

# Biological Resource Evaluation Report

## MidPen Affordable Housing Development Project

Half Moon Bay, San Mateo County, California



### Prepared for:

MidPen Housing Corporation  
1970 Broadway, Suite 100  
Oakland, CA 94612

Attn: Allison Vogt

[allison.vogt@midpen-housing.org](mailto:allison.vogt@midpen-housing.org)

September 2025  
Revised January 2026

### Prepared by:

WRA, Inc.  
2169 G East Francisco Boulevard  
San Rafael, CA 94901

Attn: Leslie Lazarotti

[lazarotti@wra-ca.com](mailto:lazarotti@wra-ca.com)

WRA#350270



## EXECUTIVE SUMMARY

WRA has prepared this Biological Resource Evaluation (BRE) report for a 2-acre property (Assessor Parcel Number [APN] 064272100) in Half Moon Bay, San Mateo County, California (Project Site). The Project Site is located immediately east of Highway 1, between Poplar Street and Metzgar Street, in the residential community of Half Moon Bay. This report was prepared in accordance with Policies outlined in Chapter 6 of the City of Half Moon Bay (City) Local Coastal Program/Land Use Plan (HMB LCP; HMB 2020) to support the City's development review process for potential residential development at this location. The purpose of this report is to document the existing environmental setting and potential biological resources within the Project Site as well as an additional 200-foot buffer and adjacent habitats, as relevant (Study Area). The Project is within the California Coastal Zone and would require a Coastal Development Permit.

The proposed project (Project) includes the construction of a multifamily affordable housing development with associated parking areas, community spaces, and amenities. This report includes identification and analysis of the Project's potential to affect any sensitive biological resources, a description of best management practices (BMPs) that will be incorporated into the Project design to ensure that any potentially sensitive resources are avoided, and a review of the Project's consistency with applicable federal, state, and local environmental regulations and policies.

Based on the results of a literature review and field assessment, the Study Area has potential to support one (1) special-status wildlife species, white-tailed kite (*Elanus leucurus*), in addition to roosting bats and native nesting birds that are protected under the Migratory Bird Treaty Act (MBTA) and/or California Fish and Game Code (CFG) – see **Section 5.2.2**. In addition, two (2) special-status plant species, Choris's popcorn flower (*Plagiobothrys chorisianus* var. *chorisianus*) and harlequin lotus (*Hosackia gracilis*), have historically been documented in the vicinity of the Study Area (see **Section 5.2.1**). As such, the Project proponent will adopt standard avoidance strategies for these species. The Study Area does not occur within any U.S. Fish and Wildlife Service (USFWS)-designated critical habitat (CDFW 2025b). No special-status species were observed during the site visit on August 15, 2025.

A recently man-made stormwater ditch occurs immediately west of the Project Site on an adjacent California Department of Transportation (Cal Trans) easement along Highway 1. This feature appears to have been constructed in association with Phase 1 of the Poplar Street Traffic Calming and Safety Project, which included stormwater infrastructure along Poplar Street. Based on field observations and desktop review, it is WRA's opinion that this feature is not likely jurisdictional under the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), or the California Coastal Commission (CCC) and should not be classified as an Environmentally Sensitive Habitat Area (ESHA) – see **Section 5.1.2**. In addition, a small willow stand was preliminarily mapped within the Study Area (outside of the Project Site and across Highway 1). Given that findings within the 200-foot buffer from the Project Site are considered preliminary, WRA cannot assert the potential jurisdictional status of this stand. However, the Project Site is greater than 115 feet from the willow stand, meaning that the potential 35-foot ESHA buffer associated with the willow stand would not extend into (or even close to) the Project Site. No streams, wetlands, or other "sensitive habitats" as defined by the HMB LCP were identified within the Project Site.

# Contents

EXECUTIVE SUMMARY .....	ii
1.0 INTRODUCTION .....	9
1.1 Overview and Purpose .....	9
1.2 Project Description .....	9
2.0 REGULATORY BACKGROUND.....	11
2.1 Special-status Species .....	11
2.2 Aquatic Resources .....	12
2.2.1 Section 404 Clean Water Act - Waters of the U.S. ....	13
2.2.2 Waters of the State .....	15
2.2.3 Section 30121 of the Coastal Act: Coastal Wetlands.....	16
2.2.4 Sections 1600-1616 of California Fish and Game Code .....	16
2.3 Sensitive Natural Communities.....	16
2.4 Environmentally Sensitive Habitat Areas.....	17
2.5 Local Plans and Policies.....	17
3.0 ASSESSMENT METHODOLOGY .....	19
3.1 Special-status Species Habitat Assessment.....	19
3.2 Vegetation Community Mapping and Classification.....	20
3.3 Delineation of Aquatic Features .....	21
3.3.1 Waters of the U.S. and State (Corps/RWQCB Jurisdiction) .....	21
3.3.2 Coastal Wetlands (CCC/LCP Jurisdiction).....	23
3.4 Wildlife Corridors and Native Wildlife Nursery Sites.....	24
4.0 ECOLOGICAL SETTING .....	25
4.1 Soils and Topography .....	25
4.2 Climate and Hydrology .....	25
4.3 Land Use .....	25
5.0 ASSESSMENT RESULTS .....	26
5.1 Vegetation Communities and Other Land Cover .....	26
5.1.1 Terrestrial Land Cover .....	26
5.1.2 Aquatic Resources.....	27
5.2 Special-status Species .....	27
5.2.1 Special-status Plants.....	27
5.2.2 Special-status Wildlife.....	28
5.3 Wildlife Corridors and Native Wildlife Nursery Sites.....	30
6.0 RECOMMENDATIONS.....	31

6.1	Special-status Species .....	31
6.1.1	Special-status Plants.....	31
6.1.2	Roosting Bats .....	31
6.1.3	White-tailed Kite and Native Nesting Birds.....	31
6.2	Sensitive Natural Communities and Land Cover Types .....	32
6.3	Aquatic Resources .....	32
6.4	Wildlife Corridors and Native Wildlife Nursery Sites.....	32
6.5	Local Policies and Ordinances .....	33
6.6	Habitat Conservation Plans .....	33
7.0	REFERENCES.....	34

## List of Tables

Table 1.	Explanation of the Wetland Indicator Statues in the National Wetland Plant List.....	22
Table 2:	Vegetation Communities and Other Land Cover Types .....	26

## List of Appendices

APPENDIX A.....	FIGURES
Figure 1.	Study Area Regional Location Map
Figure 2.	Aerial Site Map
Figure 3.	Soils Map
Figure 4.	Land Cover Types
Figure 5.	Preliminary Delineation Map
APPENDIX B. ....	UPDATED CONCEPTUAL PROJECT PLANS
APPENDIX C. ....	SPECIES OBSERVED WITHIN THE STUDY AREA
APPENDIX D. ....	SPECIAL-STATUS SPECIES POTENTIAL TABLE
APPENDIX E.....	WMVC SUPPLEMENT DATA FORMS
APPENDIX F.....	SITE PHOTOGRAPHS
APPENDIX G. ....	ANTECEDENT PRECIPITATION TOOL OUTPUT

## List of Preparers

Leslie Lazarotti	Principal in Charge
Tommy Dryer	Project Manager and Wildlife Biologist
Jennifer Gagnon	Regulatory Permitting Specialist
Mari Ferlin	Plant Biologist
Rhona McChesney	GIS Analyst

## DEFINITIONS

**Project Site:** The 1.91-acre envelope where Project activities will occur. This includes the residence located at the 940 Main Street property (depicted as developed on **Appendix A – Figure 4**), which will be preserved by the Project.

**Study Area:** The 12.89-acre area throughout which the assessment was performed, inclusive of the Project limits and the surrounding 200-foot buffer.

## List of Acronyms

<b>AMI</b>	Area Median Income
<b>APN</b>	Accessor’s Parcel Number
<b>BRE</b>	Biological Resources Evaluation
<b>Caltrans</b>	California Department of Transportation
<b>CARI</b>	California Aquatic Resource Inventory
<b>CCC</b>	California Coastal Commission
<b>CCR</b>	California Code of Regulations
<b>CDFW</b>	California Department of Fish and Wildlife
<b>CDP</b>	Coastal Development Permit
<b>CESA</b>	California Endangered Species Act
<b>CEQA</b>	California Environmental Quality Act
<b>CFGC</b>	California Fish and Game Code
<b>CFR</b>	Code of Federal Regulations
<b>City</b>	City of Half Moon Bay
<b>CNDDDB</b>	California Natural Diversity Database
<b>CNPS</b>	California Native Plant Society
<b>County</b>	County of San Mateo
<b>Corps</b>	U.S. Army Corps of Engineers
<b>CRLF</b>	California Red Legged Frog
<b>CSRL</b>	California Soils Resource Lab
<b>CWA</b>	Clean Water Act
<b>EPA</b>	U.S. Environmental Protection Agency
<b>ESA</b>	Federal Endangered Species Act
<b>ESHA</b>	Environmentally Sensitive Habitat Area
<b>HMB</b>	Half Moon Bay
<b>Inventory</b>	California Native Plant Society Rare Plant Inventory
<b>ITP</b>	Incidental Take Permit
<b>LCP</b>	Local Coastal Program/Land Use Plan
<b>LSAA</b>	Lake and Streambed Alteration Agreement
<b>Magnuson-Stevens Act</b>	Magnuson-Stevens Fishery Conservation & Management Act
<b>MBTA</b>	Migratory Bird Treaty Act
<b>MM</b>	Mitigation Measure
<b>NCCP</b>	Natural Community Conservation Plan
<b>NETR</b>	National Environmental Title Research
<b>NMFS</b>	National Marine Fisheries Service
<b>NPPA</b>	California Native Plant Protection Act
<b>NWI</b>	National Wetland Inventory
<b>NWPL</b>	National Wetland Plant List



<b>OHWM</b>	Ordinary High Water Mark
<b>Rank</b>	California Rare Plant Ranks
<b>RWQCB</b>	Regional Water Quality Control Board
<b>SFEI</b>	San Francisco Estuary Institute
<b>SWRCB</b>	State Water Resource Control Board
<b>TOB</b>	Top of Bank
<b>USC</b>	U.S. Code
<b>USDA</b>	U.S. Department of Agriculture
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>USGS</b>	U.S. Geological Survey
<b>WBWG</b>	Western Bat Working Group
<b>WRA</b>	WRA, Inc.
<b>WMVC</b>	Western Mountains Valleys Coasts

## 1.0 INTRODUCTION

This Biological Resources Evaluation (BRE) report provides an assessment of existing biological resources within the Project Site and surrounding 200 feet (Study Area) and evaluates potential impacts associated with the development of a 52-unit affordable housing complex located on approximately 2-acres near 940 Main Street, in Half Moon Bay, San Mateo County, California (**Appendix A – Figure 1**).

### 1.1 Overview and Purpose

The purpose of this BRE is to provide an analysis of biological impacts in conformance with HMB LCP Chapter 6, which addresses the potential for sensitive biological communities and special-status species to occur within the Study Area. This report has been prepared to support a HMB Coastal Development Permit (CDP) application and facilitate the City's review process for the MidPen Affordable Housing Development Project. This report also includes an aquatic resources delineation to determine the extent of any HMB LCP and CCC areas within 200 feet of the proposed development.

The Project Site encompasses multiple parcels of developed and undeveloped land where Project activities are planned to occur. In addition, the Project Site includes an occupied residence located at 940 Main Street, which will be preserved by the Project due to its historic significance. This assessment was performed throughout all portions of the Project Site and surrounding 200 feet, as accessible. Findings within the 200-foot Project Site buffer are considered preliminary and are included to account for any off-site potential ESHA buffers which may interface with development within the Project Site.

This report describes the results of a site visit, which assessed the Study Area for: (1) potential habitat for special-status plant and wildlife species, (2) federal and state jurisdictional wetland and water features potentially subject to regulation by the Corps, RWQCB, and (3) ESHAs identified by the HMB LCP and CCC. Any potential impacts to sensitive land cover types and special-status species resulting from Project operations were evaluated pursuant to the California Environmental Quality Act (CEQA) based on the habitat types present and proposed Project design. If the Project has the potential to result in significant impacts to any sensitive biological resources, additional measures to avoid, minimize, or mitigate those significant impacts are recommended.

A BRE provides general information on the presence, or potential presence, of sensitive species. Additional focused studies (such as protocol-level surveys) may be required to support regulatory permit applications, as determined by the CEQA lead agency. This assessment is based on information available at the time of the study and on-site conditions that were observed on the dates the site was visited. Conclusions are based on currently available information used in combination with the professional judgement of the biologists completing this study.

### 1.2 Project Description

The MidPen Affordable Housing Development Project was designed to provide 100% affordable housing for households earning up to 60% of the area's median income (AMI). The multifamily development will consist of one building that will provide 52 total units of affordable housing. Units will be comprised of one to three bedrooms to accommodate a variety of households. Additional amenities include a community room, learning center, bike storage, and laundry room, and offices for property management and resident services offices. Outdoor community spaces

are also incorporated into the design and include community courtyards, gardens, and a play space. Approximately 69 units of parking will be provided in two parking areas, both accessed from Metzgar Street. The Project also includes all necessary stormwater infrastructure, utilities, and associated landscaping.

Conceptual Project designs are included as **Appendix B**. It should be noted that the site plan has been revised since the initial BRE submittal in September 2025. **Appendix B** depicts the updated Project design, which proposes a reduced Project footprint. As noted above, an occupied residence is located within the easternmost portion of the Project Site at 940 Main Street. Given its historical significance, the building and existing access will be preserved by the Project, as depicted on **Appendix B**. No tree removal is proposed by the Project.

Out of an abundance of caution, the Project proponent will incorporate the following recommendations and BMPs as components of the Project design to protect any sensitive or special-status species that may have potential to occur within the Study Area:

#### *Special-status Plants*

Prior to the initiation of construction, a qualified biologist will conduct at least one survey for special-status plants that have historically been documented in the vicinity of the Study Area, including Choris's popcorn flower (CNPS Rare Plant Rank 1B.2) and Harlequin lotus (CNPS Rare Plant Rank 4.2). The survey(s) will occur during a suitable time of year that coincides with the blooming/visibility periods (approximately March to June), and at least one survey will be conducted in the spring after reference populations of these species have been visited to verify the visibility of these species. If either of these species or other special status plant species are observed, an avoidance and minimization plan will be prepared to ensure that the Project design will avoid any potential impacts to special-status plants.

#### *Roosting Bats*

Prior to the initiation of any Project construction, a qualified wildlife biologist will conduct a focused bat habitat assessment to search for bats or any sign of bats on the Project Site, including trees immediately adjacent to the Project Site. This survey will be conducted during a suitable time of year when bats are active (April 1 through September 15). If any bats, sign of bats, and/or potential roosting habitat for bats are detected within the Project Site, a focused emergence survey for bats will be conducted at dusk by a qualified biologist during suitable weather conditions to detect bats (i.e., no rain during previous 48 hours, and temperatures of at least 50 degrees Fahrenheit). The emergence survey will include the use of acoustic recording equipment to facilitate identification of species on site. If needed, the survey will determine whether any special status bat species are present and the type of roost present (e.g., breeding or non-breeding, etc.).

If the qualified biologist confirms during the habitat assessment that trees and structures within and immediately adjacent to the Project Site do not have potential to support roosting bats (e.g., no sufficient interstitial spaces, large basal cavities, exfoliating bark, interstitial spaces, or suitable foliage), Project activities will proceed as planned. If an active bat roost is detected on site, the Project proponent will consult with CDFW to determine appropriate next steps.

#### *Nesting Birds*

To the extent feasible, Project-related activities will be avoided during the nesting bird season, generally defined as February 1 to August 31. If Project work must occur during the nesting bird

season, a pre-construction nesting bird survey will be conducted by a qualified biologist within 7 days of ground disturbance or vegetation removal to avoid disturbance to active nests, eggs, and/or young of nesting birds. Surveys will be conducted in all potential nesting habitats located within, and adjacent to, Project work sites and in staging and storage areas.

If an active nest is located, a no disturbance buffer will be established around the nest. Active nest sites and protective buffer zones will be designated as “Environmentally Sensitive Areas” where no Project-related activities or personnel may enter until a qualified biologist determines that the young have fully fledged, or the nest otherwise becomes inactive (e.g., due to predation), and will no longer be adversely affected by the Project. Suggested buffer zone distances differ depending on species, existing conditions, and nest placement and will be determined and implemented in the field by a qualified biologist.

## 2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the BRE, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

### 2.1 Special-status Species

Endangered and Threatened Plants, Fish, and Wildlife. Specific species of plants, fish, and wildlife species may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species’ designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the USFWS and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of endangered and threatened plant and animal species (referred to as “listed species”). “Proposed” or “candidate” species are those that are being considered for listing and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to take of any listed species. “Take” under the ESA is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance, and impacts to habitat for listed species. Actions that may result in take of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features “essential to the conservation of the species.” Protections afforded to designated critical habitat apply only to actions that are funded, permitted, or carried out by federal agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (CFGC 2050 et seq.) prohibits the take of any plant and animal species that the CFGC determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to candidate species that are proposed for listing as threatened or endangered under CESA. The definition of a “take” under CESA (“hunt, pursue, catch, capture, or kill, or attempt to

hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. CDFW may issue an Incidental Take Permit (ITP) under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), as long as the NCCP covers that activity.

Fully Protected Species and Designated Rare Plant Species. This category includes specific plant and wildlife species that are designated in the CFGC as protected even if not listed under CESA or ESA. Fully Protected Species includes specific lists of birds, mammals, reptiles, amphibians, and fish designated in CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the California Fish and Game Code and the CESA. By law, CDFW may not issue an Incidental Take Permit for Fully Protected Species. Under the California Native Plant Protection Act (NPPA), CDFW has listed 64 "rare" or "endangered" plant species, and prevents "take", with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a NCCP.

Special Protections for Nesting Birds and Bats. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species [bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*)] that in some regards are similar to those provided by the ESA. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 and CFGC, i.e., sections 3503, 3503.5 and 3513. Under these laws/codes, the intentional harm or collection of adult birds as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA.

Species of Special Concern, Movement Corridors, and Other Special-status Species under CEQA. To address additional species protections afforded under CEQA, CDFW has developed a list of special species as "a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare Plant Inventory (Inventory; CNPS 2025a) with California Rare Plant Ranks (Rank) of 1 and 2, as well as some with a Rank of 3 or 4, are also considered special-status plant species and must be considered under CEQA. Some Rank 3 and Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive. Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

## 2.2 Aquatic Resources

CEQA provides protections for particular vegetation types defined as sensitive by the CDFW and aquatic features protected by laws and regulations administered by the Corps, State Water Resources Control Board (SWRCB), and RWQCB. Additionally, local laws and policies that apply

to ESHAs and project activities in the coastal zone, are enacted by the CCC and the HMB LCP. The laws and regulations that provide protection for these resources are summarized below.

### 2.2.1 Section 404 Clean Water Act - Waters of the U.S.

The objective of the CWA is to maintain and restore the chemical, physical, and biological integrity of the waters of the U.S. (33 CFR Part 328 Section 328.4). Waters of the U.S. is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Section 404 of the CWA gives the U.S. Environmental Protection Agency (EPA) and the Corps regulatory and permitting authority regarding discharge of dredged or fill material into “navigable” waters of the U.S. Section 502(7) of the CWA defines navigable waters as “waters of the United States, including territorial seas.” Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term “waters of the United States” as it applies to the jurisdictional limits of the authority of the Corps under the CWA. A summary of this definition of “waters of the United States” in 33 CFR 328.3(a) includes:

*(1) 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; the territorial seas; or interstate waters;*

*(2) impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (5) of this section;*

*(3) tributaries of waters identified in paragraph (1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;*

*(4) wetlands adjacent to the following waters: waters identified in paragraph (1) of this section; or relatively permanent, standing or continuously flowing bodies of water identified in paragraph (2) or (3) of this section and with a continuous surface connection to those waters;*

*(5) intrastate lakes and ponds not identified in paragraphs (1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (1) or (3) of this section.*

The regulations define the term “adjacent” as “having a continuous surface connection”. The regulations define the term “adjacent” as “having a continuous surface connection”. On March 12, 2025, Corps of Engineers Headquarters and the EPA published a joint memorandum clarifying what types of connections can serve as a “continuous surface connection” (U.S. EPA 2025). The memorandum summarizes the agencies’ interpretation of this term as:

*the agencies are interpreting “waters of the United States” to include “only those adjacent wetlands that have a continuous surface connection because they directly abut the [requisite jurisdictional water] (e.g., they are not separated by uplands, a berm, dike, or similar feature).*

The definitions of wetlands and non-wetland waters, as well as areas exempt from jurisdiction, are discussed in more detail below.

## WETLANDS

Wetlands are defined in 33 CFR 328.3(c) 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 basis for determining whether a given area is a wetland for the purposes of Section 404 of the CWA is outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Delineation Manual* for the respective region (Arid West or Western Mountains, Valleys, and Coast for California). As defined in 33 CFR 328.4(c), the extent of federal jurisdiction within wetlands is defined as extending to the limit of the wetland as determined using the methods outlined in the manuals.

## NON-WETLAND WATERS

The limit of federal jurisdiction in non-tidal non-wetland waters extends to the ordinary high water mark (OHWM) which is defined in 33 CFR 328.3(c) as:

*...that 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 characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

The primary basis for determining the location of the OHWM is the *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (Final National OHWM Manual; Corps 2025).

## AREAS EXEMPT FROM SECTION 404 JURISDICTION

Some areas that meet the technical criteria for wetlands or waters may not be jurisdictional under the CWA per Section 404 regulations and the Corps Manual. As defined in 33 CFR 328.3(b), the following features are exempt from Section 404 Jurisdiction:

- (1) *Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;*
- (2) *Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;*
- (3) *Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;*
- (4) *Artificially irrigated areas that would revert to dry land if the irrigation ceased;*



(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

In addition, wetlands and other water bodies can be determined to be outside of federal jurisdiction if they lack a “continuous surface connection” with a relatively permanent water body as discussed above as part of the Waters of the U.S. definition.

### 2.2.2 Waters of the State

The Porter-Cologne Water Quality Control Act gives the SWRCB authority to regulate discharge of dredged or fill material that may affect the quality of “waters of the state.” “Waters of the state” are defined broadly as (SWRCB 2019):

*...any surface water or groundwater, including saline waters, within the boundaries of the state.*

In April 2019, the SWRCB adopted the State Wetland Policy, which provides a state wetland definition, procedures, and requirements for regulation of the discharge of dredge or fill material to wetlands and non-wetland waters of the state. The State Wetland Policy also includes exemptions from regulation of dredge and fill discharges for certain types of wetland and non-wetland waters features, as well as for certain classes of activities, such as activities covered by an existing RWQCB or SWRCB Order. The state wetland definition (SWRCB 2019), is similar to, but slightly different from that used by the Corps:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.

The State Wetland Policy utilizes existing Corps delineation procedures (Environmental Laboratory 1987, Corps 2008, 2010, 2025). According to the State Wetland Policy, the SWRCB and RWQCBs generally rely on the Corps for verification of wetland and non-wetland waters as part of an aquatic resource report. This report includes wetlands and non-wetland waters meeting both the Corps and state wetland definitions. Some features mapped as non-wetland waters under the Corps wetland definition may be considered wetlands under the state definition.

This report identifies wetlands and non-wetland waters according to the Corps definitions and criteria, consistent with the State Wetland Policy’s reliance on these criteria. This report also recognizes that some non-wetland waters features may meet the wetland definition of the State Wetland Policy. The State Wetland Policy regulates wetlands and non-wetland waters equivalently. Therefore, the classification of an unvegetated feature as a wetland or non-wetland water does not affect the scope of State regulation of that feature. In contrast, feature

classification for purposes of Corps jurisdiction can affect some regulatory permitting decisions, such as determining the applicability of Nationwide Permit Program thresholds. Therefore, the Corps definitions are relied upon for feature classifications in this report. In some cases, features mapped and classified as non-wetland waters may meet the State Wetland Policy definition of a wetland, where those features contain anaerobic substrates. Regardless of how they are defined, wetlands and non-wetland waters deemed jurisdictional may be regulated by the RWQCB and/or SWRCB under the State Wetland Policy.

### **2.2.3 Section 30121 of the Coastal Act: Coastal Wetlands**

The CCC and HMB LCP regulate the diking, filling, or dredging of wetlands within the coastal zone. Section 30121 of the Coastal Act defines “wetlands” as land “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.” The 1981 CCC Statewide Interpretive Guidelines state that hydric soils and hydrophytic vegetation “are useful indicators of wetland conditions,” but the presence or absence of hydric soils and/or hydrophytes alone are not necessarily determinative when the CCC identifies wetlands under the Coastal Act.

### **2.2.4 Sections 1600-1616 of California Fish and Game Code**

Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of CFGC. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement (LSAA). The term “stream,” which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). The term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Riparian vegetation has been defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

## **2.3 Sensitive Natural Communities**

Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as “threatened” or “very threatened” (CDFW 2025a) and keeps records of their occurrences in its California Natural Diversity Database (CNDDDB; CDFW 2025b). Vegetation alliances are ranked 1 through 5 in the CNDDDB based on NatureServe’s (2022) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or USFWS must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act and Section 21083.4 of California Public Resources Code.

## 2.4 Environmentally Sensitive Habitat Areas

The California Coastal Act Section 30107.5 defines ESHAs as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Coastal Act Section 30240 protects ESHAs from "significant disruption of habitat values," limits allowable land uses within ESHAs, and requires adjacent uses to be designed to be compatible with habitat benefits provided by ESHAs. The Coastal Act includes wetlands as ESHAs but does not specifically define every vegetation community defined as an ESHA. Instead, the CCC often delegates the responsibility for administering the California Coastal Act to local municipalities through the approval of Local Coastal Programs (LCPs). Many LCPs provide more specific lists of communities that are considered ESHAs. More information about ESHAs defined by the local HMB LCP is provided in **Section 2.5** below.

## 2.5 Local Plans and Policies

### City of Half Moon Bay Local Coastal Land Use Plan (LCP)

The HMB LCP (HMB 2020) contains definitions and policies pertaining to the protection of sensitive habitats and rare and endangered species. These definitions and policies are adopted by reference in HMB LCP Chapter 6 Natural Resources. Chapter 6 includes (but is not limited to) the following definitions and policies:

#### **6-36. Wetlands Definition**

Wetlands shall be defined according to the single-parameter definition in Section 30121 of the Coastal Act and Section 13577(b) of the Coastal Commission's Regulations. Wetlands shall include land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes. Wetlands may also include land where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats.

#### **6-41. Wetland Buffer Zones**

Wetland buffer zones for proposed development shall extend a minimum of 100 feet landward from the edge of the delineated wetland. A larger buffer may be required based on site-specific evidence that a larger buffer is necessary to protect the functional capacity of the wetland ecosystem or to protect any sensitive species from the impacts of proposed development. A wetland buffer may be reduced to less than 100 feet on a case by case basis.

#### **6-53. Non-Riparian Watercourse Buffers**

For streams without riparian vegetation, a 20-foot buffer from top of bank is required to allow for meandering, erosion, and flood hazards. If a site-specific study finds riparian vegetation or sensitive habitat, the riparian buffer requirements in LCP Policies 6-49 and 6-50 apply.

### City of Half Moon Bay Tree Ordinance

The City of Half Moon Bay Municipal Code, Section 7.40 contains regulations protecting heritage trees. A Heritage Tree is defined as the following:

- A tree located on public or private property, exclusive of eucalyptus (*Eucalyptus* spp.), with a trunk diameter of 12 inches or circumference of approximately 38 inches measured at 48 inches above ground level.
- A tree or stand of trees so designated by resolution of the City Council based on its finding of special historical, environmental or aesthetic value, including a resolution adopted under former Chapter 12.16.
- Any street tree located in the public right of way along the entire length of Main Street or along Kelly Avenue between San Benito Street and Highway 1.

Any person who conducts any grading, excavation, demolition or construction activity on property shall do so in such a manner as to not threaten the health or viability or cause the removal of any Heritage Tree. Any such grading, excavation, demolition or construction activity performed within the drip line of a Heritage Tree, defined as the diameter of the tree's canopy formed by branches and/or leaves extending outward from the trunk of the tree, will require submittal of a tree protection plan prepared by a certified arborist for review and approval by the City manager prior to issuance of any permit for grading or construction.

It is unlawful for any person to remove, or cause to be removed any Heritage Tree from any parcel of property in the city, or prune more than one-third of the branches or roots within a twelve-month period, without obtaining a permit.

### 3.0 ASSESSMENT METHODOLOGY

On August 15, 2025, WRA, Inc. (WRA) biologists visited the Study Area to map vegetation, aquatic features, and other land cover types; document plant and wildlife species present; and evaluate on-site habitat for the potential to support special-status species, as defined by CEQA. Prior to the site visit, WRA biologists reviewed the following literature resources databases to assess the potential for sensitive land cover types and special-status species:

- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- CNPS Inventory (CNPS 2025a)
- A Manual of California Vegetation, Online Edition (CNPS 2025b)
- California Aquatic Resources Inventory (SFEI 2017)
- California Bird Species of Special Concern in California (Shuford and Gardali 2008)
- California Natural Community List (CDFW 2025a)
- CNDDDB (CDFW 2025b)
- CDFW Biogeographic Information and Observation System (BIOS; CDFW 2025c)
- Consortium of California Herbaria (CCH1 2025, CCH2 2025)
- Contemporary aerial photographs (Google Earth 2025)
- Database searches (i.e., CNDDDB, CNPS) for special-status species focused on the Half Moon Bay and five (5) surrounding USGS 7.5-minute quadrangles (i.e., San Mateo, Woodside, San Gregorio, La Honda, and Montara Mountain).
- eBird Online Database (Cornell Lab of Ornithology 2025)
- Half Moon Bay 7.5-minute U.S. Geological Survey (USGS) quadrangles (USGS 2022, USGS 2021)
- Historical aerial photographs (NETR 2025)
- National Wetlands Inventory (USFWS 2025a)
- Soil Survey of San Mateo Area, California (USDA 1961)
- SoilWeb (CSRL 2025)
- USFWS Information for Planning and Consultation (USFWS 2025b)

Following the remote assessment, WRA biologists completed a field review over the course of one day to document: (1) land cover types (e.g., vegetation communities, aquatic resources), (2) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic land cover types (e.g., wetlands) are present, and (4) if special-status species are present. The field portion of this assessment included a formal delineation of aquatic resources within and immediately adjacent to the Project Site, as detailed in **Section 3.3** below.

#### 3.1 Special-status Species Habitat Assessment

WRA plant and wildlife biologists conducted a habitat assessment throughout the entirety of the Study Area<sup>1</sup> to determine whether habitats containing or supporting rare, endangered, or unique species are present. Potential occurrences of special-status species in the Study Area were

---

<sup>1</sup> Adjacent properties were evaluated to the extent possible from publicly accessible areas. Biological resource findings from adjacent properties are provided only for context and are preliminary.

evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database review, described above. The presence of suitable habitat for special-status species was evaluated during the August 15, 2025, site visit based on physical and biological conditions of the site as well as the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then determined according to the following criteria:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Unlikely.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (i.e., CNDDDB, other reports) on the site in the recent past.

The site assessment was intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Study Area. **Appendix C** presents the species observed in and around the Study Area. **Appendix D** presents a full evaluation of each special-status plant and wildlife species known to occur in the vicinity of the Study Area with their habitat requirements, potential for occurrence, and rationale for the classification based on criteria listed above. The BRE does not constitute a protocol-level wildlife survey and was not intended to determine the actual presence or absence of a wildlife species; however, if a special-status species was observed during the site visit, its presence was recorded and is discussed below in **Section 5.2**.

### 3.2 Vegetation Community Mapping and Classification

During the site visit, WRA evaluated the species composition and area occupied by distinct vegetation communities, aquatic communities, and other land cover types. Mapping of these classifications utilized a combination of aerial imagery and ground surveys. In most instances, communities are characterized and mapped based on distinct shifts in plant assemblage (vegetation) and follow *A Manual of California Vegetation, Online Edition* (CNPS 2025b). These resources cannot anticipate every component of every potential vegetation assemblage in California, and so in some cases, it is necessary to identify other appropriate vegetative classifications based on best professional judgment of WRA biologists. When undescribed variants are used, it is noted in the description. Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled [S1/G1], imperiled [S2/G2], or vulnerable [S3/G3]) (CDFW 2025a), were evaluated as sensitive as part of this evaluation.

The Study Area was evaluated for the presence of other sensitive biological communities, including any sensitive plant communities recognized by CDFW or ESHAs under the HMB LCP. Prior to the site visit, aerial photographs, local soil maps, *A Manual of California Vegetation*,

*Online Edition* (CNPS 2024b), and the LCP were reviewed to assess the potential for sensitive biological communities to occur in the Study Area.

### 3.3 Delineation of Aquatic Features

WRA biologists performed a formal delineation of aquatic resources within the Study Area on August 15, 2025. Prior to conducting the evaluation, WRA reviewed a range of background materials including the Soil Survey of San Mateo Area (USDA 1961), SoilWeb (CSRL 2025), the NWI (USFWS 2025a), the California Aquatic Resource Inventory (SFEI 2017), and the Half Moon Bay 7.5-minute U.S. Geological Survey quadrangle map (USGS 2021 and USGS 2022). WRA also reviewed historic aerial imagery from Google Earth (Google Earth 2025).

During the on-site evaluation, WRA followed the methods outlined in Corps Manual (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coasts (WMVC Supplement; Corps 2010) and Final National OHWM Manual (Corps 2025). Potentially jurisdictional wetlands, if present, were identified, and their boundaries mapped using the Routine Method described in the Corps Manual. The jurisdictional limits of non-wetland waters under Section 404 of the CWA, if present, were mapped based on a combination of field indicators described in the OHWM Guide.

#### 3.3.1 Waters of the U.S. and State (Corps/RWQCB Jurisdiction)

WRA followed the Routine Method to evaluate the Study Area for the presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and WMVC Supplement (Corps 2010). Data on vegetation, hydrology, and soils were collected at sample points within potential wetland communities and adjacent upland areas. Sample points that contained positive indicators for hydrophytic vegetation, hydric soils, and wetland hydrology were considered to be wetland. Except in cases of atypical or problematic wetland situations (i.e., difficult wetland situations, as described below), sample points that lacked one indicator were considered to be upland (see discussion of Coastal Zone considerations in the following section, **Section 3.2.3**). Sample point data were reported on WMVC Supplement data forms (**Appendix E**)<sup>2</sup>. Sample point locations were recorded using a handheld GPS unit with mapping grade accuracy.

Plant species observed in the Study Area were identified using the Jepson eFlora (Jepson Flora Project 2025) and are included as **Appendix C**. **Appendix F** provides representative photographs. Plants were assigned a wetland indicator status according to the National Wetland Plant List (NWPL; Corps 2020). Wetland indicator statuses listed in the NWPL are based on the expected frequency of occurrence in wetlands, as follows in **Table 1**:

---

<sup>2</sup> Sample Points 5 and 6 were within the designated Project Site boundaries at the time of the delineation. Due to subsequent Project design updates, these sample points now occur outside of the proposed Project footprint. These sample points are still provided for context; however, data collected on adjacent properties within the buffer should be considered preliminary.

**Table 1. Explanation of the Wetland Indicator Statuses in the National Wetland Plant List**

CLASSIFICATION (ABBREVIATION)	DEFINITION*	HYDROPHYTIC SPECIES? (Y/N)
Obligate (OBL)	Almost always is a hydrophyte, rarely in uplands	Y
Facultative Wetland (FACW)	Usually is a hydrophyte but occasionally found in uplands	Y
Facultative (FAC)	Commonly occurs as either a hydrophyte or non-hydrophyte	Y
Facultative Upland (FACU)	Occasionally is a hydrophyte but usually occurs in uplands	N
Upland/Not Listed (UPL/NL)	Rarely is a hydrophyte, almost always in uplands	N

\*See Corps (2020)

This study also evaluated the presence of non-wetland waters using Corps manuals and the Final National OHWM Manual (Corps 2025). The location of the OHWM in non-wetland waters was delineated primarily based on the Final National OHWM Manual and Corps of Engineers Regulatory Guidance Letter 05-05 (Corps 2005). The location of the OHWM was delineated based on a combination of indicators observed on the ground as described in these manuals. Where direct access to the OHWM was feasible, it was mapped in the field using a GPS unit with mapping grade accuracy. Where direct access to the OHWM was not feasible, the location of the OHWM was hand drawn in the field on aerial photographs and topographical maps/on iPad for subsequent digitizing in ArcGIS. For smaller streams, the width between the OHWM was visually estimated in the field and recorded for each feature. For larger features, the OHWM was mapped directly, and the average width measured with ArcGIS. Examples of non-wetland waters include lakes, rivers, and streams. Non-wetland water types potentially subject to Corps, RWQCB/SWRCB, and LCP/CCC jurisdiction were investigated.

### DIFFICULT WETLAND SITUATIONS

The WMVC Supplement (Corps 2010) includes recommended procedures for completing wetland delineations in areas of “difficult wetland situations” in which wetlands may lack one or more indicators due to natural or anthropogenic factors; these are discussed as atypical or problematic wetland conditions in the Corps Manual (Environmental Laboratory 1987). Although the Corps Manual and WMVC Supplement (Corps 2010) were utilized in the wetland determination, they do not provide exhaustive lists of the difficult situations and problem areas that can arise during delineations in the WMVC. In these situations, the Corps Manual and Regional Supplements stress the importance of using best professional judgment and knowledge of the ecology of the wetlands in the region during the collection and interpretation of data in difficult sites.

### HYDROLOGIC ANALYSIS

A hydrologic analysis using the Antecedent Precipitation Tool (Sparrow et al. 2025) was conducted to determine whether precipitation levels during the 3 months prior to the site visit were above, below, or within the 30-year average for the region as well as to determine if the region was experiencing long-term drought conditions. Drought condition data were obtained from monthly Palmer Drought Severity Index dataset published by the National Ocean and Atmospheric Administration.

During the 3-month period prior to the site visit, precipitation was overall normal, and at the time of the site visit, the region was experiencing a moderate drought. However, rainfall levels

were above normal for the two weeks immediately prior to the site visit. The full results of the Antecedent Precipitation Tool analysis are provided as **Appendix G**.

### 3.3.2 Coastal Wetlands (CCC/LCP Jurisdiction)

The CCC uses a broad wetland definition in which the presence of any one of the wetland parameters may indicate presence of a wetland. The CCC presumes that the area is a wetland if one of the wetland criteria is met. However, there may be exceptions to this presumption if there is strong positive evidence of upland conditions, as opposed to negative evidence of wetland conditions. Positive evidence of upland hydrology might be the observation that a given area saturates only ephemerally following significant rainfall, that the soil is very permeable with no confining layer, or that the land is steep and drains rapidly. Areas that contained at least one of the wetland parameters (e.g., hydric soil) but contained positive evidence of upland conditions were not identified as wetlands. Based on these facts, this assessment identified areas within the Study Area that had wetland plants, hydric soils, or wetland hydrology indicators.

In addition to the above definition, the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* (CCC 1981) provide technical criteria for use in identifying and delineating wetlands and other ESHAs within the Coastal Zone. The technical criteria presented in the guidelines are based on the Coastal Act definition and indicate that wetland hydrology is the most important parameter for determining a wetland, recognizing that:

*. . . the single feature that most wetlands share is soil or substrata that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria.*

The technical criteria require that saturation of soil in a wetland must be at or near the surface continuously for a period of time. The meaning of "at or near the surface" generally is considered to be approximately 1 foot from the surface or less (the root zone), and the saturation must be continuously present for a period of time (generally more than two weeks) in order to create the necessary soil reduction (anaerobic) processes that create wetland conditions. For example, water from rain during a storm that causes saturation near the surface but then evaporates or infiltrates to 18 inches or deeper below the surface shortly after the storm does not meet the generally accepted criteria for wetland hydrology.

The presence of wetland classified plants or the presence of hydric soils (generally referred to as the "one parameter approach") can be used to identify an area as being a wetland in the Coastal Zone. There is correlation between the presence of wetland plants, wetland hydrology, and/or hydric soils occurring together, especially in natural, undisturbed areas, and in many cases where one of these parameters is found (e.g., wetland plants) the other parameters will also occur. But there are situations which can result in the presence of wetland classified plants without there being wetland conditions, and these areas are not wetlands. If these situations occurred, it was carefully scrutinized whether the wetland classified plants that are present are

growing there as hydrophytes in reducing (anaerobic) conditions caused by the presence of wetland hydrology or are there for some other (non-wetland) reason. Examples may include wetland-classified plants which are also salt-tolerant (e.g., alkali heath) and may be responding to either wetland conditions or saline soil conditions, but not necessarily both, and deep-rooted trees (e.g., willows) which are able to tap into deep groundwater sources and can grow in dry surface soils but are also found in wetland conditions where surface water is present.

Hydric soils can also occur in upland areas, especially in areas where historic disturbances may have exposed substratum or in densely vegetated grasslands (mollisols).

### **3.4 Wildlife Corridors and Native Wildlife Nursery Sites**

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CalTrans 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (CDFW 2025c). Additionally, aerial imagery (Google Earth 2025) for the local area was referenced to assess if local core habitat areas were present within, or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The potential presence of native wildlife nursery sites was also evaluated as part of the site visit. Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), maternity roosting sites for bats, and colonial roosting sites for other species (such as for monarch butterfly [*Danaus plexippus*]).

## 4.0 ECOLOGICAL SETTING

The approximately 13-acre Study Area is located in Half Moon Bay, San Mateo County. The Study Area includes all areas affected by the Project and a 200-foot buffer. Adjacent habitats outside of the Project footprint were evaluated to help inform how wildlife species may utilize the Study Area. Additional details of the local setting are discussed below.

### 4.1 Soils and Topography

The overall topography of the Study Area consists of generally flat terrain with elevations ranging from approximately 80 to 95 feet above sea level. According to the Soil Web (CSRL 2025), the Study Area is underlain by one soil mapping unit: Botella clay loam, nearly level, cool (BcA). Soils within the Study Area are shown in **Appendix A – Figure 3**. The parent soil series of the Study Area's mapping unit is summarized below.

Botella clay loam, nearly level, cool (BcA) Series. This series consists of clay loam to silty clay loam soils formed from alluvial sedimentary rock and is situated on terraces, alluvial fans, and benches at elevations ranging from 40 to 120 feet (USDA 2025). This soil series is well drained with moderately high runoff. The BcA series ranges in pH from 6.0 to 6.8 and is not considered hydric (USDA 2025).

### 4.2 Climate and Hydrology

The Study Area is in the coastal region of Half Moon Bay, in San Mateo County. The average monthly maximum temperature in the area is 62.7 degrees Fahrenheit, while the average monthly minimum temperature is 47.2 degrees Fahrenheit. Predominantly, precipitation falls as rainfall between November and March with an annual average precipitation of 25 inches.

The local watershed is Purisima Creek-Frontal Pacific Ocean (HUC 12: 180500060206) and the regional watershed is San Francisco Coastal South (HUC 8: 18050006). The Study Area is in the northern portion of the Purisima Creek-Frontal Pacific Ocean watershed. There are no blue-line streams in the Study Area (USGS 2025). Arroyo Leon Creek is located approximately 0.25 miles east of the Study Area and is mapped as a blue-line stream. There are no aquatic features identified in the Study Area in the NWI (USFWS 2025a); however, there is a pond and associated vegetation that is mapped as an aquatic feature in the California Aquatic Resources Inventory within the Project Site (CARI; SFEI 2017). Habitat mapping within the CARI database is considered preliminary and should be confirmed by a field visit. In this case, there is not a pond with associated vegetation located within the Project Site. Detailed descriptions of aquatic resources are provided in **Section 5.1** below.

### 4.3 Land Use

The majority of the Study Area is a ruderal, dormant agricultural field. Developed areas include roads, historically significant house, shed, and man-made ditches. Detailed land cover type descriptions are included in **Section 5.1** below, and all observed plant species are included in **Appendix C**. Surrounding land uses include low-density residential and open space (Google Earth 2025). Aerial imagery of the Study Area dating back to 1985 shows that there may have been agricultural operations up until 2016.

## 5.0 ASSESSMENT RESULTS

### 5.1 Vegetation Communities and Other Land Cover

WRA observed six (6) land cover types within the Study Area: ruderal, fallow field/agriculture, developed/ornamental, man-made stormwater ditch, Monterey pine stand, and red willow thicket. Land cover types within the Study Area are illustrated in **Appendix A – Figure 4** and summarized in **Table 2** below. A full list of observed species is included in **Appendix C**.

**Table 2: Vegetation Communities and Other Land Cover Types within the Study Area**

COMMUNITY / LAND COVERS	SENSITIVE STATUS <sup>1</sup>	RARITY RANKING <sup>2</sup>	ACRES WITHIN PROJECT SITE and BUFFER
<b>TERRESTRIAL LAND COVER</b>			
Ruderal	No	N/A	1.04
Fallow field/agriculture	No	N/A	2.12
Monterey pine stand	No	N/A	0.07
Developed/ornamental	No	N/A	9.60
<b>AQUATIC RESOURCES</b>			
Stormwater ditch	No	N/A	0.02
Red willow stand	Yes	S4/G4	0.04

<sup>1</sup> For terrestrial land covers, sensitivity status is determined by CDFW’s list of California Sensitive Natural Communities (CDFW 2025a). All aquatic resources are considered sensitive since they are potentially regulated by either the Corps, Water Board, CDFW and/or San Mateo County.

<sup>2</sup> State (S) and Global (G) Ranking, see **Section 2.3** for more information.

#### 5.1.1 Terrestrial Land Cover

**Fallow field/ruderal (no vegetation alliance).** The majority of the Study Area consists of ruderal species. This is characterized by recent and/or frequent disturbance from agriculture or other related land uses. Based on soil conditions, vegetation composition, land use history, and review of historic aerial photographs, disturbance occurs regularly. Mowing is the current primary disturbance activity within the Project Site. Dominant non-native species observed within this land cover type include the following: slim oat (*Avena barbata*), fescue (*Festuca perennis*), wild geranium (*Geranium dissectum*), bristly ox-tongue (*Helminthotheca echioides*), English plantain (*Plantago lanceolata*), common velvet grass (*Holcus lanatus*), foxtail barley (*Hordeum murinum*), and wild radish (*Raphanus sativus*). Native species include California poppy (*Eschscholzia californica*), and hairy wood sorrel (*Oxalis pilosa*).

**Ruderal (no vegetation alliance).** The northwestern portion of the Study Area is classified as ruderal. This area was defined separately from the Fallow field/ruderal land cover type due to a difference in vegetation composition and soil quality. Due to the extremely hard, compact nature of the soil in this area, it is presumed that disturbance has not occurred as frequently or as recently compared to the rest of the Study Area. This land cover type is dominated by prostrate knotweed (*Polygonum aviculare*), prickly lettuce (*Lactuca serriola*), annual mercury (*Mercurialis annua*), and jersey cudweed (*Pseudognaphalium luteoalbum*).

Monterey Pine Stand (*Pinus radiata* Forest & Woodland Semi-Natural Alliance). The Monterey pine stand occurs in the western portion of the Study Area, west of Highway, outside of the Project Site. The relatively open canopy consists of Monterey pine (*Pinus radiata*) with an understory dominated by non-native ornamental herbaceous species such as African cornflag (*Chasmanthe floribunda*) and short podded mustard (*Hirschfeldia incana*).

Developed/Ornamental (no vegetation alliance). Developed areas are those that have been altered by humans and may contain structures, landscaped areas, paved areas, or other non-natural surfaces devoid of vegetation. In the Study Area, this land cover type includes residential development, Highway 1, paved/unpaved roads, driveways, and a shed associated with the 940 Main Street residence.

### 5.1.2 Aquatic Resources

Stormwater ditch. A man-made ditch was observed within the western portion of the Study Area, along Highway 1, and outside of the Project Site. In 2024, Phase 1 of the City of Half Moon Bay Poplar Street Traffic Calming and Safety Project was implemented, which spans the length of Poplar Street from HWY 1 to Main Street. This Project included the installation of stormwater infrastructure along Poplar Street, immediately north of the Project Site. The flows in the offsite man-made ditch originate from the 2024-constructed stormwater infrastructure which was implemented along Poplar Street. The primary source of hydrology for the man-made ditch is stormwater from uplands, specifically the surrounding residential areas and streets. The man-made ditch had no clear inlets or outlets functioning as a surface water connection with a creek or jurisdictional waters. Ultimately, the stormwater flows are conveyed via culvert beneath HWY 1 and disperse into existing upland areas. Given that the man-made ditch drains uplands, is part of a recently constructed City stormwater infrastructure, and does not constitute suitable wildlife habitat (See Section 5.2.2), the ditch is likely considered non-jurisdictional by the Corps, the RWQCB, and the LCP/CCC.

Red willow stand (*Salix laevigata* Forest and Woodland Alliance). The red willow stand is located across HWY 1, within the Study Area, and outside of the Project Site. This stand occurs in an area at the terminus of the western portion of Metzgar street and is surrounded by uplands. Red willows (FACW) are the dominant species within the tree canopy, with poison oak (*Toxicodendron diversilobum*), poison hemlock (*Conium maculatum*), California blackberry (*Rubus ursinus*), and non-native annual grasses within the shrub/herbaceous canopy. Red willow stands may be considered an ESHA per the HMB LCP and would require a buffer zone of 35 feet in which activity would be limited or prohibited for certain uses. However, given that data collected offsite is considered preliminary and no impacts are proposed in the vicinity of the willow stand, the focus of this analysis shifts to the extent of the potential ESHA buffer. In this case, the Project Site is greater than 115 feet from the willow stand, with the additional barrier of HWY 1, thus reinforcing that no direct or indirect impacts will occur within the potential 35-foot ESHA buffer from the willow stand.

## 5.2 Special-status Species

### 5.2.1 Special-status Plants

Based upon a review of the resource databases listed in Section 3.0, 45 special-status plant species have been documented in the vicinity of the Study Area. Following the site evaluation,

WRA determined that none of these species have a moderate or higher potential to occur in the Study Area due to one or more of the following reasons:

- Hydrologic conditions (e.g., tidal, brackish marsh) necessary to support the special-status plant species are not present in the Study Area;
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the Study Area;
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the Study Area;
- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the Study Area;
- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the Study Area;
- The Study Area is geographically isolated (e.g., below/above elevation) from the documented range of the special-status plant species;
- Records of nearby occurrences are historical, and local sightings have not been confirmed within the last 100 years;
- The historical landscape and/or habitat(s) of the Study Area were not suitable habitat prior to land/type conversion (e.g., reclaimed shoreline) to support the special-status plant species;
- Land use history and contemporary management (e.g., mowing, agricultural use) has degraded the localized habitat necessary to support the special-status plant species, and
- Local occurrences are historic records that have not been confirmed in the last 100 years (e.g., The most recent documented occurrence for harlequin lotus was in 1905).

While the Study Area is unlikely to support special-status plant species due to the reasons listed above, two CNPS-ranked plant species (Choris' popcorn flower and harlequin lotus) are known to occur nearby and may have limited potential to be found within the Study Area by proximity (*not due to the presence of suitable habitat*). **No special-status plants were observed in the Study Area during the August 15, 2025, survey.** However, it should be noted that the August 15, 2025, site visit did not constitute a protocol-level rare plant survey.

### 5.2.2 Special-status Wildlife

A total of 39 special-status wildlife species have been documented in the vicinity of the Study Area or are known to occur in the region (CDFW 2025b, USFWS 2025b). One (1) of these species, white-tailed kite, has potential to occur within the Study Area and is discussed in greater detail below. The remaining species are unlikely or have no potential to occur due to one or more of the following reasons:

- Specific aquatic habitats (e.g., vernal pools, rivers, lakes, estuaries, ponds) necessary to support the special-status wildlife species are not present in the Study Area;
- Vegetation habitats (e.g., woodlands, old-growth forest, emergent marsh) that provide nesting and/or foraging resources necessary support the special-status wildlife species are not present in the Study Area;
- Physical structures (e.g., mines/caves, tall cliffs, basal cavities, rock outcrops, mammal burrows, wind-protected tree groves) necessary to provide nesting, roosting, or cover habitat for special-status wildlife species are not present in the Study Area;

- The high degree of anthropogenic disturbance within the Study Area likely precludes the presence of the special-status wildlife species;
- Soil substrates (e.g., serpentine soils, sandy soils) necessary support special-status wildlife species and specific host plants are not present in the Study Area;
- The Study Area is outside of the species' documented range; and
- The Study Area is beyond the known maximum dispersal distance from any potential source populations and/or suitable movement corridors are absent.

For example, California red-legged frog (*Rana draytonii*; CRLF) is known to occur in the region and multiple occurrences have been documented within 1-mile of the Study Area (CDFW 2025b). However, the Study Area is bordered by residential development on all sides and is separated from known occurrences by Highway 1 to the north/west and densely developed areas immediately east and south. Furthermore, known occupied habitats have connectivity to larger open space areas that provide suitable aquatic breeding and dispersal habitats that are not present within the Study Area. The adjacent man-made stormwater ditch along Highway 1 does not appear to provide any habitat value for CRLF given its highly disturbed, culverted, and ephemeral nature; proximity to existing development and arterial roads; and lack of connectivity to any natural features, potential source populations, or core habitat areas nearby. Given the lack of suitable aquatic habitat and absence of upland or aquatic movement corridors, CRLF are unlikely to disperse into the Study Area and are not addressed further in this assessment.

In addition, the Study Area occurs within the known range of many special-status bat species, including Townsend's big-eared bat (*Corynorhinus townsendii*). A small, dilapidated shed is present within the Study Area, immediately west of the 940 Main Street residence. Biologists closely inspected the shed and did not identify any signs of bat occupancy (i.e. guano or urine staining) or habitat features with potential to support maternity roosts. Majority of the structure was completely sealed off and did not provide any egress point for bats. The remainder of the structure contained large openings in the roof, which allow for a high degree of air circulation. In addition, the roof lacked an attic space that would allow for bats to have any vertical displacement associated with temperature regulation. Overall, the structure was determined unlikely to provide thermodynamic conditions suitable for roosting bats.

Additionally, this assessment determined that the Project Site does not support trees or other debris that are suitable for roosting bats. Ornamental trees within developed portions of the Project Site are relatively small and do not contain broad leaves, cavities, or snags that provide bat roost habitat. Monterey cypress trees outside of the Project limits may have limited potential to support day roosting bats but are not proposed for removal or trimming and will not be affected by the proposed Project. The Project design will incorporate BMPs to confirm that the Project Site does not support special-status bats or active bat roosts prior to construction (see **Section 1.2**); however, special-status bat species are not discussed further in this section. Species determined to have a moderate or higher potential to occur within the Study Area are discussed below. The remaining species are addressed in further detail in **Appendix D**.

White-tailed kite (*Elanus leucurus*). CDFW Species of Special Concern. Moderate Potential. This species is a resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed

mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

Overall, the Study Area provides limited raptor foraging habitat due to existing development, current land use and vegetation management, lack of burrowing rodent activity due to compacted soils, and quality/extent of ruderal land cover. However, suitable foraging habitat is abundant in the greater vicinity of the Study Area, including parcels south of Seymour Street that support a high degree of raptor activity. As such, large trees and shrubs present within the Study Area (adjacent to the Project envelope) may provide nesting habitat for this species. No white-tailed kites or potential raptor nest structures were observed within the Study Area during the site visit on August 15, 2025.

### **5.3 Wildlife Corridors and Native Wildlife Nursery Sites**

Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. The terms “landscape linkage” and “wildlife corridor” are often used when referring to these areas. The key to a functioning corridor or linkage is that it connects two larger habitat blocks, also referred to as core habitat areas (Beier and Loe 1992; Soulé and Terbough 1999). It is useful to think of a “landscape linkage” as being valuable in a regional planning context, a broad scale mapping of natural habitat that functions to join two larger habitat blocks. The term “wildlife corridor” is useful in the context of smaller, local area planning, where wildlife movement may be facilitated by specific local biological habitats or passages and/or may be restricted by barriers to movement. Above all, wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat (Hilty et al. 2019).

The Study Area is not within a designated wildlife corridor depicted in the Essential Connectivity Areas dataset published by CDFW, which provides baseline data on landscape-scale corridor areas (CDFW 2025c). The Study Area occurs within a larger context of existing residential development and does not provide corridor linkage between any core habitat areas. Furthermore, the Study Area is partially developed and is subject to a relatively high degree of anthropogenic disturbance from immediately adjacent development, which substantially reduces its value as a “stepping stone” corridor for avian or terrestrial species. Although common, urban-adapted species, including native birds, and mammals such as squirrels, raccoons or opossums, presumably utilize the Study Area for movement at a local scale, no true habitat corridors can be said to exist within the Study Area.

The Study Area is not known to support any native wildlife nursery sites. As detailed above, structures within the Study Area are unlikely to support bat maternity roosts.

## 6.0 RECOMMENDATIONS

For the purpose of complying with CEQA requirements and assessing the Project's qualifications for coverage under Senate Bill 25, the following section summarizes Project elements that have been incorporated into the design and will ensure that the Project will not result in impacts to sensitive species or resources.

### 6.1 Special-status Species

This section analyzes the Project's potential impacts and mitigation for special-status species in reference to the significance threshold outlined in CEQA Appendix G, Part IV (a):

*Does the project have the potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or U.S. Fish and Wildlife Service?*

Recommendations that will be incorporated into the Project design are discussed below.

#### 6.1.1 Special-status Plants

This assessment determined that the Study Area is unlikely to provide suitable habitat to support special-status plant species that are known to occur in the region. However, two (2) CNPS-ranked plant species (Choris' popcorn flower and harlequin lotus) have been documented nearby and may have limited potential to be found within the Study Area by proximity. As described in **Section 1.2**, the Project design will incorporate additional surveys and recommendations for these species, out of an abundance of caution, to ensure that any impacts to special-status plants are avoided during Project implementation.

#### 6.1.2 Roosting Bats

This assessment determined that habitats within the Project Site are unlikely to support roosting bats; however, no formal bat habitat assessment or emergence surveys were performed under this evaluation. As described in **Section 1.2**, the Project design will incorporate additional surveys and recommendations for roosting bats prior to the initiation of construction. Project features to protect bats will ensure that the active roosts of any special-status or common bat species, if present, are protected during the implementation of the Project.

#### 6.1.3 White-tailed Kite and Native Nesting Birds

This assessment determined that one special-status bird species, white-tailed kite, may nest in large trees and shrubs within the Study Area (adjacent to the Project Site). In addition, common raptors and native bird species protected under both the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) may also nest within the Study Area.

As described in **Section 1.2**, the Project design will incorporate recommendations for special-status and native nesting birds, including avoiding initial ground disturbance during the nesting bird season to the greatest extent feasible. However, if grading activities and vegetation removal will occur during the nesting season, Project features to protect nesting birds will ensure that the active nests of any special-status or common avian species are avoided.

## 6.2 Sensitive Natural Communities and Land Cover Types

This section addresses the question:

*b) Does the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or U.S. Fish and Wildlife Service;*

The Project Site is comprised of ruderal/agriculture and developed areas, which are not considered sensitive biological communities. **No sensitive communities or ESHAs, or potential ESHA buffers, are located within or immediately adjacent to the proposed limit of disturbance (Section 5.1).** As such, no further recommendations or BMPs are included or deemed necessary for the Project.

## 6.3 Aquatic Resources

This section analyzes the Project's potential impacts and mitigation for wetlands and other areas presumed or determined to be within the jurisdiction of the Corps or BCDC in reference to the significance threshold outlined in CEQA Appendix G, Part IV (c):

*c) Does the Project have the potential to have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

The Project Site is comprised of ruderal/agriculture and developed areas and **does not include potentially jurisdictional or sensitive aquatic resources, or associated LCP ESHA buffers (Section 5.1.2).** As such, no further recommendations or BMPs are included or deemed necessary for the Project.

## 6.4 Wildlife Corridors and Native Wildlife Nursery Sites

This section analyzes the Project's potential impacts and mitigation for habitat corridors and linkages in reference to the significance threshold outlined in CEQA Appendix G, Part IV (d):

*d) Does the Project have the potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

As noted in **Section 5.3**, the Study Area occurs within a larger tract of urban development and does not provide connectivity between areas of suitable habitat. Disturbance from adjacent roadways and existing site conditions likely preclude most species from utilizing the site for migration or movement (aside from urban-adapted species). No native nursery sites were identified within the Study Area. As such, no further recommendations or BMPs are included or deemed necessary for the Project.

## 6.5 Local Policies and Ordinances

This section analyzes the Project's potential impacts and mitigation based on conflicts with local policies and ordinances in reference to the significance threshold outlined in CEQA Appendix G, Part IV (e):

*e) Does the Project have the potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;*

Local plans and policies related to biological resources examined in this analysis include the City of Half Moon Bay Tree Ordinance. Implementation of the proposed Project is not anticipated to require tree removal or significant vegetation trimming for trees that would qualify as a Heritage Tree within the Project Site. The Project is therefore consistent with the City of Half Moon Bay Tree Ordinance. No additional recommendations are included for the Project.

## 6.6 Habitat Conservation Plans

This section analyzes the Project's potential impacts and mitigation based on conflicts with any adopted local, regional, and state habitat conservation plans in reference to the significance threshold outlined in CEQA Appendix G, Part IV (f):

*f) Does the Project have the potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

There are no Habitat Conservation Plans that apply to the Study Area. The HMB LCP applies to this Project. This report was prepared to support the CDP associated with the LCP. The Project features and BMPs described within this BRE would ensure Project compliance with the approved local conservation plan. No additional recommendations are included for the Project.

## 7.0 REFERENCES

- Beier, P., and S. Loe. 1992. A checklist for evaluating impacts to wildlife movement corridors. *Wildlife Society Bulletin* 20(4):434–440.
- California Department of Fish and Game (CDFG). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607. Environmental Services Division, California Department of Fish and Wildlife, Sacramento, California.
- California Department of Fish and Wildlife (CDFW). 2025a. California Natural Community List. Biogeographic Data Branch. Vegetation Classification and Mapping Program, Sacramento, California. September 2025.
- California Department of Fish and Wildlife (CDFW). 2025b. California Natural Diversity Database. Biogeographic Data Branch (CNDDDB), Vegetation Classification and Mapping Program, Sacramento, California. Available online at: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>; most recently accessed: September 2025.
- California Department of Fish and Wildlife (CDFW). 2025c. Biogeographic Information and Observation System. Biogeographic Data Branch. Sacramento, California. Online at: <https://wildlife.ca.gov/Data/BIOS>; most recently accessed: September 2025.
- California Department of Transportation (CalTrans). 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration. Available online at: <https://www.wildlife.ca.gov/Conservation/Planning/Connectivity/CEHC>.
- California Native Plant Society (CNPS). 2025a. Rare Plant Inventory (online edition, v9.5). Sacramento, California. Online at: <http://rareplants.cnps.org/>; most recently accessed: September 2025.
- California Native Plant Society (CNPS). 2025b. A Manual of California Vegetation, Online Edition. Available online at: <http://vegetation.cnps.org>. Most recently accessed: September 2025.
- California Soil Resource Lab (CSRL). 2025. SoilWeb. Online at: <http://casoilresource.lawr.ucdavis.edu/>; most recently accessed: September 2025
- Consortium of California Herbaria 1 (CCH1). 2025. CCH1: Featuring California Vascular Plant Data from the Consortium of California Herbaria and Other Sources. Data provided by the Consortium of California Herbaria. Available online at: <http://ucjeps.berkeley.edu/consortium/>; most recently accessed: September 2025.
- Consortium of California Herbaria 2 (CCH2). 2025. CCH2 Portal. Online at: <http://cch2.org/portal/index.php>; most recently accessed: September 2025.
- Cornell Lab of Ornithology. 2025. eBird: An online database of bird distribution and abundance. Ithaca, NY. Available online at: <http://www.ebird.org>. Most recently accessed: September 2025.

- [City] City of Half Moon Bay. 1993. City of Half Moon Bay Local Coastal Program Land Use Plan. Half Moon Bay, California. Online at: <http://www.half-moon-bay.ca.us/>; most recently accessed: September 2025.
- [City] City of Half Moon Bay. 2020. Half Moon Bay Municipal Code: A Codification of the General Ordinances of the City of Half Moon Bay, California. Code Publishing Company, Seattle, Washington. Online at: <http://www.codepublishing.com/CA/HalfMoonBay>; accessed September 2025.
- Dunk, JR. 1995. White-tailed Kite (*Elanus leucurus*), The Birds of the World Online (A Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of the World Online: <https://birdsoftheworld.org/bow/species/whtkit/cur/introduction>
- Environmental Laboratory. 1987. Corp of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Technical Report Y-87-1, Vicksburg, Mississippi.
- Google Earth. 2025. Aerial Imagery 1985-2025. Most recently accessed: September 2025.
- Hilty, J. A., W. Z. Lidicker Jr, and A. M. Merenlender. 2019. Corridor Ecology: Linking Landscapes for Biodiversity Conservation. Second Edition. Island Press.
- Jepson Flora Project (eds.). 2025. <https://ucjeps.berkeley.edu/eflora/>; accessed August 2025.
- Nationwide Environmental Title Research (NETR). 2025. Historic Aerials. Available online at: <https://historicaerials.com/viewer>. Most recently accessed: September 2025.
- San Francisco Estuary Institute (SFEI). 2017. California Aquatic Resource Inventory (CARI) version 0.3. Available online at: <https://www.sfei.org/data/california-aquatic-resource-inventory-cari-version-03-gis-data#sthash.9SjW0wBH.dpbs>. Most recently accessed: September 2025.
- Shuford, W. D., and T. Gardali, eds. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Sparrow, K. H., Brown, S. W., French, C. E., Gordon, K. B., Gutenson, J. L., Hamilton, C. O., & Deters, J. C. (2025). *Antecedent Precipitation Tool (APT) Version 3.0: Technical and User Guide* (Report No. ERDC/TN WRAP-25-1). U.S. Army Engineer Research and Development Center.
- State Water Resources Control Board (SWRCB). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, May 14, 2019.
- Stebbins, R. C. 2003. A Field Guide to Western Reptiles and Amphibians, Third edition. Houghton Mifflin Company, Boston, MA and New York, NY.
- Thomson, R. C., A. N. Wright, and H. B. Shaffer. 2016. California amphibian and reptile species of special concern. Co-published by the California Department of Fish and Wildlife and University of California Press, Oakland, California.

- U.S. Army Corps of Engineers (Corps). 2005. Regulatory Guidance Letter No. 05-05. Ordinary High Water Mark Identification. December 7.
- U.S. Army Corps of Engineers (Corps). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Page 135. U.S. Army Engineer Research and Development Center, ERDC/EL TR-08-28, Vicksburg, Mississippi.
- U.S. Army Corps of Engineers (Corps). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Cost Region (Version 2.0). May.
- U.S. Army Corps of Engineers. 2020. National Wetland Plant List, version 3.6. Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH. Online at: <http://wetland-plants.sec.usace.army.mil/>. Accessed August 2025.
- U.S. Army Corps of Engineers (Corps). 2025. *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams*. US Army Engineer Research and Development Center.
- U.S. Army Corps of Engineers. 2025. Memorandum To The Field... Concerning The Proper Implementation Of 'Continuous Surface Connection' Under The Definition Of The "Waters Of The United States' Under The Clean Water Act. Published March 12, 2025.
- U.S. Fish and Wildlife Service (USFWS). 2010. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the California Red-Legged Frog; Final Rule. Federal Register 75(51): 12816-12959. March 17.
- U.S. Fish and Wildlife Service (USFWS). 2025a. National Wetlands Inventory. Available online at: <http://www.fws.gov/nwi>. Most recently accessed: September 2025.
- U.S. Fish and Wildlife Service (USFWS). 2025b. Information for Planning and Consultation. Available online at: <https://ecos.fws.gov/ipac/>. Most recently accessed: September 2025.
- Western Bat Working Group (WBWG). 2017. Western Species Accounts. Available online at: <http://wbwg.org/western-bat-species/>. Most recently accessed: September 2025.

# APPENDIX A. FIGURES

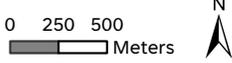
Path: L:\Acad 2000 Files\350270\GIS\ArcMap\_Pro\350270Base.aprx Layout Name:Figure 1. Study Area Regional Location Map



Sources: National Geographic, WRA | Prepared By: rhona.mcchesney, 11/18/2025

**Figure 1. Study Area Regional Location Map**

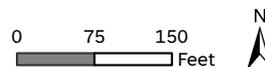
MidPen Affordable Housing Development Project  
Half Moon Bay, San Mateo County, California





**Figure 2. Aerial Site Map**

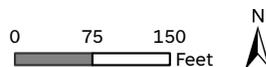
MidPen Affordable Housing Development Project  
Half Moon Bay, San Mateo County, California

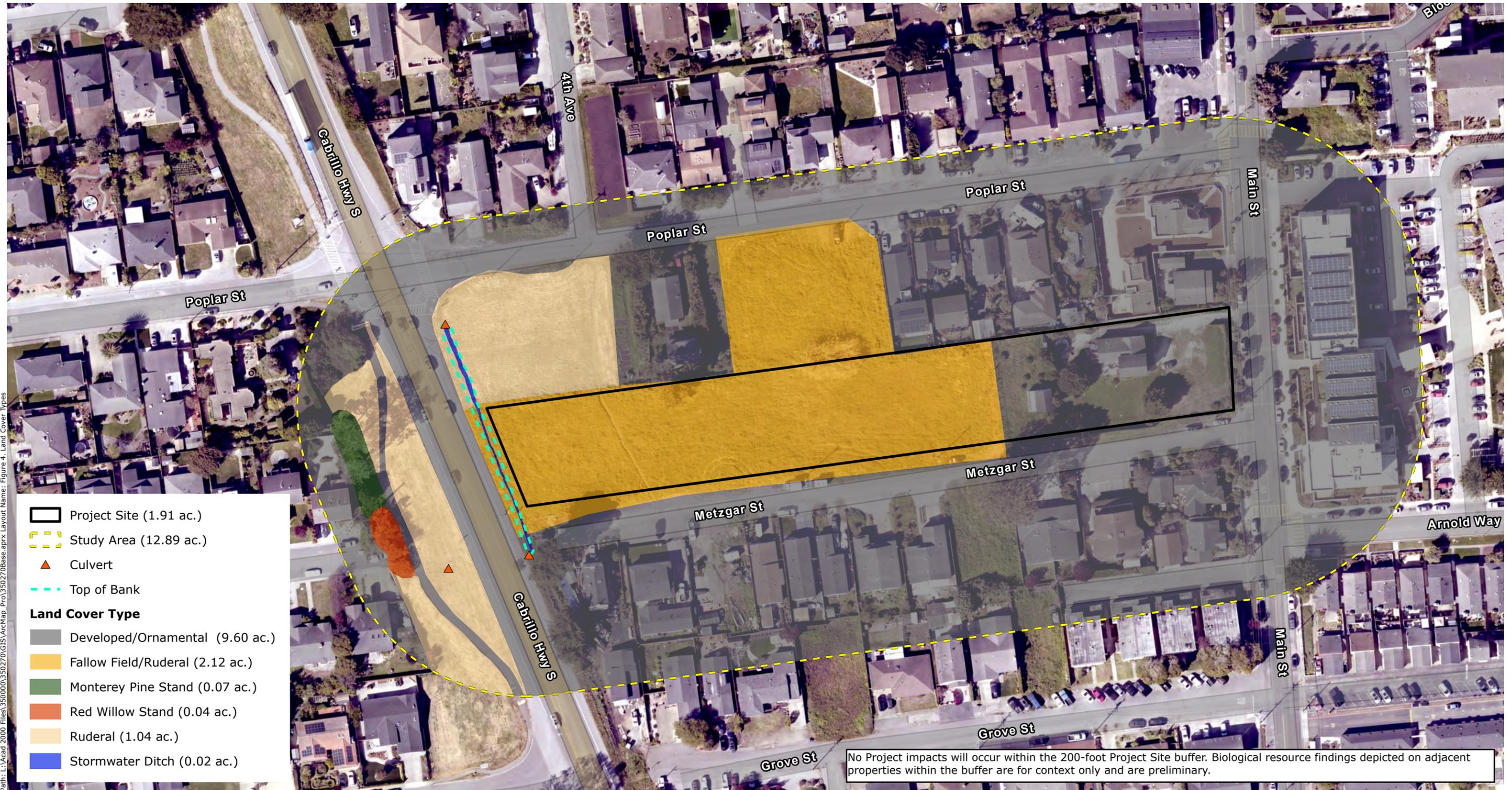




**Figure 3. Soils Map**

MidPen Affordable Housing Development Project  
Half Moon Bay, San Mateo County, California





Sources USDA NAIP Imagery 2022, WRA | Prepared By: rhona.mcchesney, 11/18/2025

**Figure 4. Land Cover Types**

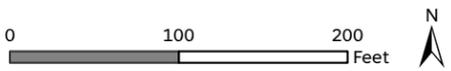


Path: L:\Acad 2000 Files\350000\350270\GIS\AcMap\_Pro\350270Base.aprx Layout Name: Figure 5. Preliminary Delineation Map

Sources San Mateo County Imagery 2022, WRA | Prepared By: rhona.mcchesney, 11/18/2025

**Figure 5. Preliminary Delineation Map**

MidPen Affordable Housing Development Project  
Half Moon Bay, San Mateo County, California



## APPENDIX B. CONCEPTUAL PROJECT PLANS









## APPENDIX C. SPECIES OBSERVED WITHIN THE STUDY AREA



**Appendix C.** Species Observed within the Study Area During the Site Assessment on August 15, 2025.

PLANTS						
SCIENTIFIC NAME	COMMON NAME	ORIGIN	FORM	RARITY STATUS <sup>1</sup>	CAL-IPC STATUS <sup>2</sup>	WETLAND STATUS <sup>3</sup>
<i>Aloe sp.</i>	Aloe	non-native	-	-	-	-
<i>Arundo donax</i>	Giant reed	non-native (invasive)	perennial grass	-	High	FACW
<i>Avena barbata</i>	Slim oat	non-native (invasive)	annual, perennial grass	-	Moderate	-
<i>Baccharis pilularis</i>	Coyote brush	native	shrub	-	-	-
<i>Borago officinalis</i>	Common borage	non-native	annual herb	-	-	-
<i>Cirsium vulgare</i>	Bullthistle	non-native (invasive)	perennial herb	-	Moderate	FACU
<i>Conium maculatum</i>	Poison hemlock	non-native (invasive)	perennial herb	-	Moderate	FACW
<i>Convolvulus arvensis</i>	Field bindweed	non-native	perennial herb, vine	-	-	-
<i>Cotoneaster dammeri</i>	Bearberry cotoneaster	non-native	shrub	-	-	-
<i>Crassula ovata</i>	Jade	non-native	shrub	-	-	-
<i>Cynodon dactylon</i>	Bermuda grass	non-native (invasive)	perennial grass	-	Moderate	FACU
<i>Dittrichia graveolens</i>	Stinkwort	non-native (invasive)	annual herb	-	Moderate	-
<i>Eriobotrya japonica</i>	Loquat	non-native	tree	-	-	UPL
<i>Eschscholzia californica</i>	California poppy	native	annual, perennial herb	-	-	-
<i>Eucalyptus camaldulensis</i>	Red gum	non-native (invasive)	tree	-	Limited	FAC
<i>Feijoa sellowiana</i>	Pineapple guava	non-native	tree	-	-	-
<i>Festuca perennis</i>	Italian rye grass	non-native (invasive)	annual, perennial grass	-	Moderate	FAC
<i>Geranium dissectum</i>	Cutleaf geranium	non-native (invasive)	annual herb	-	Limited	-
<i>Hedera helix</i>	English ivy	non-native (invasive)	vine, shrub	-	High	FACU

PLANTS

<i>Helminthotheca echiooides</i>	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	-	Limited	FAC
<i>Hirschfeldia incana</i>	Short-podded mustard	non-native (invasive)	perennial herb	-	Moderate	-
<i>Holcus lanatus</i>	Common velvetgrass	non-native (invasive)	perennial grass	-	Moderate	FAC
<i>Hordeum murinum</i>	Foxtail barley	non-native (invasive)	annual grass	-	Moderate	FACU
<i>Impatiens sodenii</i>	Shrub balsam	Non-native	shrub	-	-	-
<i>Ipomoea indica</i>	Oceanblue morning glory	non-native	perennial herb	-	Watch	FAC
<i>Juniperus horizontalis</i>	Creeping juniper	non-native	shrub	-	-	-
<i>Lactuca serriola</i>	Prickly lettuce	non-native	annual herb	-	-	FACU
<i>Lysimachia arvensis</i>	Scarlet pimpernel	non-native	annual herb	-	-	FAC
<i>Malva nicaeensis</i>	Bull mallow	non-native	annual herb	-	-	-
<i>Medicago polymorpha</i>	Bur clover	non-native (invasive)	annual herb	-	Limited	FACU
<i>Mercurialis annua</i>	Annual mercury	non-native	annual herb	-	-	-
<i>Oxalis pilosa</i>	Hairy wood sorrel	native	annual herb	-	-	-
<i>Passiflora incarnata</i>	Purple passionflower	non-native	vine	-	-	-
<i>Passiflora miersii</i>	Pink passionflower	non-native	vine	-	-	-
<i>Pinus pinea</i>	Italian stone pine	non-native	tree	-	-	-
<i>Pinus radiata</i>	Monterey pine	native	tree	Rank 1B.1 <sup>4</sup>	-	-
<i>Plantago coronopus</i>	Cut leaf plantain	non-native	annual herb	-	-	FAC
<i>Polygonum aviculare</i>	Prostrate knotweed	non-native	annual, perennial herb	-	-	FAC
<i>Prunus ilicifolia</i>	Holly leaf cherry	native	tree, shrub	-	-	-
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	non-native	annual herb	-	-	FAC
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	Douglas fir	native	tree	-	-	FACU

PLANTS						
<i>Raphanus sativus</i>	Wild radish	non-native (invasive)	annual, biennial herb	-	Limited	-
<i>Rosmarinus officinalis</i>	Rosemary	non-native	shrub	-	-	-
<i>Rubus armeniacus</i>	Himalayan blackberry	non-native (invasive)	shrub	-	High	FAC
<i>Rubus ursinus</i>	Pacific blackberry	native	vine, shrub	-	-	FAC
<i>Rumex crispus</i>	Curly dock	non-native (invasive)	perennial herb	-	Limited	FAC
<i>Salix laevigata</i>	Red willow	native	tree	-	-	FACW
<i>Sequoia sempervirens</i>	Coast redwood	native	tree	-	-	-
<i>Sequoiadendron giganteum</i> <sup>4</sup>	Redwood	native	tree	-	-	-
<i>Sonchus oleraceus</i>	Common sow thistle	non-native	annual herb	-	-	UPL
<i>Spergularia macrotheca</i>	Sticky sand spurry	native	perennial herb	-	-	FAC
<i>Tropaeolum majus</i>	Garden nasturtium	non-native	annual herb, vine	-	-	UPL
<i>Vinca major</i>	Greater periwinkle	non-native (invasive)	perennial herb	-	Moderate	FACU

**Note:** All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2025]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2025] or Rare Plant Inventory (CNPS 2025). Sp.: “species,” intended to indicate that the observer was confident in the identity of the genus but uncertain which species.

<sup>1</sup> California Native Plant Society. 2025. Rare Plant Inventory (online edition, v9.5). Sacramento, California. Online at: <http://rareplants.cnps.org/>; most recently accessed: August 2025.

- FE: Federal Endangered
- FT: Federal Threatened
- SE: State Endangered
- ST: State Threatened
- SR: State Rare
- Rank 1A: Plants presumed extinct in California
- Rank 1B: Plants rare, threatened, or endangered in California and elsewhere
- Rank 2: Plants rare, threatened, or endangered in California, but more common elsewhere
- Rank 3: Plants about which we need more information – a review list
- Rank 4: Plants of limited distribution – a watch list

<sup>2</sup> California Invasive Plant Council. 2025. California Invasive Plant Inventory Database. California Invasive Plant Council, Berkeley, CA. Online at: <http://www.cal-ipc.org/paf/>; most recently accessed: August 2025.

High: Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.  
Moderate: Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically  
Limited: Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically  
Assessed: Assessed by Cal-IPC and determined to not be an existing current threat

<sup>3</sup> U.S. Army Corps of Engineers. 2025. National Wetland Plant List, version 3.6. Online at: <http://wetland-plants.sec.usace.army.mil/>

OBL: Almost always found in wetlands  
FACW: Usually found in wetlands  
FAC: Equally found in wetlands and uplands  
FACU: Usually not found in wetlands  
UPL: Almost never found in wetlands  
NL: Not listed, assumed almost never found in wetlands  
NI: No information; not factored during wetland delineation  
  
C: Second Priority Watch List. Plants occurring in ten to fifteen regions in Alameda and Contra Costa counties.

<sup>4</sup> Monterey pine (*Pinus radiata*) and giant sequoia (*Sequoiadendron giganteum*) are non-naturally occurring within the Study Area.

\*: Ranks preceded by an asterisk (e.g. “\*A1”) also have a statewide rarity ranking

WILDLIFE		
SCIENTIFIC NAME	COMMON NAME	STATUS <sup>4</sup>
<b>BIRDS</b>		
<i>Corvus brachyrhynchos</i>	American crow	No status
<i>Calypte anna</i>	Anna's hummingbird	No status
<i>Patagioenas fasciata</i>	band-tailed pigeon	No status
<i>Thryomanes bewickii</i>	Bewick's wren	No status
<i>Sayornis nigricans</i>	black phoebe	No status
<i>Melospiza crissalis</i>	California towhee	No status
<i>Haemorhous mexicanus</i>	house finch	No status
<i>Passer domesticus</i>	house sparrow	No status
<i>Buteo lineatus</i>	red-shouldered hawk	No status
<b>MAMMALS</b>		
<i>Thomomys bottae</i>	Botta's pocket gopher	No status
<i>Felis catus</i>	Feral cat	No status
<p>CDFW = California Department of Fish and Wildlife.</p> <p><sup>4</sup>Status</p> <p>FD: Federal Delisted</p> <p>FE: Federal Endangered</p> <p>FT: Federal Threatened</p> <p>SD: State Delisted</p> <p>SE: State Endangered</p> <p>SSC: Species of Special Concern</p> <p>ST: State Threatened</p> <p>SR: State Rare</p> <p>CFP: California Fully Protected</p>		



## APPENDIX D. SPECIAL-STATUS SPECIES POTENTIAL TABLE



## Appendix D. Potential for Special Status Plant and Wildlife Species to Occur within the Study Area.

List Compiled from the California Department of Fish and Wildlife Natural Diversity Database (CDFW 2026b), U.S. Fish and Wildlife Service Information for Planning and Consultation Species Lists (USFWS 2026b), and California Native Plant Society Rare Plant Inventory (CNPS 2026a) search of the Half Moon Bay and surrounding five U.S. Geological Survey 7.5' quadrangles.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<b>PLANTS</b>				
<b>Blasdale's bent grass</b> <i>Agrostis blasdalei</i>	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Elevation ranges from 0 to 490 feet (0 to 150 meters). Blooms May-Jul.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>Franciscan onion</b> <i>Allium peninsulare</i> var. <i>franciscanum</i>	Rank 1B.2	Cismontane woodland, valley and foothill grassland. Elevation ranges from 170 to 1000 feet (52 to 305 meters). Blooms (Apr)May-Jun.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>bent-flowered fiddleneck</b> <i>Amsinckia lunaris</i>	Rank 1B.2	Cismontane woodland, coastal bluff scrub, valley and foothill grassland. Elevation ranges from 10 to 1640 feet (3 to 500 meters). Blooms Mar-Jun.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5 miles east along the eastern side of Crystal Springs (dated 2018).	No further actions are recommended for this species.
<b>Robbins' broomrape</b> <i>Aphyllon robbinsii</i>	Rank 1B.1	Coastal bluff scrub. Elevation ranges from 0 to 330 feet (0 to 100 meters). Blooms Apr-Jul.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>coast rockcress</b> <i>Arabis blepharophylla</i>	Rank 4.3	Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Elevation ranges from 10 to 3610 feet (3 to 1100 meters). Blooms Feb-May.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable forest or coastal habitat to support this species.	No further actions are recommended for this species.
<b>Anderson's manzanita</b> <i>Arctostaphylos andersonii</i>	Rank 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest. Elevation ranges from 195 to 2495 feet	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		(60 to 760 meters). Blooms Nov-May.		
<b>Montara manzanita</b> <i>Arctostaphylos montaraensis</i>	Rank 1B.2	Chaparral (maritime), coastal scrub. Elevation ranges from 260 to 1640 feet (80 to 500 meters). Blooms Jan-Mar.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>Kings Mountain manzanita</b> <i>Arctostaphylos regismontana</i>	Rank 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest. Elevation ranges from 1000 to 2395 feet (305 to 730 meters). Blooms Dec-Apr.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>ocean bluff milk-vetch</b> <i>Astragalus nuttallii</i> var. <i>nuttallii</i>	Rank 4.3	Coastal bluff scrub, coastal dunes. Elevation ranges from 10 to 395 feet (3 to 120 meters). Blooms Jan-Nov.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>coastal marsh milk-vetch</b> <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	Rank 1B.2	Coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt, streamsides). Elevation ranges from 0 to 180 feet (0 to 55 meters). Blooms (Apr-May)Jun-Oct.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal or marsh and swamp habitat to support this species.	No further actions are recommended for this species.
<b>Brewer's calandrinia</b> <i>Calandrinia breweri</i>	Rank 4.2	Chaparral, coastal scrub. Elevation ranges from 35 to 4005 feet (10 to 1220 meters). Blooms (Jan)Mar-Jun.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal or chaparral habitat to support this species.	No further actions are recommended for this species.
<b>Oakland star-tulip</b> <i>Calochortus umbellatus</i>	Rank 4.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Elevation ranges from 330 to 2295 feet (100 to 700 meters). Blooms Mar-May.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>pink star-tulip</b> <i>Calochortus uniflorus</i>	Rank 4.2	Coastal prairie, coastal scrub, meadows and seeps, north coast coniferous forest.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, there are no	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		Elevation ranges from 35 to 3510 feet (10 to 1070 meters). Blooms Apr-Jun.	documented occurrences within 15 miles of the Study Area. The nearest documented occurrence is approximately 25 miles south in Scotts Valley (dated 2010).	
<b>johnny-nip</b> <i>Castilleja ambigua</i> var. <i>ambigua</i>	Rank 4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools (margins). Elevation ranges from 0 to 1425 feet (0 to 435 meters). Blooms Mar-Aug.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 8 miles north near Moss Beach (dated 2013).	No further actions are recommended for this species.
<b>pappose tarplant</b> <i>Centromadia parryi</i> ssp. <i>parryi</i>	Rank 1B.2	Chaparral, coastal prairie, marshes and swamps (coastal salt), meadows and seeps, valley and foothill grassland (vernally mesic). Elevation ranges from 0 to 1380 feet (0 to 420 meters). Blooms May-Nov.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 14 miles north along Calara Creek (dated 2006).	No further actions are recommended for this species.
<b>Point Reyes salty bird's-beak</b> <i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Rank 1B.2	Marshes and swamps (coastal salt). Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms Jun-Oct.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable marsh and swamp habitat to support this species.	No further actions are recommended for this species.
<b>San Francisco Bay spineflower</b> <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Elevation ranges from 10 to 705 feet (3 to 215 meters). Blooms Apr-Jul(Aug).	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>Franciscan thistle</b> <i>Cirsium andrewsii</i>	Rank 1B.2	Broadleaved upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Elevation ranges from 0 to 490 feet (0 to 150 meters). Blooms Mar-Jul.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<b>fountain thistle</b> <i>Cirsium fontinale</i> var. <i>fontinale</i>	FE, SE, Rank 1B.1	Chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland. Elevation ranges from 150 to 575 feet (45 to 175 meters). Blooms (Apr)May-Oct.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>Brewer's clarkia</b> <i>Clarkia breweri</i>	Rank 4.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 705 to 3660 feet (215 to 1115 meters). Blooms Apr-Jun.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>San Francisco collinsia</b> <i>Collinsia multicolor</i>	Rank 1B.2	Closed-cone coniferous forest, coastal scrub. Elevation ranges from 100 to 900 feet (30 to 275 meters). Blooms (Feb)Mar-May.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>clustered lady's-slipper</b> <i>Cypripedium fasciculatum</i>	Rank 4.2	Lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 330 to 7990 feet (100 to 2435 meters). Blooms Mar-Aug.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>mountain lady's-slipper</b> <i>Cypripedium montanum</i>	Rank 4.2	Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 605 to 7300 feet (185 to 2225 meters). Blooms Mar-Aug.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>paniculate tarplant</b> <i>Deinandra paniculata</i>	Rank 4.2	Coastal scrub, valley and foothill grassland, vernal pools. Elevation ranges from 80 to 3085 feet (25 to 940 meters). Blooms (Mar)Apr-Nov.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 6 miles east along Crestview Drive (dated 2023).	No further actions are recommended for this species.
<b>western leatherwood</b> <i>Dirca occidentalis</i>	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, north coast	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable	No further actions are recommended for this species.



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		coniferous forest, riparian forest, riparian woodland. Elevation ranges from 80 to 1395 feet (25 to 425 meters). Blooms Jan-Mar(Apr).	woodland and riparian habitat to support this species.	
<b>California bottle-brush grass</b> <i>Elymus californicus</i>	Rank 4.3	Broadleaved upland forest, cismontane woodland, north coast coniferous forest, riparian woodland. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms May-Aug(Nov).	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable woodland habitat to support this species.	No further actions are recommended for this species.
<b>San Mateo woolly sunflower</b> <i>Eriophyllum latilobum</i>	FE, SE, Rank 1B.1	Cismontane woodland (often roadsides), coastal scrub, lower montane coniferous forest. Elevation ranges from 150 to 1085 feet (45 to 330 meters). Blooms May-Jun.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>San Francisco wallflower</b> <i>Erysimum franciscanum</i>	Rank 4.2	Chaparral, coastal dunes, coastal scrub, valley and foothill grassland. Elevation ranges from 0 to 1805 feet (0 to 550 meters). Blooms Mar-Jun.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable serpentine habitat to support this species.	No further actions are recommended for this species.
<b>minute pocket moss</b> <i>Fissidens pauperculus</i>	Rank 1B.2	North coast coniferous forest (damp coastal soil). Elevation ranges from 35 to 3360 feet (10 to 1024 meters). Blooms .	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coniferous forest habitat to support this species.	No further actions are recommended for this species.
<b>Hillsborough chocolate lily</b> <i>Fritillaria biflora var. ineziana</i>	Rank 1B.1	Cismontane woodland, valley and foothill grassland. Elevation ranges from 490 to 490 feet (150 to 150 meters). Blooms Mar-Apr.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>fragrant fritillary</b> <i>Fritillaria liliacea</i>	Rank 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 10 to 1345 feet (3 to	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5 miles east along the	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		410 meters). Blooms Feb-Apr.	eastern side of Crystal Springs (dated 2015).	
<b>San Francisco gumplant</b> <i>Grindelia hirsutula</i> var. <i>maritima</i>	Rank 3.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland. Elevation ranges from 50 to 1310 feet (15 to 400 meters). Blooms Jun-Sep.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 6 miles northwest near Moss Beach (dated 1908).	No further actions are recommended for this species.
<b>short-leaved evax</b> <i>Hesperexax sparsiflora</i> var. <i>brevifolia</i>	Rank 1B.2	Coastal bluff scrub (sandy), coastal dunes, coastal prairie. Elevation ranges from 0 to 705 feet (0 to 215 meters). Blooms Mar-Jun.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>Marin western flax</b> <i>Hesperolinon congestum</i>	FT, ST, Rank 1B.1	Chaparral, valley and foothill grassland. Elevation ranges from 15 to 1215 feet (5 to 370 meters). Blooms Apr-Jul.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5 miles east along the eastern side of Crystal Springs (dated 2015).	No further actions are recommended for this species.
<b>Kellogg's horkelia</b> <i>Horkelia cuneata</i> var. <i>sericea</i>	Rank 1B.1	Chaparral (maritime), closed-cone coniferous forest, coastal dunes, coastal scrub. Elevation ranges from 35 to 655 feet (10 to 200 meters). Blooms Apr-Sep.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable chaparral, forest, or coastal habitat to support this species.	No further actions are recommended for this species.
<b>Point Reyes horkelia</b> <i>Horkelia marinensis</i>	Rank 1B.2	Coastal dunes, coastal prairie, coastal scrub. Elevation ranges from 15 to 2475 feet (5 to 755 meters). Blooms May-Sep.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>harlequin lotus</b> <i>Hosackia gracilis</i>	Rank 4.2	Broadleafed upland forest, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, meadows and seeps, north coast coniferous forest, valley and foothill grassland.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. The nearest historic documented occurrence is approximately 0.25 miles northwest of the Study Area dated from 1905, over 100 years ago. In addition, the Study Area is regularly disturbed and maintained (mowed).	Out of an abundance of caution, the Project will implement a targeted survey for this species, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		Elevation ranges from 0 to 2295 feet (0 to 700 meters). Blooms Mar-Jul.		
<b>island tube lichen</b> <i>Hypogymnia schizidiata</i>	Rank 1B.3	Chaparral, closed-cone coniferous forest. Elevation ranges from 1180 to 1330 feet (360 to 405 meters). Blooms .	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>coast iris</b> <i>Iris longipetala</i>	Rank 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May(Jun).	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5 miles east near Skyline Boulevard (dated 1933).	No further actions are recommended for this species.
<b>perennial goldfields</b> <i>Lasthenia californica ssp. macrantha</i>	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. Elevation ranges from 15 to 1705 feet (5 to 520 meters). Blooms Jan-Nov.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>serpentine leptosiphon</b> <i>Leptosiphon ambiguus</i>	Rank 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland. Elevation ranges from 395 to 3710 feet (120 to 1130 meters). Blooms Mar-Jun.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>bristly leptosiphon</b> <i>Leptosiphon aureus</i>	Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet (55 to 1500 meters). Blooms Apr-Jul.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>coast yellow leptosiphon</b> <i>Leptosiphon croceus</i>	SE, Rank 1B.1	Coastal bluff scrub, coastal prairie. Elevation ranges from 35 to 490 feet (10 to 150 meters). Blooms Apr-Jun.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 6.5 miles north near Highway 1 (dated 2015).	No further actions are recommended for this species.
<b>large-flowered leptosiphon</b> <i>Leptosiphon grandiflorus</i>	Rank 4.2	Cismontane woodland, closed-cone coniferous forest, coastal bluff scrub,	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, there are no	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 15 to 4005 feet (5 to 1220 meters). Blooms Apr-Aug.	documented occurrences within 10 miles of the Study Area dated after 1900.	
<b>broad-lobed leptosiphon</b> <i>Leptosiphon latisectus</i>	Rank 4.3	Broadleafed upland forest, cismontane woodland. Elevation ranges from 560 to 4920 feet (170 to 1500 meters). Blooms Apr-Jun.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>rose leptosiphon</b> <i>Leptosiphon rosaceus</i>	Rank 1B.1	Coastal bluff scrub. Elevation ranges from 0 to 330 feet (0 to 100 meters). Blooms Apr-Jul.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>Crystal Springs lessingia</b> <i>Lessingia arachnoidea</i>	Rank 1B.2	Cismontane woodland, coastal scrub, valley and foothill grassland. Elevation ranges from 195 to 655 feet (60 to 200 meters). Blooms Jul-Oct.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>woolly-headed lessingia</b> <i>Lessingia hololeuca</i>	Rank 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevation ranges from 50 to 1000 feet (15 to 305 meters). Blooms Jun-Oct.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5 miles northwest near Crystal Springs (dated 1943).	No further actions are recommended for this species.
<b>Ornduff's meadowfoam</b> <i>Limnanthes douglasii</i> ssp. <i>ornduffii</i>	Rank 1B.1	Meadows and seeps. Elevation ranges from 35 to 65 feet (10 to 20 meters). Blooms Nov-May.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5 miles north off of Airport Street (dated 2008).	No further actions are recommended for this species.
<b>San Mateo tree lupine</b> <i>Lupinus arboreus</i> var. <i>eximius</i>	Rank 3.2	Chaparral, coastal scrub. Elevation ranges from 295 to 1805 feet (90 to 550 meters). Blooms Apr-Jul.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<b>arcuate bushmallow</b> <i>Malacothamnus arcuatus</i> var. <i>arcuatus</i>	Rank 1B.2	Chaparral, cismontane woodland. Elevation ranges from 50 to 1165 feet (15 to 355 meters). Blooms Apr-Sep.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable chaparral or woodland habitat to support this species.	No further actions are recommended for this species.
<b>marsh microseris</b> <i>Microseris paludosa</i>	Rank 1B.2	Cismontane woodland, closed-cone coniferous forest, coastal scrub, valley and foothill grassland. Elevation ranges from 15 to 1165 feet (5 to 355 meters). Blooms Apr-Jun(Jul).	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 13 miles south in Pescadero State Beach (Unknown date).	No further actions are recommended for this species.
<b>woodland woollythreads</b> <i>Monolopia gracilens</i>	Rank 1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland. Elevation ranges from 330 to 3935 feet (100 to 1200 meters). Blooms (Feb)Mar-Jul.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>white-rayed pentachaeta</b> <i>Pentachaeta bellidiflora</i>	FE, SE, Rank 1B.1	Cismontane woodland, valley and foothill grassland (often serpentine). Elevation ranges from 115 to 2035 feet (35 to 620 meters). Blooms Mar-May.	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>Gairdner's yampah</b> <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	Rank 4.2	Broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Elevation ranges from 0 to 2000 feet (0 to 610 meters). Blooms Jun-Oct.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 11 miles south in Pescadero (dated 2002).	No further actions are recommended for this species.
<b>Choris' popcornflower</b> <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	Rank 1B.2	Chaparral, coastal prairie, coastal scrub. Elevation ranges from 10 to 525 feet (3 to 160 meters). Blooms Mar-Jun.	<b>Unlikely.</b> The Study Area does not contain suitable chaparral or coastal habitat to support this species. The Study Area is located approximately 0.5 miles northwest from an existing	Out of an abundance of caution, the Project will implement a targeted survey for this species, prior to the initiation of construction (See <b>Section 1.2</b> ).



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
			population of this species (dated 2015). However, the Study Area is disturbed and regularly maintained (mowed).	No further actions are recommended for this species.
<b>Hickman's popcornflower</b> <i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i>	Rank 4.2	Chaparral, closed-cone coniferous forest, coastal scrub, marshes and swamps, vernal pools. Elevation ranges from 50 to 1280 feet (15 to 390 meters). Blooms Apr-Jun.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable chaparral, forest, coastal, or mesic habitat to support this species.	No further actions are recommended for this species.
<b>Oregon polemonium</b> <i>Polemonium carneum</i>	Rank 2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation ranges from 0 to 6005 feet (0 to 1830 meters). Blooms Apr-Sep.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal or forest habitat to support this species.	No further actions are recommended for this species.
<b>Hickman's cinquefoil</b> <i>Potentilla hickmanii</i>	FE, SE, Rank 1B.1	Closed-cone coniferous forest, coastal bluff scrub, marshes and swamps (freshwater), meadows and seeps (vernally mesic). Elevation ranges from 35 to 490 feet (10 to 149 meters). Blooms Apr-Aug.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable mesic habitat to support this species.	No further actions are recommended for this species.
<b>Lobb's aquatic buttercup</b> <i>Ranunculus lobbii</i>	Rank 4.2	Cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms Feb-May.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable aquatic habitat to support this species.	No further actions are recommended for this species.
<b>chaparral ragwort</b> <i>Senecio aphanactis</i>	Rank 1B.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 50 to 2625 feet (15 to 800 meters). Blooms Jan-Apr(May).	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>Scouler's catchfly</b> <i>Silene scouleri</i> ssp. <i>scouleri</i>	Rank 2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. Elevation ranges	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest	No further actions are recommended for this species.



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		from 0 to 1970 feet (0 to 600 meters). Blooms (Mar-May)Jun-Aug(Sep).	documented occurrence is approximately 7.5 miles north along San Pedro Mountain Road (dated 2003).	
<b>San Francisco campion</b> <i>Silene verecunda</i> ssp. <i>verecunda</i>	Rank 1B.2	Chaparral, coastal bluff scrub, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 100 to 2115 feet (30 to 645 meters). Blooms (Feb)Mar-Jul(Aug).	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 8.5 miles west in Edgewood Park Natural Preserve (dated 1988).	No further actions are recommended for this species.
<b>saline clover</b> <i>Trifolium hydrophilum</i>	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms Apr-Jun.	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable mesic habitat to support this species.	No further actions are recommended for this species.
<b>San Francisco owl's-clover</b> <i>Triphysaria floribunda</i>	Rank 1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 35 to 525 feet (10 to 160 meters). Blooms Apr-Jun.	<b>Unlikely.</b> The Study Area contains suitable grassland habitat to support this species. However, the nearest documented occurrence is approximately 5.5 miles northwest in an undisclosed location near Crystal Springs Reservoir (dated 1991).	No further actions are recommended for this species.
<b>coastal triquetrella</b> <i>Triquetrella californica</i>	Rank 1B.2	Coastal bluff scrub, coastal scrub. Elevation ranges from 35 to 330 feet (10 to 100 meters).	<b>No Potential.</b> The Study Area is primarily disturbed and developed, and does not contain suitable coastal habitat to support this species.	No further actions are recommended for this species.
<b>Methuselah's beard lichen</b> <i>Usnea longissima</i>	Rank 4.2	Broadleafed upland forest, north coast coniferous forest. Elevation ranges from 165 to 4790 feet (50 to 1460 meters).	<b>No Potential.</b> The Study Area is outside the known elevation range for this species.	No further actions are recommended for this species.
<b>WILDLIFE</b>				
<b>MAMMALS</b>				
<b>pallid bat</b> <i>Antrozous pallidus</i>	SSC, WBWG High Priority	Found in a variety of habitats ranging from grasslands to mixed forests, favoring open and dry, rocky areas. Roost sites include	<b>Unlikely.</b> Trees within the Study Area do not provide suitable roost habitat. Unoccupied structures are fully sealed and/or are subject to a high degree of air flow and lack the	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		crevices in rock outcrops and cliffs, caves, mines, and also hollow trees and various manmade structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	thermodynamic stability necessary for roosting bats.	<b>Section 1.2).</b> No further actions are recommended for this species.
<b>hoary bat</b> <i>Lasiurus cinereus</i>	WBWG Medium Priority	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	<b>Unlikely.</b> Trees within the Study Area do not provide suitable roost habitat. Forested habitat and water resources are absent.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.
<b>Townsend's big-eared bat</b> <i>Corynorhinus townsendii</i>	SSC, WBWG High Priority	Associated with a wide variety of habitats from deserts to higher-elevation mixed and coniferous forests. Females form maternity colonies in buildings, caves and mines, and males roost singly or in small groups. Foraging typically occurs at edge habitats near wooded areas, e.g. along streams.	<b>Unlikely.</b> Trees within the Study Area do not provide suitable roost habitat. Unoccupied structures are fully sealed and/or are subject to a high degree of air flow and lack the thermodynamic stability necessary for roosting bats. Forested habitat and water resources are absent.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.
<b>western mastiff bat</b> <i>Eumops perotis californicus</i>	SSC, WBWG High Priority	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	<b>Unlikely.</b> No potential roosting sites are present within the Study Area. Large rock structures, boulders, and cliff sites are absent.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<b>western red bat</b> <i>Lasiurus blossevillii</i>	SSC, WBWG High Priority	Highly migratory and typically solitary, roosting primarily in the foliage of trees or shrubs. Roosts are usually in broad-leaved trees including cottonwoods, sycamores, alders, and maples. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas.	<b>Unlikely.</b> The Study Area does not contain any broad-leaved trees or dense foliage suitable for roosting. Water resources are absent.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.
<b>long-eared myotis</b> <i>Myotis evotis</i>	WBWG Medium Priority	Occurs in semiarid shrublands, sage, chaparral, and agricultural areas, but is usually associated with coniferous forests from sea level to 9000 feet. Individuals roost under exfoliating tree bark, and in hollow trees, caves, mines, cliff crevices, and rocky outcrops on the ground. They also sometimes roost in buildings and under bridges.	<b>Unlikely.</b> Suitable roosting sites are absent. The Study Area does not provide coniferous forest or other habitat types typically occupied by this species.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.
<b>fringed myotis</b> <i>Myotis thysanodes</i>	WBWG High Priority	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Buildings, mines and large trees and snags are important day and night roosts.	<b>Unlikely.</b> Trees within the Study Area do not provide suitable roost habitat. Unoccupied structures are fully sealed and/or are subject to a high degree of air flow and lack the thermodynamic stability necessary for roosting bats.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.
<b>Yuma myotis</b> <i>Myotis yumanensis</i>	WBWG Medium Priority	Known for its ability to survive in urbanized environments. Also found in heavily forested settings. Day roosts in buildings, trees, mines, caves, bridges and rock crevices. Night	<b>Unlikely.</b> Trees within the Study Area do not provide suitable roost habitat. Unoccupied structures are fully sealed and/or are subject to a high degree of air flow and lack the thermodynamic stability necessary for roosting bats.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		roosts associated with man-made structures.		are recommended for this species.
<b>San Francisco dusky-footed woodrat</b> <i>Neotoma fuscipes annectens</i>	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	<b>No Potential.</b> The Study Area does not contain any woodland, forested, or chaparral habitat.	No further actions are recommended for this species.
<b>big free-tailed bat</b> <i>Nyctinomops macrotis</i>	SSC	Variety of arid areas in southern California -- pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	<b>Unlikely.</b> The Study Area is outside of the current accepted range for this species.	Out of an abundance of caution, the Project will implement a formal bat roost habitat assessment, prior to the initiation of construction (See <b>Section 1.2</b> ). No further actions are recommended for this species.
<b>salt-marsh harvest mouse</b> <i>Reithrodontomys raviventris</i>	FE, SE, SFP	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	<b>No Potential.</b> The Study Area does not contain pickleweed marshes or brackish wetland communities to support this species.	No further actions are recommended for this species.
<b>American badger</b> <i>Taxidea taxus</i>	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	<b>No Potential.</b> Ruderal grasslands within the Study Area are subject to regular mowing and a high degree of anthropogenic disturbance from surrounding development.	No further actions are recommended for this species.
<b>BIRDS</b>				
<b>blue heron</b> <i>Ardea herodias</i>	Breeding sites protected	Year-round resident. Nests colonially or semi-colonially	<b>Unlikely.</b> Large trees within the Study Area do not occur in close proximity	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		in tall trees and on cliffs, also sequestered terrestrial substrates. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	to aquatic foraging areas and are therefore unlikely to provide suitable breeding sites for colonial nesters. No nest structures were observed during the site visit on August 15, 2025.	
<b>burrowing owl</b> <i>Athene cunicularia</i>	SC, SSC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	<b>Unlikely.</b> The Study Area does not currently support California ground squirrel activity or provide suitable man-made burrow surrogates for this species. Culverts along Highway 1 are unlikely to support wintering owls given that they occur under a busy arterial road and offer marginal protection.	No further actions are recommended for this species.
<b>marbled murrelet</b> <i>Brachyramphus marmoratus</i>	FT, SE	Predominantly coastal marine. Nests in old-growth coniferous forests up to 30 miles inland along the Pacific coast, from Eureka to Oregon border, and in Santa Cruz/San Mateo Counties. Nests are highly cryptic, and typically located on platform-like branches of mature redwoods and Douglas firs. Forages on marine invertebrates and small fishes.	<b>Unlikely.</b> The Study Area does not contain old-growth coniferous forests or typical nesting habitat for this species.	No further actions are recommended for this species.
<b>western snowy plover</b> <i>Charadrius nivosus nivosus</i>	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the	<b>No Potential.</b> The Study Area does not contain sandy beaches, salt pond levees, or shores of alkali lakes. Sandy, gravelly or friable soils required for nesting are absent.	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.		
<b>saltmarsh common yellowthroat</b> <i>Geothlypis trichas sinuosa</i>	SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	<b>No Potential.</b> No marsh habitat or suitable vegetation communities are present with the Project Site.	No further actions are recommended for this species.
<b>California black rail</b> <i>Laterallus jamaicensis coturniculus</i>	ST, SFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	<b>No Potential.</b> The Study Area does not contain suitable marsh habitat to support this species.	No further actions are recommended for this species.
<b>white-tailed kite</b> <i>Elanus leucurus</i>	CDFW Fully Protected	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	<b>Moderate Potential.</b> The Study Area contains trees and shrubs that may provide suitable nesting substrate for this species.	The Project will avoid the nesting bird season to the extent feasible. If needed, the Project proponent will retain a qualified biologist to conduct a pre-construction nesting bird survey to ensure that this species is protected, if Project activities will occur during the nesting season (see <b>Section 1.2</b> ).
<b>Alameda song sparrow</b> <i>Melospiza melodia pusillula</i>	SSC	Year-round resident of salt marshes bordering the south arm of San Francisco Bay. Inhabits primarily pickleweed marshes; nests placed in marsh vegetation,	<b>No Potential.</b> The Study Area does not contain suitable marsh habitat to support this species.	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		typically shrubs such as gumplant.		
<b>California Ridgway's rail</b> <i>Rallus obsoletus obsoletus</i>	FE, SE, SFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on molluscs and crustaceans.	<b>No Potential.</b> The Study Area does not contain suitable marsh habitat to support this species.	No further actions are recommended for this species.
<b>bank swallow</b> <i>Riparia riparia</i>	ST,	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Historical nesting range in southern and central areas of California has been eliminated by habitat loss. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	<b>No Potential.</b> The Study Area does not contain vertical cliffs or bank cuts and is outside of the current known range for this species.	No further actions are recommended for this species.
REPTILES & AMPHIBIANS				
<b>California tiger salamander - central California DPS</b> <i>Ambystoma californiense</i> pop. 1	FT, ST	Populations in Santa Barbara and Sonoma counties currently listed as endangered; threatened in remainder of range. Inhabits grassland, oak woodland,	<b>No Potential.</b> The Study Area does not provide ruderal or seasonal pool habitats suitable for this species. The nearest documented occurrence is 9 miles to the east and is from 1962. No local source populations have	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		and open ruderal habitats. Adults are fossorial and utilize mammal burrows and other subterranean refugia. Breeding occurs in vernal pools and other seasonal water features.	been documented within the vicinity of the Study Area (CDFW 2025b).	
<b>Santa Cruz black salamander</b> <i>Aneides niger</i>	SSC	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey counties. Aquatic larvae prefer shallow (<12 inches) water, using clumps of vegetation or debris for cover. Adults use mammal burrows.	<b>No Potential.</b> Suitable woodland habitat is not present within the Study Area. No records of this species occur within 7-miles of the Study Area (CDFW 2025b).	No further actions are recommended for this species.
<b>California giant salamander</b> <i>Dicamptodon ensatus</i>	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	<b>No Potential.</b> The Study Area does not contain moist coniferous or mixed forests habitat. No cold, permanent or semi-permanent aquatic breeding habitat is present within the Study Area. The nearest documented occurrence is approximately 3 miles to the southeast (CDFW 2025b).	No further actions are recommended for this species.
<b>foothill yellow-legged frog</b> <i>Rana boylei</i>	FT, SE	Found in or adjacent to rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	<b>No Potential.</b> Suitable rocky stream habitat does not occur within the Study Area.	No further actions are recommended for this species.



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<b>California red-legged frog</b> <i>Rana draytonii</i>	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	<b>Unlikely.</b> Suitable aquatic breeding habitat is not present within the Study Area or immediate vicinity. While this species is known to occur within 1 mile of the Study Area, suitable upland and aquatic movement corridors between the Study Area and potential source populations are absent. The adjacent stormwater ditch discharges immediately west of Highway 1 and does not provide any significant habitat value for this species.	No further actions are recommended for this species.
<b>Northwestern pond turtle</b> <i>Actinemys marmorata</i>	FPT, SSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 kilometers from water.	<b>Unlikely.</b> Suitable aquatic habitat is absent within the Study Area. The adjacent stormwater ditch is unlikely to support this species given that it's heavily culverted, ephemeral, highly disturbed, and does not provide connectivity to any waterbodies where NPT have been documented.	No further actions are recommended for this species.
<b>San Francisco garter snake</b> <i>Thamnophis sirtalis tetrataenia</i>	FE, SE, SFP	Vicinity of freshwater marshes, ponds and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	<b>No Potential.</b> Suitable aquatic habitat is absent within the Study Area. The adjacent stormwater ditch does not provide a suitable prey base and lacks the depth and vegetation characteristics necessary to support this species.	No further actions are recommended for this species.
<b>FISHES</b>				
<b>green sturgeon</b> <i>Acipenser medirostris</i>	FT, SSC	Anadromous; spawns in the Sacramento and Feather Rivers. Preferred spawning substrate is large cobble but ranges from clean sand to bedrock. Adults occur throughout the San Francisco	<b>No Potential.</b> Suitable aquatic habitat is absent within the Study Area.	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		Bay estuary and coastal marine waters.		
<b>tidewater goby</b> <i>Eucyclogobius newberryi</i>	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches; requires fairly still but not stagnant water and high oxygen levels.	<b>No Potential.</b> Suitable aquatic habitat is absent within the Study Area.	No further actions are recommended for this species.
<b>steelhead</b> <i>Oncorhynchus mykiss irideus</i>	FT, SSC	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	<b>No Potential.</b> Suitable aquatic habitat is absent within the Study Area.	No further actions are recommended for this species.
<b>longfin smelt</b> <i>Spirinchus thaleichthys</i>	FE, ST	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.  Gulf of the Farallones from Russian River to Pillar Point, Half Moon Bay, and salt and freshwater habitats upstream of the Golden Gate including the San Francisco Bay, Sacramento - San	<b>No Potential.</b> Suitable aquatic habitat is absent within the Study Area.	No further actions are recommended for this species.



SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		Joaquin River Delta, and their tributaries where found.		
<b>INVERTEBRATES</b>				
<b>western bumblebee</b> <i>Bombus occidentalis</i>	SCE	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared (Xerces 2015). Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g. mammal burrows). Many plant species are visited and pollinated.	<b>No Potential.</b> The Study Area is outside of this species' current known distribution. There are no recent documented occurrences of this species in the vicinity of the Study Area (CDFW 2025b).	No further actions are recommended for this species.
<b>San Bruno elfin butterfly</b> <i>Callophrys mossii bayensis</i>	FE	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, <i>Sedum spathulifolium</i> .	<b>No Potential.</b> The Study Area does not provide coastal scrub habitat, rocky outcrops, or cliffs to support this species. Larval host species are absent.	No further actions are recommended for this species.
<b>monarch butterfly</b> <i>Danaus plexippus plexippus</i>	FPT	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	<b>Unlikely.</b> Trees within the Study Area are isolated and scattered. No wind protected tree groves are present and foraging resources are limited onsite.	No further actions are recommended for this species.
<b>bay checkerspot butterfly</b> <i>Euphydryas editha bayensis</i>	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity	<b>No Potential.</b> The Study Area does not contain serpentine soil, nor the	No further actions are recommended for this species.

SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
		of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> and <i>O. purpurascens</i> are the secondary host plants.	appropriate host plants for this species.	
<b>mission blue butterfly</b> <i>Icaricia icarioides missionensis</i>	FE	Inhabits grasslands and coastal chaparral of the San Francisco peninsula and southern Marin County, but mostly found on San Bruno Mountain. Three larval host plants: <i>Lupinus albifrons</i> , <i>L. variicolor</i> , and <i>L. formosus</i> , of which <i>L. albifrons</i> is favored.	<b>No Potential.</b> The Study Area is outside of this species' current known distribution and does not support the appropriate host plants. There are no recent documented occurrences of this species in the vicinity of the Study Area (CDFW 2025b).	No further actions are recommended for this species.
<b>Myrtle's silverspot butterfly</b> <i>Speyeria zerene myrtleae</i>	FE	Restricted to the fog belt of northern Marin and southernmost Sonoma County, including the Point Reyes peninsula; extirpated from coastal San Mateo County. Occurs in coastal prairie, dunes, and grassland. Larval foodplant is typically <i>Viola adunca</i> . Adult flight season may range from late June to early September.	<b>No Potential.</b> The Study Area is outside of this species' current known distribution and does not support the appropriate host plants. There are no recent documented occurrences of this species in the vicinity of the Study Area (CDFW 2025b).	No further actions are recommended for this species.

**Key to Define Status Codes:**

<b>BCC:</b>	USFWS Bird of Conservation Concern
<b>BGEPA:</b>	Bald and Golden Eagle Protection Act Species
<b>BLM Sensitive:</b>	Bureau of Land Management Sensitive
<b>CDF Sensitive:</b>	California Department of Forestry and Fire Protection Sensitive
<b>CDFW:WL:</b>	CDFW Watch List
<b>FC:</b>	Federal Candidate for Listing
<b>FE:</b>	Federal Endangered
<b>FPE:</b>	Federal Proposed Endangered
<b>FPT:</b>	Federal Proposed Threatened

<b>FS Sensitive:</b>	Forest Service Sensitive
<b>FT:</b>	Federal Threatened
<b>SC:</b>	State Candidate for Listing
<b>SCE:</b>	State Candidate Endangered
<b>SCT:</b>	State Candidate Threatened
<b>SE:</b>	State Endangered
<b>SFP:</b>	State Fully Protected Animal
<b>SR:</b>	State Rare
<b>SSC:</b>	State Species of Concern
<b>ST:</b>	State Threatened
<b>Rank 1A:</b>	Plants presumed extinct in California

**Rank 1B:** Plants rare, threatened, or endangered in California and elsewhere  
**Rank 2:** Plants rare, threatened, or endangered in California, but more common elsewhere

**Rank 3:** Plants about which we need more information – a review list  
**Rank 4:** Plants of limited distribution – a watch list  
**WBWG:** Western Bat Working Group Priority

**Potential for Occurrence:**

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Unlikely.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species was observed on the site or has been recorded (i.e. CNDDDB, other reports) on the site recently.

**APPENDIX E. WMVC SUPPLEMENT DATA FORMS**

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP01  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): lawn Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456388 Long: -122.430275 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BcA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: This upland sample point was taken in a disturbed, residential lawn in the southeastern corner of the Project Site. The sample point did not meet wetland indicators for hydrophytic vegetation, hydric soils or hydrology and is not located within a wetland or a coastal wetland (CCC/LCP). This sample point is not paired with a wetland sample point.			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5' radius</u>)</b>				
1. <u>Avena fatua</u>	<u>15</u>	<u>Yes</u>	<u>NL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Medicago polymorpha</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Festuca perennis</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Eschscholzia californica</u>	<u>2</u>	<u>No</u>	<u>NL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>37</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>% Bare Ground in Herb Stratum <u>70</u></b>				
Remarks: A little over half of bare ground in herb stratum covered by dead grass/thatch. Hydrophytic vegetation was not dominant at the sample point location. Wetland vegetation criteria not met.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

**SOIL**

Sampling Point: SP01

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 2/1	100					loam	no redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: n/a  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

No hydric soil indicators observed. Shovel refusal occurred at 7 inches depth below soil surface due to dry, compact soil and presence of rocks.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

n/a

Remarks:

No wetland hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP02  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): lawn Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456349 Long: -122.430683 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BcA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
<b>Remarks:</b>					
This upland sample point was taken in a disturbed, residential lawn along the southern boundary of the Project Site, approximately 100 feet west of SP01. The sample point did not meet wetland indicators for hydrophytic vegetation, hydric soils or hydrology and is not located within a wetland or a coastal wetland (LCP/CCC). This sample point is not paired with a wetland sample point.					

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
4. _____	_____	_____	_____		
	<u>0</u>	= Total Cover			
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____	
2. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4. _____	_____	_____	_____	FAC species <u>30</u> x 3 = <u>90</u>	
5. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
	<u>0</u>	= Total Cover		UPL species <u>15</u> x 5 = <u>75</u>	
				Column Totals: <u>45</u> (A) <u>165</u> (B)	
				Prevalence Index = B/A = <u>3.67</u>	
Herb Stratum (Plot size: <u>5' radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Festuca Perennis</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Convolvulus arvensis</u>	<u>15</u>	<u>Yes</u>	<u>NL</u>	<input type="checkbox"/> 2 - Dominance Test is >50%	
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>45</u>	= Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b>	
1. _____	_____	_____	_____	Yes <input type="checkbox"/>	
2. _____	_____	_____	_____	No <input checked="" type="checkbox"/>	
	<u>0</u>	= Total Cover			
<b>% Bare Ground in Herb Stratum</b> <u>70</u>					
<b>Remarks:</b>					
Most of bare ground in herb stratum covered by dead grass/thatch. Hydrophytic vegetation was not dominant at the sample point location. Wetland vegetation criteria not met.					

**SOIL**

Sampling Point: SP02

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/1	100					sandy loam	no redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: n/a  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

No hydric soil indicators observed. Shovel refusal occurred at 8 inches due to presence of dry compact soil and gravel.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP03  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456397 Long: -122.431085 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BcA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: This upland sample point was taken in a disturbed, ruderal field in the central portion of the Project Site, on the western side of and close to the fence that divides the field from the residential portion of the Study Area. The sample point did not meet wetland indicators for hydrophytic vegetation, hydric soils or hydrology and is not located within a wetland or coastal wetland (LCP/CCC). This sample point is not paired with a wetland sample point.			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>8</u></td> <td>x 3 = <u>24</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>22</u></td> <td>x 5 = <u>110</u></td> </tr> <tr> <td>Column Totals: <u>30</u> (A)</td> <td><u>134</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.47</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>8</u>	x 3 = <u>24</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>22</u>	x 5 = <u>110</u>	Column Totals: <u>30</u> (A)	<u>134</u> (B)	Prevalence Index = B/A = <u>4.47</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>8</u>	x 3 = <u>24</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>22</u>	x 5 = <u>110</u>																			
Column Totals: <u>30</u> (A)	<u>134</u> (B)																			
Prevalence Index = B/A = <u>4.47</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
<b>Herb Stratum (Plot size: <u>5' radius</u>)</b>																				
1. <u>Convolvulus arvensis</u>	<u>15</u>	<u>Yes</u>	<u>NL</u>																	
2. <u>Festuca perennis</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Avena barbata</u>	<u>5</u>	<u>No</u>	<u>NL</u>																	
4. <u>Conium maculatum</u>	<u>3</u>	<u>No</u>	<u>FAC</u>																	
5. <u>Mercurialis annua</u>	<u>2</u>	<u>No</u>	<u>NL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>30</u> = Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
<b>% Bare Ground in Herb Stratum <u>70</u></b>																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: Bare ground in herb stratum covered by thatch. Hydrophytic vegetation was not dominant at the sample point location. Wetland vegetation criteria not met.																				

**SOIL**

Sampling Point: SP03

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 2/1	100					loam	no redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: n/a  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes \_\_\_\_\_    No

Remarks:

No hydric soil indicators observed; hydric soil criteria not met.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present?    Yes \_\_\_\_\_    No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes \_\_\_\_\_    No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes \_\_\_\_\_    No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present?    Yes \_\_\_\_\_    No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed. Therefore, wetland hydrology criteria is not met.

## WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP04  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456467 Long: -122.431545 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BcA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: This upland sample point was taken in a stand of giant reed in the central portion of and along the northern boundary of the Project Site. The sample point did not meet wetland indicators for hydrophytic vegetation, hydric soils or hydrology and is not located within a wetland or coastal wetland (LCP/CCC). This sample point is not paired with a wetland sample point.			

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>3</u></td> <td>x 3 = <u>9</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>13</u></td> <td>x 5 = <u>65</u></td> </tr> <tr> <td>Column Totals: <u>116</u> (A)</td> <td><u>394</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.39</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>3</u>	x 3 = <u>9</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>13</u>	x 5 = <u>65</u>	Column Totals: <u>116</u> (A)	<u>394</u> (B)	Prevalence Index = B/A = <u>3.39</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>3</u>	x 3 = <u>9</u>																			
FACU species <u>60</u>	x 4 = <u>240</u>																			
UPL species <u>13</u>	x 5 = <u>65</u>																			
Column Totals: <u>116</u> (A)	<u>394</u> (B)																			
Prevalence Index = B/A = <u>3.39</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover																				
<b>Herb Stratum (Plot size: <u>5' radius</u>)</b> 1. <u>Cynodon dactylon</u> <u>60</u> Yes <u>FACU</u> 2. <u>Arundo donax</u> <u>40</u> Yes <u>FACW</u> 3. <u>Raphanus sativus</u> <u>5</u> No <u>NL</u> 4. <u>Malva nicaeensis</u> <u>5</u> No <u>NL</u> 5. <u>Festuca perennis</u> <u>3</u> No <u>FAC</u> 6. <u>Avena barbata</u> <u>3</u> No <u>NL</u> 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ _____ = Total Cover																				
% Bare Ground in Herb Stratum <u>7%</u>																				
Remarks: Hydrophytic vegetation was not dominant at the sample point location (Dominance Test and Prevalence Index Test). Wetland vegetation criteria not met.																				



# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP05  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): none Slope (%): <1%  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456619 Long: -122.432646 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BcA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
<b>Remarks:</b>					
This upland sample point was taken in a field in the northeastern corner of the southern portion of the Project Site, close to Poplar Street. Vegetation at the sample point was dominated by FAC species and met the hydrophytic vegetation wetland criteria. The sample point did not meet wetland indicators for hydric soils or hydrology. Therefore, the sample point does not meet the Corps definition of a wetland. Given the FAC-dominant vegetation, the sample point meets criteria for an LCP/CCC wetland. However, the sample point includes the co-occurrence of multiple upland species, the lack of topographic depression, and the lack of hydric soil or hydrology indicators, indicating the sample point is not located in a coastal wetland (LCP/CCC).					

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
0 = Total Cover				Total % Cover of: _____ Multiply by: _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> )				OBL species <u>0</u> x 1 = <u>0</u>	
1. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
2. _____	_____	_____	_____	FAC species <u>81</u> x 3 = <u>243</u>	
3. _____	_____	_____	_____	FACU species <u>3</u> x 4 = <u>12</u>	
4. _____	_____	_____	_____	UPL species <u>11</u> x 5 = <u>55</u>	
5. _____	_____	_____	_____	Column Totals: <u>95</u> (A) <u>310</u> (B)	
0 = Total Cover				Prevalence Index = B/A = <u>3.26</u>	
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Polygonum aviculare</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Festuca perennis</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Raphanus sativus</u>	<u>7</u>	<u>No</u>	<u>NL</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. <u>Sonchus oleraceus</u>	<u>1</u>	<u>No</u>	<u>UPL</u>	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Hirschfeldia incana</u>	<u>3</u>	<u>No</u>	<u>NL</u>	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
6. <u>Helminthotheca echioides</u>	<u>1</u>	<u>No</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
7. <u>Medicago polymorpha</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
95 = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b>	
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2. _____	_____	_____	_____		
0 = Total Cover					
<b>% Bare Ground in Herb Stratum</b> <u>20</u>					
<b>Remarks:</b>					
Bare ground in herb stratum covered in thatch. Vegetation passes the dominance test; therefore wetland vegetation criteria is met.					

**SOIL**

Sampling Point: SP05

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 2/1	100					loam	no redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: n/a  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

No hydric soil indicators observed. Shovel refusal occurred at 5 inches below the soil surface due to the presence of dry, compact soil and gravelly fill.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP06  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456502 Long: -122.432952 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BCA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: This upland sample point was taken on the eastern side of a ditch running parallel to Cabrillo Highway, near the culvert outfall in the northwestern corner of the Project Site. The sample point did not meet wetland indicators for hydrophytic vegetation, hydric soils or hydrology and is not located within a wetland or coastal wetland (LCP/CCC) This sample point is not paired with a wetland sample point.					

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>4</u></td> <td>x 3 = <u>12</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>6</u></td> <td>x 5 = <u>30</u></td> </tr> <tr> <td>Column Totals: <u>20</u> (A)</td> <td><u>82</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.1</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = _____	FACW species <u>0</u>	x 2 = _____	FAC species <u>4</u>	x 3 = <u>12</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>6</u>	x 5 = <u>30</u>	Column Totals: <u>20</u> (A)	<u>82</u> (B)	Prevalence Index = B/A = <u>4.1</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = _____																			
FACW species <u>0</u>	x 2 = _____																			
FAC species <u>4</u>	x 3 = <u>12</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>6</u>	x 5 = <u>30</u>																			
Column Totals: <u>20</u> (A)	<u>82</u> (B)																			
Prevalence Index = B/A = <u>4.1</u>																				
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
<b>Herb Stratum (Plot size: <u>5' radius</u>)</b>																				
1. <u>Lactuca serriola</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Mercurialis annua</u>	<u>3</u>	<u>No</u>	<u>NL</u>																	
3. <u>Helminthotheca echioides</u>	<u>2</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Festuca perennis</u>	<u>2</u>	<u>No</u>	<u>FAC</u>																	
5. <u>Eschscholzia californica</u>	<u>2</u>	<u>No</u>	<u>NL</u>																	
6. <u>Malva nicaeensis</u>	<u>T</u>	<u>No</u>	<u>NL</u>																	
7. <u>Oxalis pilosa</u>	<u>T</u>	<u>No</u>	<u>NL</u>																	
8. <u>Holcus lanatus</u>	<u>T</u>	<u>No</u>	<u>FAC</u>																	
9. <u>Avena fatua</u>	<u>1</u>	<u>No</u>	<u>NL</u>																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>20</u> = Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
% Bare Ground in Herb Stratum <u>80</u>																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b>																				
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: Most of bare ground in herb stratum covered in dead plant material. Existing vegetation is dominated by FACU and NL species. Wetland vegetation criteria not met.																				



# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: MidPen Housing Poplar Street Half Moon Bay City/County: Half Moon Bay/San Mateo County Sampling Date: 8/15/2025  
 Applicant/Owner: MidPen Housing State: CA Sampling Point: SP07  
 Investigator(s): Jennifer Gagnon, Mari Ferlin, Tommy Dryer Section, Township, Range: 32, 05S, 05W  
 Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): Northwestern Forest, Forage, and Specialty Crop Region Lat: 37.456059 Long: -122.432699 Datum: D\_WGS\_1984  
 Soil Map Unit Name: 456322 - Botella clay loam, nearly level, cool (BcA) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: This upland sample point was taken on the eastern side of a man-made ditch running parallel to Cabrillo Highway, in the southwestern corner of the Project Site, near a culvert. This sample point is not paired with a wetland sample point. Sample point does not occur within a wetland or a coastal wetland (LCP/CCC).					

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
<u>0</u> = Total Cover				Total % Cover of: _____ Multiply by: _____	
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )				OBL species <u>0</u> x 1 = _____	
1. _____	_____	_____	_____	FACW species <u>0</u> x 2 = _____	
2. _____	_____	_____	_____	FAC species <u>15</u> x 3 = <u>45</u>	
3. _____	_____	_____	_____	FACU species <u>0</u> x 4 = _____	
4. _____	_____	_____	_____	UPL species <u>19</u> x 5 = <u>95</u>	
5. _____	_____	_____	_____	Column Totals: <u>34</u> (A) <u>140</u> (B)	
<u>0</u> = Total Cover				Prevalence Index = B/A = <u>4.12</u>	
Herb Stratum (Plot size: <u>5' radius</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Conium maculatum</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Mercurialis annua</u>	<u>15</u>	<u>Yes</u>	<u>NL</u>	<input type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Raphanus sativus</u>	<u>3</u>	<u>No</u>	<u>NL</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. <u>Malva nicaeensis</u>	<u>1</u>	<u>No</u>	<u>NL</u>	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>34</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Woody Vine Stratum (Plot size: <u>n/a</u> )					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0</u> = Total Cover					
% Bare Ground in Herb Stratum <u>75</u>					
Remarks: 50% of bare ground in herb stratum covered in duff/ plant debris. Hydrophytic vegetation is not dominant at the sample point. Wetland vegetation criteria not met.					

**SOIL**

Sampling Point: SP07

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					loam	no redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: n/a  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators observed. Shovel refusal occurred at 6 inches depth below soil surface due to presence of dry, compact soil and rocks. Wetland hydric soil criteria not met.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No wetland hydrology indicators observed. Wetland hydrology criteria not met.

## APPENDIX F. SITE PHOTOGRAPHS





**Photograph 1.** View of the residence located at 940 Main Street, to be preserved by the Project; facing west. Photograph taken August 15, 2025.



**Photograph 2.** Ornamental landscaping within developed portions of the Study Area; facing southwest. Photograph taken August 15, 2025.



**Photograph 3.** Sealed exterior of the unoccupied shed, west of the Main Street residence. Photograph taken August 15, 2025.



**Photograph 4.** View of the interior (accessible) portion of the shed, depicting gaps in the ceiling due to missing boards. Photograph taken August 15, 2025.



**Photograph 5.** View of ruderal/agricultural field, which comprises the majority of the Project Site; facing south. Photograph taken August 15, 2025.



**Photograph 6.** View of the (offsite) man-made stormwater ditch located west of the Project Site, along Highway 1; facing south. Photograph taken August 15, 2025.



**Photograph 7.** View of culvert located near Poplar Street, at the northern end of the stormwater ditch. Photograph taken August 15, 2025; facing north/northwest.



**Photograph 8.** Culvert where stormwater ditch exits the Caltrans easement and flows under Highway 1 to the west. Photograph taken August 15, 2025; facing west.



**Photograph 9.** View of culvert and surrounding upland area where stormwater discharges from the man-made ditch, west of Highway 1. Photograph taken August 15, 2025; facing east.



**Photograph 10.** View of dense ruderal/weedy vegetation within the (offsite) man-made stormwater ditch; facing north. Photograph taken August 15, 2025.



**Photograph 11.** Monterey cypress stand within the Study Area, located west of the paved walking path (both offsite). Photograph taken August 15, 2025.

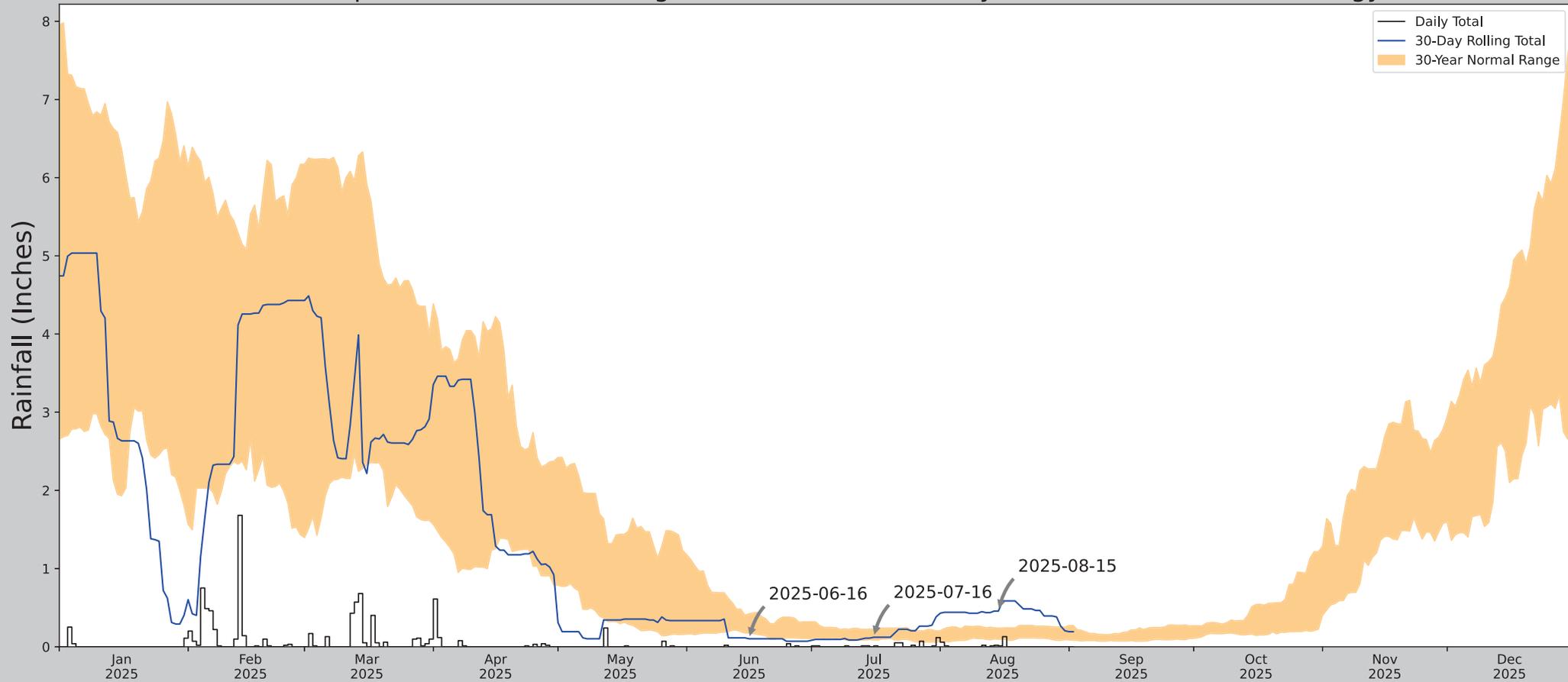


**Photograph 12.** View of red willow stand observed west of the Project Site (offsite), near existing residential development. Photograph taken August 15, 2025.

## APPENDIX G. ANTECEDENT PRECIPITATION TOOL OUTPUT



# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	37.45639, -122.43152
Observation Date	2025-08-15
Elevation (ft)	89.626
Drought Index (PDSI)	Moderate drought (2025-07)
WebWIMP H <sub>2</sub> O Balance	Dry Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-08-15	0.097244	0.237402	0.456693	Wet	3	3	9
2025-07-16	0.086614	0.223228	0.122047	Normal	2	2	4
2025-06-16	0.175984	0.42126	0.102362	Dry	1	1	1
Result							Normal Conditions - 14

Figures and tables made by the  
Antecedent Precipitation Tool  
Version 3.0



Developed by:  
U.S. Army Corps of Engineers and  
U.S. Army Engineer Research and  
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
HALF MOON BAY	37.4725, -122.4433	26.903	1.287	62.723	0.66	10718	90
HALF MOON BAY 0.7 NW	37.4777, -122.4454	36.089	0.377	9.186	0.173	20	0
HALF MOON BAY 0.4 NNE	37.4754, -122.4337	58.071	0.563	31.168	0.271	1	0
HALF MOON BAY 0.5 SSW	37.463, -122.4408	54.134	0.671	27.231	0.32	14	0
EL GRANADA 0.4 WSW	37.5071, -122.4726	141.076	2.88	114.173	1.625	4	0
REDWOOD CITY	37.4767, -122.2386	30.84	11.228	3.937	5.097	554	0
SAN FRANCISCO INTL AP	37.6197, -122.3656	9.843	11.025	17.06	5.149	42	0