
Biological Resources Assessment

3636 ENTERPRISE AVE, HAYWARD CALIFORNIA

Prepared For:

Brian Council, President & CEO
Salem Broadcasting Company
855 Aviation Drive
Camarillo, CA 93010

Prepared By:

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

Contact: Ra'am Akiba-Hajim
akiba-hajim@wra-ca.com

Date: June 2020

WRA Project No: 30114



This page is intentionally left blank.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION.....	2
2.0 REGULATORY BACKGROUND	2
2.1 Sensitive Biological Communities	2
2.2 Sensitive Special-Status Species	4
3.0 METHODS	5
3.1 Biological Communities	5
3.1.1 Non-sensitive Biological Communities.....	5
3.1.2 Sensitive Biological Communities.....	6
3.2 Special-Status Species.....	6
3.2.1 Literature Review	6
3.2.2 Site Assessment	7
4.0 RESULTS	8
4.1 Biological Communities	8
4.1.1 Non-Sensitive Biological Communities	8
4.1.2 Sensitive Biological Communities.....	9
4.2 Special-Status Species.....	10
4.2.1 Plants.....	10
4.2.2 Wildlife	10
4.2.3 Critical Habitat.....	13
5.0 SUMMARY AND RECOMMENDATIONS.....	13
5.1 Biological Communities	13
5.2 Special-Status Plant Species.....	14
5.3 Special-Status Wildlife Species	14
5.4 Hayward Tree Ordinance.....	16
6.0 REFERENCES	16

LIST OF APPENDICES

Appendix A -- Figures

Appendix B – List of Observed Plant and Wildlife Species

Appendix C – Potential for Special-Status Species to Occur in the Project Area

Appendix D – Site Photographs

LIST OF TABLES

Table 1. Description of CNPS Ranks and Threat Codes	4
Table 2. Summary of Biological Communities in the Project Area	8

LIST OF ACRONYMS AND ABBREVIATIONS

APN	Assessor Parcel Number
Cal-IPC	California Invasive Plant Council
CCR	California Code of Regulations
CRR	California Ridgeway's rail
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
ESA	Federal Endangered Species Act
FAC	Facultative Plant
FACW	Facultative Wetland Plant
Inventory	CNPS Inventory of Rare and Endangered Plants
MBTA	Migratory Bird Treaty Act
NRCS	National Resource Conservation Service
NWI	National Wetland Inventory
OBL	Obligate Wetland Plant
OHWM	Ordinary High Water Mark
Rank	California Rare Plant Rank
RWQCB	Regional Water Quality Control Board
SMHM	Salt-marsh harvest mouse
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

EXECUTIVE SUMMARY

The purpose of this report is to provide an analysis of the natural communities and potential presence of special-status plant and wildlife species on the property located at 3636 Enterprise Avenue, Hayward, Alameda County, California (Project Area). This report identifies potential resources that could be considered regulatory constraints to a future development project.

On June 11, 2020, WRA, Inc. (WRA) conducted an assessment of the biological resources on the approximately 10.87-acre Project Area (Assessor Parcel Numbers [APN]'s 439-99-35 and 439-99-36-2). WRA biologists observed four biological communities; one of which is considered potentially sensitive under the California Environmental Quality Act (CEQA): 0.45 acre of seasonal wetland. Three special-status plant species, alkali milk-vetch (*Astragalus tener* var. *tener*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), Contra Costa goldfields (*Lasthenia conjugens*) have moderate or high potential to occur within the Project Area. Three special-status wildlife species have moderate potential to occur within or adjacent to the Project Area including: white-tailed kite (*Elanus leucurus*), northern harrier (*Circus hudsonius [cyaneus]*), and western snowy plover (*Charadrius nivosus (alexandrines) nivosus*). Additionally, common nesting birds protected by the California Fish and Game Code (CFGC) have potential to occur within the Project Area. Recommendations are discussed below to provide means for avoidance of impacts to special-status species.

1.0 INTRODUCTION

On June 11, 2020, WRA, Inc. (WRA) performed an assessment of biological resources on the approximately 10.87-acre property located at 3636 Enterprise Avenue, Hayward, Alameda County (Project Area, Figures 1 and 2 in Appendix A). The purpose of the assessment is to identify the limits of and potential presence of sensitive biological resources (species and habitats), and to provide general avoidance and minimization measures that may be required for future project work within the Project Area. The biological assessment is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. This assessment is based on information available at the time of the study, and on site conditions that were observed on the date of the site visit.

This report describes the results of the site visit, which assessed the Project Area for: (1) the potential to support special-status species, and (2) the presence of other sensitive biological resources protected by local, state, and federal laws and regulations. Specific findings on the habitat suitability or presence of special-status species or sensitive habitats may require that protocol-level surveys be conducted. This report also provides general recommendations should a specific project be developed within the Project Area, including triggers for required entitlements, as well as potential avoidance, minimization, and mitigation measures.

2.0 REGULATORY BACKGROUND

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

2.1 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations, such as the Clean Water Act (CWA); state regulations such as the Porter-Cologne Act, the California Department of Fish and Game Code (CDFG), and the California Environmental Quality Act (CEQA); or local ordinances or policies, such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the CWA. Waters of the U.S. are defined in the Code of CNs (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 of Engineers 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 Ordinary High Water Mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams.

The placement of fill material into Waters of the U.S 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 proposed 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 the California Department of Fish and Wildlife (CDFW, formerly the California Department of Fish and Game [CDFG]) under Sections 1600-1616 of CFGC. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. 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.

City of Hayward Tree Ordinance

The City of Hayward Tree Ordinance Section 10-15.13 defines a “protected tree” as trees having a minimum trunk diameter of eight inches measured 54” above the ground, street trees or other required trees, all memorial trees dedicated by an entity recognized by the city, and all specimen trees that define a neighborhood or community, and 13 native tree species that have a reached a minimum of four inches diameter trunk size. These 13 species include big leaf maple (*Acer macrophyllum*), California buckeye (*Aesculus californica*), madrone (*Arbutus menziesii*), western dogwood (*Cornus nuttallii*), California sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), blue oak (*Quercus douglassii*), Oregon white oak (*Quercus garryana*), California black oak (*Quercus kelloggii*), valley oak (*Quercus lobata*) interior live oak (*Quercus wislizenii*), and California Bay (*Umbellularia californica*)(Hayward 2020).

2.2 Sensitive Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed species and those that are formal candidates for listing. The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that in some regards are similar to those provided by ESA. Additionally, CDFW Species of Special Concern and CDFW California Fully Protected species are considered special-status species. Although these aforementioned species generally have no special legal status, they are given special consideration under CEQA. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a “High Priority” or “Medium Priority” species for conservation by the WBWG are typically considered special-status and also considered under CEQA. In addition to regulations for special-status species, most native birds in the United States (including non-status species) are protected by the federal Migratory Bird Treaty Act of 1918 (MBTA) and the CFGC (i.e., sections 3503, 3503.5 and 3513). Under the CFGC, deliberately destroying active bird nests, eggs, and/or young is illegal.

Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and Rank 4 species are afforded little or no protection under CEQA, but are included in this analysis for completeness. A description of the CNPS Ranks is provided below in Table 1.

Table 1. Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California

0.3	Not very threatened in California
-----	-----------------------------------

Critical Habitat

Critical habitat is a term defined in the ESA as a specific and 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 U.S. Fish and Wildlife Service (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. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species, but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

3.0 METHODS

On June 11, 2020, the Project Area was traversed on foot to determine (1) plant communities present within the Project Area, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats are present. All plant and wildlife species encountered were recorded, and are summarized in Appendix B. Plant nomenclature follows Baldwin et al. (2012) and subsequent revisions by the Jepson Flora Project (2020), except where noted. Because of recent changes in classification for many of the taxa treated by Baldwin et al. and the Jepson Flora Project, relevant synonyms are provided in brackets. For cases in which regulatory agencies, CNPS, or other entities base rarity on older taxonomic treatments, precedence was given to the treatment used by those entities.

3.1 Biological Communities

Prior to the site visit, the Soil Survey of Alameda Area, California National Resources Conservation Service (NRCS) Soil Map, National Wetland Inventory (NWI) were reviewed as background information. The Project Area was examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present. Biological communities present in the Project Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations discussed in Section 2.1.

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.1.1 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

Wetlands and Waters

The Project Area was surveyed to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFW were present. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status¹ of OBL, FACW, or FAC as given on the Corps National Wetlands Plant List (Lichvar et al. 2016). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, algal mats, and oxidized root channels, or indirect (secondary) indicators, such as a water table within two feet of the soil surface during the dry season. A formal delineation was not conducted during the biological resources assessment.

Other Sensitive Biological Communities

The Project Area was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFW. Prior to the site visit, aerial photographs, local soil maps, and *A Manual of California Vegetation, Online Edition* (CNPS 2020a) were reviewed to assess the potential for sensitive biological communities to occur in the Project Area. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by CDFW. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDDB; CDFW 2020). Sensitive plant communities are also identified by CDFW (CNPS 2020a). CNDDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2020) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or USFWS must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances. These communities are described in Section 4.1.2 below.

3.2 Special-Status Species

3.2.1 Literature Review

Potential occurrence of special-status species in the Project Area was evaluated by first determining which special-status species occur in the vicinity of the Project Area through a literature and database search. Database searches for known occurrences of special-status species focused on the San Leandro and eight surrounding 7.5 minute United States Geological

¹ OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

Survey (USGS) quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Project Area:

- CNDDDB records (CDFW 2020)
- USFWS Information for Planning and Conservation Species Lists (USFWS 2020)
- CNPS Inventory records (CNPS 2020b)
- California Department of Fish and Game publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFG publication *California Bird Species of Special Concern* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)

3.2.2 Site Assessment

A site visit was completed to search the Project Area for suitable habitats for special-status species. Habitat conditions observed were evaluated for the potential for presence of special-status species based on these searches and the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Project Area was then evaluated 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 recently.

The site assessment is intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Project Area. In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats. If necessary, recognized experts in individual species biology were contacted to obtain the most up to date information regarding species biology and ecology. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species; however, if special-status species were observed during the site visit, their presence was recorded.

4.0 RESULTS

The Project Area is located in the southeast corner of the San Leandro USGS 7.5-minute quadrangle (USGS 2020), within the city of Hayward. The Project Area consists of APNs 439-99-35 and 439-99-36-2, just north of Highway 92. The Project Area is bounded by industrial development to the north, east, and west, as well as some undeveloped lots to the south. In the greater vicinity the surrounding area is composed of mostly developed parcels with a variety of uses within the city of Hayward.

The Project Area is largely undeveloped except for broadcasting towers and supporting infrastructure currently utilized by the Salem Broadcasting Company. Elevations range from approximately 8 feet to 13 feet as the Project Area gradually slopes down to the southwest. Apart from the broadcasting towers there is also a power building and small gravel road that leads from the site entrance to the building.

4.1 Biological Communities

Four types of biological communities were observed within the Project Area. Table 2 summarizes the area of each community type observed within the Project Area. Non-sensitive biological communities include: coyote brush scrub, developed, and non-native annual grasslands. One sensitive biological communities exists within the Project Area: potential seasonal wetland. Descriptions of each biological community are found in the sections below. Biological communities within the Project Area are depicted in Figure 3 of Appendix A.

Table 2. Summary of Biological Communities in the Project Area

Community Type	Area (acres)/ linear feet
Non-sensitive	
Coyote brush scrub	0.33
Non-native annual grassland	9.83
Developed	0.26
Sensitive	
Potential seasonal wetlands	0.45
Total Project Area Size	10.87

4.1.1 Non-Sensitive Biological Communities

Three non-sensitive biological communities were observed during the site visit, including coyote brush scrub, non-native annual grassland, and developed areas. A detailed description of these communities is provided below. Representative photos of these three communities can be found in Appendix D.

Coyote Brush Scrub (Rarity Ranking G5/S5)

Coyote brush scrub is known from the outer Coast Ranges and Sierra Nevada Foothills from Del Norte County south to San Diego County. This vegetation community is typically located on river

mouths, riparian areas, terraces, stabilized dunes, coastal bluffs, open hillsides, and ridgelines on all aspects underlain by variable substrate of sand to clay (Sawyer et al. 2009).

Approximately 0.33 acres of coyote brush scrub occurs along the western border of the Project Area abutting an adjacent building. Dominant species within the coyote brush scrub within the Project Area include both coyote brush (*Baccharis pilularis*) and olive (*Olea europaea*). Coyote brush scrub is not considered sensitive under CEQA.

Non-native Annual Grassland (No Sensitivity Rarity Ranking)

Non-native annual grasslands are known throughout California, but are dominant in the Great Valley, the Coast Ranges, Transverse Ranges, Modoc Plateau, and South Coast. This vegetation community is located on a range of topographic settings (Sawyer et al. 2009, Baldwin et al. 2012). Substrates are varied, though are often composed of clays and clay loams with low permeability. These communities are dominated by non-native annual grasses, which often consist of species ranked as “moderate” to “high” by the California Invasive Plant Council (Cal-IPC) for their ability to invade wildlands (Cal-IPC 2020).

Approximately 9.83 acres of non-native annual grassland occurs throughout the Project Area. Dominant species within the non-native annual grassland varies throughout the Project Area includes Italian rye grass (*Festuca perennis*), slim oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), bull thistle (*Cirsium vulgare*), and Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*). In some portions of this community, these species grow in dense uniform patches, whereas in other portions of this community, these species grow in codominant mixtures. Non-native annual grassland is not considered sensitive under CEQA.

Developed

Developed areas within the Project Area are those that include manmade infrastructure to support the site’s historical and present usage as the Salem Broadcasting Company. These areas make up approximately 0.26 acres and include four broadcasting towers, one building that houses the power and controls for the towers, and the gravel road that runs from Enterprise Ave to the power building. Developed areas are well maintained and contain ruderal non-native vegetation such as ripgut brome and slim oat. The developed biological community is not considered sensitive under CEQA

4.1.2 Sensitive Biological Communities

A single sensitive community were observed during the site visit: potential seasonal wetland. A detailed description of this community is provided below. Representative photographs of this community can be found in Appendix D.

Seasonal Wetland (No Rarity Ranking; Corps and RWQCB Jurisdictional)

Four potential seasonal wetlands were observed during the site visit, these areas consisted of a series of low-lying depressions along the western side of the Project Area. These features contained vegetation that indicated potential wetlands including alkali heath (*Frankenia salina*, FACW), Italian rye grass (FAC), and saltgrass (*Distichlis spicata*, FAC). Boundaries of the seasonal wetland were mapped based on subtle changes in topography and vegetation composition shifts. These features may be considered jurisdictional under Sections 404 and 401 of the CWA, and under the Porter-Cologne Water Quality Act and are therefore considered

sensitive under CEQA. The June 11, 2020 site visit does not classify as a formal delineation, therefore a delineation of aquatic resources is necessary to determine the extent and presence of these potential seasonal wetlands.

4.2 Special-Status Species

4.2.1 Plants

Based upon a review of the resources and databases given in Section 3.2.1, 71 special-status plant species have been documented in a 5-mile radius of the Project Area (Figure 4 in Appendix A). Appendix C summarizes the potential for occurrence for each special-status plant species occurring in the vicinity of the Project Area.

No special-status plant species were observed in the Project Area during the site visit. However, two special-status plant species have a moderate potential to occur within the Project Area, and one has high potential, all are discussed below. The remaining species documented in the vicinity of the Project Area are unlikely or have no potential to occur due to a lack of suitable habitats or substrates such as broadleaved forests, cismontane woodlands, serpentine soils, coastal habitats or freshwater habitats (such as vernal pools, marshes, or seeps).

High Potential

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*). CRPR 1B. High Potential. Congdon's tarplant is an annual forb in the sunflower family (Asteraceae) that blooms from June to November. It typically occurs in alkaline grassy areas on the edge of brackish marsh in valley and foothill grassland habitat at elevations ranging from 1 to 750 feet (CDFW 2020, CNPS 2020). Observed associated species include common tarplant (*Centromadia pungens* ssp. *pungens*), alkali heath, salt grass, Italian rye grass, Mediterranean barley (*Hordeum marinum*), foxtail barley (*Hordeum murinum*), stinkwort (*Dittrichia graveolens*), yellow star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), and Bermuda grass (*Cynodon dactylon*) (CDFW 2020).

Congdon's tarplant is known from 31 USGS 7.5-minute quadrangles in Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, and Solano counties (CDFW 2020). There is a CNDDDB occurrence (occurrence #12) from 2009 within the Project Area. Congdon's tarplant has a high potential to occur in the Project Area due to the presence of some potential seasonal wetlands, this species' high tolerance for invasive species competition, and the CNDDDB occurrence being present within the Project Area.

Moderate Potential

Alkali milk-vetch (*Astragalus tener* var. *tener*). CRPR 1B. Moderate Potential. Alkali milk-vetch is an annual herb in the pea family (Fabaceae) that blooms from March to June. It typically occurs on low ground in alkali flats and flooded lands in alkali playa, valley and foothill grassland, and vernal pool habitat at elevations ranging from 0 to 200 feet (CDFW 2020, CNPS 2020). This species is a facultative wetland (FACW) plant (Lichvar 2012), and is regularly known from vernal pool habitat, but may occur in other wetland habitat types (VPA) (Keeler-Wolf et al. 1998). Observed associated species include docks (*Rumex crispus*, *R. pulcher*), rough cocklebur, spiny cocklebur, bird's-foot trefoil (*Lotus corniculatus*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), Italian rye grass, harvest brodiaea (*Brodiaea elegans*), stipitate popcornflower

(*Plagiobothrys stipitatus*), woolly marbles (*Psilocarphus tenellus*), salt grass (*Distichlis spicata*), mouse-tail (*Myosurus minimus*), and alkali heath (CDFW 2020).

Alkali milk-vetch is known from 35 USGS 7.5-minute quadrangles in Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties (CNPS 2020). There is a CNDDDB occurrence (occurrence #16) approximately 0.80 miles north of the Project Area. Alkali milk vetch has moderate potential to occur due to the presence of potential seasonal wetlands in addition to the CNDDDB occurrence nearby.

Contra Costa goldfields (*Lasthenia conjugens*) Federal Endangered, CRPR 1B. Contra Costa goldfields are annual herbs in the sunflower family (Asteraceae) that bloom from March to June. It typically occurs in vernal saturated areas in pools, depressions, and swales of open grassy areas in valley and foothill grassland, vernal pool, and cismontane woodland habitat at elevations ranging from 0 to 470 feet (CDFW 2020, CNPS 2020). This species is FACW plant (Lichvar 2012), and is restricted to vernal pool habitat (VPI) (Keeler-Wolf et al. 1998). Observed associated species include Italian rye grass, Mediterranean barley (*Hordeum marinum*), woolly marbles (*Psilocarphus* spp.), stipitate popcornflower (*Plagiobothrys stipitatus*), legene (*Legenere limosa*), smooth goldfields (*Lasthenia glaberrima*), yellow rayed goldfields (*Lasthenia glabrata*), semaphore grass (*Pleuropogon californicus*), calico flowers (*Downingia* spp.), and brass buttons (*Cotula coronopifolia*) (CDFW 2020).

Contra Costa goldfields are known from 24 USGS 7.5-minute quadrangles in Alameda, Contra Costa, Marin, Mendocino, Monterey, Napa, Santa Barbara, Santa Clara, Solano, and Sonoma Counties (CNPS 2020). There is a CNDDDB occurrence (occurrence #37) approximately 0.80 miles north of the Project Area. Contra Costa goldfields has moderate potential to occur due to the presence of potential seasonal wetlands in addition to the CNDDDB occurrence nearby.

4.2.2 Wildlife

Twenty-five special-status wildlife species have been documented in the CNDDDB within 5 miles of the Project Area (Figure 5 in Appendix A). Of these documented species, three have moderate potential to occur based on habitats within the Project Area. No special-status species were observed within the Project Area during the site assessment, but those with moderate potential to occur are discussed below.

Moderate Potential

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

The Project Area contains open grassland for foraging with nearby trees and shrubs which may provide nesting structure for white-tailed kite. Therefore, this species has moderate potential to occur within the Project Area.

Western snowy plover (*Charadrius nivosus (alexandrines) nivosus*), Federally Threatened, CDFW Species of Special Concern. Moderate Potential. The Pacific coast breeding population of the western snowy plover currently extends from Washington to Baja California, Mexico (USFWS 2007). Western snowy plovers breed primarily above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Less common nesting habitats include bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars (USFWS 2007). Nests typically occur in flat, open areas with sandy or saline substrates where vegetation and driftwood are usually sparse or absent. Nests consist of a shallow scrape or depression, sometimes lined with beach debris (e.g., small pebbles, shell fragments, plant debris, and mud chips (USFWS 2007). Nesting season extends from early March through late September. Snowy plovers winter mainly in coastal areas from southern Washington to Central America. In winter, snowy plovers are found on many of the beaches used for nesting as well as on beaches where they do not nest, in man-made salt ponds, and on estuarine sand and mud flats (USFWS 2007).

This species has been documented nesting in unvegetated island habitat less than one mile from the Project Area (CDFW 2020). The Project Area consists primarily of grassland and does not contain sandy, gravely soils suitable for nesting by this species. However, the Project Area is within 500 feet of bare ground which may support nesting by this species.

Northern harrier (*Circus hudsonius [cyaneus]*), CDFW Species of Special Concern. Moderate Potential. Northern harrier occurs as a resident and winter visitor in open habitats throughout most of California, including freshwater and brackish marshes, grasslands and fields, agricultural areas, and deserts. Harriers typically nest in treeless areas within patches of dense, relatively tall, vegetation, the composition of which is highly variable; nests are placed on the ground and are often located near water or within wetlands (Shuford and Gardali 2008). Harriers are birds of prey and subsist on a variety of small mammals and other vertebrates.

Mowing within the Project Area would tend to prevent the establishment of suitable nesting habitat for northern harrier. This species may nest in nearby marsh habitat at Hayward Regional Shoreline and may occasionally fly over or forage within the Project Area.

Federal Listed Species Unlikely to Occur

Salt marsh harvest mouse (*Reithrodontomys raviventris*), Federal Endangered, State Endangered and CDFW Fully Protected. Unlikely. The salt marsh harvest mouse (SMHM) is a relatively small rodent found only in suitable salt- and brackish-marsh habitat in the greater San Francisco Bay, San Pablo Bay, and Suisun Bay areas. The habitat associated with SMHM has been described as pickleweed-dominated vegetation (Fisler 1965), though more recent studies have shown that SMHM is supported equally in pickleweed-dominated and mixed vegetation (including native and non-native salt- and brackish-marsh species) (Sustaita et al. 2005, Sustaita et al. 2011). SMHM prefers deep, dense vegetative cover between 11.8 and 23.6 inches height (USFWS 1984), though there are indications that shorter stands (5.9 inches is the shortest commonly used) of pickleweed may also support an abundance of this species (Fisler 1965; Shellhammer et al. 1982; USFWS 2013). Another key habitat requirement for this species is upland or tidal refuge habitat, which is used to escape high tides and storm events. Persistent, low numbers of SMHM are also found in grasslands at least 330 feet (100 meters) from the edge of marsh habitat, though their presence in grasslands may be seasonal and opportunistic (USFWS 2013).

This species has been documented in salt marsh within 1 mile of the Project Area (CDFW 2020). The Project Area does not contain salt marsh or brackish wetland habitat to support this species. Salt marsh harvest mice may opportunistically occur in grassland or seek refuge in upland habitat during high tide or storm events. However, regular mowing of the grassland within the Project Area reduces suitability for upland refugia.

California Ridgway's (clapper) rail (*Rallus obsoletus obsoletus*). Federal Endangered, State Endangered, CDFW Fully Protected Species. Unlikely. The California Ridgway's rail (CRR), formerly known as California clapper rail (*R. longirostris obsoletus*), is the resident Ridgway's/clapper rail subspecies of northern and central California. Although more widespread in the past, it is currently restricted to the San Francisco Bay estuary. The CRR occurs only within salt and brackish marshes. According to Harvey (1988), Shuford (1993) and Eddleman and Conway (1998), important CRR habitat components are: 1) well-developed tidal sloughs and secondary channels; 2) beds of cordgrasses (*Spartina* spp.) in the lower marsh zone; 3) dense salt marsh vegetation for cover, nest sites, and brooding areas; 4) intertidal mudflats, gradually sloping banks of tidal channels, and cordgrass beds for foraging; 5) abundant invertebrate food resources; and 6) transitional vegetation at the marsh edge to serve as a refuge during high tides. In south and central San Francisco Bay and along the perimeter of San Pablo Bay, CRR typically inhabits salt marshes dominated by pickleweed and cordgrass. Brackish marshes supporting CRR occur along major sloughs and rivers of San Pablo Bay and along tidal sloughs of Suisun Marsh. Nesting occurs from March through July, with peak activity in late April to late May (DeGroot 1927, Harvey 1980, Harvey 1988). CRR nests, constructed of wetland vegetation and platform-shaped, are placed near the ground in clumps of dense vegetation, usually in the lower marsh zone near small tidal channels (DeGroot 1927, Evens and Page 1983, Harvey 1988).

This species is documented to occur at Hayward Regional Shoreline approximately 0.75 miles from the Project Area (CDFW 2020, McBroom 2019). USFWS has used 213 m (700 ft) from a nest site as a suitable buffer distance for most construction noise activities during the rail breeding season. Based on an aerial assessment, marsh habitat within 700 feet of the Project Area consists primarily of sparsely vegetated mudflat that is unlikely to support nesting by this species.

4.2.3 Critical Habitat

No critical habitat is designated within the Project Area (USFWS 2020).

5.0 SUMMARY AND RECOMMENDATIONS

One sensitive biological community was identified within the Project Area. Three special-status plant species and three special-status wildlife species have a moderate or high potential to occur within the Project Area. The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to these species and sensitive habitats.

5.1 Sensitive Biological Communities

The Project Area contains one sensitive biological community: potential seasonal wetlands. However the survey conducted does not constitute a wetland delineation, therefore the presence of these seasonal wetlands is a potential until such a survey takes place. These 0.45 acres of potential seasonal wetlands are potentially subject to the jurisdiction of the Corps under Section 404 of the CWA and the RWQCB under the Porter Cologne Act and Section 401 of the CWA.

Avoidance and minimization measures, as well as best management practices, should be employed to protect these features and to keep impacts to these features to a less than significant level under CEQA. However, if impacts are unavoidable to jurisdictional wetlands, the following regulatory permits and authorizations may be required prior to project approval:

- Corps CWA Section 404 Permit (potentially applies to the seasonal wetlands, a nationwide permit would be warranted if impacts as less than 0.5 acre, whereas an individual permit requiring an alternatives analysis would be warranted if impacts are greater than 0.5 acre)
- RWQCB CWA Section 401 Water Quality Certification (applies to the seasonal wetlands)

Unavoidable impacts to wetlands and non-wetland waters will likely be require mitigation at a minimum of a 1:1 ratio.

5.2 Special-Status Plant Species

Three special-status plant species, were determined to have moderate or high potential to occur within the Project Area, largely within the potential seasonal wetland community. The site visit does not constitute a protocol-level rare plant survey despite the survey taking place during some of the three species' published bloom periods. Thus, prior to implementation of any project, preconstruction rare plant surveys are recommended to determine the presence or absence of these species within the Project Area. These surveys should be conducted during the individual blooming periods of each species.

If determined to be present, impacts to special-status plant species should be avoided, and such populations should be protected through the implementation of avoidance and minimization measures, as well as best management practices. If potential impacts to special-status plant species are unavoidable and considered significant under the CEQA, the incorporation of mitigation measures may be required to reduce impact levels to less than significant under CEQA.

5.3 Special-Status Wildlife Species

Three special-status wildlife species have the potential to occur within or adjacent to the Project Area: white-tailed kite, northern harrier, and western snowy plover. Two special-status wildlife species, salt marsh harvest mouse and California Ridgway's rail, are documented at Hayward Regional Marsh but are unlikely to occur within or adjacent to the Project Area based on current conditions; variations in vegetative structure within and adjacent to the Project Area in future years could result in changes in changes to these species' potential to occur. WRA recommends the following measure be implemented to avoid take of special-status species and nesting birds protected by the CFGC.

Western snowy plover

The Project Area does not contain nesting habitat for snowy plover. However, this species may nest on salt flats or levees at nearby Hayward Regional Marsh (with potentially suitable habitat as close as 250 feet from the Project Area). Future construction activities within the Project Area could result in indirect impacts to snowy plover, including disturbance of nesting individuals. If project activities occur during the nesting bird season (February 1 through August 31), multiple site visits may be required prior to initiation of work to determine nesting status. If snowy plover is determined to be nesting in adjacent habitat, a no-disturbance buffer of up to 250 meters (820 feet) may be prescribed. Light pollution affecting the adjacent wetlands and preservation areas

may also be considered an impact. If future construction or development includes lighting elements, measures may be required to reduce effects to adjacent wetland areas including the use of shields, dimming technology, or angling lighting down and away from sensitive habitats.

Birds

In addition to western snowy plover, the following special-status avian species have potential to nest within or adjacent to the Project Area: white-tailed kite and northern harrier. White-tailed kite is listed as a California fully-protected species. This designation requires extra consideration for buffer zones around active nests but are otherwise surveyed for in the same manner as native nesting birds, as outlined below.

For the protection of special-status birds, as well as native nesting birds with general protections under the CFGC, future project activities should occur to the extent feasible, between September 1 and January 31, which is outside of the nesting season. If this is not possible, and project activities are initiated during the nesting season (February 1 through August 31), then WRA recommends that a nesting bird survey be conducted by a qualified wildlife biologist no more than 14 days prior to the start of project activities. If nests are identified, a no-disturbance buffer should be implemented to avoid impacts to nesting birds. Buffers typically range from 25 feet to 500 feet, though larger buffers may be prescribed depending on the species and protection status of that species.

California Ridgway's rail

There are known populations of California Ridgway's rail at Hayward Regional Marsh, with detections within 1 mile of the Project Area (CDFW 2020, McBroom 2019). Currently, vegetation within 700 feet of the Project Area appears to lack tidal influence and the associated wetland communities to support nesting by this species. However, if salt marsh vegetation adjacent to the Project Area changes such that it is suitable to support nesting, additional measures may be necessary prior to construction for the protection of California Ridgway's rail. WRA recommends that prior to construction activities, if marsh habitat exists within 700 feet of proposed construction or staging, an assessment should be conducted for the potential to support California Ridgway's rail. If it is determined that suitable nesting habitat is present, construction activities should be avoided during the breeding season (February 1 through August 31) to the extent feasible. If construction is to occur within 700 feet of tidal and salt marsh habitat that is suitable for nesting, protocol level surveys may be warranted with guidance from the USFWS. As described for western snowy plover, light pollution affecting the adjacent wetlands and preservation areas may also be considered a potential impact.

Salt marsh harvest mouse

Salt marsh harvest mice are unlikely to occur in the Project Area based on current conditions. Regular mowing of the grassland within the Project Area reduces suitability for upland refugia. If vegetation management within the Project Area ceased, such that tall or dense vegetation became available, additional measures may be necessary prior to construction activities for the protection of salt marsh harvest mouse. Recommended measures may include hand clearing of vegetation near marsh habitat and/ or installation of an exclusion fence to keep salt marsh harvest mice out of the work area. As described for western snowy plover, light pollution affecting the adjacent wetlands and preservation areas may also be considered.

5.4 Hayward Tree Ordinance

There are no trees present within the Project Area that fall under Hayward's Tree Ordinance definition of "protected tree".

6.0 REFERENCES

- Baldwin, BG, DH Goldman, DJ Keil, R Patterson, TJ Rosatti, and DH Wilken (eds.). 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley, CA.
- Bent, A.C. 1929. Life histories of North American shore birds. Part II. U.S. Natl. Mus.
- California Department of Fish and Game (CDFG). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code. Environmental Services Division, Sacramento, CA.
- California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA.
- California Invasive Plant Council (Cal-IPC). 2020. California Invasive Plant Inventory Database. California Invasive Plant Council, Berkeley, CA. Online at: <http://www.cal-ipc.org/paf/>; most recently accessed: June 2020
- California Native Plant Society (CNPS). 2020a. A Manual of California Vegetation, Online Edition. Sacramento, California. Online at: <http://vegetation.cnps.org/>; most recently accessed: June 2020.
- California Native Plant Society (CNPS). 2020b. Inventory of Rare and Endangered Plants (online edition, v8-02). Sacramento, California. Online at: <http://rareplants.cnps.org/>; most recently accessed: June 2020.
- DeGroot, D.S. 1927. The California clapper rail: its nesting habits, enemies and habitat. Condor 29(6): 259-270.
- Dunk, JR. 1995. White-tailed Kite (*Elanus leucurus*), The Birds of North America Online (A Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/178>.
- eBird. 2020. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: <http://www.ebird.org>. Accessed: June.
- Eddleman, W. R and C. J. Conway. 1998. Clapper Rail (*Rallus longirostris*). In: The Birds of North America, No. 340. A. Poole and F. Gill, eds. The Academy of Natural Sciences, Philadelphia, and the American Ornithologists' Union, Washington, D.C.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

- Evens, J. and G. Page. 1983. The ecology of rail populations at Corte Madera Ecological Preserve with recommendations for management. Report prepared for the Marin Audubon Society. 62 pp.
- Fisler, GF. 1965. Adaptations and speciation in harvest mice of the marshes of San Francisco Bay. University of California Publications in Zoology 77: 1-108.
- Google Earth. 2020. Aerial Imagery 1993-2020. Accessed June 2020.
- Harvey, T. E. 1988. Breeding biology of the California clapper rail in South San Francisco Bay. Transactions of the Western Section of the Wildlife Society 24: 98-104.
- Harvey, T. E. 1980. A breeding season survey of the California clapper rail (*Rallus longirostns obsoletus*) in South San Francisco Bay. San Francisco Bay National Wildlife Refuge, Newark, California.
- Hayward, City of Hayward Municipal Code. <https://www.hayward-ca.gov/documents/street-tree-ordinance>. Accessed June 2020.
- Holland, RF. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game, Sacramento, CA.
- Jepson Flora Project (eds.). 2020. Jepson eFlora. Online at: <http://ucjeps.berkeley.edu/IJM.html>; most recently accessed June 2020
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.
- McBroom, J. 2019. California Ridgway's Rail Surveys for the San Francisco Estuary Invasive Spartina Project 2019. Report prepared for the State Coastal Conservancy, San Francisco Estuary Invasive Spartina Project, Oakland, California by Olofson Environmental, Inc. 91 + iii pp. November.
- Natural Resources Conservation Service (NRCS). 2010. Field Indicators of Hydric Soils in the United States, version 7.0. In cooperation with the National Technical Committee for Hydric Soils, Fort Worth, TX.
- NatureServe. 2020. NatureServe Conservation Status. Available online at: <http://explorer.natureserve.org/ranking.htm>
- Novato. City of Novato Municipal Code. 2020. Available online at: https://library.municode.com/ca/novato/codes/code_of_ordinances; most recently accessed: June 2020.
- Page, G.W., J.C. Warriner and P.W.C. Paton. 1995. Snowy Plover (*Charadrius alexandrinus*). In: The Birds of North America, No. 154 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and the American Ornithologists Union, Washington D.C.
- Powell, A. N., C. L. Collier, and B. Peterson. 1995. The Status of western snowy plovers (*Charadrius alexandrinus nivosus*) in San Diego County, 1995. Report to U.S. Fish and Wildlife Service, Portland OR, and CA DFG, Sacramento, CA.

- Robinson-Nilsen, C., Demers, J., and C. Strong. 2009. Western Snowy Plover Numbers, Nesting Success, Fledging Success and Avian Predator Surveys in the San Francisco Bay, 2009. Prepared for San Francisco Bay Bird Observatory and U.S. Fish and Wildlife Service. November 2009.
- Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A Manual of California Vegetation, 2nd Edition. California Native Plant Society in collaboration with California Department of Fish and Game, Sacramento, CA. 1300 pp.
- Shellhammer, H.S., Jackson, R., Davilla, W., Gilroy, A.M., Harvey, H.T., and Simons, L. 1982. Habitat Preferences of Salt Marsh Harvest Mice (*Reithrodontomys raviventris*). The Wasmann Journal of Biology. Vol: 40(1-2). pp. 102-144.
- Shuford, W. D. 1993. The Marin County Breeding Bird Atlas: A Distributional and Natural History of Coastal California Birds. Bushtit Books, Bolinas, CA.
- Shuford, WD, and T Gardali (eds). 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and CDFG, Sacramento.
- Stebbins, RC. 2003. A Field Guide to Western Reptiles and Amphibians, third edition. The Peterson Field Guide Series, Houghton Mifflin Company, NY.
- Stenzel, L. E., J. C. Warriner, J. S. Warriner, K. S. Wilson, F. C. Bidstrup, and G. W. Page. 1994. Long-distance breeding dispersal of snowy plovers in western North America. Journal of Animal Ecology 63: 887-902.
- Sustaita, D, L Barthman-Thompson, P Quickert, L Patterson, and S Estrella. 2005. Annual Salt Marsh Harvest Mouse Demography and Habitat Use in Suisun Marsh Conservation Areas. Presentation at the CALFED Science Conference.
- Sustaita, D, PF Quickert, L Patterson, L Barthman-Thompson, S Estrella. 2011. Salt Marsh Harvest Mouse Demography and Habitat Use in the Suisun Marsh, California. The Journal of Wildlife Management 75(6): 1498-1507.
- Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. Co-published by the California Department of Fish and Wildlife and University of California Press. Oakland, California.
- U.S. Army Corps of Engineers (Corps). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.
- U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency. 2007. U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook.
- U.S. Department of Agriculture (USDA), Soil Conservation Service. 2020. Soil Survey of Alameda Area, California. In cooperation with the University of California Agricultural Experiment Station.

- USDA, Natural Resources Conservation Service. 2020. Web Soil Survey. Online at <http://websoilsurvey.nrcs.usda.gov>; most recently accessed: June 2020.
- U.S. Fish and Wildlife Service (USFWS). 1984. Salt marsh harvest mouse and California clapper rail recovery plan. Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). 2013. Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California. Sacramento, California. xviii + 605 pp.
- U.S. Fish and Wildlife Service (USFWS). 2007. Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (*Charadrius alexandrinus nivosus*). Sacramento, CA.
- U.S. Fish and Wildlife Service (USFWS). 2020. Information for Conservation and Planning Database. Available online at: <https://ecos.fws.gov/ipac/>; most recently accessed: June 2020.
- Western Bat Working Group (WBWG). 2020. Species Accounts. Available online at: <http://wbwg.org/western-bat-species/>; Accessed June 2020.
- Zeiner, DC, WF Laudenslayer, Jr., KE Mayer, and M White. 1990. California's Wildlife, Volume I-III: Amphibians and Reptiles, Birds, Mammals. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, CA.

APPENDIX A
FIGURES

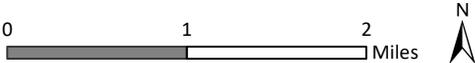
This page intentionally left blank.



Sources: National Geographic, WRA | Prepared By: JSChuster, 6/11/2020

Figure 1. Project Area Regional Location Map

Salem Broadcasting Project - Hayward
 Hayward, Alameda County, California

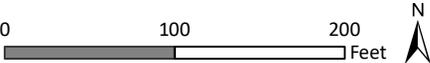




Sources: Esri World Imagery, WRA | Prepared By: JSChuster, 6/11/2020

Figure 2. Project Area

Salem Broadcasting Project - Hayward
 Hayward, Alameda County, California



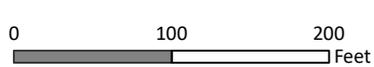


Path: L:\Acad 2000 Files\30000\30114\GIS\ArcMap\Biocomms_20200616.mxd

Sources: Esri World Imagery, WRA | Prepared By: JSChuster, 6/18/2020

Figure 3. Biological Communities within the Project Area

Salem Broadcasting Project - Hayward
Hayward, Alameda County, California



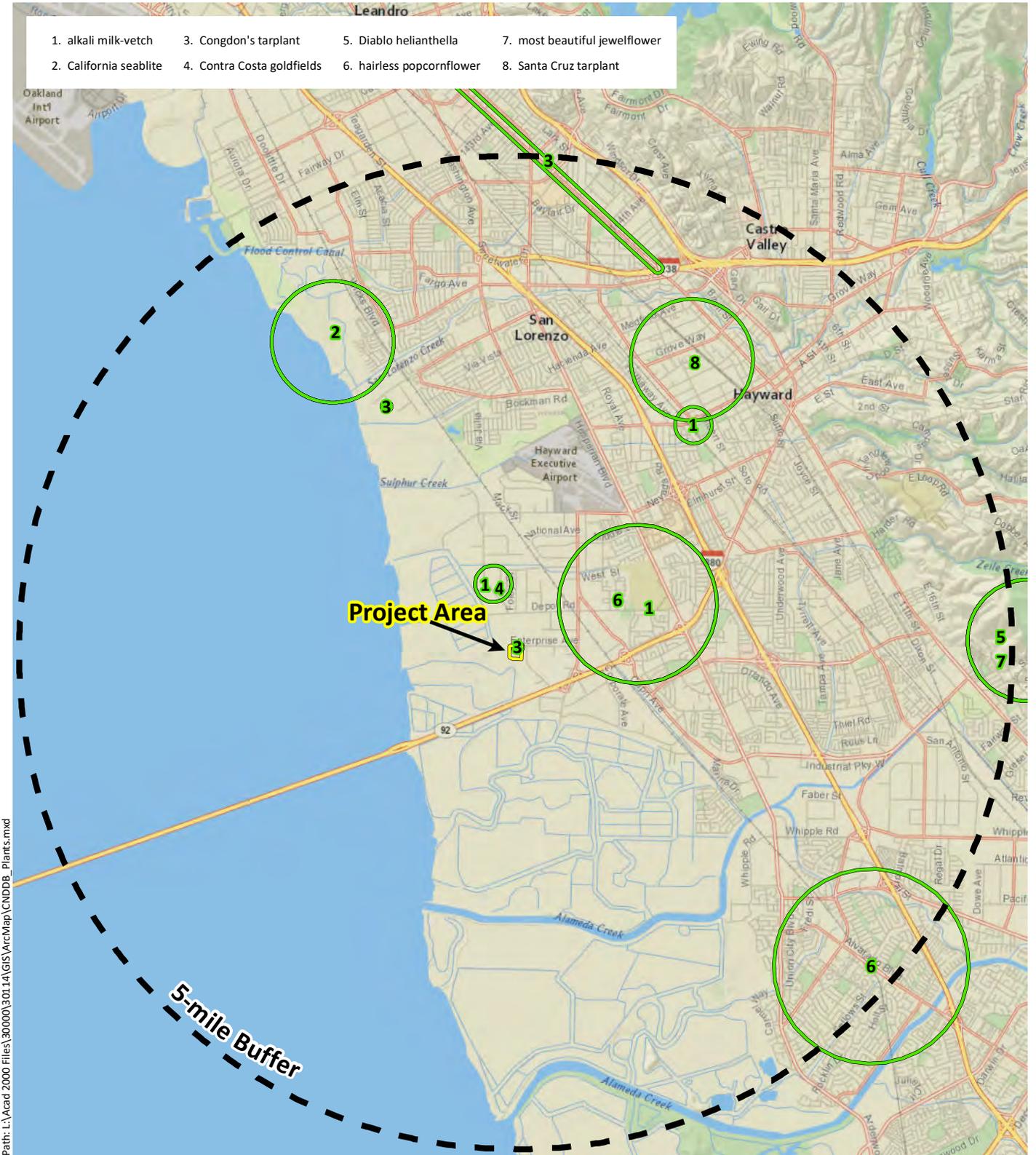


Figure 4 Special-Status Plant Species Documented within 5-miles of the Project Area

Salem Broadcasting Project - Hayward
 Hayward, Alameda County, California



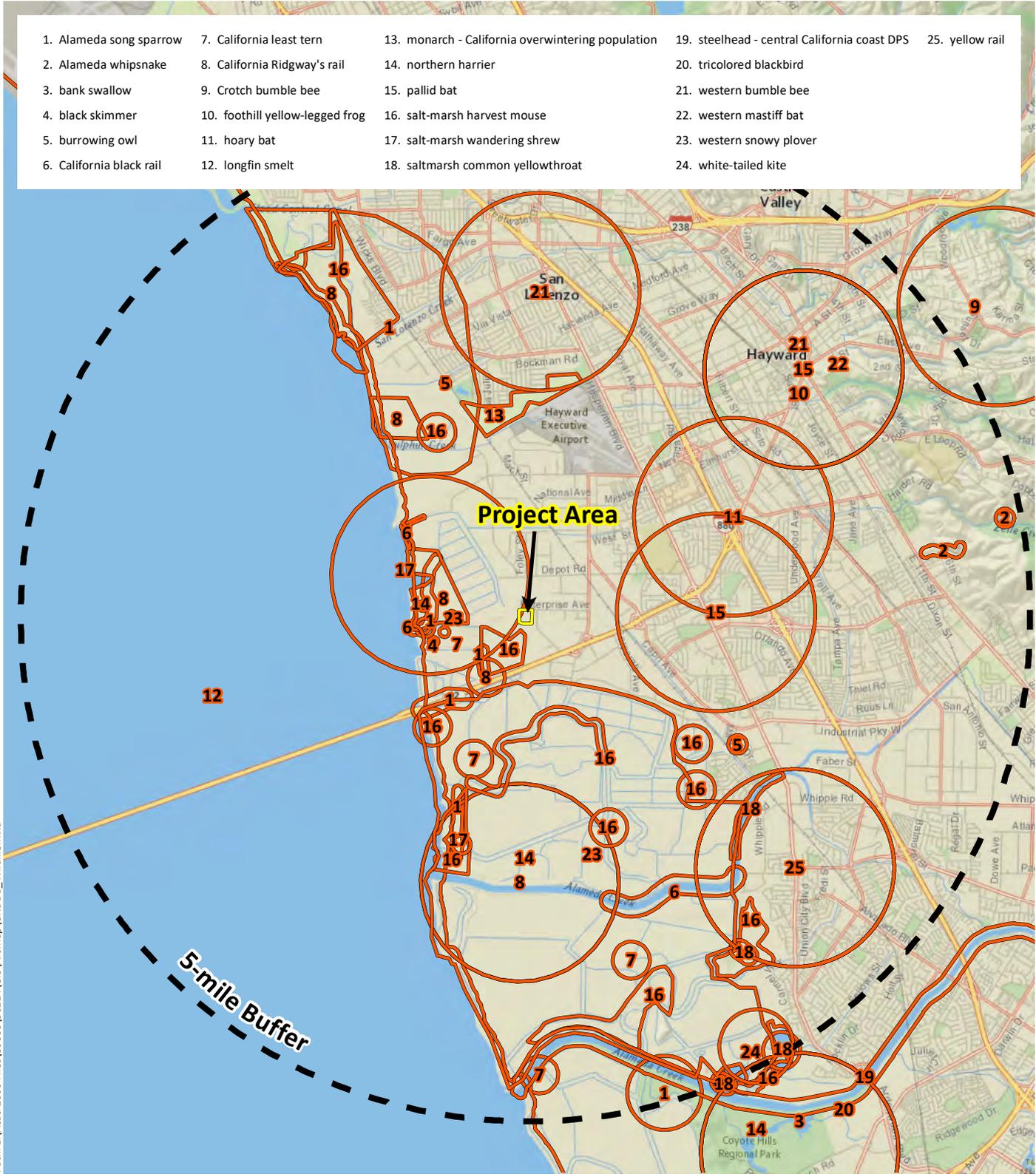


Figure 5. Special-Status Wildlife Species Documented within 5-miles of the Project Area

Salem Broadcasting Project - Hayward
Hayward, Alameda County, California



APPENDIX B
LIST OF OBSERVED PLANT AND WILDLIFE SPECIES

This page intentionally left blank.

Appendix B-1. Plant species observed in the Project Area on June 11, 2020.

Scientific Name	Common Name	Origin	Form	CAL-IPC Status*	Wetland Status (AW 2016)
<i>Avena fatua</i>	Wildoats	non-native (invasive)	annual grass	Moderate	-
<i>Baccharis pilularis</i>	Coyote brush	native	shrub	-	-
<i>Bromus diandrus</i>	Ripgut brome	non-native (invasive)	annual grass	Moderate	-
<i>Carduus pycnocephalus ssp. pycnocephalus</i>	Italian thistle	non-native	annual herb	-	-
<i>Centaurea solstitialis</i>	Yellow starthistle	non-native (invasive)	annual herb	High	-
<i>Cirsium vulgare</i>	Bullthistle	non-native (invasive)	perennial herb	Moderate	FACU
<i>Convolvulus arvensis</i>	Field bindweed	non-native (invasive)	perennial herb, vine	-	-
<i>Cortaderia jubata</i>	Andean pampas grass	non-native (invasive)	perennial grass	High	FACU
<i>Distichlis spicata</i>	Salt grass	native	perennial grass	-	FAC
<i>Elymus triticoides</i>	Beardless wild rye	native	perennial grass	-	FAC
<i>Epilobium brachycarpum</i>	Willow herb	native	annual herb	-	-
<i>Festuca perennis</i>	Italian rye grass	non-native	annual, perennial grass	-	FAC
<i>Foeniculum vulgare</i>	Fennel	non-native (invasive)	perennial herb	High	-
<i>Frankenia salina</i>	Yerba reuma, alkali heath	native	perennial herb	-	FACW
<i>Hirschfeldia incana</i>	Mustard	non-native (invasive)	perennial herb	Moderate	-
<i>Hordeum murinum</i>	Foxtail barley	non-native (invasive)	annual grass	-	FACU
<i>Lactuca serriola</i>	Prickly lettuce	non-native (invasive)	annual herb	-	FACU
<i>Lotus corniculatus</i>	Bird's foot trefoil	non-native (invasive)	perennial herb	-	FAC
<i>Malva parviflora</i>	Cheeseweed	non-native	annual herb	-	-
<i>Olea europaea</i>	Olive	non-native (invasive)	tree, shrub	Limited	-
<i>Plantago erecta</i>	California plantain	native	annual herb	-	-
<i>Raphanus sativus</i>	Jointed charlock	non-native (invasive)	annual, biennial herb	Limited	-
<i>Rumex crispus</i>	Curly dock	non-native (invasive)	perennial herb	Limited	FAC

Appendix B-2. Wildlife species observed in the Project Area on June 11, 2020.

Wildlife	
<i>Branta canadensis</i>	Canada goose
<i>Calypte anna</i>	Anna's hummingbird
<i>Charadrius vociferus</i>	killdeer
<i>Corvus brachyrhynchos</i>	American crow
<i>Haemorhous mexicanus</i>	house finch
<i>Lepus californicus</i>	black-tailed jackrabbit
<i>Sayornis nigricans</i>	black phoebe
<i>Sturnus vulgaris</i>	European starling

APPENDIX C
POTENTIAL FOR SPECIAL-STATUS SPECIES
TO OCCUR IN THE PROJECT AREA

.

This page intentionally left blank.

Appendix C. Potential for special-status plant and wildlife species to occur in the Project Area. List compiled from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CDFW 2020), U.S. Fish and Wildlife Service (USFWS) Species Lists (USFWS 2020), and California Native Plant Society (CNPS) Electronic Inventory (CNPS 2020a) searches of the San Leandro and surrounding eight USGS 7.5' quadrangles.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Plants				
bent-flowered fiddleneck <i>Amsinckia lunaris</i>	Rank 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. Elevation ranges from 5 to 1640 feet (3 to 500 meters). Blooms Mar-Jun.	Unlikely. The Project Area does not contain coastal bluff scrub, cismontane woodland, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
California androsace <i>Androsace elongata</i> <i>ssp. acuta</i>	Rank 4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. Elevation ranges from 490 to 4280 feet (150 to 1305 meters). Blooms Mar-Jun.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for California androsace. The Project Area does not contain cismontane woodland, coastal scrub, meadows, seeps, pinyon woodlands, juniper woodlands, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
slender silver moss <i>Anomobryum julaceum</i>	Rank 4.2	Broadleaved upland forest, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 325 to 3280 feet (100 to 1000 meters).	No Potential. The Project Area does not contain any broadleaved upland forest, lower montane coniferous forest, or north coast coniferous forest. The Project Area is also outside this species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Mt. Diablo manzanita <i>Arctostaphylos auriculata</i>	Rank 1B.3	Chaparral (sandstone), cismontane woodland. Elevation ranges from 440 to 2135 feet (135 to 650 meters). Blooms Jan-Mar.	No Potential. The Project Area does not contain any sandstone substrate chaparral or cismontane woodland. The Project Area is also outside this species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Contra Costa manzanita <i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i>	Rank 1B.2	Chaparral (rocky). Elevation ranges from 1410 to 3610 feet (430 to 1100 meters). Blooms Jan-Mar(Apr).	No Potential. The Project Area does not contain any rocky substrate chaparral. The Project Area is also outside this species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
pallid manzanita <i>Arctostaphylos pallida</i>	FT, SE, Rank 1B.1	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Elevation ranges from 605 to 1525 feet (185 to 465 meters). Blooms Dec-Mar.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for pallid manzanita. The Project Area does not contain broadleafed upland forest, closed-cone coniferous forest, cismontane woodland, or coastal scrub. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	Rank 1B.2	Playas, valley and foothill grassland (adobe clay), vernal pools. Elevation ranges from 0 to 195 feet (1 to 60 meters). Blooms Mar-Jun.	Moderate Potential. While the Project Area does not contain any playas, valley grasslands, foothill grasslands, or vernal pools there are multiple CNDDDB occurrences with the closest being from 1959 approximately 0.80 miles north of the Project Area (CDFW 2020).	Protocol level surveys during this species blooming period are recommended.
big-scale balsamroot <i>Balsamorhiza macrolepis</i>	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 145 to 5100 feet (45 to 1555 meters). Blooms Mar-Jun.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for big-scale balsamroot. The Project Area does not contain cismontane woodland, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mt. Diablo fairy-lantern <i>Calochortus pulchellus</i>	Rank 1B.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. Elevation ranges from 95 to 2755 feet (30 to 840 meters). Blooms Apr-Jun.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Mt. Diablo fairy lantern. The Project Area does not contain cismontane woodland, riparian woodland, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Oakland star-tulip <i>Calochortus umbellatus</i>	Rank 4.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Elevation ranges from 325 to 2295 feet (100 to 700 meters). Blooms Mar-May.	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Oakland star-tulip. The Project Area does not contain broadleafed upland forest, cismontane woodland, lower montane coniferous forest, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
chaparral harebell <i>Campanula exigua</i>	Rank 1B.2	Chaparral (rocky, usually serpentine). Elevation ranges from 900 to 4100 feet (275 to 1250 meters). Blooms May-Jun.	No Potential. The Project Area does not contain any rocky or rocky serpentine substrate chaparral. The Project Area is also outside this species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
johnny-nip <i>Castilleja ambigua</i> var. <i>ambigua</i>	Rank 4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools margins. Elevation ranges from 0 to 1425 feet (0 to 435 meters). Blooms Mar-Aug.	No Potential. The Project Area does not contain coastal bluff scrub, coastal prairie, coastal scrub, marshes, valley grasslands, foothill grasslands, or vernal pools. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 755 feet (0 to 230 meters). Blooms May-Oct(Nov).	High Potential. While the Project Area does not contain valley or foothill grasslands, there is a CNDDDB occurrence from within the Project Area from 2009 (CDFW 2020).	Protocol level surveys during this species blooming period are recommended.
Point Reyes bird's-beak <i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Rank 1B.2	Marshes and swamps (coastal salt). Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms Jun-Oct.	Unlikely. The Project Area does not contain any coastal salt marshes. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FE, Rank 1B.1	Chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub. Elevation ranges from 5 to 985 feet (3 to 300 meters). Blooms Apr-Sep.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for robust spineflower. The Project Area does not contain cismontane woodland, coastal dunes, or coastal scrub. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Santa Clara red ribbons <i>Clarkia concinna</i> ssp. <i>automixa</i>	Rank 4.3	Chaparral, cismontane woodland. Elevation ranges from 295 to 4920 feet (90 to 1500 meters). Blooms (Apr)May-Jun(Jul).	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Santa Clara red ribbons. The Project Area does not contain cismontane woodland. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Presidio clarkia <i>Clarkia franciscana</i>	FE, SE, Rank 1B.1	Coastal scrub, valley and foothill grassland (serpentine). Elevation ranges from 80 to 1100 feet (25 to 335 meters). Blooms May-Jul.	No Potential. The Project Area does not contain any coastal scrub, serpentine substrate valley or foothill grasslands. The Project Area is also outside this species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Hospital Canyon larkspur <i>Delphinium californicum</i> ssp. <i>interius</i>	Rank 1B.2	Chaparral (openings), cismontane woodland (mesic), coastal scrub. Elevation ranges from 635 to 3595 feet (195 to 1095 meters). Blooms Apr-Jun.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Hospital Canyon larkspur. The Project Area does not contain cismontane woodland or coastal scrub. The Project Area is outside of the species elevation range. Additionally there are no nearby	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
			CNDDDB occurrences for this species (CDFW 2020).	
western leatherwood <i>Dirca occidentalis</i>	Rank 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. Elevation ranges from 80 to 1395 feet (25 to 425 meters). Blooms Jan-Mar(Apr).	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for western leatherwood. The Project Area does not contain broadleafed upland forest, closed-cone coniferous forest, cismontane woodland, north coast, coniferous forest, riparian forest, or riparian woodland. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Tiburon buckwheat <i>Eriogonum luteolum</i> var. <i>caninum</i>	Rank 1B.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 0 to 2295 feet (0 to 700 meters). Blooms May-Sep.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for western leatherwood. The Project Area does not contain cismontane woodland, coastal prairie, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mt. Diablo buckwheat <i>Eriogonum truncatum</i>	Rank 1B.1	Chaparral, coastal scrub, valley and foothill grassland. Elevation ranges from 5 to 1150 feet (3 to 350 meters). Blooms Apr-Sep(Nov-Dec).	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for western leatherwood. The Project Area does not contain coastal scrub, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	Rank 1B.1	Vernal pools. Elevation ranges from 5 to 150 feet (3 to 45 meters). Blooms (Jun)Jul(Aug).	No Potential. The Project Area does not contain any vernal pools. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Jepson's coyote thistle <i>Eryngium jepsonii</i>	Rank 1B.2	Valley and foothill grassland, vernal pools. Elevation ranges from 5 to 985 feet (3 to 300 meters). Blooms Apr-Aug.	No Potential. The Project Area does not contain any vernal pools, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
San Joaquin spearscale <i>Extriplex joaquinana</i>	Rank 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. Elevation ranges from 0 to 2740 feet (1 to 835 meters). Blooms Apr-Oct.	No Potential. The Project Area does not contain any chenopod scrub, meadows, seeps, playas, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
fragrant fritillary <i>Fritillaria liliacea</i>	Rank 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 5 to 1345 feet (3 to 410 meters). Blooms Feb-Apr.	Unlikely. The Project Area does not contain any cismontane woodland, coastal prairie, coastal scrub, valley or foothill grasslands. The nearest CNDDDB occurrence is from 2010 approximately 5.8 miles northeast of the Project Area (CDFW 2020).	No further recommendations for this species.
dark-eyed gilia <i>Gilia millefoliata</i>	Rank 1B.2	Coastal dunes. Elevation ranges from 5 to 100 feet (2 to 30 meters). Blooms Apr-Jul.	No Potential. The Project Area does not contain any coastal dunes. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Diablo helianthelia <i>Helianthella castanea</i>	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Elevation ranges from 195 to 4265 feet (60 to 1300 meters). Blooms Mar-Jun.	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Diablo helianthelia. The Project Area does not contain broadleafed upland forest, cismontane woodland, coastal scrub, valley or foothill grasslands. The Project Area is outside of the species elevation	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
			range. The nearest CNDDB occurrence is from 2002 approximately 5.2 miles east in the foothills.	
Brewer's western flax <i>Hesperolinon breweri</i>	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 95 to 3100 feet (30 to 945 meters). Blooms May-Jul.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Brewer's western flax. The Project Area does not contain cismontane woodland, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Loma Prieta hoita <i>Hoita strobilina</i>	Rank 1B.1	Chaparral, cismontane woodland, riparian woodland. Elevation ranges from 95 to 2820 feet (30 to 860 meters). Blooms May-Jul(Aug-Oct).	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Loma Prieta hoita. The Project Area does not contain cismontane woodland or riparian woodland. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT, SE, Rank 1B.1	Coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 30 to 720 feet (10 to 220 meters). Blooms Jun-Oct.	Unlikely. The Project Area does not contain any coastal prairie, coastal scrub, valley or foothill grasslands. The soil within the Project Area do not contain any light, sandy soil or sandy clay. The nearest CNDDDB occurrence is from 1915 approximately 3.5 miles northeast of the Project Area (CDFW 2020).	No further recommendations for this species.
Kellogg's horkelia <i>Horkelia cuneata</i> var. <i>sericea</i>	Rank 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub. Elevation ranges from 30 to 655 feet (10 to 200 meters). Blooms Apr-Sep.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Kellogg's horkelia. The Project Area does not contain close-cone coniferous forest, coastal dunes, and coastal scrub. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
coast iris <i>Iris longipetala</i>	Rank 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May.	No Potential. The Project Area does not contain any coastal prairie, lower montane coniferous forest, meadows, or seeps. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Northern California black walnut <i>Juglans hindsii</i>	Rank 1B.1	Riparian forest, riparian woodland. Elevation ranges from 0 to 1445 feet (0 to 440 meters). Blooms Apr-May.	No Potential. The Project Area does not contain any riparian forest or riparian woodland. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE, Rank 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	Moderate Potential. The Project Area does not contain any cismontane woodland, alkaline playas, valley grasslands, foothill grasslands, or vernal pools. However there is a CNDDDB occurrence from 1959 approximately 0.80 miles north of the Project Area (CDFW 2020).	Protocol level surveys during this species blooming period are recommended.
bristly leptosiphon <i>Leptosiphon acicularis</i>	Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet (55 to 1500 meters). Blooms Apr-Jul.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for bristly leptosiphon. The Project Area does not contain cismontane woodland, coastal prairie, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
			occurrences for this species (CDFW 2020).	
Hall's bush-mallow <i>Malacothamnus hallii</i>	Rank 1B.2	Chaparral, coastal scrub. Elevation ranges from 30 to 2495 feet (10 to 760 meters). Blooms (Apr)May-Sep(Oct).	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for Hall's bush-mallow. The Project Area does not contain cismontane woodland, coastal prairie, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Oregon meconella <i>Meconella oregana</i>	Rank 1B.1	Coastal prairie, coastal scrub. Elevation ranges from 820 to 2035 feet (250 to 620 meters). Blooms Mar-Apr.	No Potential. The Project Area does not contain any coastal prairie or coastal scrub. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Mt. Diablo cottonweed <i>Micropus amphibolus</i>	Rank 3.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 145 to 2705 feet (45 to 825 meters). Blooms Mar-May.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain broadleafed	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
			upland forest, cismontane woodland, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	
San Antonio Hills monardella <i>Monardella antonina</i> ssp. <i>antonina</i>	Rank 3	Chaparral, cismontane woodland. Elevation ranges from 1045 to 3280 feet (320 to 1000 meters). Blooms Jun-Aug.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain any cismontane woodland. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
woodland woollythreads <i>Monolopia gracilens</i>	Rank 1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland. Elevation ranges from 325 to 3935 feet (100 to 1200 meters). Blooms (Feb)Mar-Jul.	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain broadleafed upland forest, cismontane woodland, north coast coniferous forests, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
pincushion navarretia <i>Navarretia myersii</i> ssp. <i>myersii</i>	Rank 1B.1	Vernal pools. Elevation ranges from 65 to 1085 feet (20 to 330 meters). Blooms Apr-May.	No Potential. The Project Area does not contain any vernal pools. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	Rank 1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Elevation ranges from 210 to 3280 feet (65 to 1000 meters). Blooms (Mar)Apr-Jul.	No Potential. The Project Area does not contain any cismontane woodland, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Patterson's navarretia <i>Navarretia paradoxiclara</i>	Rank 1B.3	Meadows and seeps. Elevation ranges from 490 to 1410 feet (150 to 430 meters). Blooms May-Jun(Jul).	No Potential. The Project Area does not contain any meadows or seeps. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Mt. Diablo phacelia <i>Phacelia phacelioides</i>	Rank 1B.2	Chaparral, cismontane woodland. Elevation ranges from 1640 to 4495 feet (500 to 1370 meters). Blooms Apr-May.	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain cismontane woodland. The Project Area is outside of the species elevation range.	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
			Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	
Michael's rein orchid <i>Piperia michaelii</i>	Rank 4.2	Coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest. Elevation ranges from 5 to 3000 feet (3 to 915 meters). Blooms Apr-Aug.	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal scrub, or lower montane coniferous forest. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
San Francisco popcornflower <i>Plagiobothrys diffusus</i>	SE, Rank 1B.1	Coastal prairie, valley and foothill grassland. Elevation ranges from 195 to 1180 feet (60 to 360 meters). Blooms Mar-Jun.	No Potential. The Project Area does not contain coastal prairie, valley or foothill grasslands. The Project Area is also outside this species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
hairless popcornflower <i>Plagiobothrys glaber</i>	Rank 1A	Meadows and seeps (alkaline), marshes and swamps (coastal salt). Elevation ranges from 45 to 590 feet (15 to 180 meters). Blooms Mar-May.	Unlikely. While the Project Area does not contain any alkaline meadows, seeps, or marshes. The nearest CNDDDB occurrence is from 1896 approximately 4.3 miles southeast of the Project Area (CDFW 2020).	No further recommendations for this species
Oregon polemonium <i>Polemonium carneum</i>	Rank 2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation ranges from 0 to 6005 feet (0 to 1830 meters). Blooms Apr-Sep.	No Potential. The Project Area does not contain any coastal prairie, coastal scrub, and lower montane coniferous forest. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
Marin knotweed <i>Polygonum marinense</i>	Rank 3.1	Marshes and swamps (coastal salt or brackish). Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms (Apr)May-Aug(Oct).	Unlikely. The Project Area does not contain any coastal salt or brackish marshes. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Lobb's aquatic buttercup <i>Ranunculus lobbii</i>	Rank 4.2	Cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools. Elevation ranges from 45 to 1540 feet (15 to 470 meters). Blooms Feb-May.	No Potential. The Project Area does not contain any cismontane woodland, north coast coniferous forest, valley grasslands, foothill grasslands, or vernal pools. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
adobe sanicle <i>Sanicula maritima</i>	SR, Rank 1B.1	Chaparral, coastal prairie, meadows and seeps, valley and foothill grassland. Elevation ranges from 95 to 785 feet (30 to 240 meters). Blooms Feb-May.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain coastal prairie, meadows, seeps, valley or foothill grasslands. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
rock sanicle <i>Sanicula saxatilis</i>	SR, Rank 1B.2	Broadleafed upland forest, chaparral, valley and foothill grassland. Elevation ranges from 2030 to 3855 feet (620 to 1175 meters). Blooms Apr-May.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain broadleafed upland forest, valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
chaparral ragwort <i>Senecio aphanactis</i>	Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 45 to 2625 feet (15 to 800 meters). Blooms Jan-Apr(May).	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain cismontane woodland and coastal scrub. However there is a CNDDDB occurrence from 1892 approximately 6 miles southeast of the Project Area but it's presumed extant (CDFW 2020).	No further recommendations for this species.
long-styled sand-spurrey <i>Spergularia macrotheca</i> var. <i>longistyla</i>	Rank 1B.2	Meadows and seeps, marshes and swamps. Elevation ranges from 0 to 835 feet (0 to 255 meters). Blooms Feb-May(Jun).	Unlikely. The Project Area does not contain any meadows, seeps, marshes, or swamps. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 310 to 3280 feet (95 to 1000 meters). Blooms (Mar)Apr-Sep(Oct).	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain cismontane woodland, valley or foothill grasslands. The Project Area is outside of the species elevation range. However there is a CNDDDB occurrence from 2003 approximately 5.5 miles east of the Project Area (CDFW 2020).	No further recommendations for this species.
Mt. Diablo jewelflower <i>Streptanthus hispidus</i>	Rank 1B.3	Chaparral, valley and foothill grassland. Elevation ranges from 1195 to 3935 feet (365 to 1200 meters). Blooms Mar-Jun.	No Potential. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area	No further recommendations for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
			does not contain valley or foothill grasslands. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	
slender-leaved pondweed <i>Stuckenia filiformis</i> ssp. <i>alpina</i>	Rank 2B.2	Marshes and swamps (assorted shallow freshwater). Elevation ranges from 980 to 7055 feet (300 to 2150 meters). Blooms May-Jul.	No Potential. The Project Area does not freshwater marshes or swamps. The Project Area is outside of the species elevation range. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
California seablite <i>Suaeda californica</i>	FE, Rank 1B.1	Marshes and swamps (coastal salt). Elevation ranges from 0 to 50 feet (0 to 15 meters). Blooms Jul-Oct.	Unlikely. The Project Area does not contain any coastal salt marshes and the nearest CNDDDB occurrence is from 2009 approximately 3.8 miles southeast of the Project Area (CDFW 2020).	No further recommendations for this species

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
saline clover <i>Trifolium hydrophilum</i>	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms Apr-Jun.	Unlikely. While the Project Area does not contain any marshes, valley grasslands, foothill grasslands, or vernal pools. The nearest CNDDDB occurrence is from 2004 approximately 8.4 miles southeast of the Project Area	No further recommendations for this species
coastal Triquetrella <i>Triquetrella californica</i>	Rank 1B.2	Coastal bluff scrub, coastal scrub. Elevation ranges from 30 to 330 feet (10 to 100 meters).	(CDFW 2020) (CDFW 2020). The Project Area does not contain any coastal bluff scrub or coastal scrub. Additionally there are no nearby CNDDDB occurrences for this species (CDFW 2020).	No further recommendations for this species.
oval-leaved viburnum <i>Viburnum ellipticum</i>	Rank 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 705 to 4595 feet (215 to 1400 meters). Blooms May-Jun.	Unlikely. The Project Area does contain chaparral however the understory is inhabited by invasive and non-native species making the habitat quality poor for this species. The Project Area does not contain cismontane woodland or lower montane coniferous forest. The Project Area is outside of the species elevation range. However there is a CNDDDB occurrence from 2003 approximately 5.5 miles east of the Project Area (CDFW 2020).	No further recommendations for this species.
Mammals				

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
pallid bat <i>Antrozous pallidus</i>	SSC, WBWG High Priority	Occupies a variety of habitats at low elevation including grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Unlikely. The Project Area does not contain rocky outcrops or other roosting habitat to support this species.	No further actions are recommended for this species.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	SSC, WBWG High Priority	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Building roost sites must be cave like. Very sensitive to human disturbance.	Unlikely. The Project Area does not contain caves, mines, or abandoned buildings to support roosting by this species.	No further actions are recommended for this species.
western mastiff bat <i>Eumops perotis</i>	SSC, WBWG High	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	Unlikely. The Project Area does not contain rocky outcrops or other roosting habitat to support this species.	No further actions are recommended for this species.
silver-haired bat <i>Lasionycteris noctivagans.</i>	WBWG Medium Priority	Primarily a forest dweller, feeding over streams, ponds, and open brushy areas. Summer habitats include a variety of forest and woodland types, both coastal and montane. Roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark.	Unlikely. The Project Area does not contain rocky outcrops, snags, hollow trees, or other roosting habitat to support this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
hoary bat <i>Lasiurus cinereus</i>	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	Unlikely. The Project Area does not contain the dense forested habitat typically used for roosting by this species.	No further actions are recommended for this species.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	SSC	Typically occurs in forest habitats of moderate canopy and moderate to dense understory, especially redwood. Also found in chaparral habitats.	Unlikely. The Project Area does not contain forest habitat to support this species.	No further actions are recommended for this species.
salt marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE, SE, CFP	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	Unlikely. This species has been documented in salt marsh within 1 mile of the Project Area (CDFW 2020). However, the Project Area does not contain salt marsh or brackish wetland habitat. Salt marsh harvest mice may seek refuge in upland habitat during high tide or storm events. However, regular vegetation management and mowing of the Project Area reduces suitability for upland refugia.	No further actions are recommended for this species.
Alameda Island mole <i>Scapanus latimanus parvus</i>	SSC	Only known from Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils. Avoids flooded soils.	No Potential. The Project Area is outside of this species known range.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
salt-marsh wandering shrew <i>Sorex vagrans halicoetes</i>	SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6 to 8 feet above sea level where abundant driftwood is scattered among <i>Salicornia</i> .	Unlikely. The Project Area does not contain marsh or tidal habitat. Vegetation within the Project Area is mowed, reducing suitability for upland refugia.	No further actions are recommended for this species.
American badger <i>Taxidea taxus</i>	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable, uncultivated soils. Prey on burrowing rodents.	No Potential. The Project Area is generally bordered by dense urban development to the east and tidal habitat to the west which serves as a dispersal barrier to badger. Development and disturbance preclude badger from the Project Area.	No further actions are recommended for this species.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE, ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	No Potential. The Project Area is generally bordered by dense urban development to the east and tidal habitat to the west which serves as a dispersal barrier to kit fox. Development and disturbance preclude kit fox from the Project Area.	No further actions are recommended for this species.
Birds				
tricolored blackbird <i>Agelaius tricolor</i>	SSC, ST	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs. Nesting area must be large enough to support about 50 pairs.	Unlikely. The Project Area does not contain suitable vegetation to support nesting by a colony of this species. Vegetation within the Project Area is regularly managed for fuels reduction. There are no documented nesting occurrences within 5 miles of the Project Area (CDFW 2020).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
golden eagle <i>Aquila chrysaetos</i>	CFP, BGEPA	Year-round resident in rolling foothills with open grasslands, scattered trees, and cliff-walled canyons.	No Potential. The Project Area does not contain trees or cliffs large enough to support nesting by the species. In addition, the high level of development in the surrounding area reduces the potential for golden eagles to forage in the vicinity. This species may occasionally fly over.	No further actions are recommended for this species.
short-eared owl <i>Asio flammeus</i>	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 Project Area is subject to regular mowing and does not contain dense herbaceous vegetation to support nesting by short-eared owl. In addition, the Project Area is outside of this species typical breeding range. This species may winter or forage within the Project Area and adjacent marsh habitat.	No further actions are recommended for this species.
burrowing owl <i>Athene cunicularia</i>	SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Unlikely. No ground squirrels, suitable burrows, or burrow surrogates were observed within the Project Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Swainson's hawk <i>Buteo swainsoni</i>	ST	Summer resident in California's Central Valley and limited portions of the southern California interior. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as agricultural fields, especially alfalfa. Preys on arthropods year-round as well as smaller vertebrates during the breeding season.	No Potential. The Project Area does not contain trees suitable for nesting by this species. There are no nearby documented occurrences of this species (CDFW 2020).	No further actions are recommended for this species.
western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT, SSC	Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees, and shores of large alkali lakes. Requires sandy, gravelly, or friable soils for nesting.	Moderate Potential. This species has been documented nesting in unvegetated island habitat less than one mile from the Project Area (CDFW 2020). The Project Area consists primarily of grassland and does not contain sandy, gravelly soils suitable for nesting by this species. However, the Project Area is within 500 feet of bare vegetated ground which may support nesting by this species. If nesting occurs near the Project Area, there is potential for nesting disturbance from construction activities.	Perform ground disturbance and vegetation removal outside of the breeding bird season. If project activities occur within the breeding bird season (Feb 1 – Aug 31), perform preconstruction breeding bird survey within 14 days start of work. Any active nests will be protected by exclusion buffers. See section 5.3 for further details.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
northern harrier <i>Circus cyaneus</i>	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge.	Moderate Potential. Grassland within the Project Area is subject to regular mowing and is unlikely to support nesting. However, this species may nest in nearby marsh habitat at Hayward Regional Shoreline and may occasionally fly over or forage within the Project Area.	Perform ground disturbance and vegetation removal outside of the breeding bird season. If project activities occur within the breeding bird season (Feb 1 – Aug 31), perform preconstruction breeding bird survey within 14 days start of work. Any active nests will be protected by exclusion buffers. See section 5.3 for further details.
yellow rail <i>Coturnicops noveboracensis</i>	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 Project Area does not contain freshwater marsh or wet meadow to support this species.	No further actions are recommended for this species.
white-tailed kite <i>Elanus leucurus</i>	CFP	Year-long resident of coastal and valley lowlands. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	Moderate Potential. The Project Area is primarily annual grassland suitable for foraging by this species. White-tailed kite may nest in shrubs within the Project Area or in nearby trees.	Perform ground disturbance and vegetation removal outside of the breeding bird season. If project activities occur within the breeding bird season (Feb 1 – Aug 31), perform preconstruction breeding bird survey within 14 days start of work. Any active nests will be protected by exclusion buffers. See section 5.3 for further details.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
American peregrine falcon <i>Falco peregrinus</i>	CFP	Resident and winter visitor to region. Occurs near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	Unlikely. The Project Area does not contain suitable cliffs or nesting habitat for this species. This species has been observed at Hayward Regional Shoreline and may occasionally fly over the Project Area.	No further actions are recommended for this species.
San Francisco (saltmarsh) common yellowthroat <i>Geothlypis trichas sinuosa</i>	SSC	Resident of San Francisco bay region fresh and salt-water marshes. Requires thick, continuous cover down to water surface for foraging, tall grasses, tule patches, willows for nesting.	Unlikely. The Project Area does not contain marsh habitat or dense vegetation to support nesting and foraging by the species.	No further actions are recommended for this species.
bald eagle <i>Haliaeetus leucocephalus</i>	SE, CFP, BGEPA	Frequents ocean shores, lake margins, and rivers for both nesting and wintering. Requires abundant fish and adjacent snags or other perches. Nests in large, old-growth, or dominant live tree with open branch-work.	Unlikely. The Project Area does not contain suitable large trees or open water to support nesting and foraging by this species. This species may occasionally fly over.	No further actions are recommended for this species.
California black rail <i>Laterallus jamaicensis coturniculus</i>	ST, CFP	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.	Unlikely. The Project Area does not contain marsh habitat with dense emergent vegetation to support nesting by this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Alameda song sparrow <i>Melospiza melodia pusillula</i>	SSC	Year-round resident in tidal-influenced marshes along the eastern and southern portions of San Francisco Bay.	Unlikely. The Project Area does not contain tidal salt-marsh habitat.	No further actions are recommended for this species.
California Ridgway's (clapper) rail <i>Rallus obsoletus (longirostris) obsoletus</i>	FE, SE, CFP	Associated with tidal salt marsh and brackish marshes supporting emergent vegetation, upland refugia, and incised tidal channels.	Unlikely. This species is documented to occur at Hayward Regional Shoreline approximately 0.75 miles to the southwest (CDFW 2020, McBroom 2019). However, suitable nesting habitat is not present within the Project Area or the surrounding 700 feet.	No further actions are recommended for this species.
bank swallow <i>Riparia riparia</i>	ST	Migrant in riparian and other lowland habitats in western California. Colonial nester in riparian areas with vertical cliffs and bands with fine-textured or fine-textured sandy soils near streams, rivers, lakes or the ocean.	Unlikely. The Project Area does not contain cliff habitat required for nesting by this species.	No further actions are recommended for this species.
black skimmer <i>Rynchops niger</i>	SSC	Found primarily in southern California; South San Francisco Bay has a small resident population. Nests colonially on gravel bars, low islets, and sandy beaches	Unlikely. This species was documented nesting less than 1 mile from the Project Area on a gravel bar island in 1994 (CDFW 2020). There are no gravel bars, islets, or sandy beach habitat within the Project Area to support nesting by this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
(Brester's) yellow warbler <i>Setophaga (= Dendroica) petechia brewsteri</i>	SSC, BCC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting variable, but dense willow growth is typical. Occurs widely on migration.	Unlikely. The Project Area does not contain riparian vegetation to support breeding by this species.	No further actions are recommended for this species.
California least tern <i>Sterna antillarum browni</i>	FE, SE, CFP	Nests along the coast from San Francisco bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Unlikely. This species was documented nesting less than 1 mile from the Project Area on a gravel bar island (CDFW 2020). There are no sandy beaches, alkali flats, landfills, or paved areas within the Project Area to support nesting by this species.	No further actions are recommended for this species.
Reptiles and Amphibians				
western pond turtle <i>Actinemys [Emys] marmorata</i>	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter.	Unlikely. The Project Area does not contain aquatic habitat to support this species. In addition, the Project Area is separated from the nearest aquatic habitat by development including train tracks and chain link fence. The nearest documented occurrences are over 9 miles east of the Project Area (CDFW 2020).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
California tiger salamander <i>Ambystoma californiense</i>	FT, ST	Populations in Santa Barbara and Sonoma counties currently listed as endangered; threatened in remainder of range. Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Adults are fossorial and utilize mammal burrows and other subterranean refugia. Breeding occurs primarily in vernal pools and other seasonal water features.	No Potential. The Project Area is generally bordered by dense urban development to the east and tidal habitat to the west which serves as a dispersal barrier to California tiger salamander. Development and disturbance preclude this species from the Project Area.	No further actions are recommended for this species.
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	FT, ST	Inhabits chaparral and foothill-hardwood habitats in the eastern Bay Area. Prefers south-facing slopes and ravines with rock outcroppings where shrubs form a vegetative mosaic with oak trees and grasses and small mammal burrows provide basking and refuge.	No Potential. This species is documented in the grassland approximately 5 miles east of the Project Area. The Project Area is generally bordered by dense urban development to the east and tidal habitat to the west which serves as a dispersal barrier to Alameda whipsnake. Development and disturbance preclude this species from the Project Area.	No further actions are recommended for this species.
foothill yellow-legged frog (FYLF) <i>Rana boylei</i>	SSC	Found in or adjacent to rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	No Potential. The Project Area is not within or adjacent to rocky stream habitat. The nearest aquatic habitat is brackish and is not suitable for FYLF.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
California red-legged frog (CRLF) <i>Rana draytonii</i>	FT, SSC	Associated with quiet perennial to intermittent ponds, stream pools, and wetlands with adjacent upland habitat containing refugia. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	No Potential. There are no documented occurrences of this species within 5 miles of the Project Area. The nearest aquatic habitat is brackish and is not suitable for CRLF.	No further actions are recommended for this species.
Fish				
tidewater goby <i>Eucyclogobius newberryi</i>	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches; requires fairly still but not stagnant water and high oxygen levels.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.
Delta smelt <i>Hypomesus transpacificus</i>	FT, SE	Lives in the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
hardhead <i>Mylopharodon conocephalus</i>	SSC	Found in low to mid-elevation streams in the Sacramento-San Joaquin drainage; also occurs in the Russian River and tributaries. Favors clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic Centrarchids predominate.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.
Coho salmon - Central CA Coast ESU <i>Oncorhynchus kisutch</i>	FE, SE	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.
steelhead, Central California Coast ESU <i>Oncorhynchus mykiss irideus</i>	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.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
longfin smelt <i>Spirinchus thaleichthys</i>	FC, ST	Found in open waters of estuaries, mostly in the middle or bottom of the water column. This species prefers salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.
Pacific lamprey <i>Entosphenus</i> (= <i>Lampetra</i>) <i>tridentatus</i>	SSC	Spawns between March and July in gravel bottomed streams in riffle habitat. Larvae drift downstream to areas of low velocity and fine substrates and are relatively immobile in the stream substrates.	No Potential. The Project Area does not contain aquatic habitat.	No further actions are recommended for this species.
Invertebrates				
Crotch bumblebee <i>Bombus crotchii</i>	SC	Range largely restricted to California, favoring grassland and scrub habitats. Typical of bumble bees, nests are usually constructed underground.	Unlikely. The Project Area is outside of this species known current distribution. There are no recent documented occurrences of this species in the vicinity of the Project Area (CDFW 2020).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
western bumblebee <i>Bombus occidentalis</i>	SC	Once widespread in the western United States and Canada, populations of this insect have drastically declined in recent decades. Pollinates a variety of wild flowering plants and crops. Nests in the ground, usually in association with small mammal burrows with sunny aspects. Current populations are thought to be restricted to high elevation sights in the Sierras with scattered occurrences on the northern California coast (Xerces, 2018).	Unlikely. The Project Area is outside of this species known current distribution. There are no recent documented occurrences of this species in the vicinity of the Project Area (CDFW 2020).	No further actions are recommended for this species.
Monarch butterfly <i>Danaus plexippus</i>	(winter roosting sites monitored by CDFW)	Winter roost sites located in wind-protected tree groves (Eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Winter roosts monitored by CDFW.	Unlikely. The Project Area does not contain eucalyptus, monterey pine, or cypress groves to support winter roosting. The nearest documented winter roost is approximately 2 miles north of the Project Area. This species may be observed during migration.	No further actions are recommended for this species.
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> and <i>O. purpurascens</i> are the secondary host plants.	No Potential. The Project Area does not contain the larval host plant for this species. The nearest documented occurrences (approximately 10 miles north) are associated with a population that has since been extirpated (CDFW 2020).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Unlikely. The Project Area does not contain vernal pool habitat to support this species. There are no documented occurrences within 10 miles of the Project Area (CDFW 2020).	No further actions are recommended for this species.

*** Key to status codes:**

CFP	CDFW Fully Protected
BGEPA	Bald and Golden Eagle Protection Act
FC	Federal Candidate for listing
FE	Federal Endangered
FT	Federal Threatened
SC	State Candidate for listing
SE	State Endangered
SSC	California Department of Fish and Wildlife Species of Special Concern
ST	State Threatened
WBWG	Western Bat Working Group Medium or High Priority Species

Rank 1A	California Native Plant Society (CNPS) Rank 1A: Plants presumed extirpated in California and rare or extinct elsewhere
Rank 1B.1	California Native Plant Society (CNPS) Rank 1B.1: Plants rare, threatened or endangered in California and elsewhere (seriously threatened in California)
Rank 1B.2	California Native Plant Society (CNPS) Rank 1B.2: Plants rare, threatened, or endangered in California and elsewhere (moderately threatened in California)
Rank 2B.2	California Native Plant Society (CNPS) Rank 2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere (moderately threatened in California)
Rank 4.3	California Rare Plant Rank 4.3: Plants of Limited Distribution - A Watch List (not very threatened in California)

****Potential species occurrence definitions:**

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

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.

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.

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 has a low probability of being found on the site.

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).

APPENDIX D
PROJECT AREA PHOTOGRAPHS.

This page intentionally left blank.



(A) Representative photo facing southwest of non-native annual grassland and developed communities within the Project Area.



(B) Representative photo facing east of non-native annual grassland and developed communities within the Project Area.



(C) Representative photo facing north of non-native annual grasslands and developed communities within the Project Area.



(D) Representative photo facing northeast of non-native annual grassland and developed communities within the Project Area.



(E) Representative photo facing west of potential seasonal wetlands in the foreground and coyote brush scrub in the background in the Project Area.



(F) Representative photo facing southwest of potential seasonal wetlands in the foreground, coyote brush scrub and non-native grasslands in the background in the Project Area.



(G) Representative photo southeast of potential seasonal wetlands within the Project Area.



(H) Representative photo facing north of potential seasonal wetlands within the Project Area.



(I) Representative photo facing west of potential seasonal wetlands in the foreground and coyote brush scrub in the background in the Project Area.



(J) Representative photo facing southwest of potential seasonal wetlands in the foreground, coyote brush scrub and non-native grasslands in the background in the Project Area.



(K) Representative photo southeast of potential seasonal wetlands within the Project Area.



(L) Representative photo facing north of potential seasonal wetlands within the Project Area.