project development has the potential to reduce the suitability of upland migration habitat.

Special-status bat species including pallid bat, Townsend's big-eared bat, and big free-tailed bat have the potential to be directly and/or indirectly impacted during the demolition component of the Project. No focused bat surveys were completed as part of the 2020, 2021, and 2022 field surveys, however, the stacks may provide suitable roosting habitat.

Long-term impacts include development of above ground facilities, associated lighting, and impervious surfaces which may degrade or reduce habitat. Special-status invertebrate and reptile species that have the potential to be impacted through loss of habitat include: obscure bumblebee, Morro shoulderband snail, Morro Bay blue butterfly, Coast horned lizard, and silvery legless lizard. Migratory birds and raptors may be impacted by above ground facilities such as building and powerlines. Presence of energized power lines within the Project site create significant potential impacts to birds that utilize the site for foraging, perching, and nesting. The Project will reduce potential bird nesting habitat.

To mitigate impacts to wildlife resources, the following mitigation measures are proposed by the applicant in addition to those previously described:

12. Exterior lighting shall consist of motion sensor lighting that is shielded to prevent light pollution in adjacent ESHA and wildlife habitat;
13. Above-ground electrical transmission lines shall be designed using industry best practices to minimize bird electrocution hazards. These may include, but are not limited to, adequate phase-to-phase or phase-to-ground separation and/or appropriate insulation of components. Where insulation is not feasible near perching locations, bird deterrent materials may be used as an alternative;
14. Food waste and other construction related trash shall be contained in secured waste bins and regularly removed from the Project site;
15. A Project-specific Worker Environmental Awareness Training shall be prepared by a biologist familiar with the Project region and incorporated into site-specific training for all Project personnel. The purpose of the training will be to educate Project personnel on local special-status wildlife species that may occur within the Project site and to provide an overview of the regulations and mitigation measures to be adhered to during the Project. In addition, personnel will be briefed on the reporting process in the event that an inadvertent injury should occur to a special-status species during construction. A record of attendees shall be maintained;
16. A qualified Biological Monitor shall be onsite as necessary during construction activities. The Biological Monitor shall be responsible for conducting pre-construction surveys for listed and non-listed species, ensuring Project compliance with biologically related measures and permit conditions, relocating wildlife species out of the impact area, and surveying and documenting wildlife species occurring onsite or in the immediate vicinity.
17. The Biological Monitor shall have authority to halt construction activities to avoid impacts to special-status wildlife. Wildlife will be allowed to leave the Project site prior to restarting construction activities. Special-status wildlife will not be handled without prior permission from regulatory agencies;

18. If feasible, vegetation removal, initial ground disturbance, and pile driving activities shall take place outside of the nesting bird season (i.e., February 1 through August 31). If ground disturbing or noise producing activities occur within nesting bird season, the following conditions shall be implemented to protect all nesting birds during Project activities:

    - Staging areas shall be located as far as possible from the heron rookery location along the southwest Project site boundary, as determined through coordination between the Project Foreman and Biological Monitor;
    - No more than one week prior to the start of the Project construction, the work area shall be surveyed by a qualified biologist to determine the presence or absence of active nests. If active nests are discovered, all areas within a 500-foot radius of the nesting site shall be clearly marked and avoided during construction. No disturbances shall occur within the protective area until all young birds have fledged, as confirmed by the biologist. Work may proceed within 500 feet of nests if biological monitoring determines that the activity has no effect on the nesting behavior;
    - If it is not possible to postpone Project activities, construction activities may only proceed with appropriate agency approval and nest monitoring by a qualified avian biologist. If the monitoring biologist observes signs of distress, then they shall stop construction work and coordinate with regulatory agencies to establish additional protection measures to ensure avoidance of nest abandonment prior to the re-start of Project activities.

19. If at any time during Project operations special-status bird species (including but not limited to western snowy plover, burrowing owl, and peregrine falcon) are observed within the work area, work shall be stopped or redirected to an area that would not pose a danger to the birds. Special-status birds will be monitored and kept out of harm's way during work activities.

20. An acoustic survey shall be conducted to identify bat species prior to the maternity roosting season (approximately mid-May to August) of the year that demolition of buildings and stacks is scheduled. The survey shall occur over several nights to determine presence/absence of bats within the structures. The following measures shall be implemented based on the results of the survey:

    - If bats are not detected, buildings and the stacks shall be sealed off to prevent entry of bats (exclusion materials may consist of wood, plastic, or other suitable exclusion devices); or
    - If bats are detected, the buildings and the stacks shall be partially sealed off until bats leave the structures to forage during which time the remaining openings will be sealed off with one-way door systems installed to allow bats to leave the structures but to prevent re-entry. This procedure would only be done during the non-maternity roosting season.

21. A USFWS-permitted biologist shall conduct Morro shoulderband snail protocol surveys within the northern extent of the proposed multi-use trail corridor during the rainy season prior to construction.

5.4 ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Four ESHAs (Rookeries, Back Dune/Dune Scrub, Willow Woodland and Scrub, and Monarch Overwintering Site) are located within or in the vicinity of the Project site. The engineering plans have been designed to avoid direct impacts to ESHA to the greatest extent feasible, based on the available ESHA overlays from the City of Morro Bay. However, there will be direct impacts to Rookeries and Back Dune/Dune Scrub due to Project implementation. Padre's field survey delineated the boundaries of vegetation types, identifying Mixed Dune as correlated with the ESHA overlay for Back Dune/Dune Scrub and Ornamental as correlated with the ESHA overlay for Rookeries, along the multi-use path. Direct impacts will occur to Mixed Dune and Ornamental as a result of the multi-use path construction. Habitat restoration proposed as mitigation for removal of native vegetation, Mixed Dune, and Blochman's leafy daisy will directly impact the Mixed Dune habitat adjacent to the Project site.

Indirect impacts to adjacent ESHAs may occur during construction and operation of the Project. Indirect impacts to ESHA may include those listed in Section 5.3, that have the potential to degrade habitat, such as, lighting, stormwater runoff, and introduction of non-native plant and wildlife species. Mitigation measures listed in Section 5.1 will minimize indirect impacts to ESHA.

5.5 POTENTIAL IMPACTS SUMMARY

Effects on biological resources in the Project site area have the potential to be short-term (temporary) and long-term (permanent). Initial Project activities (staging, grading, demolition, and construction) will temporarily alter the natural movement and behavior of wildlife, and potentially occurring special-status species (if present), within the Project site area. Further, initial Project activities may cause mortalities to existing wildlife and special-status wildlife species (if present) due to equipment and vehicle strikes. Project activities also have the potential to cause temporary indirect impacts such as erosion and sedimentation to Morro Creek, thereby indirectly impacting potentially occurring special-status fish species (i.e.; tidewater goby and South-central California coast steelhead).

There is the potential for long-term loss of wildlife habitat and special-status botanical resources, ESHA, and potential mortalities to special-status wildlife species due to Project grading, demolition, and construction activities, and development of above ground facilities, infrastructure, and impervious surfaces. The permanent loss of habitat may reduce the available suitable habitat for special-status wildlife including obscure bumblebee, Morro Bay blue butterfly, coast horned lizard, silvery legless lizard, migratory birds and raptors, California red-legged frog, pallid bat, Townsend's big-eared bat, and big free-tailed bat. The Project development will permanently remove special-status botanical resources including Silver bush lupine scrub vegetation community, Blochman's leafy daisy, Monterey cypress and Monterey pine trees, and bird rookeries and Back Dune/Dune Scrub ESHAs.

Short and long-term impacts would be avoided or minimized to the extent feasible with implementation of applicant proposed mitigation measures provided above.

6.0 REFERENCES

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APPENDIX A

SITE PHOTOGRAPHS

Photograph 1. Representative view of the Project Site conditions (aspect: southeast; December 16, 2020).

Photograph 2. Monterey pine and Monterey cypress adjacent to paved access roads and abandoned tank footprints (aspect: north; December 16, 2020).

Photograph 3. Monterey cypress and paved access road in northern portion of the Project site (aspect: northeast; December 16, 2020).

Photograph 4. Morro Creek with Arroyo willow thicket vegetation along the northern boundary of the Project site (aspect: northwest; December 16, 2020).

Photograph 5. Eucalyptus and Monterey cypress along Embarcadero Road and Project site boundary (aspect: northwest; December 16, 2020).

Photograph 6. Representative Ruderal vegetation and Developed areas within the Project site (aspect: southeast; December 16, 2020).

Photograph 7. Current MBPP infrastructure, ponded water visible (aspect: southeast; December 16, 2020).

Photograph 8. Ruderal vegetation within the Project site (foreground) with Mixed dune outside of an existing fence and outside of Project site (aspect: west; December 16, 2020).

Photograph 9. Representative view of Silver bush lupine scrub within the Project site (aspect: southwest; March 30, 2021).

Photograph 10. Representative view of spring conditions within the Project site (aspect: north; March 30, 2021).

Photograph 11. Proposed multi-use path corridor within the BSA (aspect: northwest; October 18, 2022).

Photograph 12. Additional view of proposed multi-use path corridor, Mixed dune vegetation (BackDune/Dune Scrub ESHA) visible (aspect: south; October 18, 2022).

APPENDIX B

PLANT INVENTORY

Comprehensive List of Vascular Plant Species Observed within the Project Site
Battery Energy Storage System Project, Morro Bay, California

Scientific Name	Common Name	Habit	Indicator Status	Conservation Status	Family
Acacia sp.*	Wattle	T/S	-		Fabaceae
Acmispon glaber	Deerweed/California broon	PH	-		Fabaceae
Acmispon heermanii	Heerman's birdfoot trefoil	PH	-		Fabaceae
Ambrosia chamissonis	Beach bur	PH	-		Asteraceae
Asphodelus fistulosus	Onionweed	PH	-		Asphodelaceae
*Avena barbata**	Slender wild oats	AG	-		Poaceae
Baccharis pilularis	Coyote brush	S	-		Asteraceae
*Brassica nigra**	Black mustard	AH	-		Brassicaceae
*Bromus catharticus**	Rescue grass	AG	-		Poaceae
*Bromus diandrus**	Rip gut brome	AG	-		Poaceae
*Bromus madritensis**	Red brome	AG	-		Poaceae
Camissonioposis cheiranthifolia	Beach evening primrose	PH	-		Onagraceae
Camissoniopsis micrantha	Minature sun-cup	AH	-		Onagraceae
*Carpobrotus edulis**	Iceplant	PH	-		Aizoaceae
*Centaurea melitensis**	Tocalote	AH	-		Asteraceae
*Cirsium vulgare**	Bull thistle	AH	FACU		Asteraceae
Corethrogyne filaginifolia	Common sandaster	PH	-		Asteraceae
*Cortaderia jubata**	Pampas grass	PG	FACU		Poaceae
Croton californicus	California croton	PH	-		Euphorbiaceae
*Delairea odorata**	Cape ivy	PH	.		Asteraceae
*Delosperma litorale**	Seaside iceplant	S	FACU		Aizoaceae
Distichlis spicata	Salt grass	PG	FAC		Poaceae
*Ehrharta calycina**	Veldt grass	PG	-		Poaceae
Erigeron blochmaneae	Blochman's leafy daisy	PH	-	1B.2	Asteraceae
Erigeron canadensis	Horseweed	AH	-		Asteraceae
*Erodium cicutarium**	Redstem filaree	AH	-		Geraniaceae
Eschscholzia californica	California poppy	AH	-		Papaveraceae
*Eucalyptus globulus**	Blue gum	T	.		Papaveraceae
*Festuca myuros**	Foxtail fescue	AG	FACU		Poaceae
*Hirschfeldia incana**	Summer mustard	BH	-		Brassicaceae
Hesperocyparis macrocarpa	Monterey cypress	T	-	1B.2	Cupressaceae
Hesperocyparis sp.	Ornamental cypress	T	-		Cupressaceae
Heterotheca grandiflora	Telegraph weed	PH	-		Asteraceae
*Hordeum murinum**	Barley	AG	FACU		Poaceae
*Hypochaeris glabra**	Smooth cat's ear	AH	-		Asteraceae
*Lamarckia aurea**	Goldentop	AG	FACU		Poaceae
*Limoneum perezii**	Canarian sea lavender	AH	-		Plumbaginaceae
Lupinus arboreus	Yellow bush lupine	S	-		Fabaceae
Lupinus chamissonis	Dune lupine	S	-		Fabaceae
Lupinus succulentus	Succulent lupine	AH	-		Fabaceae
Salvia mellifera	Black sage	S	-		Lamiaceae
*Medicago polymorpha**	Bur clover	AH	FACU		Fabaceae
Myoporum sp.*	Myoporum	T/S	-		Scrophulariaceae
*Opuntia ficus-indica**	Mission Prickly Pear	S	-		Cactaceae
*Oxalis pres-caprae**	Bermuda buttercup	AH	-		Oxalidaceae
Pinus radiata	Monterey pine	T	-	1B.1	Pinaceae
*Piptatherum miliaceum**	Smilo grass	PG	-		Poaceae
*Plantago coronopus**	Cutleaf plantain	AH	FAC		Plantaginaceae
Prunus ilicifolia	Holly-leafed cherry	S	-		Rosaceae
Pseudognaphalium californicum	Green everlasting	A/PH	-		Asteraceae
*Pseudognaphalium luteoalbum**	Jersey cudweed	AH	FAC		Poaceae
Rubus ursinus	California blackberry	PV	FAC		Rosaceae
Salix lasiolepis	Arroyo willow	S	FACW		Salicaceae
*Salsola tragus**	Russian thistle	AH	-		Chenopodiaceae
*Silybum marianum**	Milk thistle	AH	-		Asteraceae

List of Vascular Plant Species Observed within the Project Site
Battery Energy Storage System Project, Morro Bay, California

Scientific Name	Common Name	Habit	Indicator Status	Conservation Status	Family
*Sisymbrium irio**	London rocket	AH	-		Brassicaceae
Sisyrinchium bellum	Blue eyed grass	PH	FACW		Iridaceae
*Sonchus oleraceus**	Common sow thistle	AH	-		Asteraceae
*Tetragonia tetragonioides**	New Zealand spinach	AH	-		Aizoaceae

Notes: Scientific nomenclature follows Baldwin (2012).
An "*" indicates non-native species which have become naturalized or persist without cultivation.
An "-" indicates that no indicator has been assigned due to lack of information to determine indicator status; or is not listed and assumed an upland species.

Habit definitions:
AG - Annual grass.
AH - Annual herb.
F - Fern
PG - Perennial grass.
PH - Perennial herb.
PV - Perennial vine.
S - Shrub
T - Tree

Wetland indicator status (Lichvar and Kartesz, 2016):
OBL (Obligate Wetland Plants) - Almost always occur in wetlands.
FACW (Facultative Wetland Plants) - Usually occur in wetland, but may occur in non-wetlands.
FAC (Facultative Wetland Plants) - Occur in wetlands and non-wetlands.
FACU (Facultative Upland Plants) - Usually occur in non-wetlands, but may occur in wetlands.
UPL (Upland Plants) - Almost always occur in non-wetlands.

APPENDIX C

WILDLIFE INVENTORY

Wildlife Species Observed within the BSA
MBPP BESS Project, Morro Bay, California

Common Name	Scientific Name	Residence Status	Protected Status	Habitat
Invertebrates				
European snail	*Helix aspersa*	R	--	M
Dentate stink beetle	*Eleodes dentipes*	R	--	M
Chorro shoulderband snail	*Helminthoglypta morroensis*	R	--	M
Amphibians				
Sierran treefrog	*Pseudacris sierra*	R	--	A, R, W, M
Reptiles				
Coast Range fence lizard	*Sceloporus occidentalis bocourtii*	R	--	G, D, P, S, M
Birds				
American crow	*Corvus brachyrhynchos*	R	M	M
Anna's hummingbird	*Calypte anna*	R	M	P
Bewick's wren	*Thryomanes bewickii*	R	M	P, S
Black phoebe	*Sayornis nigricans*	R	M	G, S, M
Black-crowned night heron	*Nycticorax nycticorax*	R	M	A, C, W, R
Blue-gray gnatcatcher	*Polioptila caerulea*	R	M	P, R, S
California thrasher	*Toxostoma redivivum*	R	M	P, S
Chestnut-backed chickadee	*Poecile rufescens*	R	M	P
Great blue heron	*Ardea herodias*	R	M	A, C, W, R
House finch	*Haemorhous mexicanus*	R	M	G, D, P, S, M
Hutton's vireo	*Vireo huttoni*	R	M	P, R
Mourning dove	*Zenaida macroura*	R	M	G, D, M
Red-tailed hawk	*Buteo jamaicensis*	R	M	G, P, M
Rock pigeon	*Columba livia*	R	M	D, M
Turkey vulture	*Cathartes aura*	R	M	R, G, P
Western gull	*Larus occidentalis*	R	M	A, C, M
White-crowned sparrow	*Zonotrichia leucophrys*	R	M	D, S
Wrentit	*Chamaea fasciata*	R	M	S, P, R
Yellow-rumped warbler	*Setophaga coronata*	W	M	R, W, S
Mammals				
Coyote	*Canis latrans*	R	--	M
Mule deer	*Odocoileus hemionus*	R	--	R, G
Racoon	*Procyon lotor*	R	--	M
Virginia possum	*Didelphis virginiana*	R	--	M

Notes:
Fauna observed by visualizations, indirect signs (tracks, scat, skeletal remains, burros, etc.), and/or auditory cues.

Residence Status
R - Permanent resident
W - Winter resident
B - Summer resident

Protected Status
FE - Federal
FT - Federal threatened species
FC - Federal candidate species
M - Migratory Bird Treaty Act
SE - State endangered species
ST - State threatened species
CS - Candidate species for CESA
CSC - California Species of Special Concern
CFP - California Fully Protected Species
BCC - Bird of Conservation Concern (USFWS)

Typical Habitat
A - Aquatic
D - Developed areas
G - Grassland
M - Multiple habitats
P - Woodland
R - Riparian
W - Wetland
C - Coastal lagoons, shores, oceans
O - Rock outcrops
S - Scrub

APPENDIX D

VRAP DATA SHEETS

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance No MCV alliance (Silver lupine stand)
			Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or (RA)

Database #:	Date:	Name of recorder: Chrishna Santala
MBPP 001	12/16/20	Other surveyors:
	UID:	Location Name: MBPP Power Plant

GPS name: Flora Elf/collector — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ___ ___ ___ ___ ___ ___ UTMN ___ ___ ___ ___ ___ ___ ___ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 35.375440 LONG -120.860222

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID MBPP 001 Projected UTMs: UTME ___ ___ ___ ___ ___ ___ UTMN ___ ___ ___ ___ ___ ___ ___

Camera Name: CLS iphone Cardinal photos at ID point: N, E, S, W

Other photos: Overview across East

Stand Size (acres): (<1,) 1-5, >5 | Plot Area (m²): 100 / ____ | Plot Dimensions ___ x ___ m | RA Radius ___ m

Exposure, Actual °: ____ NE NW SE SW (Flat) Variable | Steepness, Actual °: ___ (0°) 1-5° > 5-25° > 25

Topography: Macro: top upper mid lower (bottom) | Micro: convex (flat) concave undulating

Geology code: SETV Soil Texture code: SAND | (Upland) or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H20: 0 BA Stems: 25 Litter: 10 Bedrock: 0 Boulder: 0 Stone: 0 Cobble: 0 Gravel: 0 Fines: 65 =100%

% Current year bioturbation 2 Past bioturbation present? Yes / (No) | % Hoof punch 0

Fire evidence: Yes / No (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments:
Abandoned power plant facilities, potentially tank/fluidly basins,

Disturbance code / Intensity (L,M,H): 01 / M ___/___ ___/___ ___/___ ___/___ "Other" ____/___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), (S3) mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: (H1) (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Silver lupine stand (Lupinus chamissonis)

Field-assessed Association name (optional): ____

Adjacent Alliances/direction: Ruderal, Developed ___/___ ___/___

Confidence in Alliance identification: L M (H) Explain: ____

Phenology (E,P,L): Herb L Shrub P/L Tree 0 Other identification or mapping information: Found in clusters throughout BSA

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

Database #: MBPP001 SPECIES SHEET

IV. VEGETATION DESCRIPTION

% NonVasc cover: 0 **Total % Vasc Veg cover:** 85

% Cover - **Conifer tree / Hardwood tree:** 0 / 0 **Regenerating Tree:** 0 **Shrub:** 80 **Herbaceous:** 5

Height Class - **Conifer tree / Hardwood tree:** 0 / 6 **Regenerating Tree:** 6 **Shrub:** 2,3 **Herbaceous:** ____

Height classes: 1=<1/2m. 2=1/2-1m. 3=1-2m. 4=2-5m. 5=5-10m. 6=10-15m. 7=15-20m. 8=20-35m. 9=35-50m. 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
S	Lupinus chamissonis	83		
H	Camposites edulis	5		
H	Primrose annual species	2		
	(note other stands had scattered			
	occurrences/patches of			
	lupinus sp.			

Unusual species: lupinus

Project: 1902-1172 Biological Resources Assessment; MBPP BESS Project
Vegetation Rapid Assessment Attachment
Stand/Plot ID: **MBPP001**

North

East

South

West

Classification: Silver bush lupine scrub (MCV2)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Ornamental (Monterey cypress stands)
			Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: **Relevé or RA**

Database #:	Date:	Name of recorder: C. Santala
MBPP 002	12/16/20	Other surveyors:
	UID:	Location Name: Morro Bay Power Plant

GPS name: Fiona Hill/collector — For Relevé only: **Bearing°**, left axis at ID point____ of **Long / Short** side

UTME ___ ___ ___ ___ ___ ___ **UTMN** ___ ___ ___ ___ ___ ___ ___ **Zone: 11 NAD83** GPS error: **ft./ m./ PDOP** ____

Decimal degrees: **LAT** 35.375848 **LONG** -120.859792

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: **Base point ID** _____ **Projected UTMs: UTME** ___ ___ ___ ___ ___ ___ **UTMN** ___ ___ ___ ___ ___ ___ ___

Camera Name: CCS Iphone **Cardinal photos at ID point:** N, E, S, W

Other photos: overview aspect NW

Stand Size (acres): <1, (1-5), >5 | **Plot Area (m²):** 100 / _____ | **Plot Dimensions** ____ x ____ m | **RA Radius** ____ m

Exposure, Actual °: 320 NE (NW) SE SW Flat Variable | **Steepness, Actual °:** _____ 0° 1-5° (>5-25°) > 25

Topography: Macro: top upper (mid) (lower) bottom | Micro: convex flat concave (undulating)

Geology code: SETU **Soil Texture code:** SAND | (Upland) or **Wetland/Riparian** (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: 0 **BA Stems:** 15 **Litter:** 80 **Bedrock:** 0 **Boulder:** 0 **Stone:** 0 **Cobble:** 0 **Gravel:** 0 **Fines:** 5 **=100%**

% Current year bioturbation 0 **Past bioturbation present?** Yes / (No) | **% Hoof punch** 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments:

Abandoned power plant, stand @ north end of property - appears to be planted as ornamental windrow / visual screening adjacent property

Disturbance code / Intensity (L,M,H): D1 / L ___/___ ___/___ ___/___ ___/___ **"Other"** _____/___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), (T3) (6-11" dbh), (T4) (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), (S3) mature (1-25% dead), S4 decadent (>25% dead) Healthy

Herbaceous: (H1) (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Monterey Cypress stand (Hesperocyparis macrocarpa)

Field-assessed Association name (optional): _____

Adjacent Alliances/direction: Ruderal, Developed / _____ / _____ / _____

Confidence in Alliance identification: L M (H) **Explain:** _____

Phenology (E,P,L): Herb L **Shrub** 0 **Tree** P **Other identification or mapping information:** Planted

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)
SPECIES SHEET

Database #: MBPP 602

IV. VEGETATION DESCRIPTION

% NonVasc cover: ϕ **Total % Vasc Veg cover:** 95

% Cover - **Conifer tree / Hardwood tree:** 93 **Regenerating Tree:** ϕ **Shrub:** ϕ **Herbaceous:** 2

Height Class - **Conifer tree / Hardwood tree:** 6 / ϕ **Regenerating Tree:** ϕ **Shrub:** ϕ **Herbaceous:** 1

Height classes: 1=<1/2m. 2=1/2-1m. 3=1-2m. 4=2-5m. 5=5-10m. 6=10-15m. 7=15-20m. 8=20-35m. 9=35-50m. 10=>50m

Stratum categories: T=Tree. A = SApling. E = SEedling. S = Shrub. H= Herb. N= Non-vascular

% Cover Intervals for reference: r = trace. + = <1%. 1-5%. >5-15%. >15-25%. >25-50%. >50-75%. >75%

Stratum	Species	% cover	C	Final species determination
T	Cupressus (cypress)	93		
H	Carpobrotus edulis	10		

Unusual species: __________

Project: 1902-1172 Biological Resources Assessment; MBPP BESS Project
Vegetation Rapid Assessment Attachment
Stand/Plot ID: **MBPP002**

North

East

South

West

Classification: Monterey cypress stand (Site-Specific; Ornamental)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Arroyo willow thicket Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: **Relevé** or **(RA)**

Database #:	Date:	Name of recorder:
MBPP 003	12/16/20	Other surveyors:
	UID:	Location Name: Morro Bay

GPS name: Fiona elf/collector — For Relevé only: **Bearing°**, left axis at ID point____ **of Long / Short** side

UTME ___ ___ ___ ___ ___ ___ **UTMN** ___ ___ ___ ___ ___ ___ ___ **Zone: 11 NAD83** GPS error: **ft./ m./ PDOP** ____

Decimal degrees: **LAT** 35.376629 **LONG** -120.858166

GPS within stand? Yes / (No) If No, cite from GPS to stand: distance (m) 5m bearing ° S inclination ° ____

and record: **Base point ID** _____ **Projected UTMs: UTME** ___ ___ ___ ___ ___ **UTMN** ___ ___ ___ ___ ___ ___

Camera Name: cis iphone **Cardinal photos at ID point:** N, E, S, W

Other photos: Overview

Stand Size (acres): <1, **(1-5,)** >5 | **Plot Area (m²):** 100 / _____ | **Plot Dimensions** ____ x ____ m | **RA Radius**____ m

Exposure, Actual °: ____ NE NW SE SW **(Flat)** Variable | **Steepness, Actual °:** _____ 0° 1-5° > 5-25° > 25

Topography: Macro: top upper mid lower **(bottom)** | Micro: convex flat **(concave)** undulating

Geology code: SETU **Soil Texture code:** SAND | **Upland** or **(Wetland/Riparian)** (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H₂0: 5 **BA Stems:** 50 **Litter:** 35 **Bedrock:** 0 **Boulder:** 0 **Stone:** 0 **Cobble:** 1 **Gravel:** 1 **Fines:** 8 **=100%**

% Current year bioturbation 3 **Past bioturbation present? Yes (No)** | **% Hoof punch** 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments:

Riverine feature, relatively undisturbed, culvert east end @ time (likely), w/in Power plant property.

Disturbance code / Intensity (L,M,H): 01 / L ___/___ ___/___ ___/___ ___/___ **"Other"** _____/___

II. HABITAT DESCRIPTION

Tree DBH : **(T1)** (<3" dbh), **(T2)** (3-6" dbh), **(T3)** (6-11" dbh), **T4** (11-24" dbh), **T5** (>24" dbh), **T6** multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: **S1** seedling (<3 yr. old), **(S2)** young (<1% dead), **S3** mature (1-25% dead), **S4** decadent (>25% dead)

Herbaceous: **(H1)** (<12" plant ht.), **H2** (>12" ht.)

Desert Riparian Tree/Shrub: **1** (<2ft. stem ht.), **2** (2-10ft. ht.), **3** (10-20ft. ht.), **4** (>20ft. ht.)

Desert Palm/Joshua Tree: **1** (<1.5" base diameter), **2** (1.5-6" diam.), **3** (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Arroyo willow thicket (Salix lasiolepis)

Field-assessed Association name (optional): _____

Adjacent Alliances/direction: Developed, Ruderal, monterey cypress / _____

Confidence in Alliance identification: L M **(H)** **Explain:** _____

Phenology (E,P,L): Herb L Shrub P Tree P **Other identification or mapping information:** willow large enough to be considered trees

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

Database #: MBPP603 SPECIES SHEET

IV. VEGETATION DESCRIPTION

% NonVasc cover: ____ **Total % Vasc Veg cover:** 95

% Cover - **Conifer tree / Hardwood tree:** 0 / 90 **Regenerating Tree:** 4 **Shrub:** ____ **Herbaceous:** 5

Height Class - Conifer tree / Hardwood tree: 0 / 5,6 **Regenerating Tree:** 4 **Shrub:** ____ **Herbaceous:** 3

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
T	Salix lasiolepis	95		
V	Delairea odorata	15		
S	Rubus ursinus	5		
S	Toxicodendron diversilobum	5		
	Note: considered vallons as trees			

Unusual species: ____

Project: 1902-1172 Biological Resources Assessment; MBPP BESS Project
Vegetation Rapid Assessment Attachment
Stand/Plot ID: **MBPP003**

North

East

South

West

Classification: Arroyo willow thickets (MCV2)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Ornamental (Eucalyptus grove) Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or (RA)

Database #:	Date:	Name of recorder: C. Cantata
MBPP-004	12/16/20	Other surveyors:
	UID:	Location Name: Morro Bay

GPS name: Fiona Elf/collector — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ____ UTMN ____ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 35.371495 LONG -120.857538

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID ____ Projected UTMs: UTME ____ UTMN ____

Camera Name: iPhone Cardinal photos at ID point: N, E, S, W

Other photos: Overview aspect SE

Stand Size (acres): (<1) 1-5, >5 | Plot Area (m²): 100 / ____ | Plot Dimensions ____ x ____ m | RA Radius____ m

Exposure, Actual °: ____ NE NW SE SW (Flat) Variable | Steepness, Actual °: ____ (0°) 1-5° > 5-25° > 25

Topography: Macro: top upper mid lower (bottom) | Micro: convex (flat) concave undulating

Geology code: SETU Soil Texture code: silt & sand | Upland or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_2O: 0 BA Stems: 10 Litter: 85 Bedrock: Boulder: Stone: Cobble: Gravel: Fines: 5 =100%

% Current year bioturbation 5 Past bioturbation present? Yes / (No) | % Hoof punch 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments:

Windrows between street & Power plant perimeter wall

Disturbance code / Intensity (L,M,H): 1 / L ___ / ___ ___ / ___ ___ / ___ ___ / ___ "Other" ____ / ___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), (T5) (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), (S3) mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: (H1) (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Eucalyptus grove (Eucalyptus globulus)

Field-assessed Association name (optional): ____

Adjacent Alliances/direction: Developed, ruderal, iceplant mat

Confidence in Alliance identification: L M (H) Explain: ____

Phenology (E,P,L): Herb L Shrub — Tree P Other identification or mapping information:

Closest match is Eucalyptus Tree of Heaven - black locust groves

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

SPECIES SHEET

Database #: MBPP004

IV. VEGETATION DESCRIPTION

% NonVasc cover: Ø **Total % Vasc Veg cover:** 75

% Cover - **Conifer tree / Hardwood tree:** Ø / 60 **Regenerating Tree:** ____ **Shrub:** Ø **Herbaceous:** 15

Height Class - **Conifer tree / Hardwood tree:** – / 7 **Regenerating Tree:** – **Shrub:** – **Herbaceous:** 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
T	Eucalyptus globulus	60		
H	Salsola tragus	1		
H	Annual grasses (rem.)	20		

Unusual species: –

Project: 1902-1172 Biological Resources Assessment; MBPP BESS Project
Vegetation Rapid Assessment Attachment
Stand/Plot ID: **MBPP004**

North

East

South

West

Classification: Eucalyptus groves (Site-Specific; Ornamental)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Ornamental (Monterey Pine) Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or **RA** (circled)

Database #:	Date:	Name of recorder: C. Santala
MBPP005	12/16/20	Other surveyors:
	UID:	Location Name: Morro Bay

GPS name: FionaElF/collector — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ___ UTMN ___ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 35.373492 LONG -120.859414

GPS within stand? **Yes** (circled) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record. Base point ID ________ Projected UTMs: UTME ___ UTMN ___

Camera Name: CS iphone Cardinal photos at ID point: N, E, S, W

Other photos: overview

Stand Size (acres): **<1** (circled) 1-5, >5 | Plot Area (m^2): 100 / ____ | Plot Dimensions ___ x ___ m | RA Radius ___ m

Exposure, Actual °: 223 NE NW SE **SW** (circled) Flat Variable | Steepness, Actual °: ____ 0° 1-5° > 5-25° > 25

Topography: Macro: top upper mid lower bottom | Micro: convex flat concave undulating

Geology code: ________ Soil Texture code: ________ | Upland or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_2O: Ø BA Stems: 25 Litter: 50 Bedrock: Ø Boulder: Ø Stone: Ø Cobble: Ø Gravel: Ø Fines: 25 =100%

% Current year bioturbation 5 Past bioturbation present? Yes / **No** (circled) | % Hoof punch Ø

Fire evidence: Yes / No (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments:

Planted as windrow w/in Power plant property

Disturbance code / Intensity (L,M,H): ___/___ ___/___ ___/___ ___/___ ___/___ "Other" ________/___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), **T2** (circled) (1-6" dbh), **T3** (circled) (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), **S3** (circled) mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: **H1** (circled) (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Monterey Pine Stand

Field-assessed Association name (optional): ________

Adjacent Alliances/direction: Developed, Ruderal, Silver lupine stand / ____

Confidence in Alliance identification: L M **H** (circled) Explain: ________

Phenology (E,P,L): Herb L Shrub — Tree P Other identification or mapping information: Planted

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

SPECIES SHEET

Database #: MBPP 005

IV. VEGETATION DESCRIPTION

% NonVasc cover: Ø **Total % Vasc Veg cover:** 98

% Cover - **Conifer tree / Hardwood tree:** 96 / Ø **Regenerating Tree:** Ø **Shrub:** Ø **Herbaceous:** 2

Height Class - **Conifer tree / Hardwood tree:** 5 / Ø **Regenerating Tree:** Ø **Shrub:** Ø **Herbaceous:** 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
T	Monterey cypress	95		
H	Carpobrotus edulis	5		
S	Lupinus —	1		

Unusual species: —

Project: 1902-1172 Biological Resources Assessment; MBPP BESS Project
Vegetation Rapid Assessment Attachment
Stand/Plot ID: **MBPP005**

North

East

South

West

Classification: Monterey pine stand (Site-Specific; Ornamental)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Ice plant mat Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or (RA)

Database #:	Date:	Name of recorder: C. Santala
MBPP006		Other surveyors:
	UID:	Location Name: Morro Bay

GPS name: _____ For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME __ __ __ __ __ __ UTMN __ __ __ __ __ __ __ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 35.371746 LONG -120.855355

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID _____ Projected UTMs: UTME __ __ __ __ __ __ UTMN __ __ __ __ __ __ __

Camera Name: CIS iPhone Cardinal photos at ID point: N, E, S, W

Other photos: overview

Stand Size (acres): (<1) 1-5, >5 | Plot Area (m²): 100 / _____ | Plot Dimensions ____ x ____ m | RA Radius____ m

Exposure, Actual °: 153 NE NW SE SW Flat Variable | Steepness, Actual °: _____ 0° (1-5°) >5-25° >25

N & 177°S

Topography: Macro: top (upper) (mid) (lower) bottom | Micro: (convex) flat concave (undulating)

Geology code: _____ Soil Texture code: _____ | (Upland) or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: 0 BA Stems: 65 Litter: 10 Bedrock: 0 Boulder: 0 Stone: 0 Cobble: 0 Gravel: 0 Fines: 5 =100%

% Current year bioturbation 0 Past bioturbation present? Yes / (No) | % Hoof punch 0

Fire evidence: Yes / No (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments:

Upparved hillside w/in power plant property - vegetated w/ iceplant

Disturbance code / Intensity (L,M,H): ____/___ ____/___ ____/___ ____/___ ____/___ "Other" _____ / ___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: H1 (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Ice plant mat (Carpobrotus edulis)

Field-assessed Association name (optional): _____

Adjacent Alliances/direction: Arroyo willow thicket, Ruderal, Developed, Eucalyptus grove, Monterey Pine stand

Confidence in Alliance identification: L M (H) Explain: _____

Phenology (E,P,L): Herb L Shrub L Tree — Other identification or mapping information:

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

Database #: MBPP006 SPECIES SHEET

IV. VEGETATION DESCRIPTION

% NonVasc cover: 0 **Total % Vasc Veg cover:** 98

% Cover - **Conifer tree / Hardwood tree:** 0 / 0 **Regenerating Tree:** 0 **Shrub:** 0 **Herbaceous:** 98

Height Class - **Conifer tree / Hardwood tree:** / **Regenerating Tree:** **Shrub:** 1 **Herbaceous:** 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
H	Carpobrotus edulis	99		
H	Heterotheca grandiflora	1		
S	Baccharis pilularis	1		
H	Annual grasses	5		

Unusual species: —

Project: 1902-1172 Biological Resources Assessment; MBPP BESS Project
Vegetation Rapid Assessment Attachment
Stand/Plot ID: **MBPP006**

North

East

South

West

Classification: Ice plant mats (MCV2)

APPENDIX E

CNDDB and IPaC, and NMFS Documentation

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Cayucos (3512048) OR Morro Bay North (3512047) OR Morro Bay South (3512037))
 AND Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Woodland OR Forest OR Alpine OR Inland Waters OR Marine OR Estuarine OR Riverine OR Palustrine OR 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
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Agrostis hooveri Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Arctostaphylos luciana Santa Lucia manzanita	PDERI040N0	None	None	G2	S2	1B.2
Arctostaphylos morroensis Morro manzanita	PDERI040S0	Threatened	None	G1	S1	1B.1
Arctostaphylos osoensis Oso manzanita	PDERI042S0	None	None	G1	S1	1B.2
Arctostaphylos pechoensis Pecho manzanita	PDERI04140	None	None	G2	S2	1B.2
Arctostaphylos pilosula Santa Margarita manzanita	PDERI042Z0	None	None	G2?	S2?	1B.2
Arctostaphylos tomentosa ssp. daciticola dacite manzanita	PDERI041HD	None	None	G4T1	S1	1B.1
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Astragalus didymocarpus var. milesianus Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Batrachoseps minor lesser slender salamander	AAAAD02170	None	None	G1	S1	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
Calochortus obispoensis San Luis mariposa-lily	PMLIL0D110	None	None	G2	S2	1B.2
Calystegia subacaulis ssp. episcopalis Cambria morning-glory	PDCON040J1	None	None	G3T2?	S2?	4.2
Camissoniopsis hardhamiae Hardham's evening-primrose	PDONA030N0	None	None	G2	S2	1B.2
Carex obispoensis San Luis Obispo sedge	PMCYP039J0	None	None	G3?	S3?	1B.2
Castilleja densiflora var. obispoensis San Luis Obispo owl's-clover	PDSCR0D453	None	None	G5T2	S2	1B.2
Ceanothus thyrsiflorus var. obispoensis San Luis Obispo ceanothus	PDRHA04461	None	None	G5T1	S1	1B.1
Central Dune Scrub Central Dune Scrub	CTT21320CA	None	None	G2	S2.2	
Central Maritime Chaparral Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
Chenopodium littoreum coastal goosefoot	PDCHE091Z0	None	None	G1	S1	1B.2
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Chorizanthe breweri Brewer's spineflower	PDPGN04050	None	None	G3	S3	1B.3
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cirsium fontinale var. obispoense Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	G2T2	S2	1B.2
Cirsium occidentale var. compactum compact cobwebby thistle	PDAST2E1Z1	None	None	G3G4T2	S2	1B.2
Cirsium occidentale var. lucianum Cuesta Ridge thistle	PDAST2E1Z6	None	None	G3G4T2	S2	1B.2
Cladonia firma popcorn lichen	NLT0008460	None	None	G4	S1	2B.1
Clarkia speciosa ssp. immaculata Pismo clarkia	PDONA05111	Endangered	Rare	G4T1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	Candidate	None	G4T1T2	S2	
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
Delphinium parryi ssp. eastwoodiae Eastwood's larkspur	PDRAN0B1B2	None	None	G4T2	S2	1B.2
Delphinium umbraculorum umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
Dipodomys heermanni morroensis Morro Bay kangaroo rat	AMAFD03063	Endangered	Endangered	G4TH	SH	FP
Dithyrea maritima beach spectaclepod	PDBRA10020	None	Threatened	G1	S1	1B.1
Dudleya abramsii ssp. bettinae Betty's dudleya	PDCRA04011	None	None	G4T2	S2	1B.2
Dudleya abramsii ssp. murina mouse-gray dudleya	PDCRA04012	None	None	G4T2	S2	1B.3
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erigeron blochmaniae Blochman's leafy daisy	PDAST3M5J0	None	None	G2	S2	1B.2
Eriodictyon altissimum Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	G1	S1	1B.1
Erythranthe serpentinicola Irish Hills monkeyflower	PDPHR01290	None	None	G1	S1	1B.1
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Fritillaria ojaiensis Ojai fritillary	PMLIL0V0N0	None	None	G3	S3	1B.2
Helminthoglypta walkeriana Morro shoulderband	IMGASC2510	Threatened	None	G1	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
Icaricia icarioides moroensis Morro Bay blue butterfly	IILEPG801B	None	None	G5T2	S2	
Lasthenia californica ssp. macrantha perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
Layia jonesii Jones' layia	PDAST5N090	None	None	G2	S2	1B.2
Malacothamnus palmeri var. palmeri Santa Lucia bush-mallow	PDMAL0Q0B5	None	None	G3T2Q	S2	1B.2
Monardella palmeri Palmer's monardella	PDLAM180H0	None	None	G2	S2	1B.2
Monardella sinuata ssp. sinuata southern curly-leaved monardella	PDLAM18161	None	None	G3T2	S2	1B.2
Nemacaulis denudata var. denudata coast woolly-heads	PDPGN0G011	None	None	G3G4T2	S2	1B.2
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	Candidate Endangered	G5T1Q	S1	
Oncorhynchus mykiss irideus pop. 9 steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Poa diaboli Diablo Canyon blue grass	PMPOA4Z390	None	None	G2	S2	1B.2
Polyphylla morroensis Morro Bay June beetle	IICOL68200	None	None	G1	S1	
Pyrgulopsis taylori San Luis Obispo pyrg	IMGASJ0A50	None	None	G1	S1	
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S1	FP

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Sanicula maritima adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2	1B.1
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Sulcaria isidiifera splitting yarn lichen	NLTEST0020	None	None	G1	S1	1B.1
Sulcaria spiralifera twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Record Count: 89

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958
Email Address: FW8VenturaSection7@FWS.Gov

In Reply Refer To:
Project Code: 2023-0006632
Project Name: MBPP BESS

October 20, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location 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

Project Code: 2023-0006632
Project Name: MBPP BESS
Project Type: Power Gen - Other
Project Description: Morro Bay, California
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@35.37344455,-120.85607177587319,14z

Counties: San Luis Obispo County, California

Endangered Species Act Species

There is a total of 25 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.

Mammals

NAME	STATUS
Giant Kangaroo Rat *Dipodomys ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
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 does not overlap 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 does not overlap 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 does not overlap 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 does not overlap 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 does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap 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 does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Foothill Yellow-legged Frog *Rana boylii* Population: South Coast Distinct Population Segment (South Coast DPS) No critical habitat has been designated for this species.	Proposed Endangered

Fishes

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

Snails

NAME	STATUS
Morro Shoulderband (=banded Dune) Snail *Helminthoglypta walkeriana* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2309	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Jewelflower *Caulanthus californicus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
California Seablite *Suaeda californica* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6310	Endangered
Chorro Creek Bog Thistle *Cirsium fontinale var. obispoense* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5991	Endangered
Indian Knob Mountainbalm *Eriodictyon altissimum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1261	Endangered
Marsh Sandwort *Arenaria paludicola* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2229	Endangered
Morro Manzanita *Arctostaphylos morroensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2934	Threatened
Salt Marsh Bird's-beak *Cordylanthus maritimus ssp. maritimus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6447	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Padre Associates, Inc.
Name: christina Santala
Address: 369 Pacific Street
City: San Luis Obispo
State: CA
Zip: 93444
Email csantala@padreinc.com
Phone: 8057862650

Morro Bay Power Plant Battery Storage Systems Project

Following is a preliminary list generated from the NMFS database (*Intersection of USGS 7.5" Topographic Quadrangles with NOAA Fisheries ESA Listed Species, Critical Habitat, Essential Fish Habitat, and MMPA Species Data within California*) to generate a list of species that may be present in the Morro Bay South, California Quadrangle. Query performed on October 28, 2022.

Quad Name **Morro Bay South**
Quad Number **35120-C7**

- **ESA Anadromous Fish**

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

- **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

- **ESA Marine Invertebrates**

Range Black Abalone (E) - X
Range White Abalone (E) -

- **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

- **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

- **ESA Whales**

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

- **ESA Pinnipeds**

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

- **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH - X

Coastal Pelagics EFH - **X**

Highly Migratory Species EFH - **X**

- **MMPA Species (See list at left)**
- **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - **X**

MMPA Pinnipeds - **X**

APPENDIX F

Spring Botanical Report

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

April 15, 2021

Project No. 1902-1172

Terri Wissler Adam
EMC Planning Group
301 Lighthouse Avenue, Suite C
Monterey, CA 93940

Subject: Follow-Up Spring Botanical Survey for the Morro Bay Power Company, LLC – Battery Energy Storage System Project, Morro Bay, California

Dear Ms. Adam:

Padre Associates, Inc. (Padre) has prepared the following Letter-Report (Report) to document the results of a follow-up spring botanical survey conducted in support of the proposed Morro Bay Power Company, LLC – Battery Energy Storage System (BESS) Project (Project) located in the City of Morro Bay, San Luis Obispo County, California. The BESS will be located northwest of the existing power plant building and west of the existing Pacific Gas and Electric (PG&E) switchyard fence (Project Site). Padre completed a follow-up spring botanical survey to supplement the initial botanical survey completed in December 2020 for the Project as discussed in the *Biological Resources Assessment Report for the Morro Bay Power Company, LLC Battery Energy Storage System, City of Morro Bay, California* (BRA), dated February 2021. This Report includes a summary of field survey methods and results, and a comprehensive list of plant species observed during the 2020 and 2021 botanical surveys.

FIELD SURVEY METHODS

On March 30, 2021, Padre Biologists, Alyssa Berry and Christina Santala, completed a field survey focused on the presence/absence of special-status plant species, as well as the suitability of habitat to support these species within the Project Site and proposed trail alignment along Embarcadero Road. Field survey methods consisted of walking transects through the Project Site. All plant species observed were documented and included in a comprehensive plant list (Attachments – Vascular Plant List). Plant specimens that were not positively identified in the field were further examined using appropriate botanical keys, including The Jepson Manual Vascular Plants of California (Baldwin et. al., 2012) and The Jepson Online Interchange for California Floristics (University of California, 2021). The timing of the survey captured the blooming period for most potentially occurring special-status plant species documented within the Project region.

BOTANICAL SURVEY RESULTS

The Project Site exhibited typical spring vegetation conditions such as emergent and early blooming annual grasses and forbs, new growth on perennial shrubs within the various vegetation types documented within the Project Site. Soils were dry and there were no areas containing standing water or pools.

Based on the 2020 BRA report there were three annual special-status plant species that were determined to have potential to occur based on suitable habitat but may not have been identifiable during the December 2020 survey including: Miles' milk vetch (*Astragalus didymocarpus* var. *milesianus*), southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*), and chaparral ragwort (*Senecio aphanactis*). None of these species were observed during the 2021 survey; however, one additional special-status plant species, Blochman's leafy daisy (*Erigeron blochmaniae*), was identified and documented within the Project Site. Blochman's leafy daisy is a perennial herb in the Sunflower Family (Asteraceae) family that occurs in coastal dune and coastal scrub habitats, is endemic to San Luis Obispo County, and typically blooms between July and August. This species is a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1B.2 species, meaning that it is rare, threatened, or endangered in California and elsewhere; and is fairly threatened in California. Padre observed an individual Blochman's leafy daisy within ruderal habitat approximately 150 feet northwest of the southern Project Site limits at latitude 35.373617° N and longitude 120.858635° W. The plant was not in bloom however, the morphological characteristics of the leaves, and branches made positive identification feasible.

IMPACT DISCUSSION AND RECOMMENDED MITIGATION MEASURES

This report specifically addresses impacts to Blochman's leafy daisy; refer to the BRA for comprehensive details on the proposed Project impacts to biological resources and mitigation measures. Potential direct impacts to Blochman's leafy daisy include mortality due to ground disturbance during Project construction. Potential indirect impacts are related to habitat loss; however, it should be noted that the individual plant was observed growing on a berm associated with the former tank battery area. To mitigate impacts to Blochman's leafy daisy, the following mitigation measures shall be incorporated into the Project Restoration/Mitigation Plan:

- Collect seed from the individual plant when seed is ripe during the season prior to ground disturbance;
- Salvage and transplant the individual plant to a suitable habitat area designated on the Restoration/Mitigation Plan;
- Direct sow at the designated restoration area, plant seed in containers onsite, or contract with a local nursery that specializes in native plant propagation. Direct sow or plant seedlings in suitable habitat area designated on the Restoration/Mitigation Plan; and
- Blochman's leafy daisy will be replaced at a 3:1 ratio (replaced:removed).

CLOSING

If you have any questions or would like more information regarding the contents of this letter report, please contact Alyssa Berry at aberry@padreinc.com, or (805) 786-2650, ext. 127.

Sincerely,

Padre Associates, Inc.

Alyssa Berry
Senior Biologist

Attachments: Site Photographs
Vascular Plant List

REFERENCES

Baldwin, Bruce G., Goldman, Douglas H., Keil, David J., Rosatti, Thomas J. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press. Berkeley, California.

California Native Plant Society (CNPS), Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-030.39). Website http://www.rareplants.cnps.org (Accessed:30 March 2021).

Calflora: Information on California plants for education, research and conservation. [web application]. 2021. Berkeley, California: The Calflora Database (a non-profit organization). Website: https://www.calflora.org (Accessed: March 2021).

University of California. 2021. The Jepson Online Interchange for California Floristics. University of California, Berkeley, CA. Available online: http://ucjeps.berkeley.edu/interchange.html.

ATTACHMENTS

Site Photographs
Vascular Plant List

Photograph 1. Blochman's leafy daisy in disturbed/ruderal habitat within the Project Site (3/30/21).

Photograph 2. Representative view of disturbed/ruderal habitat within Project Site; aspect: northeast (3/30/21).

List of Vascular Plant Species Observed within the Project Site
Battery Energy Storage System Project, Morro Bay, California

Scientific Name	Common Name	Habit	Indicator Status	Conservation Status	Family
Acacia sp.*	Wattle	T/S	-		Fabaceae
Acmispon glaber	Deerweed/California broon	PH	-		Fabaceae
Acmispon heermanii	Heerman's birdfoot trefoil	PH	-		Fabaceae
Ambrosia chamissonis	Beach bur	PH	-		Asteraceae
Asphodelus fistulosus	Onionweed	PH	-		Asphodelaceae
*Avena barbata**	Slender wild oats	AG	-		Poaceae
Baccharis pilularis	Coyote brush	S	-		Asteraceae
*Brassica nigra**	Black mustard	AH	-		Brassicaceae
*Bromus catharticus**	Rescue grass	AG	-		Poaceae
*Bromus diandrus**	Rip gut brome	AG	-		Poaceae
*Bromus madritensis**	Red brome	AG	-		Poaceae
Camissonioposis cheiranthifolia	Beach evening primrose	PH	-		Onagraceae
Camissoniopsis micrantha	Minature sun-cup	AH	-		Onagraceae
*Carpobrotus edulis**	Iceplant	PH	-		Aizoaceae
*Centaurea melitensis**	Tocalote	AH	-		Asteraceae
*Cirsium vulgare**	Bull thistle	AH	FACU		Asteraceae
Corethrogyne filaginifolia	Common sandaster	PH	-		Asteraceae
*Cortaderia jubata**	Pampas grass	PG	FACU		Poaceae
Croton californicus	California croton	PH	-		Euphorbiaceae
*Delairea odorata**	Cape ivy	PH	.		Asteraceae
*Delosperma litorale**	Seaside iceplant	S	FACU		Aizoaceae
Distichlis spicata	Salt grass	PG	FAC		Poaceae
*Ehrharta calycina**	Veldt grass	PG	-		Poaceae
Erigeron blochmaneae	Blochman's leafy daisy	PH	-	1B.2	Asteraceae
Erigeron canadensis	Horseweed	AH	-		Asteraceae
*Erodium cicutarium**	Redstem filaree	AH	-		Geraniaceae
Eschscholzia californica	California poppy	AH	-		Papaveraceae
*Eucalyptus globulus**	Blue gum	T	.		Papaveraceae
*Festuca myuros**	Foxtail fescue	AG	FACU		Poaceae
*Hirschfeldia incana**	Summer mustard	BH	-		Brassicaceae
Hesperocyparis macrocarpa	Monterey cypress	T	-	1B.2	Cupressaceae
Hesperocyparis sp.	Ornamental cypress	T	-		Cupressaceae
Heterotheca grandiflora	Telegraph weed	PH	-		Asteraceae
*Hordeum murinum**	Barley	AG	FACU		Poaceae
*Hypochaeris glabra**	Smooth cat's ear	AH	-		Asteraceae
*Lamarckia aurea**	Goldentop	AG	FACU		Poaceae
*Limoneum perezii**	Canarian sea lavender	AH	-		Plumbaginaceae
Lupinus arboreus	Yellow bush lupine	S	-		Fabaceae
Lupinus chamissonis	Dune lupine	S	-		Fabaceae
Lupinus succulentus	Succulent lupine	AH	-		Fabaceae
Salvia mellifera	Black sage	S	-		Lamiaceae
*Medicago polymorpha**	Bur clover	AH	FACU		Fabaceae
Myoporum sp.*	Myoporum	T/S	-		Scrophulariaceae
*Opuntia ficus-indica**	Mission Prickly Pear	S	-		Cactaceae
*Oxalis pres-caprae**	Bermuda buttercup	AH	-		Oxalidaceae
Pinus radiata	Monterey pine	T	-	1B.1	Pinaceae
*Piptatherum miliaceum**	Smilo grass	PG	-		Poaceae
*Plantago coronopus**	Cutleaf plantain	AH	FAC		Plantaginaceae
Prunus ilicifolia	Holly-leafed cherry	S	-		Rosaceae
Pseudognaphalium californicum	Green everlasting	A/PH	-		Asteraceae
*Pseudognaphalium luteoalbum**	Jersey cudweed	AH	FAC		Poaceae
Rubus ursinus	California blackberry	PV	FAC		Rosaceae
Salix lasiolepis	Arroyo willow	S	FACW		Salicaceae
*Salsola tragus**	Russian thistle	AH	-		Chenopodiaceae
*Silybum marianum**	Milk thistle	AH	-		Asteraceae

List of Vascular Plant Species Observed within the Project Site
Battery Energy Storage System Project, Morro Bay, California

Scientific Name	Common Name	Habit	Indicator Status	Conservation Status	Family
*Sisymbrium irio**	London rocket	AH	-		Brassicaceae
Sisyrinchium bellum	Blue eyed grass	PH	FACW		Iridaceae
*Sonchus oleraceus**	Common sow thistle	AH	-		Asteraceae
*Tetragonia tetragonioides**	New Zealand spinach	AH	-		Aizoaceae

Notes: Scientific nomenclature follows Baldwin (2012).
An "*" indicates non-native species which have become naturalized or persist without cultivation.
An "-" indicates that no indicator has been assigned due to lack of information to determine indicator status; or is not listed and assumed an upland species.

Habit definitions:
AG - Annual grass.
AH - Annual herb.
F - Fern
PG - Perennial grass.
PH - Perennial herb.
PV - Perennial vine.
S - Shrub
T - Tree

Wetland indicator status (Lichvar and Kartesz, 2016):
OBL (Obligate Wetland Plants) - Almost always occur in wetlands.
FACW (Facultative Wetland Plants) - Usually occur in wetland, but may occur in non-wetlands.
FAC (Facultative Wetland Plants) - Occur in wetlands and non-wetlands.
FACU (Facultative Upland Plants) - Usually occur in non-wetlands, but may occur in wetlands.
UPL (Upland Plants) - Almost always occur in non-wetlands.

EAM
Ecological Assets Management, LLC

U.S. Fish and Wildlife Service
Attn. Julie Vanderwier
2493 Portola Road, Suite B
Ventura, CA 93003

March 9, 2016

Subject: *No-take Concurrence Request for the Proposed Decommissioning of Dynegy's Morro Bay Power Plant Marine Terminal, (APN 066-331-040), Morro Bay, San Luis Obispo County, California*

Ms. Julie Vanderweir:

The attached Morro shoulderband snail (MSS) protocol survey report has been prepared by Ecological Assets Management LLC (EAM) for Padre Associates, Inc. (Padre) on behalf of Dynegy Morro Bay, LLC (Dynegy) at the Morro Bay Power Plant (APN 066-331-040) located in Morro Bay, San Luis Obispo County, California. This report presents the methods and results of five protocol-level Morro shoulderband snail (MSS) surveys and habitat assessment conducted from November 16, 2015, to January 19, 2016, on an approximate 9.45 acre area (Survey Area) located in the western portion of the 107 acre Morro Bay Power Plant (MBPP) facility. This report provides a description of existing conditions within the Survey Area and adjacent areas, and, in combination with the protocol surveys results, determines whether Morro shoulderband snail and/or suitable habitat for Morro shoulderband snail is present.

In summary, the five protocol surveys conducted within the 9.45 acre Survey Area observed no live or empty MSS shells. Restricted and small areas of suitable habitat (e.g. coastal dune scrub, ice plant and sandy soils) were observed within the Survey Area. During the protocol surveys numerous empty shells from both Big Sur shoulderband snail (*Helminthoglypta umbilicata*) and brown garden snail (*Helix aspera*) were observed. Numerous previous surveys and monitoring efforts conducted by other biologists from 1999 to 2010 within the Survey Area also found no MSS. Based on the results of the five protocol surveys and habitat assessment presented in this report, and the previous MSS survey and monitoring efforts, "take" of MSS will not occur from the proposed project within the Survey Area.

Thus, Padre, on behalf of Dynegy, is requesting a no-take concurrence determination for the proposed project.

If you have any questions or comments regarding this request please contact me at 805.440.6137 or e-mail at dwayne@ecologicalmgmt.com.

Sincerely,

Dwayne Oberhoff
Senior Project Biologist
Ecological Assets Management, LLC

APPENDIX G

Morro Shoulderband Snail Protocol Survey Report (EAM, 2021)

Morro Shoulderband Snail Protocol Survey Report at Morro Bay Power Plant (APN 066-331-040), Morro Bay, San Luis Obispo County, California

Prepared for:

Padre Associates, Inc.
369 Pacific Street
San Luis Obispo, CA 93401

Prepared by:

EAM
Ecological Assets Management, LLC

March 9, 2016

PO Box 6840, Los Osos, CA 93412 | 805.440.6137
http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Introduction

The following Morro shoulderband snail (*Helminthoglypta walkeriana*) protocol survey report has been prepared by Ecological Assets Management LLC (EAM) for Padre Associates, Inc. (Padre) on behalf of Dynegy Morro Bay, LLC (Dynegy) at the Morro Bay Power Plant (APN 066-331-040) located in Morro Bay, San Luis Obispo County, California. This report presents the methods and results of five protocol-level Morro shoulderband snail (MSS) surveys and habitat assessment conducted from November 16, 2015, to January 19, 2016, on an approximate 9.45 acre area (Survey Area) located in the western portion of the 107 acre Morro Bay Power Plant (MBPP) facility. This report provides a description of existing conditions within the Survey Area and adjacent areas, and, in combination with the protocol surveys results, determines whether Morro shoulderband snail and/or suitable habitat for Morro shoulderband snail is present.

In summary, the five protocol surveys conducted within the Survey Area observed no live or empty MSS shells. Restricted and small areas of suitable habitat (e.g. coastal dune scrub, ice plant and sandy soils) were observed within the Survey Area. During the protocol surveys numerous empty shells from both Big Sur shoulderband snail (*Helminthoglypta umbilicata*) and brown garden snail (*Helix aspera*) were observed. Numerous previous surveys and monitoring efforts conducted by other biologists from 1999 to 2010 within the Survey Area also found no MSS. Based on the results of the five protocol surveys and habitat assessment presented in this report, and the previous MSS survey and monitoring efforts, "take" of MSS will not occur from the proposed project within the Survey Area.

Protocol Survey and Habitat Assessment Methods

The 2003 United States Fish and Wildlife Service (USFWS) Protocol Survey Guidelines for MSS require that protocol surveys be performed during or immediately following a rain event (i.e. protocol conditions) to establish the presence or absence of MSS at a location. Protocol surveys must include a general habitat assessment that identifies key habitat features within and adjacent to the Survey Area.

This report is based on the results of five separate site visits to the approximate 9.45 acre Survey Area of the 107 acre subject parcel to conduct five protocol surveys and a concurrent MSS habitat assessment. The surveys were conducted on November 16, December 11, December 22, 2015; and, January 7, and January 19, 2016. The protocol surveys on November 16 and December 11 and 22, 2015, were conducted by permitted biologists Dwayne Oberhoff and Bob Sloan. The protocol surveys on January 7 and 19, 2016, were conducted by permitted biologist Dwayne Oberhoff. Dwayne Oberhoff is permitted to conduct MSS protocol surveys under federal recovery permit TE-180579-1. Bob Sloan is permitted to conduct MSS protocol surveys under federal recovery permit TE-43937B-0. Padre Staff Biologist, Ms. Michaela Hoffman or Kenny

Wimmer, were also present during these surveys and assisted in the survey efforts (as permitted under Mr. Oberhoff's and Mr. Sloan's recovery permit).

The protocol surveys and habitat assessment were conducted on foot and covered the entirety of the 9.45 acre Survey Area. The protocol surveys focused on determining the presence/absence of MSS, but during the protocol surveys all other species of land snail were also noted. The habitat assessment conducted concurrent with the protocol surveys determined whether suitable MSS habitat is located within the Survey Area. Survey efforts focused on all areas, including non-native habitat, ornamental plantings, anthropogenic debris, and edges of building foundations, fence lines, and other manmade structures that could provide habitat or shelter.

Description of Morro Shoulderband Snail

MSS is found in western San Luis Obispo County within the vicinity of Morro Bay. Specifically, it is found south from the northern portion of the City of Morro Bay, west of Los Osos Creek, and north of Hazard Canyon. Within this area, the primary habitat components for MSS are coastal dune and coastal scrub plant communities found on sandy soils with ≤10 percent (%) slopes. Key native plant species associated with MSS include mock heather (*Ericameria ericoides)*, coast buckwheat (*Eriogonum parvifolium*), dune bush lupine (*Lupinus chamissonis*), deerweed (*Acmispon glaber*), California croton (*Croton californicus*), seaside golden yarrow (*Eriophyllum staechadifolium*), black sage (*Salvia mellifera*) and California sagebrush (*Artemisia californica*). MSS are also commonly found in association with non-native plant species such as veldt grass (*Ehrharta calycina*), ice plant (*Carpobrotus edulis*), and anthropogenic structures or debris/garbage (i.e. plywood, cardboard, etc).

Due to threats from habitat destruction, colonization of invasive plant species, aging habitat, and off-road vehicle use, MSS was listed as endangered by the USFWS on December 15, 1994. In 2006, following the five year review conducted by the USFWS, the USFWS recommended MSS be downlisted from endangered to threatened; however, the final rulemaking process for downlisting has not been completed.

Site Location

The 9.45 acre Survey Area on the subject parcel is located in western San Luis Obispo County, California; within the city of Morro Bay (refer to Figure 1). The subject parcel is located at 1290 Embarcadero, and the closest main cross street is Beach Street located approximately 0.35-mile to the north.

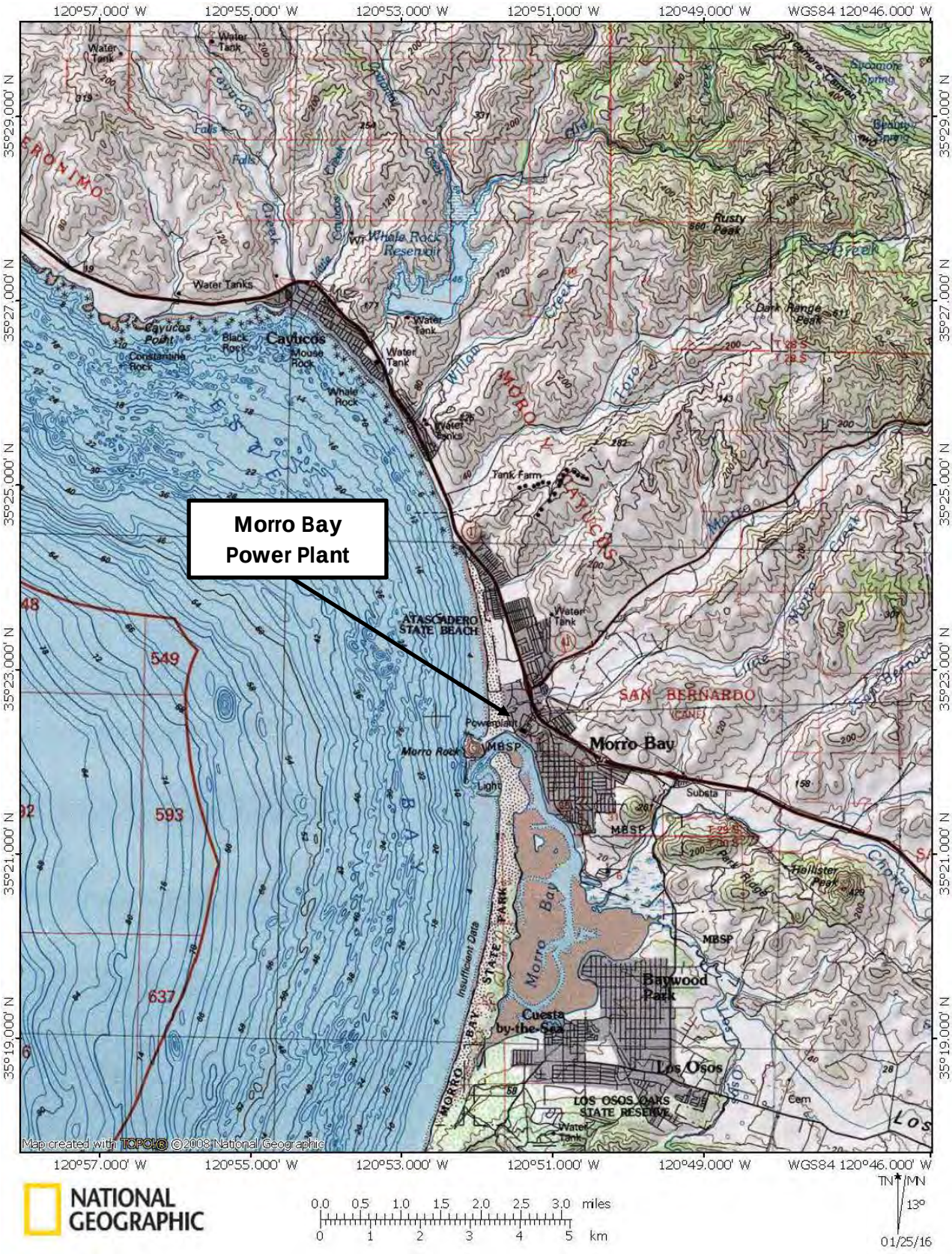

FIGURE 1. Location map of Morro Bay Power Plant located in the City of Morro Bay, CA.

Proposed Project

Dynegy plans to decommission the remaining components of the Dynegy MBPP Marine Terminal. These components consist of a 24-inch diameter submarine pipeline, a 16-inch diameter submarine pipeline, the cathodic protection system for these two pipelines, and ancillary submarine pipeline components. The MBPP marine terminal has been idle since 1990 and many of the marine terminal's components have been decommissioned in subsequent decommissioning phases. This project involves the final decommissioning of the remaining marine terminal components to comply with the abandonment requirements of the California State Lands Commission (CSLC).

Existing Conditions

The Survey Area for this report was located on the western side of the MBPP and north of the entry gate (refer to Appendix A, Existing Conditions and Survey Results). The approximate 9.45 acre triangular-shape Survey Area is generally flat, but does contain earthen berms that were previously constructed to form a containment area for the large petroleum storage tanks located within the tank farm area of MBPP. The Survey Area also contains numerous anthropogenic features, such as: paved and dirt roads, parking areas, office buildings, metal sheds, pads from the previously demolished storage tanks, sunken concrete valve boxes, various smaller metal storage tanks, numerous vertical pipes (e.g. test wells, anode access points, fire hydrants, etc.) with protective bollards, and concrete culverts located within the berms for facility pipe routing. Much of the 9.45 acre Survey Area was either completely unvegetated due to improved roads and parking areas, or very sparsely vegetated due to historical disturbances (refer to Photo Documentation).

Observed vegetation was dominated by both ruderal and ornamental plant species. Coastal scrub species were rare within the Survey Area, but several coastal silver lupine (*Lupinus chamissonis*) bushes were observed growing in a few locations. Dominant plant species observed within the Survey Area consisted of: Russian thistle (*Salsola* spp.) telegraph weed (*Heterotheca grandiflora*), unidentified pine (*Pinus* spp.), Monterey cypress (*Cupressus macrocarpa*), eucalyptus trees (*Eucalyptus* spp.), myoporum (*Myoporum laetum*), coastal bush lupine (*Lupinus arboreus*), miscellaneous annual grasses, and ice plant (*Carpobrotus edulis*).

A primary habitat component for MSS is sand or sandy soils with a slope not greater than 10 percent (%). The University of California Davis, Soil Resource Laboratory online soil mapping website, "SoilWeb" (http://casoilresource.lawr.ucdavis.edu/gmap/), maps two soil units in the Survey Area: Psamments and Fluvents, occasionally flooded; and, dune land.

The areas surrounding the Survey Area include: the west consists of undeveloped dune scrub, the areas to the north and east are previously developed and disturbed areas of

the MBPP and the area to the south is the Embarcadero (paved road) and the Morro Bay water front (refer to Appendix A, Existing Conditions and Survey Results). The subject parcel is located outside of the boundaries of critical habitat units for MSS designated on February 7, 2001.

Results

MSS permitted biologists Dwayne Oberhoff and Bob Sloan conducted five focused, protocol-level surveys for MSS on the subject parcel from November 16, 2015, to January 19, 2016, with additional survey assistance provided on these dates by Michaela Hoffman or Kenny Wimmer of Padre Associates (refer to Table 1).

Table 1. Results of Five Protocol Surveys to Morro Bay Power Plant, Morro Bay, San Luis Obispo County, California.

Survey #	Survey Date and Time	Surveyor	Weather Conditions	Results*
1	11/16/2015 0815-1040 hrs	D. Oberhoff B. Sloan K. Wimmer	52°F, 0.31" of precip day prior to survey, 10-20 mph winds during survey	No live MSS or empty MSS shells observed. Numerous empty Helix and BSS shells observed.
2	12/11/2015 0830-1030 hrs	D. Oberhoff B. Sloan M. Hoffman	54°F, 0.46" prior to and during survey, partly cloudy	No live MSS or empty MSS shells observed. Numerous empty Helix and BSS shells observed.
3	12/22/2015 0900-1045 hrs	D. Oberhoff B. Sloan M. Hoffman	64°F, 0.70" prior to and during survey, 15-25 mph wind cloudy skies	No live MSS or empty MSS shells observed. Numerous empty Helix and BSS shells observed.
4	1/7/2016 0855-1040 hrs	D. Oberhoff M. Hoffman	55°F, 2.14" of precip three days prior to survey	No live MSS or empty MSS shells observed. Numerous empty Helix and BSS shells observed.
5	1/19/2016 0840-1015 hrs	D. Oberhoff K. Wimmer	57°F, 0.30" of precip prior to and during survey, cloudy skies during survey	No live MSS or empty MSS shells observed. Numerous empty Helix and BSS shells observed.

*MSS - Morro shoulderband snail, BSS - Big Sur shoulderband snail, Helix - brown garden snail

All areas and habitats located within the approximate 9.45 acre Survey Area were surveyed by walking transects, visual observation, and carefully sifting through soil and leaf litter under vegetation, around woody debris, and other areas where MSS could be present. A total of 25.2 person-hours (6.6 person-hours/hectare) were expended conducting the five protocol surveys. No MSS were observed during the five protocol-level surveys of the Survey Area. Many empty Big Sur shoulderband snail (BSS) shells were observed in various locations of the surveyed area, with the greatest concentration on a west facing berm sparsely vegetated with coastal silver lupine, bush lupine and/or ice plant (refer to Photo 3). The bulk of the empty BSS shells observed during the survey efforts were classified as class C shells.

The bulk of the 9.45 acre Survey Area does not contain habitats suitable for MSS, which includes previously disturbed areas sparsely vegetated with ruderal vegetation, improved paved/dirt roads, parking areas and the storage tank pads within the tank farm area. However, small areas of habitat suitable for MSS were observed within the Survey Area and were located near the western fence line of the Survey Area (refer to Appendix A, Existing Conditions and Survey Results). These areas contained a few coastal silver lupine and ice plant growing on or adjacent to the western face of an earthen berm that was adjacent to the western fence (refer to Appendix A, Existing Conditions and Survey Results and Appendix B, Photos 3 and 5). However, during the five protocol-level surveys no live MSS or empty MSS shells were observed in these locations. These areas are extremely exposed and likely cannot support MSS or any snail species, as was evident by the large number of empty BSS and *Helix* shells observed in these locations during the surveys. In addition, previous MSS surveys and monitoring efforts conducted at MBPP between 1999 and 2010 did not observe any live MSS or empty MSS shells within the 9.45 acre Survey Area (refer to Table 2). The MSS identified in the June 12, 2001, protocol survey report by Morro Group, Inc. were observed in the far southern portion of the 107 acre MBPP property, approximately 0.4-mile from the Survey Area. In this same report, it is also stated, "Interestingly, the dune area west of the MBPP represented the "best" MSS habitat, based on the literature, yet this area produced no MSS shells and the fewest number of BSS."

Table 2. Results of Previous MSS Survey and Monitoring Efforts at Morro Bay Power Plant, Morro Bay, San Luis Obispo County, California.*

Date	Title of Report	MSS Survey Efforts	Company	Survey Personnel	Results
October 27, 2010	Morro Bay Power Plant Modernization Project Entrance Renovation MSS Monitoring Report	Construction Monitoring for MSS	SWCA Environmental Consultants	SWCA biologists	No live or empty MSS observed
July 1, 2010	Morro Bay Power Plant Modernization Project Anode Installation	Three MSS surveys and Construction Monitoring for	SWCA Environmental Consultants	SWCA biologists	No live or empty MSS observed
April 30, 2003	Morro Shoulderband Snail Survey Report - Morro Bay Power Plant PG&E Substation	Five MSS Protocol Surveys	Morro Group, Inc.	B. Sloan P. Waldburger D. Oberhoff	No live or empty MSS observed
June 12, 2001	Morro Bay Power Plant - Sensitive Species Construction Monitoring Completion Report	Construction Monitoring for MSS	Morro Group, Inc.	B. Sloan P. Waldburger J. Tupen J. Wiggins	No live or empty MSS observed
June 12, 2001	Morro Bay Power Plant - Morro Shoulderband Snail Protocol Survey Results	Five MSS Protocol Surveys	Morro Group, Inc.	J. Tupen B. Sloan	No live MSS observed during surveys. Six empty MSS shells observed in the southern portion of property.
May/June 1999	Biological Survey, Morro Bay Power Plant, Morro Bay, California	Non-protocol	TRC Environmental Solutions	E. Reeves	No live or empty MSS observed
January/February 1999	Biological Survey, Morro Bay Power Plant, Morro Bay, California	Unknown	TRC Environmental Solutions	F. Villablanca V.L. Holland	No live or empty MSS observed

*List may not include all MSS surveys or MSS monitoring efforts conducted on MBPP.

Discussion

The Survey Area is dominated by previously developed and disturbed areas that do not contain habitats suitable for MSS. However, small areas with both MSS primary habitat components (e.g. coastal dune plant communities and/or ice plant, and sandy soils) were present within the Survey Area. However, no MSS (live or empty shells) were observed within these areas. The numerous previous MSS protocol surveys and monitoring efforts conducted during the late 1990s to 2010 on MBPP did not observe live MSS and the empty MSS shells observed in 2001 were approximately 0.4-mile from the Survey Area. The current results presented here, combined with previous survey efforts, further confirm that MSS is unlikely present within the Survey Area.

Conditions within the Survey Area are highly disturbed and previous activities have created conditions that are now unsuitable for MSS. In addition, it appears that

conditions are unfavorable for any land snail based on the absence of any live snails observed during the five surveys. Furthermore, the presence of ornamental vegetation and trees (e.g. pine, eucalyptus, cypress, etc.) create conditions that MSS do not favor, but will also deter or prevent movement of MSS from one area to another. The sparse vegetation observed throughout the Survey Area also limits micro-habitats that are critical for MSS summer aestivation. The sparse vegetation and limited aestivation habitat likely increases heat exposure during warm, cloudless days and may partially explain the great abundance of empty BSS and *Helix* shells observed within these areas of the Survey Area. During these times, BSS and *Helix* aestivating in sparsely vegetated habitats likely die due to desiccation.

Based on these results presented above, EAM's assessment is that "take" of MSS would not occur from the project as proposed within the Survey Area. Thus, it is EAM's opinion that additional protocol surveys for MSS are not necessary within the Survey Area. In addition, it is EAM's opinion that additional pre-construction surveys and monitoring efforts during project activities are not necessary based on these and previous results from the Survey Area. Based on these results, a concurrence determination request is being submitted to the USFWS along with this report.

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Appendix A: Existing Conditions and Survey Results


Appendix A
Existing Conditions and Survey Results
Legend
Ice Plant
Ice Plant/Silver Lupine
Numerous empty BSS
Ornamental Vegetation
Pine/Cypress/Eucalyptus/Myoporum/etc. Trees
Scattered Bush and/or Silver Lupine
Survey Area Perimeter
Embarcadero
Google earth
© 2016 Google
300 ft

Appendix B: Photo Pages

- **9 Photos**

Photo 1

Photo of ornamental plant species adjacent to the MBPP entry gate.

February 12, 2016

PO Box 6840, Los Osos, CA 93412 | 805.440.6137
http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 2

Photo viewing north from northern side of MBPP entry gate. Note unimproved dirt roads and sparse ruderal vegetation.

February 12, 2016

Photo 3

Photo of berm near western fence line vegetated with pine tree (*Pinus* spp.) and iceplant.

February 12, 2016

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http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 4

Photo viewing north along western fence line showing site related equipment. Not absence of vegetation along fence line.

February 12, 2016

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http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 5

Photo viewing west from atop berm toward Morro Rock. Note western fence line in foreground.

February 12, 2016

PO Box 6840, Los Osos, CA 93412 | 805.440.6137
http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 6

Photo viewing east from atop of berm toward previously location of petroleum storage tank pad.

February 12, 2016

PO Box 6840, Los Osos, CA 93412 | 805.440.6137
http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 7

Photo viewing north along top of berm. Note Monterey cypress on left and sparsely vegetated slope on right of berm.

February 12, 2016

PO Box 6840, Los Osos, CA 93412 | 805.440.6137
http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 8

Photo viewing east along top of berm. Note sparse vegetation and office buildings in background.

February 12, 2016

PO Box 6840, Los Osos, CA 93412 | 805.440.6137
http://www.ecologicalmgmt.com | dwayne@ecologicalmgmt.com

Photo 9

Photo viewing south of sparely vegetated area adjacent to entry gate at MBPP.

February 12, 2016