

Biological Site Assessment

560 Pierce Point Road (APN: 109-300-10)

Marin County, California



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WRA Project # 18059

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EXECUTIVE SUMMARY

This report details the regulatory background, methods, and results of a Biological Site Assessment (BSA) for the proposed redevelopment of a guest house (accessory dwelling unit) at 560 Pierce Point Road (APN: 109-300-10) in Marin County, California. WRA, Inc. performed a field assessment of the site in February 2023. The non-developed portions of the property feature forest dominated by coast live oak (*Quercus agrifolia*), and an intermittent stream course is also present on-site.

The proposed project (Project) will occur within already developed and disturbed land cover, and will be sited outside of respective 100-foot setbacks from sensitive aquatic resources (the stream and waters of Tomales Bay). No impacts to sensitive land covers will occur as a result of the Project.

Special-status plants are unlikely to occur within or directly adjacent to the Project's footprint and thus no potential impacts to such species are anticipated. Additionally, two special-status bats and four special-status birds, as well as non-status birds with baseline legal protections, have the potential to occur on-site. Avoidance measures and best management practices have been developed for these resources as warranted and are incorporated into the Project to ensure that significant adverse impacts are precluded.

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Definitions

Study Area: The area throughout which the assessment was performed, i.e., the subject parcel totaling 9.3 acres.

Project Area: The area encompassing the footprint of the proposed project; totaling 1,975 square feet (0.05 acre.)

List of Abbreviations & Acronyms

BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
BRRS	Biological Resources Reconnaissance Survey
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CECP	California Essential Connectivity Project
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
County	Marin County
Corps	U.S. Army Corps of Engineers
CSRL	California Soils Resources Lab
CWA	Clean Water Act
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	(Federal) Endangered Species Act
MSFMA	Magnuson-Stevens Fishery Conservation & Management Act
MBTA	Migratory Bird Treaty Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OHWM	Ordinary High Water Mark
Rank	California Rare Plant Ranks
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SFP	State Fully Protected Species
SWRCB	State Water Resource Control Board
TOB	Top of Bank
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

1.0 INTRODUCTION

On February 9, 2023, WRA conducted a biological site assessment (BSA) at the site of a proposed residential redevelopment located at 560 Pierce Point Road, Marin County, California (Study Area; Figure A-1, Appendix A). The purpose of this assessment is: (1) to gather information necessary to complete a review of biological resources adequate for use for the California Environmental Quality Act (CEQA), to determine whether the property supports any sensitive habitats or species, and (2), if applicable, to assess potential impacts to any sensitive natural resources as required by the Marin County Community Development Agency, Planning Division. The Study Area includes the entirety of one subject parcel (APN 109-300-10).

This report describes the results of the site visit for which the Study Area was assessed concerning: (1) the presence of suitable habitat and the potential on-site occurrence for regionally-known special-status plant and wildlife species, and (2) the approximate location and extent of any environmentally sensitive habitat areas (ESHAs), including wetlands, streams and riparian areas which may be subject to regulation under the California Coastal Act. The property is located within the Coastal Zone and is regulated under the Marin County Local Coastal Program (Marin County 1979; LCP) in the Unit II Area.

The proposed project (Project) involves the demolition of an existing guest house and construction of a new two-bedroom guest house and deck in nearly same footprint, in the northeastern portion of the Study Area.

2.0 REGULATORY BACKGROUND

This report is intended to facilitate conformance of the Proposed Project with the standards outlined in the Marin County Code and General Plan. In addition to the requirements of Marin County, the Proposed Project may also be subject to several federal and state regulations designed to protect sensitive natural resources. Full analysis of these requirements in the context of the Project are addressed herein.

2.1 Federal and State Regulatory Setting

2.1.1 Sensitive Land Cover Types

Land cover types are herein defined as those areas of a particular vegetation type, soil or bedrock formation, aquatic features, and/or other distinct phenomenon. Typically, land cover types have identifiable boundaries that can be delineated based on changes in plant assemblages, soil or rock types, soil surface or near-surface hydroperiod, anthropogenic or natural disturbance, topography, elevation, etc. Many land cover types are not considered sensitive or otherwise protected under the environmental regulations discussed here. However, these land cover types typically provide essential ecological and biological functions for plants and wildlife, including, frequently, special-status species. Those land cover types that are considered or protected under one or more environmental regulations are discussed below.

Waters of the United States: The United States Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the United States generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State: The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat: Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code (CFG). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. 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). In addition, 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” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is 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.

Sensitive Natural Communities: Sensitive natural communities not discussed above 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" (CDFG 2010, CDFW 2018a) and keeps records of their occurrences in its California Natural Diversity Database (CNDDDB; CDFW 2018a). CNDDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2018) 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 U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G).

2.1.2 Special-status Species

Plants: Special-status plants include taxa that have been listed as endangered or threatened, or are formal candidates for such listing, under the federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA). The California Native Plant Protection Act (CNPPA) lists 64 "rare" or "endangered" and prevents "take", with few exceptions, of these species. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. 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. A description of the CNPS Ranks is provided below in Appendices B and C.

Wildlife: As with plants, special-status wildlife includes species/taxa that have been listed or are formal candidates for such under ESA and/or CESA. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald [*Haliaeetus leucocephalus*] and golden eagle [*Aquila chrysaetos*]) that in some regards are similar to those provided by ESA. The CFGC designates some species as Fully Protected (SFP), which indicates that take of that species cannot be authorized through a state permit. Additionally, CDFW Species of Special Concern (species that face extirpation in California if current population and habitat trends continue) are given special consideration under CEQA, and are therefore considered special-status species. 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.

Critical Habitat, Essential Fish Habitat, and Wildlife Corridors: Critical habitat is a term defined in the ESA as a specific and formally-designated geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. Note that designated critical habitat areas that are currently unoccupied

by the species but which are deemed necessary for the species' recovery are also protected by the prohibition against adverse modification.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) provides for conservation and management of fishery resources in the U.S. This Act establishes a national program intended to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection through the establishment of Essential Fish Habitat (EFH). EFH consists of aquatic areas that contain habitat essential to the long-term survival and health of fisheries, which may include the water column, certain bottom types, vegetation (e.g. eelgrass (*Zostera* spp.)), or complex structures such as oyster beds. Any federal agency that authorizes, funds, or undertakes action that may adversely affect EFH is required to consult with NMFS.

Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

2.2 Marin County Regulatory Setting

In Marin County, a sensitive resource includes "jurisdictional wetlands, occurrences of special-status species, occurrences of sensitive natural communities, wildlife nurseries and nesting areas, and wildlife movement corridors. The County development review process typically requires a site assessment by qualified professionals to confirm whether any sensitive resources could be affected . . ." Furthermore, The California Coastal Act (CCA) defines environmentally sensitive habitat area (ESHA) under Section 30107.5 and protected under section 30240 and include wetlands, rivers, streams and lakes, and riparian areas. For the purposes of this report, WRA has taken into consideration any areas that may meet the definition of any ESHA defined by the CCA, listed in the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* ("California Coastal Commission guidelines", CCC 1981), or the Marin County Local Coastal Program (LCP) (Marin County 1979).

The CCA defines an ESHA as follows:

"Environmentally sensitive habitat area" means 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. "

The CCC Guidelines discuss the various definitions for specific types of ESHAs, including wetlands, streams and riparian areas. Many of these definitions are synonymous with the definitions described above. Additional definitions are provided below.

Coastal Act Wetlands

The Coastal Act defines wetlands as:

"Wetland means land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens".

(Public Resources Code § 30121)

CCC Administrative Regulations (Section 13577 (b)) provide a more explicit definition:

"Wetlands are lands 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, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance 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 deepwater habitats."

The Coastal Act defines the upland limit of wetlands as:

- (1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover; (2) the boundary between soil that is predominantly hydric and soil that is predominantly non-hydric; or (3) in the case of wetlands without vegetation or soil, the boundary between land that is flooded or saturated at some time each year and land that is not."*

Coastal Act Streams and Rivers

The Marin County LCP provides special protections for USGS blue-line streams, and establishes buffers to protect streams from the impacts of adjacent uses including development impacts from construction and post-construction activities within the LCP Unit II Area. Stream buffers are defined by the LCP as: "the area covered by riparian vegetation on both sides of the stream and the area 50 feet landward from the edge of the riparian vegetation." The LCP also states that in no case shall the stream buffer be less than 100 feet in width, on either side of the stream, as measured from the top of the stream banks."

Coastal Act Riparian Habitats

While riparian vegetation is not defined specifically in the California Coastal Act, it is defined by the LCP as the stream itself and the riparian vegetation growing adjacent to it. Common plant genera associated with this vegetation type in Unit II of the Coastal Zone within Marin County include maple (*Acer* spp.), alder (*Alnus* spp.), ash (*Fraxinus* spp.), and willow (*Salix* spp.). For the purposes of determination of status under the Coastal Act, we define riparian habitat as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). This definition is synonymous with the CDFW definition described above.

Marin County Stream Conservation Areas: In Marin County, a Stream Conservation Area (SCA) is designated along all natural watercourses supporting riparian vegetation for a length of 100 feet or more. The SCA consists of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of both banks. For those ephemeral streams that do not meet these criteria, a minimum 20-foot development setback shall be required. Development activities that may occur within a SCA are closely regulated by the County and require consideration of impacts of proposed developments on species and habitats during the environmental review process.

Marin County Wetland Conservation Areas: In Marin County, a Wetland Conservation Area (WCA) is designated around all Corps jurisdictional wetlands. The WCA consists of the wetland itself and a strip of land extending laterally outward from the wetland for a distance of 100 feet or as deemed appropriate by a qualified biologist to avoid impacts and protect the wetland. Development activities that may occur within a WCA are closely regulated by the County and require consideration of impacts of proposed developments on species and habitats during the environmental review process.

3.0 ENVIRONMENTAL SETTING

The approximately 9.3-acre Study Area consists of a single parcel located in western Marin County, approximately five aerial miles northwest of central Point Reyes Station and eight miles south of central Tomales (Figure A-1, Appendix A). It is situated on the western shore of Tomales Bay at the northern end of the Mount Vision ridgeline on the Point Reyes Peninsula. Detailed descriptions of the local setting are below.

3.1 Topography and Soils

The overall topography of the Study Area gently- to moderately-sloped, ranging from approximately 50 to 80 feet above sea level. According to the *Soil Survey of Marin County* (USDA 1985), the Study Area is underlain by one soil mapping unit: Sheridan variant coarse sandy loam, 9 to 30 percent slopes. The parent soil series of the Study Area's mapping unit is summarized below.

Sheridan Series: This series consists of shallow coarse loam soils formed from quartz-diorite in residuum situated on upland hills at elevations ranging from 1,000 to 3,000 feet (USDA 1985, CSRL 2023). These soils are not considered hydric, and are well-drained, with medium to very runoff, and moderately rapid permeability (USDA 2014, USDA 1985). Native and naturalized vegetation associated with these soils includes oak trees (*Quercus* spp.), shrubs, and herbs, while land uses include grazing and watershed protection (UDA 1985).

3.2 Climate and Hydrology

The Study Area is located within the maritime fog zone of Marin County where summer temperatures are buffeted by fog, and fog drip contributes to annual rainfall totals. Winter "tule" fog is common in the Study Area, and summer "coastal" fog emerges with increased interior temperatures. The average annual maximum temperature of Point Reyes Lighthouse (CA047027) is 61.0 degrees Fahrenheit, while the average annual minimum temperature is 54.1 degrees Fahrenheit. Predominantly, precipitation falls as rainfall with an annual average of 17.05 inches. Precipitation bearing weather systems are predominantly from the west and south with the majority of rain falls between November and March, with a combined average of 13.45 inches (USDA 2022).

The local watershed is Tomales Bay (HUC 12: 1805000050301) and the regional watershed is Frontal Pacific Ocean (HUC 8: 18050005). There are no mapped blue-line streams or other aquatic

features in the Study Area according to the 7.5-minute quadrangle (USGS 2015). Likewise, there are no aquatic resources mapped in the National Wetland Inventory (NWI; USFWS 2022a) or the California Aquatic Resource Inventory (CARI; SFEI 2022). Hydrologic sources in the site are direct precipitation and overland sheet flow that appears to be drain and/or runoff quickly.

3.3 Land Cover and Land Use

The Study Area is predominantly undeveloped dense canopied woodland, with a portion of existing development and openings in the canopy. The developed areas in the Study Area include a small residence in the form of wood and canvas yurt, small outbuildings, and dirt roads and storage pads. The vegetation is dominated by native plants known coastal habitats; detailed plant community descriptions are included in Section 5.1 below, and all observed plants are included in Appendix B. Regional land uses include rural residential, livestock grazing, commercial tourism, and fisheries/aquaculture (Google Earth 2022). Historically, land uses in the region were open rangeland of larger ranches, rural residential, and fisheries. There is no history of intensive agriculture, quarrying, mining, or timbering in the Study Area (Historic Aerials 2022).

4.0 ASSESSMENT METHODS

Prior to the site visit, WRA biologists reviewed the following literature and performed database searches to assess the potential for sensitive natural communities (e.g., wetlands) and special-status species (e.g., endangered plants):

- *Soil Survey of Marin County, California* (USDA 1985)
- Tomales 7.5-minute quadrangle (USGS 2015)
- Contemporary aerial photographs (Google Earth 2023)
- Historical aerial photographs (Historical Aerials 2023)
- National Wetlands Inventory (USFWS 2023a)
- California Aquatic Resources Inventory (SFEI 2023)
- California Natural Diversity Database (CNDDB, CDFW 2023a)
- California Native Plant Society Electronic Inventory (CNPS 2023a)
- Consortium of California Herbaria (CCH 2023)
- USFWS List of Federal Endangered and Threatened Species (USFWS 2023b)
- eBird Online Database (eBird 2023)
- CDFW Publication, *California Bird Species of Special Concern in California* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *The Marin County Breeding Bird Atlas* (Shuford 1993)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)
- *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009)
- *A Manual of California Vegetation Online* (CNPS 2023b)
- *Preliminary Descriptions of the Terrestrial Natural Communities* (Holland 1986)
- *California Natural Community List* (CDFW 2018a)

Database searches (i.e., CNDDDB, CNPS) focused on the Bodega Head, Valley Ford, Two Rock, Tomales, Point Reyes NE, Drakes Bay, and Inverness USGS 7.5-minute quadrangles for special-status plants. The special-status wildlife evaluation was based on database searches for the entirety of Marin County (excluding most purely marine species).

Following the remote assessment, a botanist with 40-hour Corps wetland delineation and wildlife biologist training traversed the entire Study Area on foot to document: (1) land cover types (e.g., terrestrial communities, aquatic resources), (2) if and what type of aquatic natural communities (e.g., wetlands) are present, (3) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, and (4) if special-status species are present¹.

4.1 Land Cover Types

4.1.1 Terrestrial Land Cover Types

Terrestrial land cover types were mapped across the entire Subject Parcel, but they were only evaluated to determine if such areas have the potential to support special-status plants or wildlife within in the Study Area. In most instances, communities are delineated based on distinct shifts in plant assemblage (vegetation), and follow the *California Natural Community List* (CDFW 2018a), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Manual of California Vegetation, Online Edition* (CNPS 2023b). In some cases, it may be necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature; should an undescribed variant be used, it will be 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), were evaluated as sensitive as part of this evaluation.² Additionally, any sensitive natural communities as described in the Marin County LCP or General Plan were considered.

4.1.2 Aquatic Resources

Aquatic resources include Waters of the U.S., Waters of the State, and Streams, Lakes, and Riparian Habitat as defined in the CWA, Porter-Cologne Act, and CFGC, respectively. Marin County mandates setbacks from these aquatic resources, and therefore requires mapping of the outward extent of such features. This site assessment does not constitute a formal wetland delineation; however, the surveys looked for superficial indicators of wetlands such as hydrophytic vegetation (i.e., plant communities dominated by wetland species), evidence of inundation or flowing water, saturated soils and seepage, and topographic depressions/swales. If sample points were taken, WRA followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008).

¹ Due to the timing of the assessment, it may or may not constitute protocol-level species surveys; see Section 4.2 if the site assessment would constitute a formal or protocol-level species survey.

² Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2023).

If streams potentially jurisdictional under the CWA and/or the CFGC are noted on a site, they are delineated using a mix of surveyed topography data, high resolution aerial photographs, and a sub-meter GPS unit. The ordinary high water mark would be used to determine the extent of potential Section 404 jurisdiction, while the top-of-bank would be used to determine the extent of CFGC Section 1602 and 401. Streams with associated woody vegetation were assessed to determine if these areas would be considered riparian habitat by the CDFW following *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFG 1994).

4.2 Special-status Species

4.2.1 General Assessment

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the greater vicinity through a literature and database review. Database searches for known occurrences of special-status species focused on the 7.5-minute USGS quadrangles mentioned above for special-status plant and wildlife species.

A site visit was made on February 9, 2023 to evaluate the presence of suitable habitat for special-status species. Suitable habitat conditions are 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.

If a more thorough assessment was warranted, a targeted or protocol-level assessment or survey was conducted or recommended as a future study. Methods for the assessments are described below. If a special-status species was observed during the site visit, its presence was recorded and discussed below in Section 5.2.

4.2.2 Special-status Plants

The entire Study Area was traversed and all plants documented (Appendix B); however, due to the timing of the site visit (mid-winter) this assessment does not constitute a protocol-level special-status plant survey. Plants were identified using *The Jepson Manual, 2nd Edition* (Baldwin et. al. 2012), Jepson Flora Project (eFlora 2023), and/or the *Marin Flora* (Howell et al. 2007) to the taxonomic level necessary to determine if they were sensitive. Plant names follow those of Jepson Flora Project (eFlora 2023), unless otherwise noted.

4.2.3 Special-status Wildlife

A general wildlife assessment was performed on February 9, 2023. This assessment consisted of traversing the entirety of the Study Area. Habitat elements required or associated with certain species (e.g., California red-legged frog) or species groups (e.g., bats, anadromous fish) were searched for and noted. Such habitat elements include, but are not limited to: plant assemblages and vegetation structure; stream depth, width, hydro-period, slope, and bed-and-bank structure; rock outcrops, caves, cliffs, overhangs, and substrate texture and rock content; history of site alteration and contemporary disturbances; etc.

4.2.4 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

Prior to the site visit the USFWS Critical Habitat Mapper (USFWS 2023c) and the NMFS Essential Fish Habitat Mapper (NMFS 2023) were queried to determine if critical habitat for any species or EFH, respectively, occurs within the Study Area. To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CECP) by Caltrans (2010) and CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2023b). The CECP maps both 1) “Natural Landscape Blocks,” or discrete areas of mostly natural land covers that support biodiversity, and 2) “Essential Connectivity Areas” that provide ecological connectivity between the former. Additionally, aerial imagery (Google 2022) 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.

5.0 ASSESSMENT RESULTS

5.1 Land Cover Types

Land cover types observed by WRA within the Study Area overlain with the Project Area are shown in Figure A-2 (Appendix A). Four land cover types are present: developed, coast live oak forest, intermittent stream, and tidal open waters.

5.1.1 Terrestrial Land Cover Types

Developed Area (no vegetation alliance). CDFW Rank: None. Within the Study Area, the developed portion is composed of a primary single-family residence, an accessory dwelling unit, paved driveway, gravel pathways, landscaping, and septic area. The vegetation is altered, consisting of

overhanging native trees, and disturbance tolerant herbs. Species include coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), Bishop pine (*Pinus muricata*), Douglas fir (*Pseudotsuga menziesii*), rough cat's-ear (*Hypochaeris radicata*), field burweed (*Soliva sessilis*), hairy bittercress (*Cardamine hirsuta*), English plantain (*Plantago lanceolata*), silver hairgrass (*Aira caryophyllea*), and annual bluegrass (*Poa annua*). The developed area totals 1.6 acres in the Study Area, of which 0.05 acre is situated in the Project Area (approximately three percent of the total land cover type in the Study Area).

Coast Live Oak Forest (*Quercus agrifolia* Forest Alliance). CDFW Rank: G5 S4. Coast live oak forests occur in the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County (Sawyer et al. 2009, CNPS 2023b). These forests are typically situated on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content (Sawyer et al. 2009). Coast live oak forest totals 7.5 acres in the Study Area, of which none situated in the Project Area; however, individual coast live oak and other native trees are situated adjacent to and overhang portions of the Project Area.

The dominant tree is coast live oak (*Quercus agrifolia*), with substantial cover of Bishop pine (*Pinus muricata*), California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), and Douglas fir (*Pseudotsuga menziesii*). Predominant understory species include poison oak (*Toxicodendron diversilobum*), blue blossom (*Ceanothus thyrsiflorus*), California coffeeberry (*Fragula californica*), California hazelnut (*Corylus cornuta* ssp. *californica*), evergreen huckleberry (*Vaccinium ovatum*), western sword fern (*Polystichum munitum*), Douglas' iris (*Iris douglasiana*), bugle hedgenettle (*Stachys ajugoides*), and broadleaf forget-me-not (*Myosotis latifolia*).

5.1.2 Aquatic Resources

Intermittent Stream. CWA Section 404/401, CDFG Section 1600, Marin County LCP ESHA, Marin County SCA. Rank: None. The Study Area contains an intermittent stream. This stream is not mapped on the 7.5-minute quadrangle (USGS 2015), nor is it in the NWI (USFWS 2023a) or the CARI (SFEI 2023). The flows in this stream are intermittent, which run during the wet season into the dry season and receive subsurface discharges. The bed is a mix of finer sediments, with occasional large cobble and small boulders, while the banks of the intermittent streams are relatively steep, deep, and a mix of sediments, large rock, and downed wood. Characteristically riparian species are situated intermittently along the bank. This stream is likely jurisdictional under Section 404/401 of the CWA and Section 1602 of the CFGC; therefore, it is considered a sensitive aquatic resource. Likewise, this stream would fall under the Marin County Stream Conservation Area ordinance meriting a 100-foot setback.

Tidal Open Waters (Tomales Bay). Section 10 of the Rivers and Harbors Act, CWA Section 404/401, Marin County LCP ESHA. Rank: None. The Study Area contains a shoreline portion of the tidal open waters of Tomales Bay. These tidal open waters are jurisdictional under Section 404/401 of the CWA, Section 10 of the Rivers and Harbors Act, as well as being an ESHA under the Marin County LCP. Therefore, a 100-foot ESHA setback would be afforded to these waters.

5.2 Special-status Species

5.2.1 Special-status Plant Species

Based upon a review of the resource databases listed in Section 4.0, 94 special-status plant species have been documented in the vicinity of the Study Area. As outlined in Appendix C, 14 of these plants have the potential to occur in the Study Area. The remaining 80 special-status plants documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., tidal, riverine) 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 elevation, coastal environ) from the documented range of the special-status plant species
- Land use history and contemporary management (e.g., absence of mowing or grazing) has degraded the localized habitat necessary to support the special-status plant species

The single site visit was sufficient to determine the presence of four of these special-status plants; however, it would require surveys in April and June to determine the presence of the remaining ten species. All fourteen species are enumerated below.

Special-status Plants with the Potential to Occur in the Study Area, but Not Observed

- Marin manzanita (*Arctostaphylos virgata*); CRPR 1B
- Point Reyes ceanothus (*Ceanothus gloriosus* var. *gloriosus*); CRPR 4
- Mt. Vision (*Ceanothus gloriosus* var. *porrectus*); CRPR 1B
- Western leatherwood (*Dirca occidentalis*); CRPR 1B

Special-status Plants with the Potential to Occur in the Study Area, but Presence Unknown

- Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*); FE, CRPR 1B
- Oakland star tulip (*Calochortus umbellatus*); CRPR 4
- Swamp harebell (*Eastwoodia californica*); CRPR 1B
- California bottle-brush grass (*Elymus californicus*); CRPR 4
- Harlequin lotus (*Hosackia gracilis*); CRPR 4
- Coast iris (*Iris longipetala*); CRPR 4
- Coast lily (*Lilium maritimum*); CRPR 1B
- Michael's rein-orchid (*Piperia michaelii*); CRPR 4

- Santa Cruz clover (*Trifolium buckwestiorum*); CRPR 1B
- Pacific Grove clover (*Trifolium polyodon*); SR, CRPR 1B

5.2.2 Special-status Wildlife Species

A total of 55 special-status wildlife species have been documented in the vicinity of the Study Area (CDFW 2023a, USFWS 2023b, other sources). None of these species were observed during WRA's site visits to the Study Area, though as outlined in Appendix C, six have the potential to occur. The remaining 49 species are unlikely or have no potential to occur due to one or more of the following reasons:

- Specific aquatic habitats (e.g., rivers, estuaries, ponds) necessary to support the special-status wildlife species are not present in the Study Area
- Vegetation habitats (e.g., coastal prairie, 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 and vegetation (e.g., mines/caves, tall cliffs, riparian forest) necessary to provide nesting, cover, and/or foraging habitat to support the special-status wildlife species are not present in the Study Area
- Host plants (e.g., dog violet, harlequin lotus) necessary to provide larval and nectar resources for the special-status wildlife species are not present in the Study Area
- The Study Area is outside (e.g., north of, west of) of the special-status wildlife species documented nesting range.

Special-status Wildlife with Potential to Occur, but Presence Unknown

Special-status bats. Moderate Potential. The following special-status bat species have CNDDB occurrences in the vicinity (CDFW 2023a) and/or habitat affiliations with land cover types present within the Study Area:

- Pallid bat (*Antrozous pallidus*). CDFW Species of Special Concern, WBWG High Priority
- Fringed myotis (*Myotis thysanodes*). WBWG High Priority

Potentially suitable roosting substrates for these species would be present in on-site trees, specifically those with developed cavities/hollows. If present, some roost sites may be favorable for breeding (maternity roosting). The Study Area may also provide foraging resources for these species. Other non-special-status bat species also have the potential to roost on-site. The existing guest house (proposed for demolition) appears to lack ingress/egress points to secluded areas (e.g., a false ceiling), and also is maintained/utilized to a degree that any potential bat roosting within this structure is unlikely.

Olive-sided Flycatcher (*Contopus cooperi*), CDFW Species of Special Concern. Moderate Potential. The olive-sided flycatcher is a summer resident in California. It breeds in a variety of forested habitats, typically coniferous forests at higher elevations, but also in mixed forest and woodlands at lower elevations. Breeding habitat is often associated with forest openings and edges, both natural (e.g., meadows, canyons) and man-made (e.g.,

logged areas) (Altman and Sallabanks 2012). Nests are usually in conifers and placed at variable height on the outer portions of branches. This species forages for insects, usually from prominent tree snags. Forest cover (including relative edges) adjacent to the Study Area provides suitable breeding habitat for this species.

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential. This diurnal raptor (bird of prey) is resident in open to semi-open habitats in 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.

While largely forested, the Study Area and surrounds provide some open areas and white-tailed kites have been recently observed at several locations in the vicinity, including a pair (eBird 2023). This species was not observed during the site visit but could occur in the near-term in the area, including nesting.

Purple martin (*Progne subis*), CDFW Species of Special Concern. The purple martin is an uncommon summer resident throughout much of California, breeding in forest and woodlands at low- to mid- elevations. Nesting occurs primarily in tree cavities; trees selected are usually taller or isolated, with low canopy cover at the nest height, and situated on the upper portions of slopes and/or near bodies of water where large aerial insects (favored prey) are abundant (Shuford and Gardali 2008). Conifers are the most frequently used tree type in northern California. Man-made structures with suitable cavities such as bridges or utility poles are also used.

This species is known to breed in west Marin County, with recent observations during the breeding located within 1 mile (eBird 2023). Taller trees adjacent to the Study Area may provide snags/cavities that are suitable for nesting.

Northern spotted owl (*Strix occidentalis caurina*). Federal Threatened, State Threatened, CDFW Species of Special Concern. Moderate Potential. The northern spotted owl (NSO) is the year-round resident spotted owl subspecies found in cool temperate forests in the coastal portion of California, from Marin County northward. NSO natural history is summarized by the USFWS (2011) and Gutiérrez et al. (2020). Typical habitats consist of mature coniferous forest, and mixed coniferous-hardwood forest; younger (second-growth) forest with stands of large/mature trees may also be occupied. High-quality breeding habitat features a tall, multi-tiered, multi-species canopy dominated by big trees, trees with cavities and/or broken tops, and woody debris and space under the canopy. NSO breeding pairs are usually monogamous and demonstrate site fidelity, maintaining nesting territories and home ranges across years. The general breeding season is February through August, and nesting occurs on platform-like substrates in the forest canopy. Substrates used as nest sites include tree cavities, epicormic branching (multiple branches forming from a single node), broken tree-tops, large horizontal branches, and old nests built by

other birds or squirrels. NSO young leave the nest (by gliding and climbing through the canopy) in late May through June, though they remain dependent on their parents for several weeks thereafter as they learn how to fly and forage independently. NSOs forage for nocturnal mammals; dusky-footed woodrats (*Neotoma fuscipes*) are the primary prey in northern California.

According to the CDFW's Spotted Owl Observation database (BIOS; CDFW 2023b) NSO has been documented in the vicinity of the Study Area, where forest cover provides generally suitable year-round habitat. There are two clusters of nearby observation points located a minimum approximate distance of 900 feet to the northwest and 1,260 feet to the southwest, respectively; nesting has been observed in both areas of observation. The Study Area itself is unlikely to be used for NSO nesting given that most trees in the immediate area are smaller, with relatively open and exposed canopies; this includes the large coast redwood tree present, which has been topped resulting in a lower canopy that is exposed to sun and wind. However, NSO presumably forages in and disperses through forested portions of the property at least occasionally.

5.2.3 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

The Study Area does not contain any designated Critical Habitat (USFWS 2023c, NMFS 2023) or Essential Fish Habitat (NMFS 2023). As per Caltrans (2010) and CDFW (2023b), the Study Area is located adjacent to and effectively surrounded by (but outside of) a large Natural Landscape Block that includes most of Tomales Point and Point Reyes. Overall, the Study Area is lightly developed and situated within a much larger tract of undeveloped land, much of which is preserved. As such, the Study Area is presumably used for localized movement by common wildlife but given the large extent of undeveloped land in the greater vicinity, does not in and of itself provide any noteworthy corridor functions.

6.0 PROJECT ANALYSIS AND RECOMMENDATIONS

6.1 Project Description

6.1.1 Proposed Development

The Project involves the demolition of an existing one-story wood-frame guest house *in the northeastern portion of the Study Area* and replacement with a new, one-story, two-bedroom wood-frame accessory dwelling unit and deck in the northeastern portion of the Study Area. The new guest house will be 917 square feet in size and located in nearly the same footprint as the original structure, with an adjacent 620-square-foot deck. Plumbing for the new guest house will use the existing septic system. All construction will occur in the dry season or during dry periods in the winter. The Project will utilize the existing road for access and the road, parking area, and adjacent disturbed areas for equipment staging.

6.1.2 Development Considerations

Land Covers and Aquatic Resources

No sensitive terrestrial land cover types are found within or directly adjacent to the Project Area. The Project Area is located entirely outside of the respective 100-foot setbacks from the on-site stream as well as the waters of Tomales Bay. The Project will utilize existing roads for access, and materials staging will occur on existing disturbed (developed) areas also located outside of the 100-foot setback. These buffers will ensure the physical and ecological integrity of the subject aquatic resources and no adverse impacts to them are anticipated.

Special-status Plants

The Study Area has the potential to support 14 special-status plants. Four of these plants were identifiable during the site visit on February 9, 2023, none of which were observed at that time. All 14 special-status plants are unlikely or have no potential to occur within the Project Area due to its existing development and intensive maintenance (i.e., landscaping). Therefore, these species would not be impacted by the project activities; no further actions are recommended for special-status plants.

Bats

Pallid bat and fringed myotis may roost within in the Study Area, particularly in older, larger trees with developed hollows; if present, favorable roosts may supporting maternity roosting (breeding). It is WRA's understanding that no tree removal is anticipated to accommodate the Project, and thus no impacts to bat roosting are anticipated. If any tree removal (including trimming of large limbs) is required, a bat habitat assessment and survey effort (the latter if needed) will be performed by a qualified biologist prior to tree removal/trimming to determine if bats are present in the subject trees. If no suitable roosting habitat for bats is found, then no further study is warranted. If special-status bat species or bat maternity roosts are detected, then roost trees will be avoided until the end of the maternity roosting season (or other measures are developed in coordination with the County).

Birds - General

Olive-sided flycatcher, white-tailed kite and purple martin have the potential nest on or adjacent to the property, including adjacent to the Project Area. Additionally, a variety of non-status bird species with baseline protections under the MBTA and CFCG have the potential to nest on-site (e.g., in shrubbery, trees). If necessary, vegetation removal (including tree trimming, if needed) and initial ground disturbance that occurs between February 1 and August 15 (during the general nesting bird season) will occur only after a qualified biologist conducts a nesting bird survey. The survey will cover project impact areas and surrounding areas within approximately 500 feet as accessible/feasible. If birds are nesting in the vicinity of proposed vegetation removal, activities that could directly affect nesting birds will be suspended (or moved to such a distance to avoid affecting the nesting birds) until all young have fledged from the nest or it is otherwise no longer active.

Northern Spotted Owl

NSO has been observed in the vicinity of the Study Area, including breeding activities. While this species is unlikely to nest within or directly adjacent to project impact areas, the USFWS uses the term “disturbance-only” to describe projects that will not impact NSO habitat directly but will generate acoustic and/or visible disturbances potentially leading to nest abandonment or other forms of disruption to breeding. For such projects, potential NSO habitat areas within 0.25 mile of such disturbance point-sources are included in impact analyses (USFWS 2011). Given the very limited to nonexistent tree impacts, the proposed residential re-development within the Project Area is considered to be “disturbance-only” for the present analysis.

If construction activities (vegetation removal, building demolition, ground disturbance) are initiated from March 1 to July 15 (during the local NSO nesting season), a pre-construction, abbreviated survey effort for NSO will be performed within the Study Area prior to work initiation. The effort will follow USFWS (2012) survey protocol for individual surveys, but will involve only three surveys (versus six) each performed at least one week (seven days) apart from each other. If NSO is observed or suspected to be actively nesting within approximately 500 feet of the Project Area (the standard setback for average construction projects in areas with low ambient noise [USFWS 2006]), the initiation of construction activities will be postponed until July 16 or until NSO young are observed to have left the nest and are capable of independent mobility. If construction is initiated on or after July 16, no surveys or other avoidance measures are necessary.

Wildlife Movement

The Study Area is not located within a mapped wildlife corridor and is surrounded by largely undeveloped (wooded) land. The Project consists of a residential redevelopment sited largely within the footprint of an existing structure, and as such will not impede or otherwise impact on-site wildlife movement.

6.2 Summary

The Project Area is sited outside of respective 100-foot setbacks from on-site aquatic resources, and no sensitive land covers habitats are anticipated to be impacted. The Project would not substantially reduce the number or restrict the range of a rare, endangered, or threatened plant or animal.

The Project will ensure there are no impacts to roosting bats or breeding birds, including the listed NSO.

The Project would not cause a fish or wildlife population to drop below self-sustaining levels.

The Project would not adversely affect significant riparian lands, wetlands, marshes, and other significant wildlife habitats because the Project avoids all such habitats.

In conclusion Project as designed, with the deployment of the BMPs and avoidance measures noted above, is unlikely to result in any significant adverse biological impacts.

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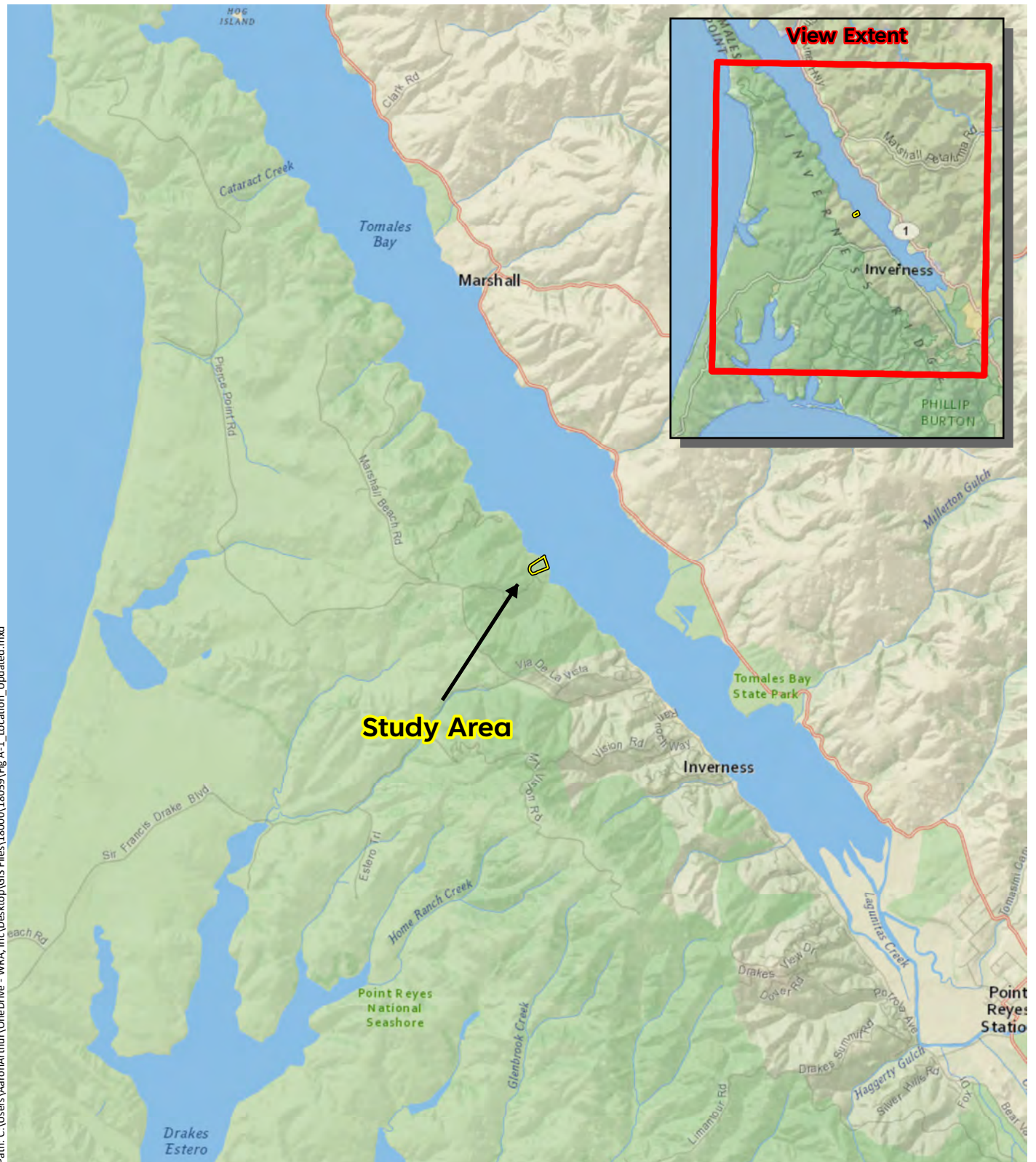
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Appendix A

Figures

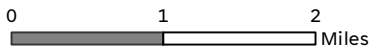


Path: C:\Users\AaronArthur\OneDrive - WRA, inc\Desktop\GIS Files\180000\18059\Fig A-1_Location_Updated.mxd

Sources: National Geographic, WRA | Prepared By: AaronArthur, 10/28/2022

Figure A-1. Study Area Location

560 Pierce Point Road
Marin County, CA



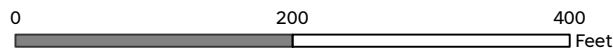


Path: C:\Users\AaronArthur\One Drive - WRA, Inc\Desktop\GIS Files\18000\18059\Fig A-2_Land_Cover.mxd

Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: AaronArthur, 11/22/2022

Figure A-2. Study Area & Project Area

560 Pierce Point Road
Marin County, CA



Appendix B

Species Observed in the Study Area

Table B-1. Plant species observed in the Study Area, February 9, 2023

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Amaryllidaceae	<i>Narcissus pseudonarcissus</i>	daffodil	perennial forb	non-native	--	--	NL
Anacardiaceae	<i>Toxicodendron diversilobum</i>	poison oak	deciduous shrub	native	--	--	FACU
Apiaceae	<i>Osmorhiza berteroi</i>	sweet cicely	perennial forb	native	--	--	FACU
Asteraceae	<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	coyote brush	evergreen shrub	native	--	--	NL
Asteraceae	<i>Carduus pycnocephalus</i>	Italian thistle	annual forb	non-native	--	moderate	NL
Asteraceae	<i>Cirsium brevistylum</i>	clustered thistle	perennial forb	native	--	--	NL
Asteraceae	<i>Cirsium vulgare</i>	bull thistle	perennial forb	non-native	--	moderate	FACU
Asteraceae	<i>Hypochaeris radicata</i>	rough cat's-ear	perennial forb	non-native	--	moderate	FACU
Asteraceae	<i>Soliva sessilis</i>	field burweed	annual forb	non-native	--	--	FACU
Athyriaceae	<i>Athyrium filix-femina</i> var. <i>cyclosorum</i>	lady fern	perennial fern	native	--	--	FAC
Betulaceae	<i>Corylus cornuta</i> ssp. <i>californica</i>	California hazelnut	deciduous shrub	native	--	--	FACU
Blechnaceae	<i>Woodwardia fimbriata</i>	chain fern	perennial fern	native	--	--	FACW
Boraginaceae	<i>Myosotis latifolia</i>	broadleaf forget-me-not	perennial forb	non-native	--	limited	NL
Boraginaceae	<i>Nemophila parviflora</i>	small-flower nemophila	annual forb	native	--	--	NL
Brassicaceae	<i>Cardamine hirsuta</i>	hairy bittercress	annual forb	non-native	--	--	NL
Caprifoliaceae	<i>Lonicera hispidula</i>	pink honeysuckle	evergreen shrub	native	--	--	FACU
Caryophyllaceae	<i>Stellaria media</i>	common chickweed	annual forb	non-native	--	--	FACU
Cupressaceae	<i>Sequoia sempervirens</i>	coast redwood	evergreen tree	native	--	--	NL
Dennstaedtiaceae	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern	perennial fern	native	--	--	FACU
Dryopteridaceae	<i>Polystichum munitum</i>	western swordfern	perennial fern	native	--	--	FACU
Ericaceae	<i>Arbutus menziesii</i>	Pacific madrone	evergreen tree	native	--	--	NL
Ericaceae	<i>Vaccinium ovatum</i>	evergreen huckleberry	evergreen shrub	native	--	--	UPL
Euphorbiaceae	<i>Euphorbia peplus</i>	petty spurge	annual forb	non-native	--	--	NL
Fabaceae	<i>Notholithocarpus densiflorus</i>	tanoak	evergreen tree	native	--	--	NL
Fabaceae	<i>Trifolium dubium</i>	shamrock clover	annual forb	non-native	--	--	UPL
Fabaceae	<i>Vicia sativa</i>	common vetch	annual forb	non-native	--	--	FACU

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Fagaceae	<i>Quercus agrifolia</i>	coast live oak	evergreen tree	native	--	--	NL
Geraniaceae	<i>Geranium molle</i>	woodland geranium	perennial forb	non-native	--	assessed	NL
Hypericaceae	<i>Hypericum calycinum</i>	Aaron's beard	evergreen shrub	non-native	--	--	NL
Iridaceae	<i>Iris douglasiana</i>	Douglas' iris	perennial forb	native	--	--	NL
Juncaceae	<i>Juncus effusus</i> ssp. <i>pacificus</i>	Pacific rush	perennial graminoid	native	--	--	FACW
Juncaceae	<i>Juncus patens</i>	common rush	perennial graminoid	native	--	--	FACW
Lamiaceae	<i>Rosmarinus officinalis</i>	rosemary	evergreen shrub	non-native	--	--	NL
Lamiaceae	<i>Stachys ajugoides</i>	bugle hedgenettle	perennial forb	native	--	--	OBL
Lauraceae	<i>Umbellularia californica</i>	California bay	evergreen tree	native	--	--	FAC
Liliaceae	<i>Agapanthus praecox</i>	lily-of-the-Nile	perennial forb	non-native	--	--	NL
Montiaceae	<i>Claytonia parviflora</i>	spring beauty	annual forb	native	--	--	FACU
Moraceae	<i>Morella californica</i>	California wax myrtle	evergreen shrub	native	--	--	FACW
Myrsinaceae	<i>Lysimachia arvensis</i>	scarlet pimpernel	annual forb	non-native	--	--	NL
Pinaceae	<i>Pinus muricata</i>	Bishop pine	evergreen tree	native	--	--	NL
Pinaceae	<i>Pinus radiata</i>	Monterey pine	evergreen tree	native	--	limited	NL
Pinaceae	<i>Pseudotsuga menziesii</i>	Douglas fir	evergreen tree	native	--	--	FACU
Plantaginaceae	<i>Digitalis purpurea</i>	purple foxglove	perennial forb	non-native	--	limited	FACU
Plantaginaceae	<i>Plantago lanceolata</i>	English plantain	perennial forb	non-native	--	limited	FAC
Poaceae	<i>Aira caryophyllea</i>	silver hairgrass	annual graminoid	non-native	--	assessed	FACU
Poaceae	<i>Anthoxanthum occidentale</i>	California sweet grass	perennial graminoid	native	--	--	NL
Poaceae	<i>Briza maxima</i>	big rattlesnake grass	annual graminoid	non-native	--	limited	NL
Poaceae	<i>Bromus diandrus</i>	rip-gut brome	annual graminoid	non-native	--	moderate	NL
Poaceae	<i>Holcus lanatus</i>	common velvet grass	perennial graminoid	non-native	--	moderate	FAC
Polygonaceae	<i>Rumex acetosella</i>	sheep sorrel	perennial forb	non-native	--	moderate	FACU
Polypodiaceae	<i>Polypodium calirhiza</i>	nested polypody	perennial fern	native	--	--	NL
Pteridaceae	<i>Pentagramma triangularis</i>	gold back fern	perennial fern	native	--	--	NL
Rhamnaceae	<i>Ceanothus thrysiflorus</i>	Carmel ceanothus	evergreen shrub	native	--	--	NL

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Rhamnaceae	<i>Frangula californica</i>	California coffeeberry	evergreen shrub	native	--	--	NL
Rosaceae	<i>Fragaria vesca</i>	woodland strawberry	perennial forb	native	--	--	UPL
Rosaceae	<i>Heteromeles arbutifolia</i>	toyon	evergreen shrub	native	--	--	NL
Rosaceae	<i>Rubus ursinus</i>	California blackberry	evergreen shrub	native	--	--	FACU
Rubiaceae	<i>Galium aparine</i>	common bedstraw	annual forb	native	--	--	FACU
Saxifragaceae	<i>Heuchera micrantha</i>	crevice alumroot	perennial forb	native	--	--	NL
Scrophulariaceae	<i>Scrophularia californica</i>	bee plant	perennial forb	native	--	--	FAC

All species identified using the *Jepson Manual, 2nd Edition* (Baldwin et al. 2012), *The Jepson Flora Project* (eFlora 2023), and *Marin Flora* (Howell et al. 2007); nomenclature follows *The Jepson Flora Project* (eFlora 2023) unless otherwise noted

Sp.: “species”, intended to indicate that the observer was confident in the identity of the genus but uncertain which species

Cf.: “confer” or “compared with”, intended to indicate a species appeared to the observer to be specific, but was not identified based on diagnostic characters

¹Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2023a)

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

²Invasive Status: California Invasive Plant Inventory (Cal-IPC 2006)

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

³Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West Region (Corps 2018)

OBL:	Almost always a hydrophyte, rarely in uplands
FACW:	Usually a hydrophyte, but occasionally found in uplands
FAC:	Commonly either a hydrophyte or non-hydrophyte
FACU:	Occasionally a hydrophyte, but usually found in uplands
UPL:	Rarely a hydrophyte, almost always in uplands
NL:	Rarely a hydrophyte, almost always in uplands
NI:	No information; not factored during wetland delineation

Table B-2. Wildlife species observed in the Study Area, February 9, 2023

SCIENTIFIC NAME	COMMON NAME
Mammals	
<i>Odocoileus hemionus columbianus</i>	black-tailed deer
<i>Sciurus griseus</i>	western gray squirrel
Birds	
<i>Aphelocoma californica</i>	western scrub-jay
<i>Colaptes auratus</i>	northern flicker
<i>Corax brachyrhynchos</i>	American crow
<i>Cyanocitta stelleri</i>	Steller's jay
<i>Junco hyemalis</i>	dark-eyed junco
<i>Regulus calendula</i>	ruby-crowned kinglet
<i>Thryomanes bewickii</i>	Bewick's wren
Amphibians	
<i>Batrachoseps attenuatus</i>	California slender salamander

Appendix C

Potential for Special-status Species to Occur in the Study Area

Table C. Potential for Special-status Species to Occur in the Study Area. List compiled from the CDFW BIOS database (CDFW 2023a), USFWS IPaC Report (USFWS 2023), and CNPS Electronic Inventory (CNPS 2023a) searches. The Bodega Head, Valley Ford, Two Rock, Tomales, Point Reyes NE, Drakes Bay, and Inverness USGS 7.5' quadrangles were included in the search.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
PLANTS				
<i>Abronia umbellata</i> var. <i>breviflora</i> pink sand-verbena	CRPR 1B	Coastal dunes, coastal strand; located on foredunes and interdunes with sparse cover. Elevation range: 0 – 35 feet. Blooms: June – October.	No Potential. The Study Area does not contain coastal dune or coastal strand habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Agrostis blasdalei</i> Blasdale's bentgrass	CRPR 1B	Coastal dunes, coastal bluff scrub, coastal prairie; on sandy or gravelly soil near exposed rock; often in nutrient-poor soil. Elevation range: 15 – 490 feet. Blooms: May – July.	No Potential. The Study Area does not contain coastal dune, prairie, or bluff scrub habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	CRPR 1B	Cismontane woodland, valley and foothill grassland; on clay substrate, often derived from serpentine. Elevation range 170 – 985 feet. Blooms: May – June.	No Potential. The Study Area does not contain rocky volcanic or serpentine woodland or grassland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma alopecurus	FE; CRPR 1B	Freshwater marshes and swamps, riparian scrub; closely associated with other wetland species. Elevation range: 15 – 1200 feet. Blooms: May – July.	Moderate Potential. The Study Area contains an intermittent stream with some riparian habitat elements that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	CRPR 1B	Openings in broadleaf upland forest, chaparral, cismontane woodland. Elevation range: 395 – 6560 feet. Blooms: April – July.	No Potential. The Study Area does not contain chaparral or xeric woodland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	CRPR 1B	Cismontane woodland, valley and foothill grassland, coastal bluff scrub; located on gravelly substrates, frequently derived from serpentine. Elevation range: 10 – 1625 feet. Blooms: March – June.	No Potential. The Study Area does not contain xeric woodland or grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Arabis blepharophylla</i> coast rock cress	CRPR 4	Broadleaf upland forest, coastal bluff scrub, coastal prairie, coastal scrub; located on rocky sites, often on coastal bluffs. Elevation range: 10 – 3575 feet. Blooms: February – May.	No Potential. The Study Area does not contain coastal scrub, bluff, cliffs, or prairie habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Arctostaphylos virgata</i> Marin manzanita	CRPR 1B	Broadleaf upland forest, closed-cone coniferous forest, chaparral, North Coast coniferous forest; on sandstone and granitic substrates. Elevation range: 195 – 2275 feet. Blooms: January – March.	High Potential. The Study Area contains broadleaf forest associated with this species. Documented occurrences less than one mile distant from the Study Area (CDFW 2023a).	Not Observed. This species was not observed in the Study Area during the winter site visit during a time sufficient to determine its identification. No further actions are recommended for this species.
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	CRPR 1B	Coastal dunes, coastal scrub, coastal salt marshes; mesic sites in dunes, along streams, and marshes. Elevation range: 0 – 100 feet. Blooms: April – October.	No Potential. The Study Area does not contain coastal dune, scrub, or brackish marsh to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Blennosperma bakeri</i> Sonoma sunshine	FE, SE, CRPR 1B	Vernal pools, vernal swales, and mesic areas in valley grassland; highly restricted to the Santa Rosa Plain and Valley of the Moon. Elevation range: 35 – 360 feet. Blooms: March – April.	No Potential. The Study Area does not contain vernal pool, vernal swale, or mesic grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Blennosperma nanum</i> var. <i>robustum</i> Point Reyes <i>Blennosperma</i>	SR, CRPR 1B	Coastal prairie, coastal scrub; located on open coastal hills underlain by sand substrate. Elevation range: 30 – 475 feet. Blooms: February – April.	No Potential. The Study Area does not contain coastal prairie or scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Calamagrostis bolanderi</i> Bolander's reed grass	CRPR 4	Bogs and fens, broadleaf upland forest, closed-cone coniferous forest, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest; located on mesic, freshwater wetland sites. Elevation range: 0 – 1480 feet. Blooms: May – August.	No Potential. The Study Area does not contain	Not Present. No further actions are recommended for this species.
<i>Calamagrostis crassiglumis</i> Thurber's reed grass	CRPR 2B	Mesic areas within coastal scrub, freshwater marshes and swamps; typically in marshy swales surrounded by scrub or grassland. Elevation range: 10 – 45 feet. Blooms: May – July.	No Potential. The Study Area does not contain seasonal or perennial wetland swales to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Calochortus umbellatus</i> Oakland star tulip	CRPR 4	Broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; often located on serpentine substrate. Elevation range: 325 – 2275 feet. Blooms: March – May.	Moderate Potential. The Study Area contains forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> coastal bluff morning-glory	CRPR 1B	Coastal dunes, coastal scrub. Elevation range: 10 – 105 feet. Blooms: May – September.	No Potential. The Study Area does not contain coastal dune or scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Carex buxbaumii</i> Buxbaum's sedge	CRPR 4	Bogs and fens, meadows and seeps, marshes and swamps; located in mesic sites. Elevation range: 10 – 10,725 feet. Blooms: March – August.	No Potential. The Study Area does not contain perennial wetland (bog, marsh) habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Carex comosa</i> bristly sedge	CRPR 2B	Typically on lake and pond margins in coastal prairie, marshes and swamps, valley and foothill grassland. Elevation range: 0 – 425 feet. Blooms: May – September.	No Potential. The Study Area does not contain perennial wetland or lake/pond margin habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Carex leptalea</i> bristle-stalked sedge	CRPR 2B	Bogs and fens, meadows, marshes and swamps; typically located in bogs and wet meadows. Elevation range: 0 – 2275 feet. Blooms: March – July.	No Potential. The Study Area does not contain perennial wetland (bog, marsh) habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Carex lyngbyei</i> Lyngbye's sedge	CRPR 2B	Freshwater and brackish marshes and swamps. Elevation range: 0 – 35 feet. Blooms: May – August.	No Potential. The Study Area does not contain perennial wetland (marsh) habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Castilleja ambigua</i> var. <i>ambigua</i> Johnny-nip	CRPR 4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins. Elevation range: 0 – 1415 feet. Blooms: March – August.	No Potential. The Study Area does not contain coastal scrub, bluff, or prairie to support this species.	Not Present. No further actions are recommended for this species.
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i> Humboldt Bay owl's-clover	CRPR 1B	Coastal salt marsh; in coastal areas associated with marsh vegetation. Elevation range: 0 – 10 feet. Blooms: April – August.	No Potential. The Study Area does not contain coastal salt marsh to support this species.	Not Present. No further actions are recommended for this species.
<i>Castilleja leschkeana</i> Point Reyes paintbrush	CRPR 1A	Marshes and swamps; coastal wetlands. Elevation range: 0 – 35 feet. Blooms: June.	No Potential. The Study Area does not contain perennial wetland (marsh) habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Ceanothus gloriosus</i> var. <i>exaltatus</i> glory bush	CRPR 4	Chaparral; typically located within maritime influence. Elevation range: 95 – 1985 feet. Blooms: March – June, sometimes August.	Unlikely. The Study Area does not contain (maritime) chaparral to support this species.	Presumed Absent. No further actions are recommended for this species.
<i>Ceanothus gloriosus</i> var. <i>gloriosus</i> Point Reyes ceanothus	CRPR 4	Coastal bluff scrub, closed-cone coniferous forest, coastal dunes, coastal scrub/sandy. Elevation ranges from 20 – 1710 feet. Blooms: March – May.	High Potential. The Study Area contains forest habitat that may support this species. Documented occurrences from within one mile (Calflora 2023).	Not Observed. This species was not observed in the Study Area during the winter site visit during a time sufficient to determine its identification. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Ceanothus gloriosus</i> var. <i>porrectus</i> Mt. Vision ceanothus	CRPR 1B	Closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland; low shrub in a variety of habitats in Point Reyes; located on sandy soils. Elevation range: 80 – 1000 feet. Blooms: February – May.	High Potential. The Study Area contains forest habitat that may support this species. Documented occurrences from a little greater than one mile (CDFW 2023a).	Not Observed. This species was not observed in the Study Area during the winter site visit during a time sufficient to determine its identification. No further actions are recommended for this species.
<i>Ceanothus masonii</i> Mason’s ceanothus	SR, CRPR 1B	Chaparral; located on serpentine ridges and slopes in chaparral or transitional zones. Elevation range: 745 – 1625 feet. Blooms: March – April.	No Potential. The Study Area does not contain (maritime) chaparral to support this species.	Not Present. No further actions are recommended for this species.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes bird’s-beak	CRPR 1B	Coastal salt marshes; located in low-growing saltgrass and pickleweed mats. Elevation range: 0 – 35 feet. Blooms: June – October.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spineflower	CRPR 1B	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub; located on sandy substrates of terraces and slopes. Elevation range: 10 – 700 feet. Blooms: April – August.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Chorizanthe cuspidata</i> var. <i>villosa</i> woolly-headed spineflower	CRPR 1B	Coastal scrub, coastal dunes, coastal prairie; located on sandy substrates near the beach. Elevation range: 10 – 195 feet. Blooms: May – August.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Chorizanthe valida</i> Sonoma spineflower	FE; SE; CRPR 1B	Coastal prairie; in sandy soils. Elevation range: 35 – 1000 feet. Blooms: June – August.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water hemlock	CRPR 2B	Coastal freshwater and brackish marshes. Elevation range: 0 – 650 feet. Blooms: July – September.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Cirsium andrewsii</i> Franciscan thistle	CRPR 1B	Coastal bluff scrub, broadleaf upland forest, coastal scrub; sometimes located along serpentine seeps. Elevation range: 0 – 490 feet. Blooms: March – July.	Unlikely. The Study Area does not contain serpentine seeps or swales to support this species.	Presumed Absent. No further actions are recommended for this species.
<i>Clarkia concinna</i> ssp. <i>raichei</i> Raiche's red ribbons	CRPR 1B	Coastal bluff scrub; located on exposed rock bluffs and vertical slopes near Walker Creek. Elevation range: 0 – 325 feet. Blooms: April – May.	No Potential. The Study Area does not contain coastal bluff scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Cuscuta pacifica</i> var. <i>papillata</i> Mendocino dodder	CRPR 1B	Coastal dunes; located in interdune depressions; likely hosts on lupines, catchflies, and cudweeds. Elevation range: 0 – 165 feet. Blooms: July – October.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Delphinium bakeri</i> Baker's larkspur	FE; SE; CRPR 1B	Coastal scrub, valley and foothill grassland; located on rocky north-facing slopes derived of decomposed shale. Elevation range: 260 – 995 feet. Blooms: March – May.	No Potential. The Study Area does not contain coastal scrub or grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Delphinium luteum</i> yellow larkspur	FE; SR; CRPR 1B	Chaparral, coastal prairie, coastal scrub; located on rocky north-facing slopes. Elevation range: 0 – 325 feet. Blooms: March – May.	No Potential. The Study Area does not contain chaparral, coastal prairie, or coastal scrub to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Dirca occidentalis</i> western leatherwood	CRPR 1B	Broadleaf upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland; located on brushy, mesic slopes in woodland and forest. Elevation range: 165 – 1285 feet. Blooms: January – April.	Moderate Potential. The Study Area contains forest habitat that may support this species; however, there are no documented occurrences from the Point Reyes Peninsula.	Not Observed. This species was not observed in the Study Area during the winter site visit during a time sufficient to determine its identification. No further actions are recommended for this species.
<i>Eastwoodiella californica</i> swamp harebell	CRPR 1B	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marshes and swamps, North Coast coniferous forest; in mesic sites in forested and grassland habitat. Elevation range: 1 – 405 feet. Blooms: June – October.	Moderate Potential. The Study Area contains an intermittent stream with some riparian habitat elements that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Eleocharis parvula</i> small spikerush	CRPR 4	Marshes and swamps. Elevation range: 5 – 9815 feet. Blooms: sometimes April, June – August, sometimes September.	No Potential. The Study Area does not contain marsh to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Elymus californicus</i> California bottle-brush grass	CRPR 4	Broadleaf upland forest, cismontane woodland, North Coast coniferous forest, riparian woodland; located in mesic areas. Elevation range: 50 – 1530 feet. Blooms: May – August, sometimes November.	High Potential. The Study Area contains forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Erigeron biolettii</i> Streamside daisy	CRPR 3	Broadleaf upland forest, cismontane woodland, North Coast coniferous forest; on rocky, mesic. Elevation range: 95 – 3610 feet. Blooms: June – October.	Unlikely. Although the Study Area contains broadleaf upland forest, this species is known from interior forests.	Presumed Absent. No further actions are recommended for this species.
<i>Erigeron supplex</i> supple daisy	CRPR 1B	Coastal bluff scrub, coastal prairie; typically located in grassy sites along the coastline. Elevation range: 30 – 165 feet. Blooms: May – July.	No Potential. The Study Area does not contain coastal bluff scrub or prairie to support this species.	Not Present. No further actions are recommended for this species.
<i>Erysimum concinnum</i> bluff wallflower	CRPR 1B	Coastal bluff scrub, coastal scrub, coastal dunes; situated on sandy substrate. Elevation range: 0 – 605 feet. Blooms: February – July.	No Potential. The Study Area does not contain coastal dune, prairie, or scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Erysimum franciscanum</i> San Francisco wallflower	CRPR 4	Maritime chaparral, coastal dunes, coastal scrub, valley and foothill grassland; typically located on serpentine or volcanic substrate, often on roadsides. Elevation range: 0 – 1790 feet. Blooms: March – June.	No Potential. The Study Area does not contain coastal dune, (maritime) chaparral, or grassland to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Fritillaria lanceolata</i> var. <i>tristulis</i> Marin checker lily	CRPR 1B	Coastal bluff scrub, coastal scrub, coastal prairie; observed in canyons, riparian areas, and rock outcrops; often located on serpentine substrate. Elevation range: 45 – 490 feet. Blooms: February – May.	No Potential. The Study Area does not contain rock outcrops, coastal prairie, or bluff scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Fritillaria liliacea</i> fragrant fritillary	CRPR 1B	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland; located in grassy sites underlain by clay, typically derived from volcanics or serpentine. Elevation range: 10 – 1335 feet. Blooms: February – April.	No Potential. The Study Area does not contain coastal scrub, coastal prairie, or grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Gilia capitata</i> ssp. <i>chamissonis</i> blue coast gilia	CRPR 1B	Coastal dunes, coastal scrub. Elevation range: 5 – 600 feet. Blooms: April – July.	No Potential. The Study Area does not contain coastal dune or scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Gilia capitata</i> ssp. <i>tomentosa</i> woolly-headed gilia	CRPR 1B	Coastal bluff scrub; rocky outcrops on the coast. Elevation range: 15 – 155 feet. Blooms: May – July.	No Potential. The Study Area does not contain coastal scrub or rock outcrops to support this species.	Not Present. No further actions are recommended for this species.
<i>Gilia millefoliata</i> dark-eyed gilia	CRPR 1B	Coastal dune. Elevation range: 5 – 100 feet. Blooms: April – July.	No Potential. The Study Area does not contain coastal dunes to support this species.	Not Present. No further actions are recommended for this species.
<i>Grindelia hirsutula</i> var. <i>maritima</i> San Francisco gumplant	CRPR 1B	Coastal scrub, coastal bluff scrub, valley and foothill grassland; situated on sea bluffs underlain by sand substrate, often derived from serpentine. Elevation range: 45 – 1300 feet. Blooms: June – September.	No Potential. The Study Area does not contain coastal scrub or grassland to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Hayfield tarplant	CRPR 1B	Coastal scrub, valley and foothill grassland. Elevation range: 65 – 1840 feet. Blooms: April – October.	No Potential. The Study Area does not contain coastal scrub or grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Hesper-evax sparsiflora</i> var. <i>brevifolia</i> short-leaved evax	CRPR 1B	Coastal bluff scrub, coastal dune; located on sandy bluffs and flats near the immediate coastline. Elevation range: 0 – 700 feet. Blooms: March – June.	No Potential. The Study Area does not contain coastal bluff or dune to support this species.	Not Present. No further actions are recommended for this species.
<i>Heteranthes dubia</i> water star-grass	CRPR 2B	Marshes and swamps; still or slow-moving water, alkaline. Elevation range: 95 – 4905 feet. Blooms: July – October.	No Potential. The Study Area does not contain perennial wetland (marsh) habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	CRPR 1B	Closed-cone coniferous forest, coastal scrub, chaparral; located in openings on relict dunes and coastal sand hills. Elevation range: 30 – 650 feet. Blooms: April – September.	No Potential. The Study Area is not a relict dune or coastal sand hill.	Not Present. No further actions are recommended for this species.
<i>Horkelia marinensis</i> Point Reyes Horkelia	CRPR 1B	Coastal dunes, coastal prairie, coastal scrub; located on sandy flats and dunes near the coast; in open grassy sites within scrub. Elevation range: 15 – 1140 feet. Blooms: May – September.	No Potential. The Study Area does not contain coastal dune, prairie, or scrub habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Hosackia gracilis</i> harlequin lotus	CRPR 4	Broadleaf upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest, valley and foothill grassland; located in wetlands and roadside ditches. Elevation range: 0 – 2275 feet. Blooms: March – July.	Moderate Potential. The Study Area contains openings in forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Iris longipetala</i> coast iris	CRPR 4	Coastal prairie, lower montane coniferous forest, meadows and seeps; located on mesic sites. Elevation range: 0 – 1950 feet. Blooms: March – May.	Moderate Potential. The Study Area contains openings in forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Lasthenia californica</i> ssp. <i>bakeri</i> Baker's goldfields	CRPR 1B	Openings in closed-cone coniferous forest, coastal scrub, meadows and seeps, marshes and swamps. Elevation range: 60 – 520 feet. Blooms: April – October.	No Potential. The Study Area does not contain coastal scrub, meadow, or coniferous forest to support this species.	Not Present. No further actions are recommended for this species.
<i>Lasthenia californica</i> ssp. <i>macrantha</i> perennial goldfields	CRPR 1B	Coastal bluff scrub, coastal dune, coastal scrub. Elevation range: 15 – 1690 feet. Blooms: January – November.	No Potential. The Study Area does not contain coastal scrub or dune habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE; CRPR 1B	Valley and foothill grassland, vernal pools, cismontane woodland; located in pools, swales, and depressions in mesic grassy sites underlain by alkaline substrate. Elevation range: 0 – 1530 feet. Blooms: March – June.	No Potential. The Study Area does not contain vernal pool, vernal swale, or mesic grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Layia carnosa</i> beach layia	FE, CRPR 1B	Coastal dunes; located in sparsely vegetated semi-stabilized dunes behind fore-dunes. Elevation range: 0 – 195 feet. Blooms: March – July.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Leptosiphon aureus</i> bristly leptosiphon	CRPR 4	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland; often located on shallow, rocky substrate in foothill positions; typically, low-growing and sparse vegetation; often on edge of chaparral and shrub thickets. Elevation range: 175 – 4875 feet. Blooms: April – July.	No Potential. The Study Area does not contain chaparral, woodland, prairie, or grassland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Leptosiphon grandiflorus</i> large-flowered leptosiphon	CRPR 4	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland; typically on sandy substrate. Elevation range: 15 – 3965 feet. Blooms: April – August.	No Potential. The Study Area does not contain coniferous forest, coastal scrub, woodland, dune, or grassland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Leptosiphon latisectus</i> broad-lobed leptosiphon	CRPR 4	Broadleaf upland forest, cismontane woodland; frequently situated on serpentine substrate. Elevation range: 550 – 4875 feet. Blooms: April – June.	No Potential. The Study Area does not contain forest or woodland habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Leptosiphon rosaceus</i> rose leptosiphon	CRPR 1B	Coastal bluff scrub; situated on sandy substrates. Elevation range: 0 – 325 feet. Blooms: April – July.	No Potential. The Study Area does not contain coastal scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Lilaeopsis masonii</i> Mason’s Lilaeopsis	SR, CRPR 1B	Freshwater and brackish coastal marshes, riparian scrub; located on channel banks in the splash zone on bare mud substrate. Elevation range: 0 – 35 feet. Blooms: April – November.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Lilium maritimum</i> coast lily	CRPR 1B	Closed-cone coniferous forest, coastal prairie, coastal scrub, broadleaf upland forest, North Coast coniferous forest; typically located on sandy soils, often in raised hummocks or bogs, and roadside ditches. Elevation range: 15 – 1545 feet. Blooms: May – August.	Moderate Potential. The Study Area contains forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Lilium pardalinum</i> ssp. <i>pitkinense</i> Pitkin Marsh lily	FE, SE, CRPR 1B	Cismontane woodland, meadows and seeps, freshwater marsh, riparian scrub; located on acidic saturated sandy substrate. Elevation range: 110 – 215 feet. Blooms: June – July.	Unlikely. Although the Study Area contains an intermittent stream with some riparian elements, this species is considered highly restricted to Pitkin and Cunningham marshes, Sonoma County.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Limnanthes douglasii</i> ssp. <i>sulphurea</i> Point Reyes meadowfoam	SE, CRPR 1B	Freshwater marshes and swamps, vernal pools, coastal prairie, meadows and seeps, cismontane woodland; located in vernal wet depressions in open rolling, coastal prairies and meadows; typically located on clay substrate. Elevation range: 0 – 455 feet. Blooms: March – May.	No Potential. The Study Area does not contain perennial (marsh) or seasonal wetland (meadow, vernal pool) habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	FE; SE; CRPR 1B	Mesic meadows, valley and foothill grassland, vernal pools; located in swales, wet meadows, depressions, and pools in the oak savanna of the Santa Rosa Plain on heavy adobe clay substrate. Elevation range: 3 – 2885 feet. Blooms: April – June.	No Potential. The Study Area does not contain vernal pool, vernal swale, or mesic grassland to support this species.	Not Present. No further actions are recommended for this species.
<i>Lupinus tidestromii</i> Tidestrom's lupine	FE; SE; CRPR 1B	Coastal dunes; on partially stabilized dunes immediately near the ocean. Elevation range: 0 – 100 feet. Blooms: April – June.	No Potential. The Study Area does not contain coastal dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Microseris paludosa</i> marsh microseris	CRPR 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Elevation range: 5 – 300 feet. Blooms: April – June.	Unlikely. Although the Study Area contains woodland, there are not extensive grassy openings to support.	Presumed Absent. No further actions are recommended for this species.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i> northern curly-leaved Monardella	CRPR 1B	Chaparral, coastal dunes, coastal scrub, lower montane coniferous forest (ponderosa pine forest). Elevation range: 0 – 985 feet. Blooms: sometimes April, May – July, sometimes August – September.	No Potential. The Study Area does not contain chaparral, scrub, or coniferous forest to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> Gairdner's yampah	CRPR 4	Broadleaf upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools; located in vernal mesic sites. Elevation range: 0 – 1985 feet. Blooms: June – October.	No Potential. The Study Area does not contain seasonal wetland or vernal pool habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Phacelia insularis</i> var. <i>continentis</i> North Coast phacelia	CRPR 1B	Coastal bluff scrub, coastal dunes; located on open maritime bluffs underlain by sandy substrate. Elevation range: 30 – 555 feet. Blooms: March – May.	No Potential. The Study Area does not contain coastal scrub or dune habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Piperia elegans</i> ssp. <i>decurtata</i> Point Reyes rein orchid	CRPR 1B	Coastal bluff scrub. Elevation range: 45 – 600 feet. Blooms: July – October.	No Potential. The Study Area does not contain coastal bluff scrub habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Piperia michaelii</i> Michael's rein orchid	CRPR 4	Coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest. Elevation range: 10 – 2975 feet. Blooms: April – August.	Moderate Potential. The Study Area contains forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Polemonium carneum</i> Oregon polemonium	CRPR 2B	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation range: 0 – 5950 feet. Blooms: April – September.	Unlikely. Although the Study Area contains forest habitat, this species has not been documented from Marin County and environs for nearly a century.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Polygonum marinense</i> Marin knotweed	CRPR 3	Salt and brackish coastal marshes. Elevation range: 0 – 35 feet. Blooms: sometimes April, May – August, sometimes October.	No Potential. The Study Area does not contain coastal brackish marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Potentilla uliginosa</i> Cunningham Marsh cinquefoil	CRPR 1A	Freshwater marshes and swamps; located in oligotrophic wetland habitat; presumed extinct. Elevation range: 95 – 130 feet. Blooms: May – August.	No Potential. The Study Area does not contain perennial wetlands to support this species.	Not Present. No further actions are recommended for this species.
<i>Ranunculus lobbii</i> Lobb’s buttercup	CRPR 4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools; located in vernal inundated areas (ponds, pools). Elevation range: 45 – 1530 feet. Blooms: February – May.	No Potential. The Study Area does not contain vernal pools or similar wetland types to support this species.	Not Present. No further actions are recommended for this species.
<i>Rhynchospora californica</i> California beaked-rush	CRPR 1B	Bogs and fens, lower montane coniferous forest, meadows and seeps, freshwater marshes and swamps. Elevation range: 145 – 3315 feet. Blooms: May – July.	No Potential. The Study Area does not contain perennial wetlands to support this species.	Not Present. No further actions are recommended for this species.
<i>Sagittaria sanfordii</i> Sanford’s arrowhead	CRPR 1B	Marshes and swamps; located in assorted shallow freshwater habitats including canals and perennial drainage ditches. Elevation range: 0 – 2115 feet. Blooms: May – October, sometimes November.	No Potential. The Study Area does not contain freshwater marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i> Point Reyes checkerbloom	CRPR 1B	Marshes and swamps; located in freshwater marsh habitat near the coast. Elevation range: 10 – 245 feet. Blooms: April – September.	No Potential. The Study Area does not contain freshwater marsh habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Sidalcea malviflora</i> ssp. <i>purpurea</i> purple-stemmed checkerbloom	CRPR 1B	Broadleaf upland forest, coastal scrub. Elevation range: 45 – 280 feet. Blooms: May – June.	Unlikely. The Study Area does not contain extensive openings or coastal scrub to support this species.	Presumed Absent. No further actions are recommended for this species.
<i>Silene scouleri</i> ssp. <i>scouleri</i> Scouler's catchfly	CRPR 2B	Coastal bluff scrub, coastal prairie, valley and foothill grassland; situated on rocky slopes and bluffs. Elevation range: 0 – 1950 feet. Blooms: sometimes March – May, typically June – August, sometimes September.	No Potential. The Study Area does not contain coastal bluff scrub or coastal grassland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Stebbinsoseris decipiens</i> Santa Cruz Stebbinsoseris	CRPR 1B	Broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub; located on open, loose or disturbed substrate derived from sandstone, shale, or serpentine. Elevation range: 30 – 1625 feet. Blooms: April – May.	Unlikely. This species is not associated with soils derived from granite.	Presumed Absent. No further actions are recommended for this species.
<i>Stellaria littoralis</i> beach starwort	CRPR 4	Bogs and fens, coastal bluff scrub, coastal dunes, coastal scrub, marshes and swamps; situated in wetlands along the coast. Elevation range: 40 – 130 feet. Blooms: March – July.	No Potential. The Study Area does not contain freshwater marsh or similar perennial wetland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i> Mt. Tamalpais jewelflower	CRPR 1B	Chaparral, valley and foothill grassland; located on serpentine slopes. Elevation range: 490 – 2600 feet. Blooms: May – August.	No Potential. The Study Area does not contain serpentine substrate to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Trifolium amoenum</i> showy rancheria clover	FE; CRPR 1B	Valley and foothill grassland, coastal bluff scrub, swales, open sunny sites, sometimes on serpentine. Elevation range: 15 – 1365 feet. Blooms: April – June.	No Potential. The Study Area does not contain grassland or coastal scrub to support this species.	Not Present. No further actions are recommended for this species.
<i>Trifolium buckwestiorum</i> Santa Cruz clover	CRPR 1B	Broadleaf upland forest, cismontane woodland, coastal prairie; situated on habitat margins underlain by gravelly substrates. Elevation range: 340 – 1985 feet. Blooms: April – October.	Moderate Potential. The Study Area contains forest habitat that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Trifolium polyodon</i> Pacific Grove clover	SR, CRPR 1B	Closed-cone coniferous forest, coastal prairie, meadows and seeps, valley and foothill grassland; situated on mesic substrates derived from granite. Occurrences from Sonoma and Marin counties are dubious. Elevation range: 425 – 1395 feet. Blooms: April – June, sometimes July.	Moderate Potential. Although reports from Marin County are dubious, the Study Area contains forest habitat underlain by granite soils that may support this species.	Presence Unknown, No Impact. Although this species may occur in the Study Area, project activities will occur in developed and maintained areas precluding the presence of such. No further actions are recommended for this species.
<i>Triphysaria floribunda</i> San Francisco owl's-clover	CRPR 1B	Coastal prairie, valley and foothill grassland; located on serpentine and non-serpentine substrate. Elevation range: 30 – 520 feet. Blooms: April – June.	No Potential. The Study Area does not contain coastal prairie or other grassland habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Triquetrella californica</i> coastal triquetrella	CRPR 1B	Coastal bluff scrub, coastal scrub, valley and foothill grassland; grows within 100 feet of the coastline in scrub and grasslands on open gravel substrates of roads, hillsides, bluffs, and slopes. Elevation range: 30 – 325 feet.	No Potential. The Study Area does not contain coastal scrub or grassland habitat to support this species.	Not Present. No further actions are recommended for this species.
WILDLIFE				
Mammals				
<i>Antrozous pallidus</i> pallid bat	SSC, WBWG High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, 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.	Moderate Potential. The Study Area provides trees that may be suitable for roosting; there are CNDDDB occurrences in the vicinity (CDFW 2023a). A targeted bat assessment (i.e., close inspection of trees) was not performed.	Presence Unknown. No impacts anticipated due to no planned tree removal. If tree removal (including limbing is necessary), a bat roost assessment will be performed; see section 6.1.
<i>Aplodontia rufa phaea</i> Point Reyes mountain beaver	SSC	Known from the coastal areas of Point Reyes. Located in north-facing slopes of hills and gullies with seeps and springs nearby. Areas typically overgrown with vegetation such as sword fern (<i>Polystichum munitum</i>) and thimbleberry (<i>Rubus parviflorus</i>).	No Potential. While this species is endemic to Point Reyes and vicinity, all known populations are on the west side of Inverness Ridge (CDFW 2023).	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<p><i>Corynorhinus townsendii townsendii</i> Townsend's western big-eared bat</p>	<p>SSC, WBWG High</p>	<p>Humid coastal regions of northern and central California. Roost in limestone caves, lava tubes, mines, buildings etc. Will only roost in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to disturbance</p>	<p>Unlikely. The existing building within the Study Area is maintained and disturbed at least semi-regularly, rendering any use by this species unlikely. No caves or mines present in or adjacent to the Study Area.</p>	<p>Presumed Absent. No further actions are recommended for this species.</p>
<p><i>Enhydra lutris nereis</i> southern sea otter</p>	<p>ST, SFP</p>	<p>Located in near-shore marine environments from Ano Nuevo to Point Sal (occasionally as far north as Marin County). Requires canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates for foraging.</p>	<p>No Potential. The Study Area lacks marine waters; not known from nearby Tomales Bay.</p>	<p>Not Present. No further actions are recommended for this species.</p>
<p><i>Lasiurus blossevillii</i> western red bat</p>	<p>SSC, WBWG High</p>	<p>Highly migratory and typically solitary, roosting primarily in the foliage of trees or shrubs. Associated with broad-leaved, riparian tree species 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.</p>	<p>Unlikely. The Study Area lacks large, broad-leaved riparian trees of the type typically used for roosting (maples, sycamores, etc.).</p>	<p>Presumed Absent. No further actions are recommended for this species.</p>

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Myotis thysanodes</i> fringed myotis	WBWG High	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.	Moderate Potential. The Study Area provides trees that may be suitable for roosting. A targeted bat assessment (i.e., close inspection of trees) was not performed.	Presence Unknown. No impacts anticipated due to no planned tree removal. If tree removal (including limbing is necessary), a bat roost assessment will be performed; see section 6.1.
<i>Reithrodontomys raviventris</i> salt marsh harvest mouse	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 dryland refugia during high tides.	No Potential. The Study Area contains no tidal or brackish marsh and is outside of this species' Napa County range.	Not Present. No further actions are recommended for this species.
<i>Taxidea taxus</i> American badger	SSC	Most abundant in drier open stages of most shrub, woodland, and herbaceous vegetation types. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	Unlikely. The Study Area features open areas with herbaceous vegetation, and this species is known from the vicinity (CDFW 2023). However, no burrows characteristic of this species or other indicators of presence were observed during the site visit.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Zapus trinotatus orarius</i> Point Reyes jumping mouse	SSC	Known from upland areas in Point Reyes. Typically located in upper margins of bunch grass wetlands, as well as coastal scrub, grassland, and meadows. Primarily forages for grass seeds, with some insects and fruits. Builds grass nests above ground, but burrows in winter.	Unlikely. The Study Area is surrounded by forest and does not provide typical coastal scrub or wetland habitat. The nearest occurrences in CNDDDB are associated with open scrub areas, located 2.2 miles or greater to the west and southwest (CDFW 20230).	Presumed Absent. No further actions are recommended for this species.
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	SC (E), SSC	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	No Potential. The Study Area does not provide vegetated ponds or emergent marsh suitable for nesting.	Not Present. No further actions are recommended for this species.
<i>Ammodramus savannarum</i> grasshopper sparrow	SSC	Summer resident. Breeds in open grasslands in lowlands and foothills, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	Unlikely. The Study Area lacks large expanses of open grassland.	Presumed Absent. No further actions are recommended for this species.
<i>Aquila chrysaetos</i> golden eagle	BGEPA, SFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	Unlikely. The Study Area does not provide large cliffs or typical large trees for nesting; may occasionally forage in the vicinity.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Ardea alba</i> great egret	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially, usually in trees, occasionally on the ground or elevated platforms. 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.	Unlikely. The Study Area is not within close proximity to documented Marin County breeding sites as per Shuford (1993); no indication of nesting (e.g., old stick nests) or presence observed during site visit.	Presumed Absent. No further actions are recommended for this species.
<i>Ardea herodias</i> great blue heron	non-status (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially in tall trees and 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.	Unlikely. The Study Area is not within close proximity to documented Marin County breeding sites as per Shuford (1993); no indication of nesting (e.g., old stick nests) or presence observed during site visit.	Presumed Absent. No further actions are recommended for this species.
<i>Asio flammeus</i> short-eared owl	SSC	Occurs year-round, but primarily as a winter visitor; breeding very restricted in most of California. Found in open, treeless areas (e.g., marshes, grasslands) with elevated sites for foraging perches and dense herbaceous vegetation for roosting and nesting. Preys mostly on small mammals, particularly voles.	Unlikely. The Study Area does not provide marshland, expanses of grassland, or similar open habitats suitable for wintering.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Asio otus</i> long-eared owl	SSC	Occurs year-round in California. Nests in trees in a variety of woodland habitats, including oak and riparian, as well as tree groves. Requires adjacent open land with rodents for foraging, and the presence of old nests of larger birds (hawks, crows, magpies) for breeding.	Unlikely. Rare in Marin County, with breeding documented	Presumed Absent. No further actions are recommended for this species.
<i>Athene cunicularia</i> burrowing owl	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.	Unlikely. The Study Area lacks expanses of open habitat, and ground squirrel burrows for refuge; breeding distribution in Marin County restricted to eastern Baylands.	Presumed Absent. No further actions are recommended for this species.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	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 shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	No Potential. The Study Area does not contain zoned beaches, open mudflats, or other suitable barren habitat near water.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Circus cyaneus</i> northern harrier	SSC	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and agricultural areas. Nests on the ground in dense vegetation, typically near water or otherwise moist areas. Preys on small vertebrates.	Unlikely. The Study Area is within this species' local nesting range (Shuford 1993), but areas of open grassland are small in area and adjacent to development.	Presumed Absent. No further actions are recommended for this species.
<i>Contopus cooperi</i> olive-sided flycatcher	SSC	Summer resident. Typical breeding habitat is montane coniferous forests. At lower elevations, also occurs in wooded canyons and mixed forests and woodlands. Often associated with forest edges. Arboreal nest sites located well off the ground.	Moderate Potential. Forest cover adjacent to the Study Area provides suitable breeding habitat for this species.	Presence Unknown. Perform pre-construction surveys if tree removal and/or ground disturbance is initiated during the nesting season; see report section 6.1.
<i>Coturnicops noveboracensis</i> yellow rail	SSC	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic.	No Potential. The Study Area lacks any potentially suitable habitat; breeding not known in Marin County.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Cypseloides niger</i> black swift	SSC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas. No modern nesting records in Napa County.	No Potential. The Study Area does not contain waterfalls; there are no modern breeding records for Marin County (Shuford 1993). May occur in the vicinity occasionally during migration.	Not Present. No further actions are recommended for this species.
<i>Egretta thula</i> snowy egret	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees, at times in sequestered beds of dense emergent vegetation (e.g., tules). Rookery sites usually situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	Unlikely. The Study Area is not within close proximity to documented Marin County breeding sites as per Shuford (1993); no indication of nesting (e.g., old stick nests) or presence observed during site visit.	Presumed Absent. No further actions are recommended for this species.
<i>Elanus leucurus</i> white-tailed kite	SFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, woodlands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	Moderate Potential. Forest stands within and adjacent to the Study Area provides suitable nesting trees, with open areas for foraging also present on-site and nearby. There are several recent observations in the vicinity, including of pairs (eBird 2023).	Presence Unknown. Perform pre-construction surveys if tree removal and/or ground disturbance is initiated during the nesting season; see report section 6.1.
<i>Falco peregrinus anatum</i> American peregrine falcon	SE, SFP	Year-round resident and winter visitor. Occurs near water, including coastal areas, wetlands, lakes and rivers. Usually nests on sheltered cliffs or tall man-made structures. Preys primarily on waterbirds.	Unlikely. The Study Area does not contain large cliffs or suitable man-made structures for nesting.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Fratercula cirrhata</i> tufted puffin	SSC	Pelagic and coastal marine. Nests near or along the coast on islands, islets, and (rarely) isolated mainland cliffs. Requires sod or earth into which the birds can burrow, or rocky crevices where friable soil is absent. Forages at sea, primarily for fish.	No Potential. This marine species is not known to nest within Tomales Bay.	Not Present. No further actions are recommended for this species.
<i>Geothlypis trichas sinuosa</i> San Francisco (saltmarsh) common yellowthroat	SSC	Resident of the San Francisco Bay region, in both fresh and salt marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Unlikely. No marsh or dense vegetation is present within the Study Area.	Presumed Absent. No further actions are recommended for this species.
<i>Haliaeetus leucocephalus</i> bald eagle	BGEPA, SE, SFP	Occurs year-round in California, but primarily a winter visitor; breeding population is growing. Nests in large trees in the vicinity of larger lakes, reservoirs, and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	Unlikely. Nests locally on Inverness Ridge. No typical nest trees are present in the Study Area nor was any indication of presence observed (e.g., large stick nests) during site visits. Presumably forages in the vicinity at least occasionally.	Presumed Absent. No further actions are recommended for this species.
<i>Hydrobates homochroa</i> ashy storm-petrel		Marine species; nests in rocky crevices on offshore islands and rocks from southern Mendocino County to norther Baja California. Forages over open ocean for invertebrates and larval fishes.	No Potential. This pelagic/marine species is not known to nest within Tomales Bay.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Icteria virens</i> yellow-breasted chat	SSC	Summer resident, occurring in riparian areas with an open canopy, very dense understory, and trees for song perches. Nests in thickets of willow (<i>Salix</i> spp.), blackberry (<i>Rubus</i> spp.), and California grape (<i>Vitis californicus</i>).	Unlikely. The Study Area does not contain stands of dense riparian understory favored by this species for nesting. There are no recent observations in the vicinity (eBird 2023).	Presumed Absent. No further actions are recommended for this species.
<i>Lanius ludovicianus</i> loggerhead shrike	SSC	Year-round resident in open woodland, grasslands, savannah, and scrub. Prefers areas with sparse shrubs, trees, posts, and other suitable perches for foraging. Preys upon large insects and small vertebrates. Nests are well-concealed in densely-foliaged shrubs or trees.	Unlikely. The Study Area provides only limited open habitat, most of which is adjacent to development. This relatively conspicuous species was not observed during the site visit.	Presumed Absent. No further actions are recommended for this species.
<i>Laterallus jamaicensis coturniculus</i> California black rail	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.	No Potential. The Study Area lacks extensive tidal or brackish marsh.	Not Present. No further actions are recommended for this species.
<i>Melospiza melodia samuelis</i> San Pablo song sparrow	SSC	Year-round resident of tidal marshes along the north side of San Francisco and San Pablo Bays. Typical habitat is dominated by halophytic wetland plants, including with shrubs in the upper marsh zone (favored for nesting). May forage in areas adjacent to marshes.	No Potential. The Study Area contains no tidal or brackish marsh and is outside of this species' Marin County range.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Nycticorax nycticorax</i> black-crowned night heron	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees but also in patches of emergent vegetation. Rookery sites are often on islands and usually located adjacent to foraging areas: margins of lakes and bays.	Unlikely. The Study Area is not within close proximity to documented Marin County breeding sites as per Shuford (1993); no indication of nesting (e.g., old stick nests) or presence observed during site visit.	Presumed Absent. No further actions are recommended for this species.
<i>Passerculus sandwichensis alaudinus</i> Bryant's savannah sparrow	SSC	Year-round resident associated with the coastal fog belt, primarily between Humboldt and northern Monterey Counties. Occupies low tidally influenced habitats and adjacent areas, including grasslands. Also uses drier, more upland coastal grasslands. Nests near the ground in taller vegetation, including along levees and canals.	Unlikely. The Study Area lacks large expanses of open grassland or upper tidal marsh areas.	Presumed Absent. No further actions are recommended for this species.
<i>Pelecanus occidentalis californicus</i> California brown pelican	SFP	Non-breeding visitor to the region, inhabiting coastal and estuarine waters. Roosts on rocks, piers, jetties, etc.	No Potential. This species is a non-breeding visitor to Tomales Bay but has no potential to occur within the terrestrial Study Area.	Not Present. No further actions are recommended for this species.
<i>Progne subis</i> purple martin	SSC	Summer resident. Inhabits woodlands and low-elevation coniferous forests. Nests in old woodpecker cavities and man-made structures (bridges, utility towers). Nest is often located in tall, isolated tree or snag.	Moderate Potential. Taller trees are located in proximity to the Study and may provide snags/cavities suitable for nesting. This species is known to breed in west Marin County, with recent observations during the breeding located within 1 mile (eBird 2023).	Presence Unknown. Perform pre-construction surveys if tree removal and/or ground disturbance is initiated during the nesting season; see report section 6.1.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Rallus obsoletus obsoletus</i> California Ridgway's (clapper) rail	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 mollusks and crustaceans.	No Potential. The Study Area does not contain tidal or brackish marsh and it outside of this species' local range.	Not Present. No further actions are recommended for this species.
<i>Setophaga petechia brewsteri</i> (Brewster's) yellow warbler	SSC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting is variable, but dense willow growth is typical. Occurs widely on migration.	Unlikely. The Study Area does not contain dense, taller riparian vegetation of the type used for nesting by this species (e.g., mature willows). May occur during migration.	Presumed Absent. No further actions are recommended for this species.
<i>Strix occidentalis caurina</i> northern spotted owl	FT, ST, SSC	Year-round resident in dense, structurally complex forests, primarily those with stands of mature conifers. In Napa County, uses both coniferous and mixed (coniferous-hardwood) forests. Nests on platform-like substrates in the forest canopy, including in tree cavities. Preys on mammals.	Moderate Potential. Mixed forest adjacent to the Study Area is suitable for this species, including potentially nesting (e.g., in mature Bishop pines). Has been observed within approximately 900 feet of the Study Area.	Presence Unknown. Perform a pre-construction survey effort if tree construction activities occur during the local NSO season (March 1 to July 15).

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
Reptiles and Amphibians				
<i>Dicamptodon ensatus</i> California giant salamander	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.	Unlikely. The Study Area’s intermittent stream is shallow, lacking deeper perennial pools and other typical habitat elements. The nearest documented occurrences in CNDDDB are a minimum distance of 2.0 and 2.4 miles to the southwest and south respectively (CDFW 2023).	Presumed Absent. No further recommendations for this species.
<i>Emys marmorata</i> western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	Unlikely. The Study Area’s intermittent stream is narrow, shallow and high-gradient, and as such is unlikely to be used. No permanent waters or similar habitat present on-site.	Presumed Absent. No further recommendations for this species.
<i>Rana boylei</i> foothill yellow-legged frog	SSC	Found in or near rocky streams in a variety of habitats; highly aquatic. Prefers partially-sunlit, 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 invertebrates (aquatic and terrestrial).	No Potential. The Study Area’s intermittent stream is narrow and shallow; as per CNDDDB, no populations (including historic/presumably extirpated populations) known from Tomales Point and Point Reyes (CDFW 2023).	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Rana draytonii</i> California red-legged frog	FT, SSC	Lowlands and foothills in or near permanent or semi-permanent sources of deep water with dense emergent and/or overhanging riparian vegetation. Favors perennial to intermittent ponds, marshes, and stream pools. Requires 11 to 20 weeks of continuous inundation for larval development. Disperses through upland habitats during and after rains.	Unlikely. While this species is known from the greater vicinity of Tomales Point and Point Reyes, the nearest occurrences in CNDDDB are located a minimum distance of 1 mile away, in association with stock ponds and open grassland (CDFW 2023). The Study Area's intermittent stream is narrow, shallow and high-gradient; no potential aquatic breeding habitat present on-site.	Presumed Absent. No further recommendations for this species.
Fishes				
<i>Acipenser medirostris</i> green sturgeon	FT, SSC	Spawns in the Sacramento River and Klamath Rivers, at temperatures between 8 and 14 degrees Celsius. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	No Potential. The Study Area's intermittent stream is narrow, shallow and high-gradient, precluding even potential incidental presence.	Not Present. No further actions are recommended for this species.
<i>Eucyclogobius newberryi</i> tidewater goby	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.	No Potential. The Study Area does not contain brackish or estuarine waters; the mouth of the intermittent stream is small in area and provides no suitable habitat.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<i>Lavinia symmetricus</i> ssp. 2 Tomales roach	SSC	Habitat generalist. Found in well aerated perennial tributary streams to Tomales Bay. Feed primarily on algae supplemented with crustaceans and insects.	Unlikely. The Study Area's intermittent stream is narrow, shallow and high-gradient; any occupation would be incidental and unlikely.	Presumed Absent. No further recommendations for this species.
<i>Oncorhynchus kisutch</i> coho salmon – central CA coast ESU	FE, SE	Occurs in inland and coastal rivers, and marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also requires riparian cover to contribute to cool, well-aerated water. Federal listing applies to populations between Punta Gorda and San Lorenzo River. State listing applies populations south of San Francisco Bay only.	Unlikely. The Study Area's intermittent stream is narrow, shallow and high-gradient; any occupation would be incidental and unlikely.	Presumed Absent. No further recommendations for this species.
<i>Oncorhynchus mykiss irideus</i> steelhead - central CA coast DPS	FT	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.	Unlikely. The Study Area's intermittent stream is narrow, shallow and high-gradient; any occupation would be incidental and unlikely.	Presumed Absent. No further recommendations for this species.
<i>Spirinchus thaleichthys</i> longfin smelt	FC, ST, SSC	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.	Unlikely. The Study Area's intermittent stream is narrow, shallow and high-gradient; any occupation would be incidental and unlikely.	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
Invertebrates				
<i>Bombus occidentalis</i> western bumblebee	SC	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 plants are visited and pollinated.	Unlikely. This species is historically known from the vicinity historically, with a CNDDDB occurrence from 1966 located approximately 2.0 miles to the southwest of the Study Area (CDFW 2023). However, this species is currently considered extirpated from the region (Xerces Society (2018).	Presumed Absent. No further recommendations for this species.
<i>Danaus plexippus</i> monarch butterfly	FC, roosting sites protected by CDFW	Winter roost sites along the coast from Baja California north to Mendocino County. Roosts are wind-protected tree groves, typically of eucalyptus (<i>Eucalyptus</i> spp.), Monterey cypress (<i>Hesperocyparis macrocarpa</i>), and Monterey pine (<i>Pinus radiata</i>).	Unlikely. Non-native tree species typically used for winter roosting are not present; the sole winter location on Point Reyes as per CNDDDB is located approximately 5.0 miles to the southwest near Drakes Bay (CDFW 2023). No indication of on-site winter roosting observed during the site visit.	Presumed Absent. No further recommendations for this species.
<i>Plebejus icarioides missionensis</i> Mission blue butterfly	FE	Known from Twin Peaks and Marin Headlands. Hosts on three perennial lupines (<i>Lupinus variicolor</i> , <i>L. albifrons</i> , <i>L. formosus</i>). Nectars on a variety of flowers.	No Potential. The Study Area is outside of this species' relatively limited Marin County range.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RESULTS AND RECOMMENDATIONS
<p><i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly</p>	FE	<p>Inhabits coastal terrace prairie habitat. Larval plant is dog violet (<i>Viola adunca</i>). Historic populations from Russian River to San Mateo County; currently known only from western Marin County and southwestern Sonoma County.</p>	<p>Unlikely. The Study Area is largely surrounded by forest and does not provide coastal terrace prairie habitat; nearest occurrences in CNDDDB located greater than 5 miles away in open portions of Tomales Point and Point Reyes (CDFW 2023).</p>	<p>Presumed Absent. No further recommendations for this species.</p>
<p><i>Syncaris pacifica</i> California freshwater shrimp</p>	FE, SE	<p>Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main stream flow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.</p>	<p>No Potential. Although the Study Area contains a small intermittent stream, this species is known from perennial streams.</p>	<p>Not Present. No further actions are recommended for this species.</p>

***Key to status codes:**

FC	Federal Candidate for Listing
FE	Federal Endangered
BGEPA	Bald and Golden Eagle Protection Act Species
FT	Federal Threatened
SC (E/T)	State Candidate for Listing (Endangered/Threatened)
SE	State Endangered
SFP	State Fully Protected Animal
SR	State Rare
SSC	State Species of Special Concern
ST	State Threatened
CRPR 1A	CNPS CRPR 1A: Plants presumed extinct in California
CRPR 1B	CNPS CRPR 1B: Plants rare, threatened or endangered in California and elsewhere
CRPR 2A	CNPS CRPR 2A: Plants presumed extirpated in California, but more common elsewhere
CRPR 2B	CNPS CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 3	CNPS CRPR 3: Plants about which CNPS needs more information (a review list)
CRPR 4	CNPS CRPR 4: Plants of limited distribution (a watch list)
WBWG	Western Bat Working Group High or Medium-high Priority Species

Potential to Occur:

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.

Results and Recommendations:

Present: Species was observed on the site or has been recorded (i.e. CNDDDB, other reports) on the site recently.

Assumed Present: Species is assumed to be present on-site based on the presence of key habitat components.

Assumed Present without Impact: Species assumed present; however, project activities will not have an impact on the species.

Presumed Absent: Species is presumed to not be present due to a lack of key habitat components.

Not Present: Species is considered not present due to a clear lack of any suitable habitat and/or local range limitations.

Not Observed: Species was not observed during dedicated/formal surveys.

Presence Unknown: Species has the potential to be present, but no dedicated surveys to determine absence/presence were performed.

Presence Unknown, No Impact: Species has the potential to be present; however, project activities will not have an impact on the species.

Appendix D

Representative Photographs



Existing guest house to be replaced as the focus of the proposed project



Managed herbaceous understory of coast live oaks with existing septic area



Yard between existing building to be replaced and the existing primary residence



Intermittent stream situated south of the Project Area greater than 100 feet