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## Biological Site Assessment

# Biological Resources Assessment

±1.8-Acre New Life Community Adventist Church  
Napa County, California

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**Prepared for:**

New Life Community Adventist Church

**Date:**

March 22, 2016

Submitted by:



**FOOTHILL ASSOCIATES**

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## 1.0 EXECUTIVE SUMMARY

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A Foothill Associates' biologist conducted a Biological Resources Assessment (BRA) on the approximate ±1.8-acre New Life Community Adventist Church Project, located within Napa County, California (Study Area). The purpose of this BRA is to summarize the general biological resources within the Study Area, to assess the suitability of the Study Area to support special-status species and sensitive habitat types, and to provide recommendations for regulatory permitting or further analysis that may be required prior to development activities occurring on the Study Area.

Known or potential biological constraints on the Study Area include the following:

- Potential habitat for special-status plants including: alkali milk-vetch (*Astragalus tener* var. *tener*), big-scale balsamroot (*Balsamorhiza macrolepis*), Mount Diablo cottonweed (*Micropus amphibolus*), pappose tarplant (*Centromadia parryi* ssp. *parryi*), saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Etriplex joaquinana*), Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*), and two-forked clover (*Trifolium amoenum*);
- Potential breeding and wintering habitat for burrowing owl (*Athene cunicularia*); and
- Potential foraging and nesting habitat for raptors and other migratory birds including: white-tailed kite (*Elanus leucurus*), ferruginous hawk (*Buteo regalis*), and short-eared owl (*Asio flammeus*).

## **2.0 INTRODUCTION**

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The purpose of this BRA is to summarize the general biological resources within the Study Area, to assess the suitability of the Study Area to support special-status species and sensitive habitat types, and to provide recommendations for regulatory permitting or further analysis that may be required.

## **3.0 REGULATORY FRAMEWORK**

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Federal, State, and local environmental laws, regulations, and policies relevant to the California Environmental Quality Act (CEQA) review process are summarized below. The CEQA significance criteria are also included in this section.

### **3.1 Federal Jurisdiction**

#### ***3.1.1 Federal Endangered Species Act***

The U.S. Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR §17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR §17.3). Actions that result in take can result in civil or criminal penalties.

FESA and Clean Water Act (CWA) Section 404 guidelines prohibit the issuance of wetland permits for projects that jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. The U.S. Army Corps of Engineers must consult with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service (NMFS) when threatened or endangered species under their jurisdiction may be affected by a proposed project. In the context of the proposed project, FESA would be initiated if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species or adversely modify critical habitat of such a species.

#### ***3.1.2 Migratory Bird Treaty Act***

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior.

#### ***3.1.3 The Bald and Golden Eagle Protection Act***

The Bald and Golden Eagle Protection Act (Eagle Act) prohibits the taking or possession of and commerce in bald and golden eagles with limited exceptions. Under the Eagle Act, it is a violation to “take, possess, sell, purchase, barter, offer to sell, transport, export

or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof.” Take is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. Disturb is further defined in 50 CFR Part 22.3 as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

## **3.2 State Jurisdiction**

### ***3.2.1 California Endangered Species Act***

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Wildlife (CDFW), formally California Department of Fish and Game, when preparing California Environmental Quality Act (CEQA) documents. The purpose is to ensure that the state lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code § 2081).

### ***3.2.2 California Department of Fish and Game Codes***

Fully protected fish species are protected under Section 5515; fully protected amphibian and reptile species are protected under Section 5050; fully protected bird species are protected under Section 3511; and fully protected mammal species are protected under Section 4700. The California Fish and Game Code defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Except for take related to scientific research, all take of fully protected species is prohibited.

Section 3503 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Sections 2062 and 2067 define endangered and threatened species.

### ***3.2.3 California Department of Fish and Wildlife Species of Concern***

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern,”



developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened.

### **3.3 Jurisdictional Waters**

#### **3.3.1 Federal Jurisdiction**

The Corps regulates discharge of dredge or fill material into waters of the U.S. under Section 404 of the CWA. “Discharges of fill material” is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of waters is present. Methods for delineating wetlands and non-tidal waters are described below.

- Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Presently, to be a wetland, a site must exhibit three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the “normal circumstances” for the site.
- The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4(c)(1)]. The OHWM is defined by the Corps as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

#### **3.3.2 State Jurisdiction**

The CDFW is a trustee agency that has jurisdiction under Section 1600 *et seq.* of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds...except when the department has been notified pursuant to Section 1601.” Additionally, CDFW may assert jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over 4 inches in diameter at breast height (DBH). If an existing fish or wildlife resource

may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. All of the wetlands and waterways in the Study Area are waters of the State, which are protected under this act.

Historically, California relied on its authority under Section 401 of the CWA to regulate discharges of dredged or fill material to California waters. That section requires an applicant to obtain “water quality certification” from the State Water Resources Control Board through its Regional Water Quality Control Boards (RWQCB) to ensure compliance with state water quality standards before certain federal licenses or permits may be issued. The permits subject to Section 401 include permits for the discharge of dredged or fill materials (CWA Section 404 permits) issued by the USACE. Waste discharge requirements under the Porter-Cologne Water Quality Control Act were typically waived for projects that required certification. With the recent changes that limited the jurisdiction of wetlands under the CWA, the SWRCB has needed to rely on the report of waste discharge process.

### **3.4 CEQA Significance Criteria**

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional or state habitat conservation plan.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, State, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis.

#### **3.4.1 California Native Plant Society**

The California Native Plant Society (CNPS) maintains a rank of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California*. Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS ranks:

- Rank 1A: Plants presumed Extinct in California
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- Rank 3: Plants about which we need more information – A Review List
- Rank 4: Plants of limited distribution – A Watch List

All plants appearing on CNPS rank 1 or 2 are considered to meet CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA.

### 3.5 Napa County General Plan Policies

The *Napa County General Plan* contains significant policy language pertaining to the management and conservation of natural resources and special-status species which occur in Napa County (County). The *Conservation Element* of the *Napa County General Plan* (2009) contains guidance that is relative to providing further protection of these biological resources as outlined below.

#### Conservation Element

##### Natural Resources Goals and Policies

###### Goals

- CON-2:** *Maintain and enhance the existing level of biodiversity.*
- CON-3:** *Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable State, federal or local laws and regulations.*
- CON-4:** *Conserve, protect, and improve plant, wildlife, and fishery habitats for all native species in Napa County.*
- CON-5:** *Preserve, sustain, and restore forests, woodlands, and commercial timberland for their economic, environmental, recreation, and open space values.*

###### Policies

- CON-13:** *The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to:*
- a) Maintain the following essentials for fish and wildlife resources:*
    - 1) Sufficient dissolved oxygen in the water.*
    - 2) Adequate amounts of proper food.*
    - 3) Adequate amounts of feeding, escape, and nesting habitat.*
    - 4) Proper temperature through maintenance and enhancement of streamside vegetation, volume of flows, and velocity of water.*
  - b) Ensure that water development projects provide an adequate release flow of water to preserve fish populations.*

- c) *Employ supplemental planting and maintenance of grass, shrubs, and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially stream side areas, in good condition.*
- d) *Provide protection for habitat supporting special-status species through buffering or other means.*
- e) *Provide replacement habitat of like quantity and quality on-or off-site for special-status species to mitigate impacts to special-status species.*
- f) *Enhance existing habitat values particularly for special-status specie, through restoration and replanting of native plant species as part of the discretionary permit review and approval.*
- g) *Require temporary or permanent buffers to adequate size (based on the requirements of the subject special-status species) to avoid nest abandonment by birds and raptors associated with construction and site development activities.*
- h) *Demonstrate compliance with applicable provisions and regulations of recovery plans for federally-listed species.*

*CON-14: To offset possible losses of fishery and riparian habitat due to discretionary development projects, developers shall be responsible for mitigation when avoidance of impacts is determined to be infeasible. Such mitigation measures may include providing permanently maintaining similar quality and quality habitat within Napa County, enhancing existing riparian habitat or paying in-kind funds to an approved fishery and riparian habitat improvement and acquisition fund. Replacement of habitat may occur either on-site or at approved off-site locations, but preferences shall be given to on-site replacement.*

*CON-16: The County shall require a biological resources evaluation for discretionary projects in areas identified or contain or potentially contain special-status species based upon data provided in the Baseline Data Report, California Natural Diversity Database, or other technical materials. This evaluation shall be conducted prior to the approval of any earthmoving activities. The County shall encourage the development of programs to protect special-status species and disseminate updated information to State and federal resource agencies.*

*CON-17: Preserve and project native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitat of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards:*

- a) *Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.*
- b) *In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.*
- c) *Promote protection from overgrazing and other destructive activities.*
- d) *Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species.*
- e) *Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.*

CON-21: *The County shall initiate and support efforts relating identification, quantification, and monitoring of species biodiversity and habitat connectivity throughout Napa County.*

CON-22: *The County shall encourage the protection and enhancement of natural habitats which provide ecological and other scientific purposes. As areas are identified, they should be delineated on environmental constraints maps so that appropriate steps can be taken to appropriately manage and protect them.*

CON-24: *Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:*

- a) *Preserve to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agricultural projects.*
- b) *Comply with the Oaks Woodlands Preservation Act (PRC Section 21083.4) [see **Section 3.5.1** below] regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of the residential, commercial, and industrial approvals.*

- c) *Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent possible.*
- d) *Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil protection, and soil production be left standing*
- e) *Maintain, to the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black canyon, live, and brewer oaks as well as blue, white, scrub, and live oaks are common associations.*
- f) *Encourage and support the County Agricultural Commission's enforcement of state and federal regulations concerning Sudden Oak Death and similar future threats to woodlands.*

**CON-26:** *Consistent with Napa County's Conservation Regulations, natural vegetation retention areas along perennial and intermittent streams shall vary in width with steepness of the terrain, the nature of the undercover, and type of soil. The design and management of natural vegetation areas shall consider habitat and water quality needs, including the needs of native fish and special-status species and flood protection where appropriate. Study Area specific setbacks shall be established in coordination with Regional Water Quality Control Boards, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration National Marine Fisheries Service, and other coordinating resource agencies that identify essential stream and stream reaches necessary for the health of populations of native fisheries and other sensitive aquatic organisms within the County's watersheds.*

**CON-28:** *To offset possible additional losses of riparian woodland due to discretionary development projects and conversions, developers shall provide and maintain similar quality and quantity of replacement habitat or in-kind funds to an approved riparian woodland habitat improvement and acquisition fund in Napa County. While on-site replacement is preferred where feasible, replacement of habitat may be either on-site or off-site as approved by the County.*

**CON-30:** *All public and private projects shall avoid impacts to wetlands to the extent feasible. If avoidance is not feasible, projects shall mitigate impacts to wetlands consistent with State and federal policies providing for a no net loss of wetland function.*

### **3.5.1 Oak Woodlands Preservation Act (PRC Section 21083.4)**

Oak woodlands conservation Public Resources Code 21083.4 requires the County, in determining whether CEQA requires an Environmental Impact Report, Negative Declaration, or Mitigated Negative Declaration, to determine whether a project in its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment, and would require the County, if it determines there may be a significant effect to oak woodlands, to require one or more of specified mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. The code exempts specified activities from its requirements. By imposing new duties on local governments with respect to oak woodlands mitigation, the code would impose a state-mandated local program.

As part of the determination made pursuant to Section 21080.1, the County shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If the County determines that there may be a significant effect to oak woodlands, the County shall provide alternatives to mitigate the significant effect of the conversion of oak woodlands:

- (1) Conserve oak woodlands, through the use of conservation easements.
- (2) (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
  - (B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.
  - (C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirements for the project.
  - (D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.
- (3) Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.
- (4) Other mitigation measures developed by the County.



## 4.0 METHODS

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Available information pertaining to the natural resources of the region was reviewed. All references reviewed for this assessment are listed in the **References** section. The following site-specific information was reviewed:

- California Department of Fish and Wildlife (CDFW). 2016. California Natural Diversity Data Base (CNDDB: *Cordelia* U.S. Geological Survey (USGS) 7.5-minute series quadrangle (quadrangle)), Sacramento, CA. [Accessed 01/29/16] (**Appendix A**);
- California Native Plant Society (CNPS). 2016. Inventory of Rare and Endangered Plants (online edition, v8-02) (CNPS: *Cordelia* quadrangle). [Accessed 01/29/16] (**Appendix A**);
- U.S. Fish and Wildlife Service (USFWS). 2016a. *Information for Planning and Conservation (IPaC) Trust Resource Report: New Life Adventist Church, Napa County*. [Accessed 01/29/16] (**Appendix A**); and
- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS). 1978. *Soil Survey of Napa County, California*. USDA, NRCS, in cooperation with the Regents of the University of California (Agricultural Experiment Station).

Foothill Associates' biologists conducted a biological survey of the Study Area on February 25, 2016. The biological survey consisted of conducting botanical inventories, evaluating biological communities, and documenting habitat for special-status species with the potential to occur within the Study Area. Plants and wildlife observed within the Study Area are identified in **Appendix B**.

## 5.0 RESULTS

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### 5.1 Study Area Location and Description

The ±1.8-acre Study Area is located in southern Napa County approximately two miles west of Interstate 80, approximately 0.50 miles east of Flosden Road/Newell Drive. The Study Area is located within Section 30 of Township 4 North, Range 3 West on the USGS *Cordelia* 7.5-minute quadrangle map. The approximate location of the Study Area is 38° 9' 51.485" North, 122° 13' 48.782" West (**Figure 1**).

### 5.2 Physical Features

#### 5.2.1 Topography and Drainage

The topography within the Study Area consists of a steep hillside along American Canyon Road and then rolling and mildly sloped areas ranging from approximately 5 percent to 20 percent slopes. Elevations range from approximately 132 feet above mean sea level (MSL) in the east to 145 feet above MSL in the south-central portion of the Study Area. The Study Area is highly-disturbed and developed consisting of a dirt and gravel access road and driveway, an abandoned residential dwelling and associated outbuildings, and a tree house. The Study Area is bordered by a fence on all sides and two utility poles and overhead lines occur along the southern portion of the Study Area. Based on Google Earth aerial imagery from 2007 and before, the Study Area appears to have been previously used for mining purposes and functioned as a combined property with the adjacent parcel to the west and to the east.

The hydrologic regime on the Study Area is predominantly seasonal stormwater runoff and direct precipitation, which primarily falls between November and March. Annual average precipitation is approximately 15 to 20 inches.

#### 5.2.2 Soils

The Natural Resources Conservation Service (NRCS) mapped one soil unit within the Study Area (**Figure 2**): **Clear Lake Clay, Drained**. General characteristics and properties associated with this soil type is described below (USDA, NRCS 1978 and 2016).

- **(116) Clear Lake clay, Drained:** This soil type is a poorly-drained soil located on nearly level ground from 10 to 800 feet above MSL. These soils formed in materials weathered from basin alluvium derived from igneous, metamorphic and sedimentary rock. Runoff is slow or very slow. This soil is mainly used for pasture, however, some parts of northern Napa Valley are used for vineyards. Permeability in this soil unit is slow and the available water capacity is 8 to 10 inches. The hydric soils list for the Napa County identifies this soil type as hydric (USDA, NRCS 2016).

### 5.3 Wildlife Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The

fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation can also occur when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The Study Area is not part of a major or local wildlife corridor/travel route because it does not connect two significant habitats. The Study Area is surrounded by American Canyon Road immediately to the south and previously mining development to the east and west and some undeveloped land to the north. While wildlife movement could occur within the undeveloped land to the north, the perimeter of the Study Area is fenced and the southern portion of the Study Area is bordered by American Canyon Road. Therefore, the Study Area is not considered a major wildlife corridor or travel route since they do not connect two significant habitats.

## 5.4 Biological Communities

The following terrestrial biological communities occur within the Study Area: disturbed non-native annual grassland and disturbed/developed areas. There are no aquatic biological communities identified within the Study Area. **Table 1** summarizes the biological communities by acreages. Dominant vegetation observed within each biological community is discussed in detail below. A comprehensive list of plants observed within the Study Area is provided in **Appendix B**. The biological communities are depicted in **Figure 3**.

**Table 1 — Biological Communities by Acreages**

Biological Community	Total Acreage
<b>Terrestrial</b>	
Disturbed Non-Native Annual Grassland	1.63
Disturbed/Developed	0.17
<b>Total</b>	<b>1.80</b>

### 5.4.1 Terrestrial Communities

#### Disturbed Non-Native Annual Grassland

Non-native annual grassland occurs throughout the Study Area. Dominant vegetation includes primarily common mustard (*Brassica rapa*), which is intermixed with ripgut brome (*Bromus diandrus*), filaree (*Erodium botrys*), spring vetch (*Vicia sativa*), and yellow star-thistle (*Centaurea solititalis*). Isolated trees and shrubs including coyote

brush (*Baccharis pilularis*), and California bay (*Umbellularia californica*) occur along the southern and western portions of the Study Area.

### **Disturbed/Developed**

Disturbed/developed areas occur primarily within the western and central portions of the Study Area and are comprised of an abandoned house and associated outbuildings, an access road, a driveway, a tree house, and gravel piles. These areas are sparsely vegetated with spring vetch and filaree vegetation within the disturbed/developed areas consisting primarily of rocks and gravel substrate.

## **5.5 Wildlife Observed**

Wildlife observed foraging within the Study Area includes: red-tailed hawk (*Buteo jamaicensi*), black-tailed jack rabbit (*Lepus californicus*), red-winged blackbird (*Agelaius phoeniceus*), and black phoebe (*Sayornis nigricans*). A comprehensive list of wildlife species observed within the Study Area is provided in **Appendix B**.

## **5.6 Special-Status Species**

Special-status species are plant and animal species that have been afforded special recognition by federal, State, or local resource agencies or organizations. Listed and special-status species are of relatively limited distribution and may require specialized habitat conditions. Special-status species are defined as meeting one or more of the following criteria:

- Listed or proposed for listing under the CESA or the FESA;
- Protected under other regulations (e.g. MBTA);
- CDFW Species of Special Concern;
- Plant species ranked by the CNPS; or
- Receive consideration during environmental review under CEQA.

Special-status species considered for this analysis are based on the CNDDDB, CNPS, and USFWS lists. The California Natural Diversity Database occurrences of special-status species documented within five miles of the Study Area are illustrated within **Figure 4** (CDFW 2016). **Appendix C** includes the common and scientific names for each species, regulatory status (federal, State, local, CNPS), habitat descriptions, and potential for occurrence within the Study Area. The following set of criteria has been used to determine each species potential for occurrence within the Study Area:

- **Present:** Species known to occur within the Study Area based on CNDDDB records and/or observed within the Study Area during the biological surveys.
- **High:** Species known to occur on or near the Study Area (based on CNDDDB records within five miles and/or based on professional expertise specific to the Study Area or species) and there is suitable habitat within the Study Area.

- **Low:** Species known to occur in the vicinity of the Study Area and there is marginal habitat within the Study Area **-OR-** Species is not known to occur in the vicinity of the site, however, there is suitable habitat on the site.
- **None:** Species is not known to occur on or in the vicinity of the Study Area and there is no suitable habitat within the Study Area **-OR-** Species was surveyed for during the appropriate season with negative results **-OR-** The Study Area does not provide suitable soils or occurs outside of the known elevation or geographic ranges **-OR-** Species is not known in Napa County.

Only those species that are known to be present or have a *high* or *low* potential for occurrence are discussed further in the following paragraphs.

### ***5.6.1 Listed and Special-Status Plants***

The following special-status plant species have a *high* potential for occurrence within the Study Area: alkali milk-vetch, big-scale balsamroot, saline clover, San Joaquin spearscale, and two-forked clover. The following special-status plant species have a *low* potential for occurrence within the Study Area: Mount Diablo cottonwood, pappose tarplant, and Tiburon buckwheat.

### **Species with a High Potential for Occurrence**

#### Alkali Milk-Vetch

Alkali milk-vetch is ranked as a CNPS 1B species. It is an annual herb found in alkaline playas, valley and foothill grassland, and vernal pools from 3 to 197 feet (1 to 60 meters) above MSL. The identification period for this species is from March through June (CNPS 2016). There is one documented CNDDB record of this species occurring within five miles of the Study Area (**Figure 4**) (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is known to occur within the vicinity; therefore, there is a *high* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

#### Big-Scale Balsamroot

Big-scale balsamroot is ranked as a CNPS 1B species. It is a perennial herb found in chaparral, cismontane woodland, valley and foothill grassland, and sometimes serpentinite from 295 to 5,101 feet (90 to 1,555 meters) above MSL. The identification period for this species is from March through June (CNPS 2016). There are two documented CNDDB records of this species occurring within five miles of the Study Area (**Figure 4**) (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is known to occur within the vicinity; therefore, there is a *high* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

### Saline Clover

Saline clover is ranked as a CNPS 1B species. It is an annual herb found in marshes and swamps, mesic and alkaline valley and foothill grassland, and vernal pools from 0 to 984 feet (0 to 300 meters) above MSL. The identification period for this species is from April through June (CNPS 2016). There are two documented CNDDDB records of this species occurring within five miles of the Study Area (**Figure 4**) (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is known to occur within the vicinity; therefore, there is a *high* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

### San Joaquin Spearscale

San Joaquin spearscale is ranked as a CNPS 1B species. It is an annual herb found in alkaline chenopod scrub, meadows and seeps, playas, and valley and foothill grassland from 3 to 2,740 feet (1 to 835 meters) above MSL. The identification period for this species is from April through October (CNPS 2016). There are two documented CNDDDB records of this species occurring within five miles of the Study Area (**Figure 4**) (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is known to occur within the vicinity; therefore, there is a *high* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

### Two-Forked Clover

Two-forked clover is ranked as a CNPS 1B species. It is an annual herb found in coastal bluff scrub and valley and foothill grassland that is sometimes on serpentinite soils, from 16 to 1,362 feet (5 to 415 meters) above MSL. The identification period for this species is from April through June (CNPS 2016). There are two documented CNDDDB records of this species occurring within five miles of the Study Area (**Figure 4**) (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is known to occur within the vicinity; therefore, there is a *high* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

## **Species with a Low Potential for Occurrence**

### Mount Diablo Cottonwood

Mount Diablo cottonwood is ranked as a CNPS 3 species. It is an annual herb found in broadleafed upland forest, chaparral, cismontane woodland, and valley and foothill grassland within rocky substrate from 148 to 2,707 feet (45 to 825 meters) above MSL. The identification period for this species is from March through May (CNPS 2016). There are no documented CNDDDB records of this species occurring within five miles of the Study Area (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is not known to occur within the vicinity; therefore, there is a *low* potential for

this species to occur within the disturbed non-native annual grassland within the Study Area.

#### Pappose Tarplant

Pappose tarplant is an annual herb found in chaparral, coastal prairie, meadows and seeps, coastal salt marshes, and vernal mesic valley and foothill grassland from 0 to 1,378 feet (0 to 420 meters) above MSL. The identification period for this species is from May to November (CNPS 2016). There are no documented CNDDB records of this species occurring within five miles of the Study Area (CDFW 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is not known to occur within the vicinity; therefore, there is a *low* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

#### Tiburon Buckwheat

Tiburon buckwheat is ranked as a CNPS 1B species. It is an annual herb found on serpentine, sandy to gravelly substrate in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland from 197 to 1,312 feet (60 to 400 meters) above MSL. The identification period for this species is from May to September (CNPS 2016). This species was not observed during the biological survey, but the survey was not conducted during the identifiable bloom period. This species is not known to occur within the vicinity; therefore, there is a *low* potential for this species to occur within the disturbed non-native annual grassland within the Study Area.

### **5.6.2 Listed and Special-Status Wildlife**

The special-status wildlife species, white-tailed kite, has a *high* potential to occur within the Study Area. The following special-status wildlife species have a *low* potential to occur within the Study Area: burrowing owl and short-eared owl.

### **Wildlife Species with a High Potential for Occurrence**

#### White-Tailed Kite

White-tailed kite is listed as California Fully-Protected. White-tailed kite is a year-long resident in coastal and valley lowlands in California and nests near the top of dense oaks, willows, or other large trees adjacent to ungrazed or lightly-grazed fields and pastures for foraging. White-tailed kite breed from February to October, peaking from May to August (Zeiner *et. al.* 1990). There are two CNDDB records of white-tailed kite documented within five miles of the Study Area (**Figure 4**) (CDFW 2016). The trees within the Study Area provide nesting habitat and the disturbed non-native annual grassland provide foraging habitat for this species. This species has a *high* potential to occur within the Study Area.

## Wildlife Species with a Low Potential for Occurrence

### Burrowing Owl

Burrowing owl is a California Species of Special Concern. Burrowing owl is a small ground-dwelling owl that occurs in western North America from Canada to Mexico, and east to Texas, and Louisiana. Although in certain areas of their range, burrowing owls are migratory; these owls are predominantly non-migratory in California. Burrowing owls generally inhabit gently-sloping areas, characterized by low, sparse vegetation (Poulin *et al.* 2011). The breeding season for burrowing owls is from March to August, peaking in April and May (Zeiner *et. al.* 1990). Burrowing owls nest in burrows in the ground, often in old ground squirrel burrows. Burrowing owls are also known to use artificial burrows including pipes, culverts, and nest boxes. There are three CNDDDB records for this species within five miles of the Study Area (**Figure 4**) (CDFW 2016). The disturbed non-native annual grassland provides marginal habitat for this species given that it is densely vegetated and contains few burrows suitable in size for a burrowing owl to utilize. The burrows within the disturbed non-native annual grassland provide marginal wintering and nesting habitat for this species. This species has a *low* potential to occur within the Study Area.

### Short-Eared Owl

Short-eared owl is a California Species of Special Concern. Short-eared owls are ground-nesting species found in open areas with few trees, such as marshes, annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. The nests are usually located on dry sites with enough vegetation to conceal incubating females. There are no CNDDDB records for this species within five miles of the Study Area (CDFW 2016). The disturbed non-native annual grassland provides nesting and foraging habitat for this species. This species has a *low* potential to nest and forage within the Study Area.

### **5.6.3 *Nesting Birds of Conservation Concern Protected under the Migratory Bird Treaty Act (MBTA) and §3503.5 Department of Fish and Game Code***

Migratory birds and other birds of prey, including those identified as Birds of Conservation Concern in Table 2 of **Appendix C**, are protected under 50 CFR 10 of the MBTA and/or Section §3503.5 of the California Fish and Game Code. Migratory birds and other birds of prey including ferruginous hawk have the potential to nest within the disturbed non-native annual grassland and within the trees and shrubs within the disturbed non-native annual grassland during the nesting season. The generally accepted nesting season is from February 15 through August 31.

## **5.7 Sensitive Habitats**

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. No sensitive habitats within the Study Area were identified.



### ***5.7.1 Oak Woodland Canopy***

No oak canopy occurs within the Study Area.

## 6.0 DISCUSSION AND RECOMMENDATION

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**Table 2** and Error! Reference source not found. summarizes the impacts associated with the proposed project by biological community.

**Table 2 — Impacts of Biological Communities by Acreages**

Biological Communities	Impacts (Acres)
<b>Terrestrial</b>	
Disturbed Non-Native Annual Grassland	0.67
Ephemeral Drainage	0.12
<b>Total</b>	<b>0.79</b>

Known or potential biological constraints on the Study Area include the following:

- Potential habitat for special-status plants including: alkali milk-vetch (*Astragalus tener* var. *tener*), big-scale balsamroot (*Balsamorhiza macrolepis*), Mount Diablo cottonweed (*Micropus amphibolus*), pappose tarplant (*Centromadia parryi* ssp. *parryi*), saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Etriplex joaquinana*), Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*), and two-forked clover (*Trifolium amoenum*);
- Potential breeding and wintering habitat for burrowing owl (*Athene cunicularia*); and
- Potential foraging and nesting habitat for raptors and other migratory birds including: white-tailed kite (*Elanus leucurus*), ferruginous hawk (*Buteo regalis*), and short-eared owl (*Asio flammeus*).

### 6.1 Plants

The Study Area provides habitat for the following non-listed special-status plants: alkali milk vetch (blooms March through June), big-scale balsamroot (blooms March through June), Mount Diablo cottonwood (blooms March through May), pappose tarplant (blooms May through November), saline clover (blooms April through June), San Joaquin spearscale (blooms April through October), Tiburon buckwheat (blooms May through September), and two-forked clover (blooms April through June). A qualified botanist should conduct a focused botanical survey in May prior to commencement of construction activities, in accordance with CDFW's (2009) protocol plant surveys. If no special-status plants are observed, then a letter report documenting the results of the survey should be provided to the project proponent for their records, and no additional measures are recommended.

If any of the non-listed special-status plants occur within the Study Area, then avoidance should be taken to the extent feasible. If the plants cannot be avoided, a mitigation plan

should be prepared in consultation with the CDFW. At minimum, the mitigation plan should include locations where the plants will be transplanted in suitable habitat adjacent to the project footprint, success criteria, and monitoring activities. The CDFW would need to approve the mitigation plan prior to transplantation and commencement of construction activities.

## **6.2 Burrowing Owl**

Burrowing owl has a low potential to occur within the disturbed non-native annual grassland given the marginal habitat of minimal burrows and dense vegetation the Study Area. Due to the low likelihood of presence, a single take avoidance survey should be conducted between 14 days and 30 days prior to commencement of construction activities, in accordance with Appendix D of the 2012 CDFW *Staff Report on Burrowing Owl Mitigation* (2012 Staff Report) (CDFW 2012). The survey area includes an approximately 500-foot (150-meter) buffer around the project footprint, where access is permitted. If the survey is negative, then a letter report documenting the results of the survey should be provided to the project proponent for their records, and no additional measures are recommended.

If active burrows are observed within 500 feet of the proposed project footprint, an impact assessment should be prepared and submitted to the CDFW, in accordance with the 2012 Staff Report. If it is determined that project activities may result in impacts to nesting, occupied, and satellite burrows and/or burrowing owl habitat, the project proponent should delay commencement of construction activities until the biologist determines that the burrowing owls have fledged and the burrow is no longer occupied. If this is infeasible, the project proponent should consult with the CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The mitigation plan should be based on the requirements set forth in Appendix A of the 2012 Staff Report. No construction can commence until the CDFW has approved the mitigation plan.

## **6.3 Migratory Birds and Other Birds of Prey**

Migratory birds and other birds of prey protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code including white-tailed kite, ferruginous hawk, and short-eared owl have the potential to nest in the disturbed non-native annual grassland and within the trees within the disturbed non-native annual grassland within the Study Area. Grading and other vegetation clearing operations, including pruning or removal of trees and shrubs, should be completed between September 1 and February 14, if feasible. If vegetation removal begins during the nesting season (February 15 to August 31), a qualified biologist should conduct a pre-construction survey for active nests within 500 feet of the project footprint. The pre-construction survey should be conducted within 14 days prior to commencement of ground-disturbing activities for planning purposes. An additional pre-construction survey should be conducted within 72 hours of commencement of ground-disturbing activities. If the pre-construction survey shows that there is no evidence of active nests, then a letter report should be submitted to the project proponent for their records and no additional measures are recommended. If construction does not commence within 72 hours of the

pre-construction survey, or halts for more than 72 hours, an additional pre-construction survey is recommended.

If any active nests are located within 500 feet of the project footprint, an appropriate buffer zone should be established around the nests, as determined by the biologist. The biologist should mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests. If active nests are found onsite, a qualified biologist should monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. If establishing the typical buffer zone is impractical, the qualified biologist may reduce the buffer depending on the species and daily monitoring is recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied. Once it has been determined that the nest is no longer active, then a letter report would be submitted to the project proponent for their records and no additional measures are recommended.

#### **6.4 Summary of Avoidance and Minimization Measures**

- Conduct a focused botanical survey for special-status plants in May;
- Conduct a take avoidance survey for burrowing owl between 14 and 30 days prior to commencement of construction activities;
- Conduct clearing and tree and shrub removal operations between September 1 and February 14 to minimize potential impacts to nesting birds; and
- Conduct pre-construction surveys for active migratory bird and raptor nests within 14 days and 72 hours prior to commencement of construction activities or tree removal, if anticipated to commence during the nesting season (February 15 – August 31).

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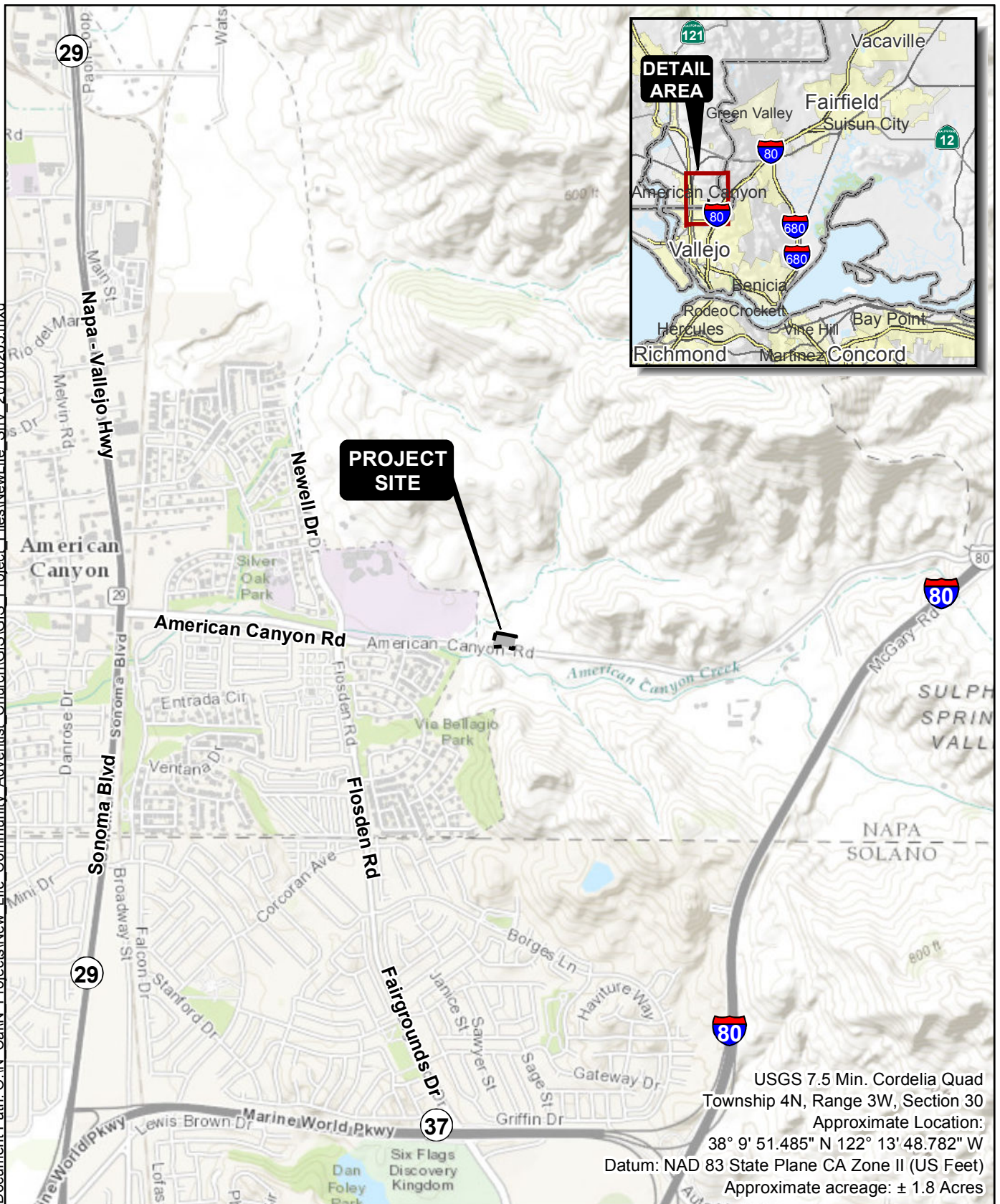
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## SITE AND VICINITY



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Miles

1 in = 0.4 miles

Drawn By: MUB  
Date: 02/05/2016

**FIGURE 1**







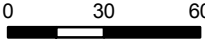
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 <b>FOOTHILL ASSOCIATES</b> ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE © 2016		 0 30 60 Feet 1 inch = 60 feet	Drawn By: MUB Date: 02/05/2016

FIGURE 2





## BIOLOGICAL COMMUNITIES



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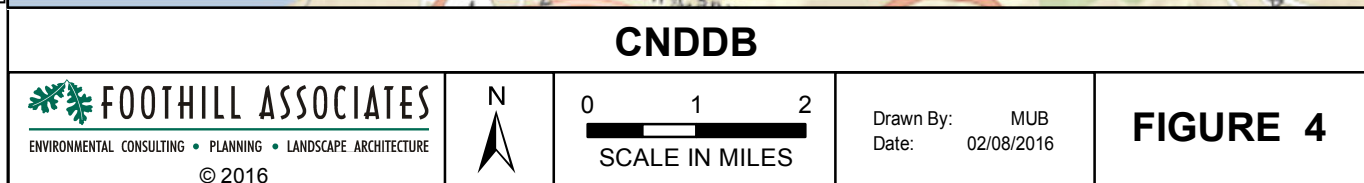
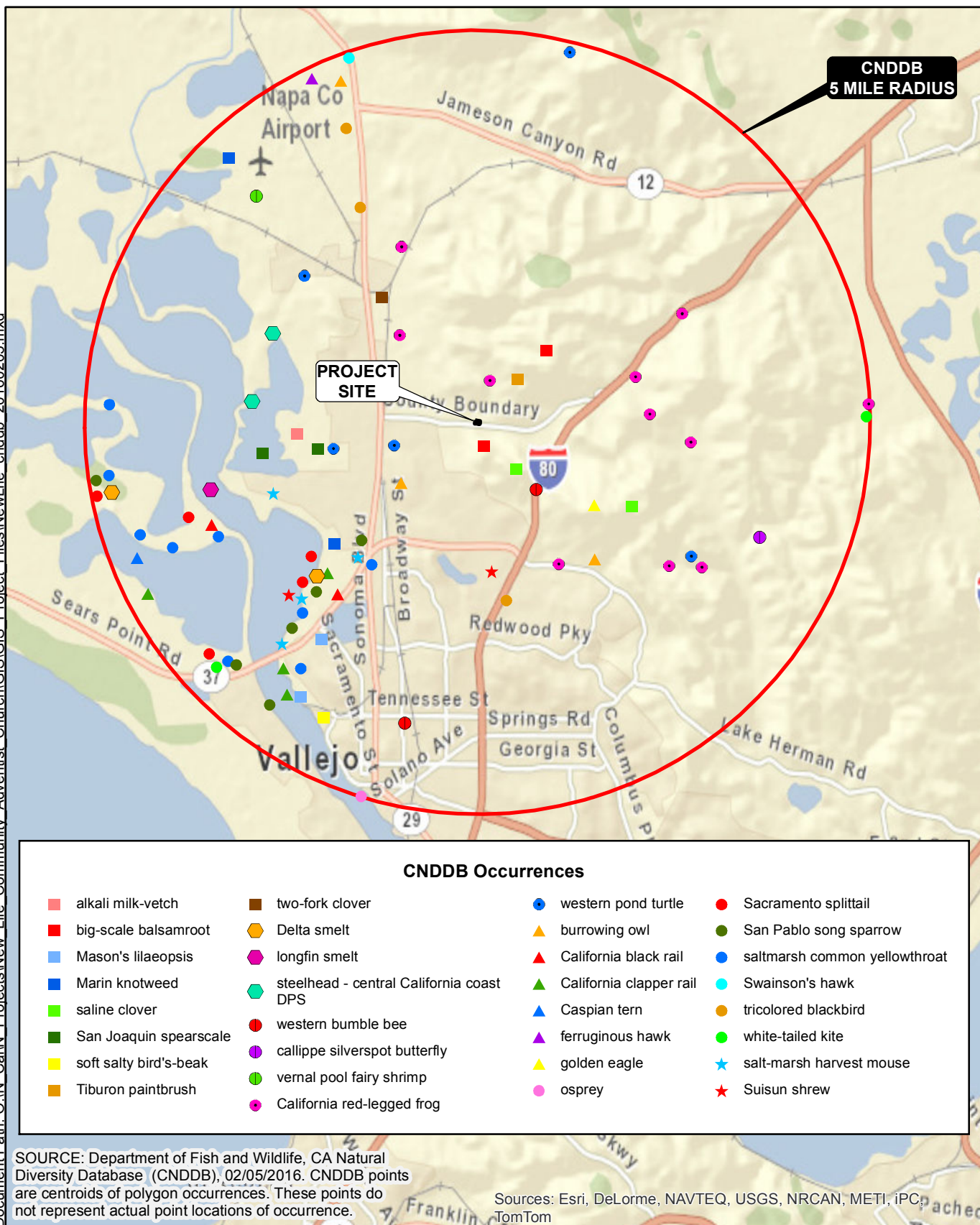
Feet

1 inch = 75 feet

Drawn By: MUB

Date: 03/17/2016

**FIGURE 3**



## **Appendix A — CDFW, CNPS, and USFWS Queries**

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## **CDFW CNDDDB: *Cordelia* Quadrangle**

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Query Summary:  
Quad **IS** (Cordelia (3812222))

Print

Close

CNDDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	674	1	None	None	G2G3	S1S2	null	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_EN-Endangered   NABCI_RWL-Red Watch List   USFWS_BCC-Birds of Conservation Concern	Freshwater marsh   Marsh & swamp   Swamp   Wetland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	312	1	None	None	G5	S3	null	BLM_S-Sensitive   CDF_S-Sensitive   CDFW_FP-Fully Protected   CDFW_WL-Watch List   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest   Cismontane woodland   Coastal prairie   Great Basin grassland   Great Basin scrub   Lower montane coniferous forest   Pinon & juniper woodlands   Upper montane coniferous forest   Valley & foothill grassland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1875	2	None	None	G4	S3	null	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Coastal prairie   Coastal scrub   Great Basin grassland   Great Basin scrub   Mojavean desert scrub   Sonoran desert scrub   Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	PDAST11061	43	3	None	None	G2	S2	1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral   Cismontane woodland   Ultramafic   Valley & foothill grassland
Bombus occidentalis	western bumble bee	Insects	IIHYM24250	200	1	None	None	G2G3	S1	null	USFS_S-Sensitive   XERCES_IM-Imperiled	null
Castilleja affinis var. neglecta	Tiburon paintbrush	Dicots	PDSCR0D013	9	1	Endangered	Threatened	G4G5T1T2	S1S2	1B.2	SB_UCBBG-UC Berkeley Botanical Garden	Ultramafic   Valley & foothill grassland
Centromadia parryi ssp. parryi	pappose tarplant	Dicots	PDAST4R0P2	29	1	None	None	G3T2	S2	1B.2	BLM_S-Sensitive	Chaparral   Coastal prairie   Marsh & swamp   Meadow & seep   Valley & foothill grassland
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	1	Threatened	None	G3T2	S2	null	null	Riparian scrub

Elanus leucurus	white-tailed kite	Birds	ABNKC06010	158	1	None	None	G5	S3S4	null	BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_LC-Least Concern	Cismontane woodland   Marsh & swamp   Riparian woodland   Valley & foothill grassland   Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1147	4	None	None	G3G4	S3	null	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable   USFS_S-Sensitive	Aquatic   Artificial flowing waters   Klamath/North coast flowing waters   Klamath/North coast standing waters   Marsh & swamp   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters   South coast flowing waters   South coast standing waters   Wetland
Isocoma arguta	Carquinez goldenbush	Dicots	PDAST57050	14	1	None	None	G1	S1	1B.1	null	Valley & foothill grassland
Melospiza melodia maxillaris	Suisun song sparrow	Birds	ABPBXA301K	36	2	None	None	G5T3	S3	null	CDFW_SSC-Species of Special Concern   USFWS_BCC-Birds of Conservation Concern	Marsh & swamp   Wetland
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1376	14	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable	Aquatic   Artificial flowing waters   Artificial standing waters   Freshwater marsh   Marsh & swamp   Riparian forest   Riparian scrub   Riparian woodland   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters   South coast flowing waters   South coast standing waters   Wetland
Reithrodontomys raviventris	salt-marsh harvest mouse	Mammals	AMAFF02040	141	1	Endangered	Endangered	G1G2	S1S2	null	CDFW_FP-Fully Protected   IUCN_EN-Endangered	Marsh & swamp   Wetland
Serpentine Bunchgrass	Serpentine Bunchgrass	Herbaceous	CTT42130CA	22	1	None	None	G2	S2.2	null	null	Valley & foothill grassland
Sorex ornatus sinuosus	Suisun shrew	Mammals	AMABA01103	15	2	None	None	G5T1T2Q	S1S2	null	CDFW_SSC-Species of Special Concern	Marsh & swamp   Wetland
Speyeria callippe callippe	callippe silverspot butterfly	Insects	IILEPJ6091	8	1	Endangered	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal scrub
Symphyotrichum lentum	Suisun Marsh aster	Dicots	PDASTE8470	173	1	None	None	G2	S2	1B.2	null	Brackish marsh   Freshwater marsh   Marsh & swamp   Wetland
Trifolium amoenum	two-fork clover	Dicots	PDFAB40040	26	1	Endangered	None	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden   SB_USDA-US Dept of Agriculture	Coastal bluff scrub   Ultramafic   Valley & foothill grassland
Trifolium	saline											Marsh & swamp   Valley & foothill

hydrophilum	clover	Dicots	PDFAB400R5	49	3	None	None	G2	S2	1B.2	null	grassland   Vernal pool   Wetland
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# **CNPS Rare and Endangered Plant Inventory: *Cordelia* Quadrangle**

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## Plant List

11 matches found. *Click on scientific name for details*

### Search Criteria

Found in Quad 38122B2

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
<a href="#"><u>Balsamorhiza macrolepis</u></a>	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2
<a href="#"><u>Castilleja affinis var. neglecta</u></a>	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	1B.2	S1	G4G5T1
<a href="#"><u>Ceanothus purpureus</u></a>	holly-leaved ceanothus	Rhamnaceae	perennial evergreen shrub	1B.2	S2	G2
<a href="#"><u>Centromadia parryi ssp. parryi</u></a>	pappose tarplant	Asteraceae	annual herb	1B.2	S2	G3T2
<a href="#"><u>Erigeron biolettii</u></a>	streamside daisy	Asteraceae	perennial herb	3	S3?	G3?
<a href="#"><u>Eriogonum luteolum var. caninum</u></a>	Tiburon buckwheat	Polygonaceae	annual herb	1B.2	S2	G5T2
<a href="#"><u>Helianthella castanea</u></a>	Diablo helianthella	Asteraceae	perennial herb	1B.2	S2	G2
<a href="#"><u>Iris longipetala</u></a>	coast iris	Iridaceae	perennial rhizomatous herb	4.2	S3	G3
<a href="#"><u>Micropus amphibolus</u></a>	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	S3S4	G3G4
<a href="#"><u>Symphytotrichum lentum</u></a>	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
<a href="#"><u>Trifolium hydrophilum</u></a>	saline clover	Fabaceae	annual herb	1B.2	S2	G2

### Suggested Citation

CNPS, Rare Plant Program. 2016. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> [accessed 29 January 2016].

#### Search the Inventory

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[The Calflora Database](#)

[The California Lichen Society](#)

***USFWS List for Planning and Conservation (IPaC) Trust  
Resource Report: New Life Adventist Church, Napa  
County***

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# New Life Adventist Church

## *IPaC Trust Resource Report*

Generated January 29, 2016 08:09 PM MST, IPaC v2.3.2

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



US Fish & Wildlife Service

# IPaC Trust Resource Report



NAME

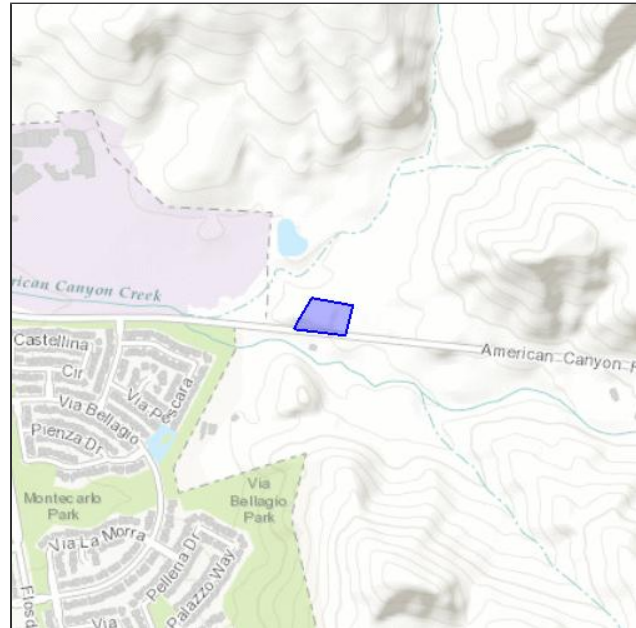
New Life Adventist Church

LOCATION

Napa County, California

IPAC LINK

<http://ecos.fws.gov/ipac/project/34LNZ-7DVQF-G4LLE-4DBMF-RRVBXI>



## U.S. Fish & Wildlife Contact Information

Trust resources in this location are managed by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

# Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

**This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.**

For project evaluations that require FWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

**A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from the Regulatory Documents section in IPaC.**

The list of species below are those that may occur or could potentially be affected by activities in this location:

## Amphibians

**California Red-legged Frog** *Rana draytonii* Threatened

### CRITICAL HABITAT

There is **final** critical habitat designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=D02D](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=D02D)

## Birds

**California Clapper Rail** *Rallus longirostris obsoletus* Endangered

### CRITICAL HABITAT

**No critical habitat** has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B04A](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B04A)

**California Least Tern** *Sterna antillarum browni* Endangered

### CRITICAL HABITAT

**No critical habitat** has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B03X](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B03X)

**Western Snowy Plover** *Charadrius alexandrinus nivosus* Threatened

### CRITICAL HABITAT

There is **final** critical habitat designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B07C](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B07C)

## Crustaceans

**California Freshwater Shrimp** *Syncaris pacifica* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=K01W](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=K01W)

**Vernal Pool Fairy Shrimp** *Branchinecta lynchi* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=K03G](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=K03G)

## Fishes

**Delta Smelt** *Hypomesus transpacificus* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=E070](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E070)

**Steelhead** *Oncorhynchus (=Salmo) mykiss* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=E08D](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E08D)

## Flowering Plants

**Showy Indian Clover** *Trifolium amoenum* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=Q238](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q238)

**Tiburon Paintbrush** *Castilleja affinis* ssp. *neglecta* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=Q26R](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q26R)

## Insects

**Callippe Silverspot Butterfly** *Speyeria callippe callippe* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=I019](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=I019)

**San Bruno Elfin Butterfly** *Callophrys mossii bayensis* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?spcode=I00Q](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=I00Q)

## Mammals

**Salt Marsh Harvest Mouse** *Reithrodontomys raviventris*

Endangered

CRITICAL HABITAT

**No critical habitat** has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=A03Y](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=A03Y)

## Reptiles

**Giant Garter Snake** *Thamnophis gigas*

Threatened

CRITICAL HABITAT

**No critical habitat** has been designated for this species.

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=C057](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=C057)

## Critical Habitats

**There are no critical habitats in this location**

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

Additional information can be found using the following links:

- Birds of Conservation Concern  
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>

The following species of migratory birds could potentially be affected by activities in this location:

<b>Allen's Hummingbird</b> <i>Selasphorus sasin</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0LI">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0LI</a>	
<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008</a>	
<b>Bell's Sparrow</b> <i>Amphispiza belli</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HE">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HE</a>	
<b>Black Oystercatcher</b> <i>Haematopus bachmani</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0KJ">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0KJ</a>	
<b>Black Rail</b> <i>Laterallus jamaicensis</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B09A">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B09A</a>	
<b>Black Skimmer</b> <i>Rynchops niger</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0EO">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0EO</a>	



<b>Burrowing Owl</b> <i>Athene cunicularia</i> Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC</a>	Bird of conservation concern
<b>Common Yellowthroat</b> <i>Geothlypis trichas sinuosa</i> Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B080">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B080</a>	Bird of conservation concern
<b>Fox Sparrow</b> <i>Passerella iliaca</i> Season: Wintering	Bird of conservation concern
<b>Lawrence's Goldfinch</b> <i>Carduelis lawrencei</i> Season: Breeding <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0J8">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0J8</a>	Bird of conservation concern
<b>Least Bittern</b> <i>Ixobrychus exilis</i> Season: Breeding	Bird of conservation concern
<b>Lesser Yellowlegs</b> <i>Tringa flavipes</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MD">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MD</a>	Bird of conservation concern
<b>Lewis's Woodpecker</b> <i>Melanerpes lewis</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HQ">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HQ</a>	Bird of conservation concern
<b>Long-billed Curlew</b> <i>Numenius americanus</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S</a>	Bird of conservation concern
<b>Marbled Godwit</b> <i>Limosa fedoa</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JL">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JL</a>	Bird of conservation concern
<b>Mountain Plover</b> <i>Charadrius montanus</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B078">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B078</a>	Bird of conservation concern
<b>Nuttall's Woodpecker</b> <i>Picoides nuttallii</i> Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HT">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HT</a>	Bird of conservation concern
<b>Oak Titmouse</b> <i>Baeolophus inornatus</i> Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MJ">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MJ</a>	Bird of conservation concern
<b>Peregrine Falcon</b> <i>Falco peregrinus</i> Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU</a>	Bird of conservation concern
<b>Rufous-crowned Sparrow</b> <i>Aimophila ruficeps</i> Year-round <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MX">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MX</a>	Bird of conservation concern
<b>Short-billed Dowitcher</b> <i>Limnodromus griseus</i> Season: Wintering <a href="https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JK">https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JK</a>	Bird of conservation concern

**Short-eared Owl** *Asio flammeus*

Season: Wintering

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B0HD](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HD)

Bird of conservation concern

**Snowy Plover** *Charadrius alexandrinus*

Season: Breeding

Bird of conservation concern

**Swainson's Hawk** *Buteo swainsoni*

Season: Breeding

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B070](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B070)

Bird of conservation concern

**Tricolored Blackbird** *Agelaius tricolor*

Year-round

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B06P](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B06P)

Bird of conservation concern

**Western Grebe** *aechmophorus occidentalis*

Year-round

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B0EA](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0EA)

Bird of conservation concern

**Whimbrel** *Numenius phaeopus*

Season: Wintering

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B0JN](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0JN)

Bird of conservation concern

**Yellow Rail** *Coturnicops noveboracensis*

Season: Wintering

[https://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=B0JG](https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0JG)

Bird of conservation concern

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

**There are no refuges in this location**

# Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**There are no wetlands in this location**

## **Appendix B — Plants and Wildlife Observed within the Project Study Area**

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Scientific Name	Common Name
<b>Plants</b>	
<i>Baccharis pilularis</i>	Coyote brush
<i>Brassica campestris</i>	Common mustard
<i>Bromus diandrus</i>	Ripgut brome
<i>Centaurea solititalis</i>	Yellow star thistle
<i>Chlorogalum pomeridianum</i>	Wavyleaf soap plant
<i>Dichelostemma capitatum</i>	Blue dicks
<i>Distichlis spicata</i>	Salt grass
<i>Erodium botrys</i>	Filaree
<i>Foeniculum vulgare</i>	Sweet fennel
<i>Geranium dissectum</i>	Geranium
<i>Erodium cicutarium</i>	Filaree
<i>Lamium amplexicaule</i>	Henbit deadnettle
<i>Marah fabaceus</i> var. <i>agrestis</i>	Wild cucumber
<i>Medicago polymorpha</i>	Bur clover
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Rumex acetosella</i>	Sheep sorrel
<i>Sambucus mexicana</i>	Blue elderberry
<i>Silybum marianum</i>	Milk thistle
<i>Sonchus oleraceus</i>	Common sow thistle
<i>Toxicodendron diversilobum</i>	Poison oak
<i>Urtica dioica</i>	Stinging nettle
<i>Umbellularia californica</i>	California bay
<i>Vicia sativa</i>	Spring vetch

Scientific Name	Common Name
<b>Birds</b>	
<i>Agelaius phoeniceus</i>	Red-winged black bird
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Colaptes auratus</i>	Northern Flicker
<i>Calypte anna</i>	Anna's hummingbird
<i>Cathartes aura</i>	Turkey vulture
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Sayornis nigricans</i>	Black phoebe
<i>Zenaida macroura</i>	Mourning dove
<b>Mammals</b>	
<i>Lepus californicus</i>	Black-tailed jack rabbit
<b>Reptiles</b>	
<i>Sceloporus occidentalis</i>	Western fence lizard

## **Appendix C — Regionally Occurring Listed and Special-Status Species**

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Table 1 — Regionally Occurring Special-Status Species

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Plants				
Alkali milk vetch <i>Astragalus tener</i> var. <i>tener</i>	--; --; --; 1B	Annual herb found in alkaline playas, valley and foothill grassland, oftentimes in adobe clay soil, and vernal pools from elevations from 1 to 60 meters (CNPS 2016).	Blooming period: March – June	High; the non-native annual grassland within the Study Area provides habitat for this species and this species is known to occur within the vicinity.  One CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	--; --; --; 1B	Perennial herb found in chaparral, cismontane woodland, valley and foothill grassland, and sometimes serpentine from 90 to 1,555 meters in elevation. Known to occur in Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta Solano, Sonoma, Tehama, and Tuolumne (CNPS 2016).	Blooming period: March – June	<b>High</b> ; the non-native annual grassland within the Study Area provides habitat for this species and this species is known to occur within the vicinity.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Carquinez goldenbush <i>Isocoma arguta</i>	--; --; --; 1B	Perennial shrub found in alkaline valley and foothill grassland from 1 to 20 meters in elevation. Known to occur in Solano County (CNPS 2016).	Blooming period: August – December	<b>None</b> ; this species is not known to occur within Napa County and the Study Area is outside of the elevational for this species.
Coast iris <i>Iris longipetala</i>	--; --; --; 4	Perennial rhizomatous herb found in mesic areas within coastal prairie, lower montane coniferous forests, meadows and seeps from 0 to 600 meters in elevation. Known to occur in Alameda, Contra Costa, Humboldt, Mendocino, Monterey, Marin, Napa, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties (CNPS 2016).	Blooming period: March – May	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Holly-leaved ceanothus <i>Ceanothus purpureus</i>	--; --; SLC; 1B	Perennial evergreen shrub found in chaparral and cismontane woodland within volcanic rocky substrate from 120 to 640 meters in elevation. Known to occur in Shasta, Napa, Solano, Sonoma, and Trinity counties (CNPS 2016).	Blooming period: February – June	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Diablo helianthella <i>Helianthella castanea</i>	--; --; --; 1B	Perennial herb found in broad-leafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland within rocky, axonal soils and within shaded areas from 60 to 1,300 meters in elevation. Known to occur in Alameda, Contra Costa, San Francisco, San Mateo, and Marin counties (CNPS 2016).	Blooming period: March – June	<b>None</b> ; this species is not known to occur within Napa County.
Mason’s lilaeopsis <i>Lilaeopsis masonii</i>	--; CR; --; 1B	Perennial rhizomatous herb found in brackish or freshwater marshes and swamps and riparian scrub habitats from 0 to 10 meters in elevation (CNPS, 2016).	Blooming period: April – November	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Marin knotweed <i>Polygonum marinense</i>	--; --; --; 3	An annual herb found in coastal salt or brackish marshes and swamps from 0 to 10 meters in elevation (CNPS, 2016).	Blooming period: April – October	Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).  <b>None</b> ; the Study Area does not provide suitable habitat for this species.
Mount Diablo cottonweed <i>Micropus amphibolus</i>	--; --; --; 3	Annual herb found in broadleafed upland forest, chaparral, cismontane woodland, and valley and foothill grassland within rocky substrate from 45 to 825 meters in elevation. Known to occur in Alameda, Contra Costa, Colusa, Lake, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Santa Cruz, San Joaquin, San Luis Obispo, Solano, and Sonoma counties (CNPS 2016).	Blooming period: March – May	Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).  <b>Low</b> ; the non-native annual grassland within the Study Area provides habitat for this species.
Pappose tarplant <i>Centromadia parryi</i> ssp. <i>parryi</i>	--; --; --; 1B	Annual herb found in chaparral, coastal prairie, meadows and seeps, coastal salt marshes and vernally mesic valley and foothill grassland from 0 to 420 meters in elevation. Found in Butte, Colusa, Glenn, Lake, Napa, San Mateo, Solano and Sonoma counties (CNPS 2016).	Blooming period: May – November	<b>Low</b> ; the non-native annual grassland within the Study Area provides habitat for this species.
San Joaquin spearscale <i>Eriplex joaquinana</i>	--; --; --; 1B	Annual herb found in alkaline chenopod scrub, meadows and seeps, playas, and valley and foothill grassland from 1 to 835 meters in elevation (CNPS, 2016).	Blooming period: April – October	<b>High</b> ; the non-native annual grassland within the Study Area provides habitat for this species and this species is known to occur within the vicinity.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Saline clover <i>Trifolium hydrophilum</i>	--; --; --; 1B	Annual herb found in marshes and swamps, mesic and alkaline valley and foothill grassland, and vernal pools from 0 to 300 meters. Known from Alameda, Contra Costa, Colusa, Lake, Monterey, Napa, Sacramento, San Benito, Santa Clara, Santa Cruz, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, and Yolo counties (CNPS 2016).	Blooming period: April – June	<b>High</b> ; the non-native annual grassland within the Study Area provides habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Soft bird’s beak <i>Chloropyron molle</i> ssp. <i>molle</i>	FE; CR; --; 1B	An annual hemi-parasitic herb found in coastal salt marshes and swamps from 0 to 3 meters in elevation (CNPS, 2016).	Blooming period: July – November	<b>None</b> ; the Study Area does not provide suitable habitat for this species.  One CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Streamside daisy <i>Erigeron bioletti</i>	--; --; --; 3	Perennial herb found in broad-leaved upland forest, cismontane woodland, and North Coast coniferous forest within rocky, mesic substrate from 30 to 1,100 meters in elevation. Known to occur from Humboldt, Mendocino, Marin, Napa, Solano, Sonoma counties (CNPS 2016).	Blooming period: June – October	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Suisun Marsh aster <i>Symphotrichum lentum</i>	--; --; --; 1B	Perennial rhizomatous herb found in marshes and swamps, which are occasionally brackish and freshwater from 0 to 3 meters (CNPS, 2014). Known from Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Yolo counties (CNPS, 2016).	Blooming period: April – November	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Tiburon buckwheat <i>Eriogonum luteolum</i> var. <i>caninum</i>	--; --; --; 1B	Annual herb found in chaparral, cismontane woodland, coastal prairie, valley and foothill grassland within serpentine, sandy to gravelly substrate from 0 to 700 meters in elevation. Known to occur in Alameda, Contra Costa, Sonoma and Marin counties (CNPS 2016).	Blooming period: May – September	<b>Low</b> ; the non-native annual grassland within the Study Area provides habitat for this species; however, this species is not known to occur within Napa County.
Tiburon paintbrush <i>Castilleja affinis</i> var. <i>neglecta</i>	FE; CE; --; 1B	A hemi-parasitic perennial herb found in valley and foothill grassland within serpentine soils from 60 to 400 meters in elevation. Known to occur in Marin, Napa and Santa Clara counties (CNPS 2016).	Blooming period: April – June	<b>None</b> ; the Study Area does not contain serpentine soils.  One CNDDDB occurrence is documented within 5 miles of the Study Area (CDFW 2016).
Two-forked clover <i>Trifolium amoenum</i>	--; --; --; 1B	Annual herb found in coastal bluff scrub and valley and foothill grassland that is sometimes on serpentinite soils, from 5 to 415 meters. Known from Marin, Napa, Santa Clara, San Mateo, Solano, and Sonoma counties (CNPS 2016).	Blooming period: April – June	<b>High</b> ; the non-native annual grassland within the Study Area provides habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
<b>Wildlife</b>				
<b>Invertebrates</b>				
California freshwater shrimp <i>Syncaria pacifica</i>	FE; --; --; --	Habitat requirements include perennial or intermittent freshwater stream pools away from the main stream current that contains undercut banks, exposed root systems, and overhanging vegetation (ideally willow and alder trees) into the water. Found within streams in Sonoma, Marin and Napa counties.	Presence of eggs in September and are carried until May or early June when they are released	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Callippe silverspot butterfly <i>Speyeria callippe callippe</i>	FE; --; --; --	Found in native grasslands and adjacent habitats. Females lay their eggs on the dry of the larval food plant of the Johnny-jump-up ( <i>Viola pedunculata</i> ) plant or the surrounding debris. The larvae feed for about a week, then wander a short distance and spin a silk pad where they stay through summer and winter. In spring they seek the Johnny-jump-up plant and after a few more weeks emerge from a pupa where they mate and live for a few more weeks.	Mid-May to late July	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	FE; --; --; --	Found inhabiting rocky outcrops and cliffs in coastal scrub on the San Francisco Peninsula. Their host plant is stonecrop ( <i>Sedum spathulifolium</i> ). This species range is known from the coastal mountains within the fog-belt of steep north facing slopes that receive little direct sunlight of San Francisco Bay. All known locations are restricted to San Mateo County and include San Bruno Mountain, Milagra Ridge, San Francisco Peninsula Watershed and Montara Mountain.	Adult flight period is late February to Mid-April; Pupation of larvae take place in soil at base of host plant from June until February	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT; --; --; --	Sole hosts are elderberry ( <i>Sambucus</i> sp.) shrubs usually associated with riparian areas. This species is known from portions of the Central Valley of California (also known as the Great Valley of California) (50 CFR 17).	Adults emerge in spring until June. Exit holes visible year – round.	<b>None</b> ; although a number of blue elderberry shrubs were identified within the disturbed non-native annual grassland, the Study Area is outside of the presumed historic range of this species. In addition, the proposed project would avoid impacts to the elderberry shrubs.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT; --; --; --	Inhabits vernal pools, swales, and ephemeral freshwater habitat. This species is known from Alameda, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Kings, Madera, Merced, Monterey, Napa, Placer, Riverside, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Ventura, Yolo, and Yuba counties (Nature Serve 2015).	USFWS protocol-level wet-season sampling and/or dry season cyst identification.	<b>None</b> ; the Study Area does not provide habitat for this species.  One CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
<b>Amphibians/Reptiles</b>				
California red-legged frog <i>Rana draytonii</i>	FT; CSC; --; --	Requires a permanent water source and is typically found along quiet, slow-moving streams, ponds, or marsh communities with emergent vegetation. All extant CRLF records in the Sierra Nevada range are over 800 feet above MSL. Below this elevation, aquatic habitat supports stronger populations of non-native predators associated with warm water habitats such as bullfrogs ( <i>Lithobates catesbeiana</i> ) and Centrarchid fish (Rana Resources 2013). Believed extirpated from	Aquatic surveys of breeding sites between January and September. Optimally after April 15.	<b>None</b> ; the Study Area does not provide habitat for this species.  Eleven CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
		the floor of the Central Valley prior to the 1960s (USFWS 2002).		
Giant garter snake <i>Thamnophis gigas</i>	FT; CT; --; --	Found in agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands. Upland habitat should have burrows or other soil crevices suitable for snakes to reside during their dormancy period (November – mid March). This species is known from Sacramento, Sutter, Butte, Colusa, and Glenn counties.	Active outside of dormancy period November-mid March.	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Western pond turtle <i>Emys marmorata</i>	--; CSC; --; --	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	Active outside of dormancy period November – February.	<b>None</b> ; the Study Area does not provide habitat for this species.  Five CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
<b>Fish</b>				
Central Valley steelhead <i>Oncorhynchus mykiss</i>	FT; --; --; --	Inhabits rivers and streams tributary to the Sacramento-San Joaquin Rivers and Delta ecosystems.	Spawn in winter and spring.	<b>None</b> ; the Study Area does not provide habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Delta smelt <i>Hypomesus transpacificus</i>	FT; CE; --; --	Shallow fresh or brackish water tributary to the Delta ecosystem; spawns in freshwater sloughs and channel edgewater. Known almost exclusively in the Fresno-San Joaquin estuary.	Spawn December – July. Present year-round in delta.	<b>None</b> ; the Study Area does not provide habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Longfin smelt <i>Spirinchus thaleichthys</i>	FC; CT; --; --	Inhabits a wide variety of aquatic habitats from freshwater to salt water within rivers and streams. Habitat range includes Slightly upstream along the Sacramento River in the Delta through Suisun Bay and Suisun Marsh, San Pablo Bay, San Francisco Bay, the Gulf of Farallones, Humboldt Bay, and Eel River estuary and the adjacent local coastal areas.	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.  One CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	--; CSC; --; --	Typically found in estuarine environments and within waters with lower salinity levels ranging from 10 to 18 ppt. Habitat range is primarily centered within the San Francisco Estuary, while spawning occurs in flooded vegetation including the Yolo Bypass.	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.  Five CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
<b>Birds</b>				
Bald eagle <i>Haliaeetus leucocephalus</i>	FD; CFP, CE; --; --	Breeding habitat most commonly includes areas within 2.5 miles (4.0 kilometers) of coastal areas, bays, rivers, lakes, and reservoirs. Nests usually are in tall trees or on pinnacles or cliffs near water.	Winter	<b>None</b> ; the Study Area does not provide habitat for this species.
Black rail <i>Laterallus jamaicensis</i>	--; CT; --; --	Saltwater, brackish, and freshwater marshes. This species is known from Alameda, Butte, Contra Costa, Imperial, Los Angeles, Marin, Napa, Nevada, Orange, Placer, Sacramento, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Sutter, and Yuba counties, in California.	Year – round	<b>None</b> ; this species is not known to occur within Napa County and the Study Area does not provide habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Burrowing owl <i>Athene cunicularia</i>	--; CSC; --; -- (burrowing sites and some wintering sites)	Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open dry grassland and desert habitat. The burrows are found in dry, level, open terrain, including prairie, plains, desert, and grassland with low height vegetation for foraging and available perches, such as fences, utility poles, posts, or raised rodent mounds.	Year – round; Breeding season surveys between March and August.	<b>Low</b> ; the disturbed non-native annual grassland within the Study Area provides marginal habitat given the dense vegetation and minimal number of suitable burrows necessary for this species to utilize for nesting or wintering.  Three CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
California clapper rail <i>Rallus longirostris obsoletus</i>	FE; CE; --; --	Inhabits saltwater and brackish water marshes that contains pickleweed ( <i>Salicornia</i> sp.) and cordgrass ( <i>Spartina</i> sp.). This species range is within marshes of the San Francisco Estuary with patchy populations in the North Bay and small widely-distributed populations throughout san Pablo Bay and Suisun Marsh.	February – August (breeding)	<b>None</b> ; the Study Area does not provide habitat for this species.  Four CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
California least tern <i>Sierna antillarum browni</i>	FE; CE; --; --	Inhabits coastal habitats, including beaches, bays, estuaries, lagoons, lakes and rivers. Nests on open sandy or gravelly beaches, banks of rivers and lakes that are free of vegetation by the tide. This species range is within marshes of the San Francisco Estuary with patchy populations in the North Bay and small widely-distributed populations throughout san Pablo Bay and Suisun Marsh.	April to August (breeding)	<b>None</b> ; the Study Area does not provide habitat for this species.
Golden eagle <i>Aquila chrysaetos</i>	--; CFP; --; -- (nesting and wintering)	Open and semi-open areas in the mountains up to 12,000 feet in elevation. They are also found in canyon lands, rimrock, terrain, and riverside cliffs and bluffs. Nest are built on cliffs and steep escarpments in grassland, in trees, chaparral, shrubland, forests and man-made structures within vegetated areas.	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.  One CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Short-eared owl <i>Asio flammeus</i>	--; CSC; --; --	Usually found in open areas with few trees, such as annual and perennial grassland, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. Nests	Wintering (non-breeding)	<b>Low</b> ; the disturbed non-native annual grassland within the Study Area provides foraging habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
		usually located on dry sites with enough vegetation to conceal incubating female.		
Suisun song sparrow <i>Melospiza melodia maxillaris</i>	--; CSC; --; -- (nesting colony)	Nests are typically hidden in dense vegetation either on the ground or as high as 15 feet near water. Found in a variety of open habitats, including tidal marshes, arctic grasslands, desert scrub, pinyon pine forests, aspen parklands, prairie shelterbelts, Pacific rain forest, chaparral, agricultural fields, overgrown pastures, freshwater marsh, lake and forest margins, and suburbs. Are known to occur in the Sacramento and San Joaquin (south coast) artificial standing and flowing waters, wetlands, and adjacent habitats.	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.
Swainson’s hawk <i>Buteo swainsoni</i>	--; CT; --; --	Nest peripherally to Valley riparian systems lone trees or groves of trees in agricultural fields. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41 to 82 feet, are the most commonly used nest trees in the Central Valley. This species is known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Inyo, Kern, Kings, Lassen, Los Angeles, Madera, Merced, Modoc, Mono, Napa, Placer, Plumas, Sacramento, San Bernardino, San Joaquin, San Luis Obispo, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties.	March – October	<b>None</b> ; this species is not known to occur within Napa County.  One CNDDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Tricolored blackbird <i>Agelaius tricolor</i>	--; CSC; --; -- (nesting colony)	Nests in dense blackberry, cattail, tules, bulrushes, sedges, willow, or wild rose within freshwater marshes. Nests in large colonies of at least 50 pairs (up to thousands of individuals).	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.  Three CNDDDB occurrences are documented within 5 miles of the Study Area (CDFW 2016).
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT; --; --; --	Nests on the ground on broad open beaches or salt or dry mud flats, where vegetation is sparse or absent (small clumps of vegetation are used for cover by chicks); nests beside or under objects or in open areas.	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.
White-tailed kite <i>Elanus leucurus</i>	--; CFP; --; -- (nesting)	Inhabit savanna, open woodlands, marshes, desert grassland, partially cleared lands and cultivated fields. Nests in trees, often near a marsh in savanna, open woodland, partially cleared lands, and cultivated fields. Foraging occurs within ungrazed or lightly-grazed fields and pastures.	February 15 – August 31	<b>High</b> ; the trees within the non-native annual grassland provide nesting habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
<b>Mammals</b>				
Salt marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE; CE; --; --	Found in dense pickleweed ( <i>Salicornia</i> sp.) and salt grass ( <i>Distichlis spicata</i> ) within tidal and non-tidal salt marshes of Suisun, San Pablo Bay, and central and south San Francisco Bays. Also inhabits adjacent grasslands during high tides.	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.  Four CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Suisun shrew <i>Sorex ornatus sinuosus</i>	--; CSC; --; --	Inhabits densely low-lying vegetated areas in tidal marshes that include cordgrass ( <i>Spartina foliosa</i> ), pickleweed ( <i>Salicornia virginica</i> ), and gumplant ( <i>Grindelia cuneifolia</i> ). Also inhabits brackish marshes dominated by cattail ( <i>Typha latifolia</i> ) and California bulrush ( <i>Scirpus californicus</i> ).	Year – round	<b>None</b> ; the Study Area does not provide habitat for this species.  Two CNDDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
<b>Federally-Listed Species:</b> FE = federal endangered FT = federal threatened FC = candidate PT = proposed threatened FPD = proposed for delisting FD = delisted				
		<b>California State Ranked Species:</b> CE = California state endangered CT = California state threatened CR = California state rare CSC = California species of special Concern CCT = California state threatened candidate	<b>CNPS* Rank Categories:</b> 1A = plants presumed extinct in California 1B = plants rare, threatened, or endangered in California and elsewhere 2 = plants rare, threatened, or endangered in California, but common elsewhere 3 = plants about which we need more information 4 = plants of limited distribution  <i>Source: Foothill Associates</i>	

Special-Status Species list generated from queries of the USFWS for the Site and CNPS and CNDDDB databases for the *Cordelia* quadrangle.

Table 2 — Nesting Birds of Conservation Concern Protected under the Migratory Bird Treaty Act (MBTA) and §3503.5 Department of Fish and Game Code

Birds of Conservation Concern	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Allen’s hummingbird <i>Selasphorus sasin</i>	Nest sites are located within densely vegetated areas located in moist coastal areas, scrub, chaparral, and forests.	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Bell’s sparrow <i>Amphispiza belli</i>	Nests are primarily within shrubs, but can also occur within bunchgrasses and on the ground under shrubs including California sagebrush, brittlebrush, white sage, black sage, California buckwheat, bush mallow, chamise, cholla, willow and other species. Breeds in coastal sagebrush, chaparral and other open scrubby habitats. During migration and winter, are found in dry shrublands or grasslands, including creosote and saltbush dominated desert scrub, yucca, honey mesquite and greasewood.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Black oystercatcher <i>Haematopus bachmani</i>	Nesting will occur on the ground within rocky sea coasts and islands, less commonly on sandy beaches.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Black skimmer <i>Rhynchops niger</i>	Nests occur on the ground in colonies along beaches, gravel or shell bars, dredge deposition islands, saltmarshes and rooftops. General habitat is along the shoreline in open sandy beaches, on gravel or shell bars with sparse vegetation or on mats of sea wrack (tide-stranded debris) in saltmarshes. However, they are occasionally seen in inland lakes such as the Salton Sea.	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Caspian tern <i>Hydroprogne caspia</i>	Breeds in habitats near water, such as salt marshes, barrier islands, dredge spoil islands, freshwater lake islands, and river islands. During overwintering and migration, they can be found along coastlines, large rivers and lakes. Roosting occurs on islands and on isolated spits.	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.  One CNDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Common yellowthroat <i>Geothlypis trichas sinuosa</i>	Nests occur typically on or near the ground and supported by sedges, grasses, reeds, cattails, briars, skunk cabbage or other low plants. Nests that occur in marshy areas are usually higher off the ground. General habitat is commonly in wet areas with dense vegetation, but are also found in dry upland pine forests, palmetto thickets, drainage ditches, hedgerows, orchards, fields, burned over oak forests, shrub-covered hillsides, river edges, and disturbed sites.	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Ferruginous hawk <i>Buteo regalis</i>	Breed in grasslands, sagebrush, saltbush-greasewood shrublands and along edges of pinyon-juniper forests at low to moderate elevations. Features of breeding habitat include cliffs, outcrops and tree groves for nesting. Overwintering occurs in grasslands or deserts with abundant prey species (rabbits, pocket gophers, or prairie dogs).	Wintering (non-breeding)	<b>Low</b> . The non-native annual grassland within the Study Area provides foraging habitat for this species.  One CNDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Fox sparrow <i>Passerella iliaca</i>	Inhabits brushy fields in high elevations with green-leaf Manzanita, mountain whitehorn, and bush chinquapin. Breed in coniferous forest and dense mountain scrub.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Lawrence’s goldfinch <i>Carduelis lawrencei</i>	Nests in trees within open woodlands, chaparral, and weedy field habitats.	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Least bittern <i>Ixobrychus exilis</i>	Nests on a platform within dense vegetation within freshwater or brackish marshes with tall emergent vegetation.	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Lesser yellowlegs <i>Tringa flavipes</i>	Nests occur on the ground, in moss depressions or underneath low shrubs. Breeding occurs in open boreal forests with scattered shallow wetlands. Wintering habitats includes a wide variety of shallow fresh and saltwater habitats.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Lewis’s woodpecker <i>Melanerpes lewis</i>	Breeds in open forest and woodland, often logged and burned, including oak, coniferous forest (primarily ponderosa pine), riparian woodland and orchards, and less commonly in pinyon/juniper. Nest site is cavity excavated in tree (tree or limb usually dead), sometimes in utility pole, from 1.5 to greater than 30 meters above ground.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Long-billed curlew <i>Numenius americanus</i>	In the summer, they nest in spares short grasses, including shortgrass and mixed grass prairies and agricultural fields. In the winter, they migrate to the coast where they inhabit wetlands, tidal estuaries, mudflats, flooded fields, and occasionally beaches.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Marbled godwit <i>Limosa fedoa</i>	Nests are located on the ground within marshes and flooded plains. In migration and winter, can also be found in mudflats and beaches.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Mountain plover <i>Charadrius montanus</i>	Nests are located on the ground within open plains at moderate elevations. Wintering habitat includes short-grass plains, and fields, plowed fields, and sandy deserts.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Nuttall’s woodpecker <i>Picoides nuttallii</i>	Occurs in oak forest and woodland, chaparral, and riparian. Nest site is cavity excavated in tree between one and 18 meters above the ground.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Oak titmouse <i>Baeolophus inornatus</i>	Nest site is in a cavity in tree, stump, fence post, or pole. Most commonly found in oak woodland where oaks meet streamside trees or pines, rarely found in coniferous forest in mountains.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Osprey <i>Pandion haliaetus</i>	Found near major water sources filled with fish for foraging, such as lakes, rivers, ponds, reservoirs, lagoons, swamps, and marshes. Nests are built in areas that are elevated off of the ground, such as on snags, treetops, tree crotches between branches and trunks, on cliffs or on human-built platforms.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.  One CNDDB occurrence is documented within five miles of the Study Area (CDFW 2016).
Peregrine falcon <i>Falco peregrinus</i>	Nests on man-made structures and in the hollows of old trees or open tops of cypress, sycamore, or cottonwood trees 50 to 90 feet above the ground, mostly in woodland, forest, and coastal habitats.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.

Rufous-crowned sparrow <i>Aimophila ruficeps</i>	Habitat includes steep, dry, rocky hillsides with plenty of grasses and a scattering of shrubs and small trees, such as sagebrush or scrub oaks. Additionally, areas with dense shrubs are often avoided.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
San Pablo song sparrow <i>Melospiza melodia samuelis</i>	Found in tidal marshes within San Pablo Bay and San Francisco Bay and surrounding tributaries. Nesting sites require dense vegetation within the marshes.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.  Six CNDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	Breeding habitats include woody swamp, brackish marsh, and freshwater marsh. Nest are built close to the ground in dense grasses and other herbaceous vegetation (poison hemlock ( <i>Conium maculatum</i> )), cattails, tules and some shrubs (coyote brush ( <i>Baccharis pilularis</i> )).	Summer (breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.  Nine CNDDB occurrences are documented within five miles of the Study Area (CDFW 2016).
Short-billed dowitcher <i>Limnodromus griseus</i>	Nests are simple bowl-shaped within dense vegetation. Breeding habitat includes muskegs of taiga to timberline and barely onto subarctic tundra. Wintering habitat includes coastal mud flats and brackish lagoons. During migration, is often found in saltwater tidal flats, beaches and salt marshes.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Western grebe <i>Aechmophorus occidentalis</i>	Breed on freshwater lakes and marshes with extensive open water with emergent vegetation along the margins. Wintering habitat includes saltwater or brackish bays, estuaries, or sheltered sea coasts. Found less frequently on freshwater lakes and rivers.	Year-round	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Whimbrel <i>Numenius phaeopus</i>	Nests on the ground in various tundra habitats, from wet lowlands to dry heath. In migration, is found often in various coastal and inland habitats including fields and beaches.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.
Yellow rail <i>Coturnicops noveboracensis</i>	Nests in herbaceous wetland areas including bogs and fens, riparian wetlands, grass or sedge marshes and wet meadows in freshwater situations. Non-breeding habitats include drier freshwater and brackish marshes and dense, deep grass and rice fields.	Wintering (non-breeding)	<b>None</b> ; the Study Area does not provide suitable habitat for this species.

Migratory Bird Treaty Act and Golden Eagle Protection Act list generated from queries of the USFWS for the Site (USFWS 2015).

Federal Register. 2014. *U.S. Fish and Wildlife Service Final Rule*. Volume 69, No. 149.