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Biological Studies

Nova Wine Warehouse P16-00456-UP
Planning Commission Hearing Date May 1, 2019

ZENTNER and ZENTNER
Land Planning and Restoration

To: Ron Fedrick; Nova Group, Inc.

CC: Phill Blake, RSA Engineering Carole Bionda; Nova Group, Inc.

FROM: Sean Micallef; Zentner and Zentner

Digitally signed by Sean Micallef
DN: cn=Sean Micallef, o=Zentner and Zentner, ou, email=seanm@zentner.com, c=US
Date: 2016.11.18 14:55:52 -08'00'

DATE: November 18, 2016

RE: Fedrick Warehouse Project: Summer Botanical Survey Results
Napa County, CA

Zentner and Zentner completed a Special Status Habitat and Species Analysis in June 2016, which included botanical surveys of the property. However, the botanical surveys were completed prior to the blooming period of pappose tarplant (*Centromadia parryi ssp. parryi*). Therefore, Zentner and Zentner completed a follow-up survey of the project site and environs for this and other late blooming species.

Sean Micallef, Chief Ecologist of Zentner and Zentner, conducted the survey on July 5, 2015, which was well within the blooming period for this species, which runs from May through November. During the survey, the entire site and adjacent areas were walked, while ensuring that areas with potential habitat were carefully examined.

No pappose tarplant or other special status plant species were observed during the survey. However, a cluster of approximately 50 Centromadia were observed on the project site. These species were observed adjacent to the east and west sides of the path as it ran near the southeastern corner of the site. This plant was keyed out and determined to be Fitch's spikeweed (*Centromadia fitchii*), a relatively common, herbaceous species.

Consequently, all botanical surveys of the site have been completed and no special status plant species have been observed on site and, therefore, are unlikely to occur.

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ZENTNER and ZENTNER
Land Planning and Restoration

FEDRICK WAREHOUSE

Special Status Habitat and Species Analysis

Project

1054 NGI

Zentner and Zentner

Prepared for:

Nova Group Inc.

Date Issued:

June 2016

95 Linden Street Suite 3 Oakland California 94607 510.622.8110

Fedrick Warehouse

Special Status Habitat and Species Analysis

I. INTRODUCTION

This analysis identifies special status habitats and species and other important biological resources within the Fedrick Warehouse property (also known as the "property" or "project site"), potential project impacts on biological resources, and the applicant's mitigation measures that are included in the project for potential impacts. This report assesses the biological and associated regulatory issues relevant to the development of the site

Zentner and Zentner completed site analyses, surveys, including reviewing the site and surrounding study area for jurisdictional and other special status habitats. These site surveys and analyses took place on April 26; May 6; May 17 and June 2, 2016. This analysis also draws on earlier work complete for the site and surrounding areas including a report entitled "Biological Resources Assessment for the Fedrick Property", by LSA Associates (LSA 2015) in which preliminary analyses for this and other properties in the area were completed, and SR 29/221 Soscol Junction Improvement project, Draft Environmental Impact Report/ Environmental Assessment (CalTrans 2015).

In addition to this field work and document reviews, the most recent versions of the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game; CDFG) California Natural Diversity Database (CNDDB), United States Fish and Wildlife Service (USFWS) special status species list, and the California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Plants were reviewed during the preparation of this analysis to determine special-status plant and animal species potentially occurring in the project vicinity. The databases were searched for the project site and greater project area (*i.e.,* the surrounding 9 surrounding USGS 7.5-minute quadrangles within Napa County).

A. Site Description

The Fedrick Warehouse project is located in southern Napa County, west of Highway 29, northeast of the Napa county Airport (**Figure 1**). The roughly rectangular lot totals 22.78 acres is bordered on the north by Suscol Creek, an intermittent creek with a band of riparian woodland that borders the creek. Devlin Road and Highway 29 run southeast to northwest approximately 800 feet and 100 feet east of the parcel respectively.

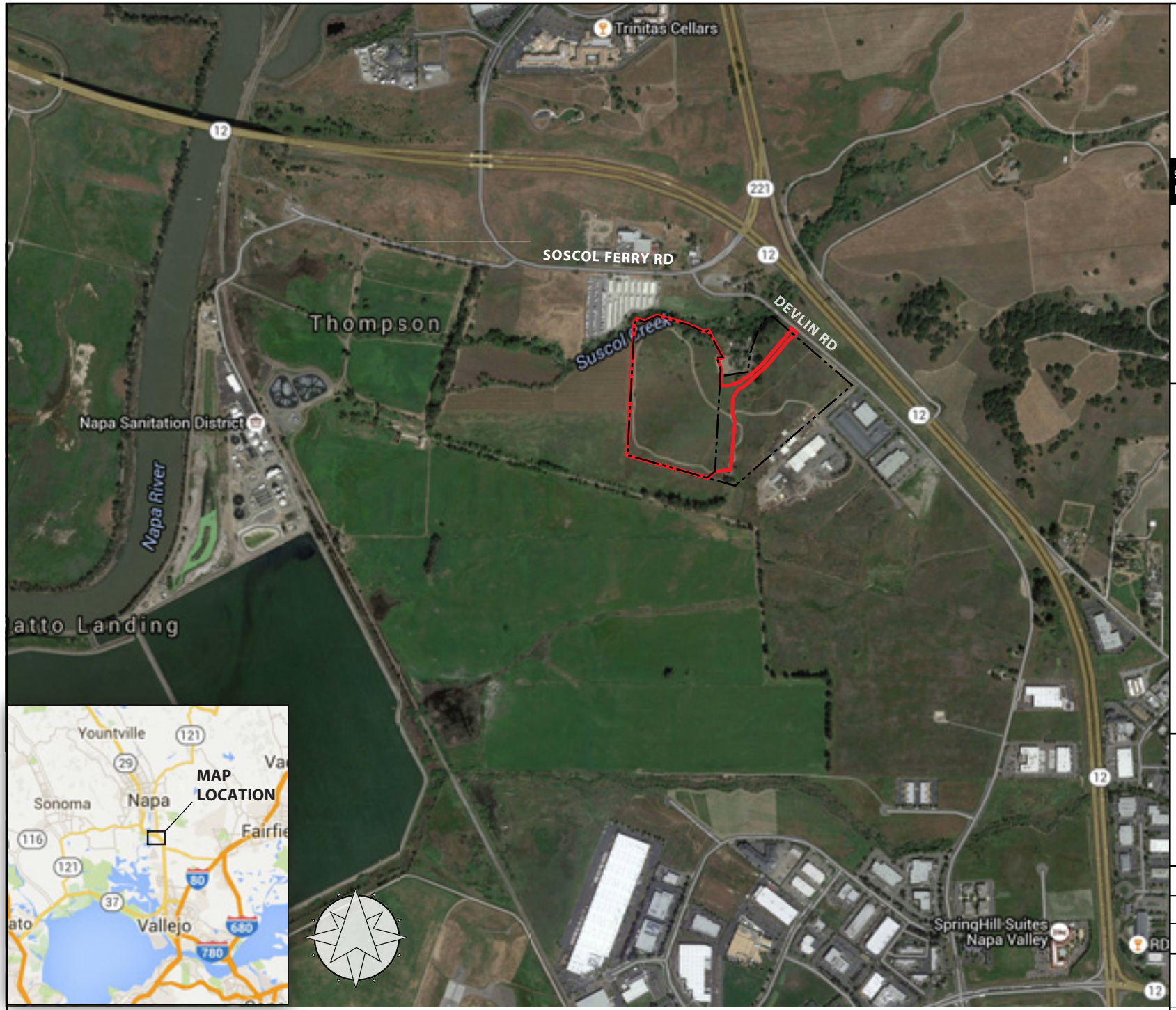

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FIGURE 1
LOCATION MAP

FEDRICK WAREHOUSE PROPERTY
Napa, California

LEGEND

STUDY AREA

PROPERTY BOUNDARIES

BY: CJL

DATE: 05/31/2016, 05:21 pm

PROJECT: 1054 NGI

BASE MAP: GOOGLE MAPS 2016

FILE: D:\Graphic Designer\My Documents\PROJECTS\1000-1100\1054 Fedrick Warehouse\Adobe\1054 Location map 16-05-23

The site is located northeast of the Napa County Sanitation District (NCSD) Soscol Water Recycling Facility, which also includes NCSD spray fields, which lie just south of the parcel. The Rocca Family Vineyard is located just northeast of the parcel adjacent to the edge of the Suscol Creek riparian woodland. The surrounding land uses are agricultural, primarily vineyards, and light industrial.

The site is dominated by ruderal grassland on the relatively level lot, which slopes gently to the southwest. A handful of coyote bush (*Baccharis pilularis*) are lie scattered in the northern third of the parcel. A moderately dense band of riparian woodland dominated by oaks, buckeye and non-native black locust borders the south side of Suscol Creek along the northern end of the site. Several tall blue gum (*Eucalyptus globulus*) lie in the path of the proposed road entrance in addition to another scattering of small coyote bush. An approximately 10-foot-wide, crushed granite pathway winds around near the perimeter of the parcel with access via the parcel to the east. An old barn and storage shed are in relatively advanced stages of deterioration on the northwestern edge of the adjacent parcel where the proposed entrance road intersects with the project parcel.

B. Project Description

The Fedrick Warehouse project proposes to construct a warehouse on just under 9.20 acres of a 22.78 parcel in southern Napa County. Additional elements of the project include an entrance street off of Devlin Road, driveways, parking and stormwater bioretention facilities for a total of 16.87 acres of development. This work would include a total of 205 required parking spaces and at least 0.675 acres of stormwater bioretention. An access road would run from Devlin Road west through the intervening parcel to connect to the warehouse site. A total of 0.57 acres of the access road is located on the adjacent parcel, which lies adjacent to and east of the project site. In addition to this work, grading for the construction of the warehouse and warehouse parking etc.., would include a strip of land approximately 150 ft. wide along the western edge of the eastern parcel adjacent to the warehouse lot. Therefore, grading for the road and the development would total 2.97 acres of the eastern parcel for a total of 25.74 acres ("study area"), which was reviewed as part of this assessment (**Figure *2***).

Construction of road access into the site would necessitate the removal the open barn. A total of approximately ten small (between 2.0" to 8.0" dbh) live oaks (*Quercus agrifolia*) that are grouped adjacent to the barn structure would also have to be removed.

The northern end of the lot contains Suscol Creek and a 150-foot setback from the creek that includes riparian woodland and ruderal grassland. This 3.17-acre area would be preserved as part of the development. Also as part of the development, the setback area will be restored and enhanced. This restoration work would take the form of removing non-native vegetation such as black locust trees and replanting with native trees and understory species. This work would enhance the riparian habitat and provide a buffer to Suscol Creek from the development.

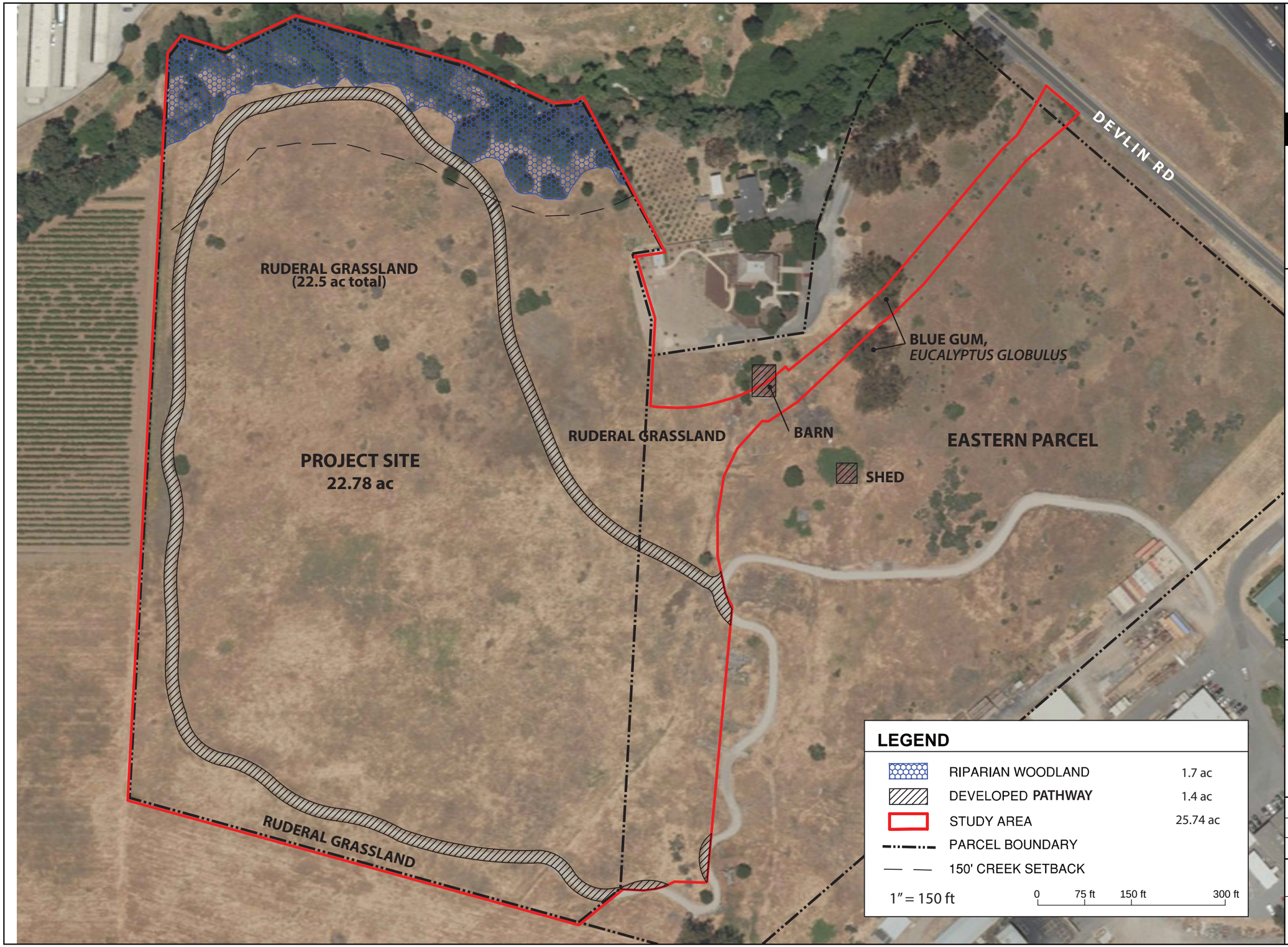

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FIGURE 2
VEGETATION MAP

FEDRICK WAREHOUSE PROPERTY
Napa, California

BY: **CJL**
DATE: **06/08/2016, 10:14 am**
PROJECT: **1054 NGI**
BASE MAP: **ESRI 2015**
FILE: **D:\Graphic Designer\My Documents\PROJECTS\1000-1100\1054 Fedrick Warehouse\Adobe\1054 vegetation map 16-05-17**

II. ENVIRONMENTAL SETTING

A. Plant Communities and Associated Wildlife Habitat

As noted above, the project site is dominated by ruderal grassland vegetation (**Figure 3**). The only other vegetative community on the site is riparian woodland. Suscol Creek itself is relatively rocky and unvegetated. A couple of extremely small seasonal wetlands lie near the sites eastern border on the western end of the adjacent parcel; however, the proposed project is not expected to have any impact on these. A full list of plant species observed on-site is provided in **Appendix A**.

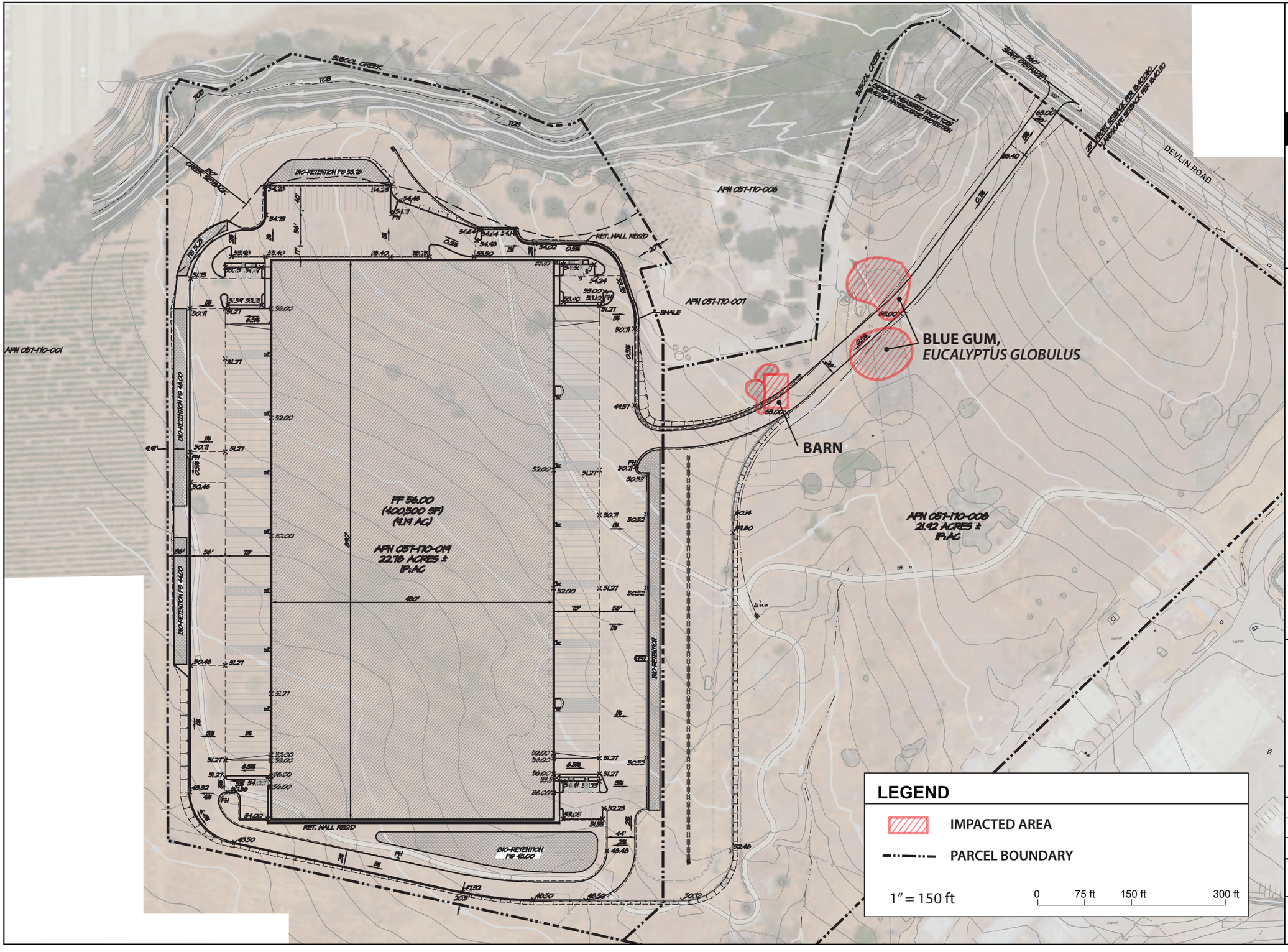
Nomenclature used for plant names follows *The Jepson Manual*, Second Edition (Baldwin et. al. 2012) and changes made to this manual as published on the Jepson Interchange Project website (http://ucjeps.berkeley.edu/interchange/index.html). Nomenclature for wildlife follows the CDFW's *Complete list of Amphibian, Reptile, Bird, and Mammal Species in California* (2008) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW's list.

1. Ruderal Grassland Vegetation

The dominant vegetation on the site is ruderal grassland vegetation, which covers 22.5 acres of the site **(Figure *2).*** With the exception of toad rush (*Juncus bufonius*), which is found adjacent to the path, coyote bush and a small scattering of annual lupine (*Lupinus bicolor*), there are no native plant species within the ruderal grassland. The dominant vegetation throughout the majority of the grassland are Italian thistle (*Carduus pycnocephalus*), mustard (*Brassica nigra*), and radish (*Raphinus sativus*) in the overstory and red-stem filaree (*Erodium cicutarium*) cut-leaved geranium (*Geranium dissectum*) in the understory. Ripgut brome (*Bromus diandrus*), wild oats (*Avena fatua*), and Italian ryegrass (*Festuca perennis*) are also prominent in portions of the ruderal grassland.

These ruderal grasslands are characteristic of sites with a long history of relatively heavy landuse disturbance. Likely this site has been both ranched and farmed relatively intensively over most of the last 200 years or more. These heavily disturbed areas, once released from this intense use and left fallow, become dominated by relatively invasive, non-native vegetation, as is the case with this site.

Within the ruderal grassland are a scattering of coyote bush and a few large blue gum. The small number of coyote bush are scattered within the northern end of the site. These coyote bush are relatively large and generally solitary. The blue gum, which are tall, mature trees, are found east of the barn and shed where they were once probably planted as a wind break.



LEGEND

- IMPACTED AREA
- PARCEL BOUNDARY

1″ = 150 ft

0 75 ft 150 ft 300 ft

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FIGURE 3
DEVELOPMENT MAP

FEDRICK WAREHOUSE PROPERTY
Napa, California

BY: CJL

DATE:

PROJECT: **1054 NGI**

BASE MAP: **RSA Conceptual Site Plan 4-22-2016**

FILE: **D:\Graphic Designer\My Documents\PROJECTS\1000-1100\1054 Fedrick Warehouse\Adobe\1054 development map 16-05-31**

2. Riparian Woodland

Suscol Creek is relatively natural intermittent creek, though relatively incised, as it flows from the hills to the east and west through the northern edge of the site. Approximately 1,700 feet west of the site the creek has been channelized before flowing another 2,200 feet west into the Napa River. The channel bed is predominantly cobble with earthen banks.

As noted above, a moderately dense band of riparian vegetation is associated with the creek, covering 1.70 acres of the site *(***Figure *2***) and well within the 150-foot creek setback area. The riparian woodland is dominated by valley oaks (*Quercus lobata*) with sandbar willow (*Salix lasiolepis*), yellow willow (Salix lasiandra) and white alder (*Alnus rhombifolia*) near the creek and buckey (*Aesculus californica*), coast live oak (*Quercus agrifolia*) and invading black locust (*Robinia pseudoacacia*) away from the creek. The non-native locust was apparently planted as a windbreak downstream of the site, but has been methodically spreading along the riparian zone and now composes a good portion of the existing tree cover within the riparian zone along the northern edge of the project site.

The riparian understory vegetation has a band of relatively prominent native component within proximity to the creek. Within an average of approximately 20 feet of the creek, the non-native grasses and forbs become much less dense and native, mainly perennial vegetation, has remained established. This understory vegetation is composed primarily of bee plant (*Scrophularia californica*), wild grape (*Vitis californica*), wild cucumber (*Marah fabaceus*), and mugwort (*Artemesia douglasiana*). Outside of this near-creek zone, but within the riparian habitat in general, the ruderal vegetation remains that dominates the remainder of the site, is the dominant understory vegetation and contains the same suite of species described previously.

B. Wildlife

Wildlife at the site appears limited primarily to common suburban/rural species. Mammals would include coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), *striped skunk* (*Mephitis mephitis*), and lagomorphs (rabbits) such as black-tailed jackrabbit (*Lepus californicus*). Small mammals on the site likely include California vole (*Microtus californicus*) and deer mouse (*Peromyscus maniculatus*). However, because the dominant ruderal vegetation is tall and dense, predation on the small mammals that the coyotes and other predators, such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*), would prey on, would be difficult to hunt. Therefore, foraging likely mostly takes place in adjacent areas where vegetation is primarily shorter grassland with much fewer ruderal species where hunting would be easier. This likely holds true for other predatory birds such as American kestels (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), and Swainson's hawk (*Buteo swainsoni*), which are known from the area, as foraging would be

much improved in nearby areas rather than the site itself. However, mammals may pass through the site or use the creek and riparian area as a movement corridor.

Other birds commonly found in this type of grassland habitat include mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), red-winged black bird (*Agelaius phoeniceus*), and barn swallow (*Hirundo rustica*). Common reptiles likely present include western fence lizard (*Sceloperus occidentalis*), southern alligator lizard (*Gerrhonotus multicarinatus*), gopher snake (*Pituophis melanoleucus*), and western rattle snake (*Crotalus viridis*).

The barn, which is fairly degraded and, like the shed, appears near to falling down, is home to mice, likely deer mice in a portion of an east-facing wall. As noted in earlier reports (LSA 2015) a good number of barn owl pellets were observed just inside the south-facing doorway. No signs of nests were observed, but this appears to be a preferred roosting spot for the owl. No signs of bats or bat use were observed in the barn or shed.

See a full list of species is **Appendix B**.

III. SPECIAL-STATUS SPECIES

A. Definitions

Special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the California Native Plant Society [CNPS]). Special-status species are defined as:

1. Plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 et seq.; 14 CCR §670.1 et seq.) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);
2. Plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);
3. Plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;
4. Plants occurring on Lists 1A, 1B, 2, 3, and 4 of CNPS' Electronic Inventory (CNPS 2015). The California Department of Fish and Wildlife (CDFW) recognizes that Lists 1A, 1B, and 2 of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Lists 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2015). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information;
5. Migratory non-game birds of management concern listed by U.S. Fish and Wildlife Service (Migratory Non-Game Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);
6. Animals that are designated as "species of special concern" by CDFW (2010);
7. Animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

B. Special Status Species Potentially Occurring Within the Project Site

Figure 4 (Special Status Animal and Plant Species Occurrences within Five Miles of the Project Site) provide a graphical illustration of the closest known records for special-status animal and plant species within five miles of the project. According to the CNPS Inventory, USFWS database, and CDFG's California Natural Diversity Database (CNDDB), a total of 27 special status animal and 29 special status plant species are known to occur in the general region of the project, that is, within the nine USGS 7.5 minute Quadrangles surrounding the project site. However, a much smaller number of species including 23 wildlife species and 19 plants are

FIGURE 4
CNDDB Special Status Wildlife Occurrences

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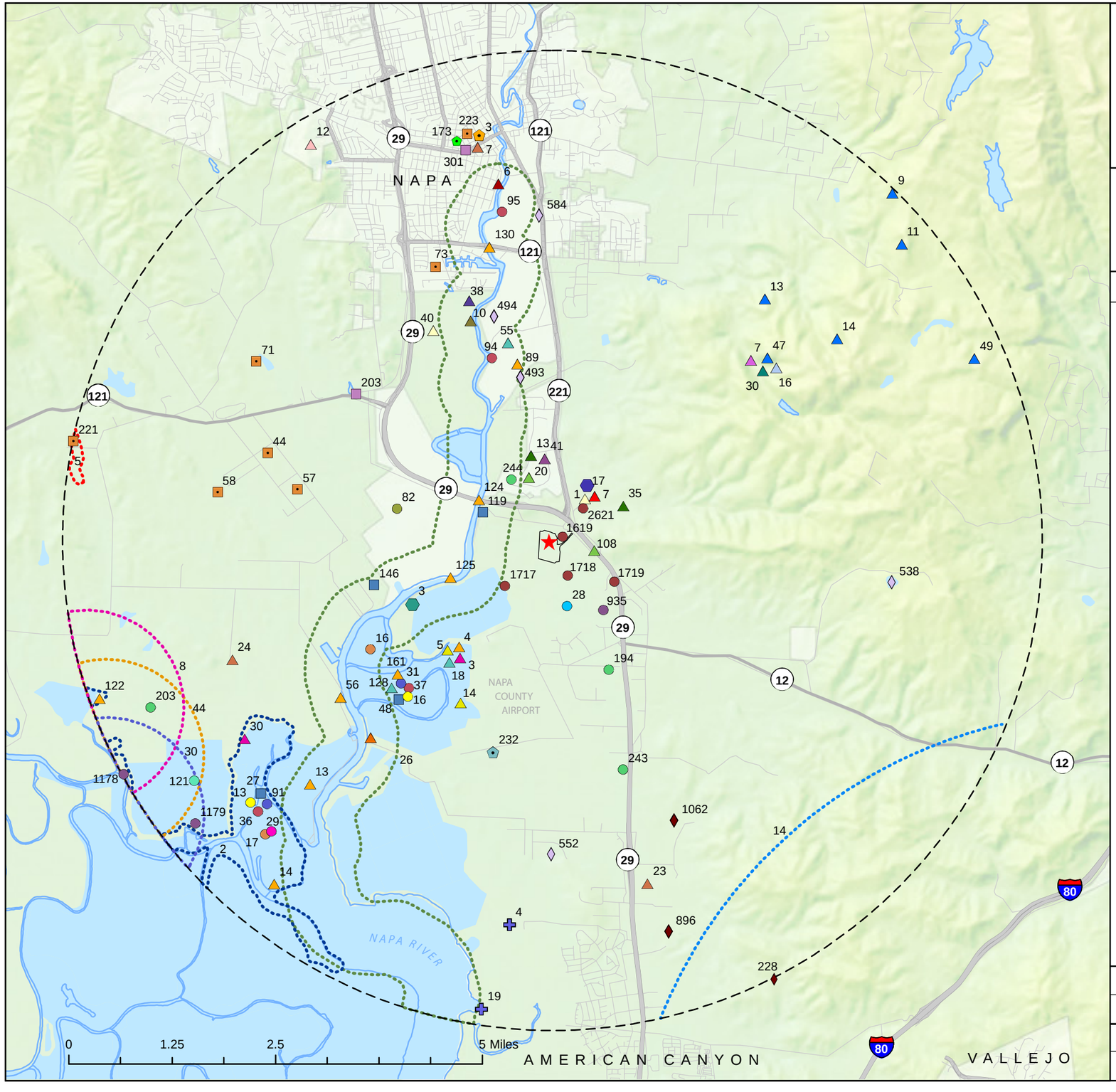
FEDRICK WAREHOUSE PROPERTY
Napa, California



LEGEND:

HERPTILES
- project location
- 5-mile buffer
- California red-legged frog *Rana draytonii*, 228, 896, 1062.
- western pond turtle, *Emys marmorata*, 493, 494, 538, 552, 584.

BIRDS
- northern harrier, *Circus cyaneus*, 29.
- Swainson's hawk, *Buteo swainsonii*, 1619, 1717, 1718, 1719, 2621.
- ferruginous hawk, *Buteo regalis*, 28.
- golden eagle, *Aquila chrysaetos*, 82.
- California black rail, *Laterallus jamaicensis coturniculus*, 30, 31.
- California clapper rail, *Rallus longirostrus obsoletus*, 13, 16, 22.
- western snowy plover, *Charadrius alexandrinus nivosus*, 121.
- burrowing owl, *Athene cunicularia*, 935, 1178, 1179.
- saltmarsh common yellowthroat, *Geothlypis trichas sinuosa*, 36, 37, 94, 95.
- San Pablo song sparrow, *Melospiza melodia samuelis*, 16, 17, 44.
- tricolored blackbird, *Agelaius tricolor*, 194, 203, 243, 244.

FISH
- steelhead, central CA coast DPS, *Oncorhynchus mykiss irideus*, 4, 19.
- longfin smelt, *Spirinchus thaleichthys*, 26.

MAMMALS
- pallid bat, *Antrozous pallidus*, 44, 57, 58, 71, 73, 221, 223,
- salt-marsh harvest mouse, *Reithrodontomys raviventris*, 27, 48, 119, 146.
- American badger, *Taxidea taxus*, 203, 301.

HABITATS
- Northern Vernal Pool, 17.
- Coastal Brackish Marsh, 2, 3.

INVERTEBRATES
- vernal pool fairy shrimp, *Branchinecta lynchi*, 232.
- un-named isopod, *Calasellus californicus*, 3.
- California freshwater shrimp, *Syncaris pacifica*, 5.
- western bumblebee, *Bombus occidentalis*, 173.
- callippe silverspot butterfly, *Speyeria callippe callippe*, 14.

PLANTS
- Mason's lilaeopsis, *Lilaeopsis masonii*, 10.
- Contra Costa goldfields, *Lasthenia conjugens*, 1, 40.
- Suisun Marsh aster, *Symphyotrichum lentum*, 18, 55, 128.
- dwarf downingia, *Downingia pusilla*, 20, 108,
- legenere, *Legenere limosa*, 7.
- San Joaquin spearscale, *Extriplex joaquinana*, 38.
- oval-leaved viburnum, *Viburnum ellipticum*, 7.
- alkali milk-vetch, *Astralagus tener var. tener*, 41.
- Delta tule pea, *Lathyrus jepsonii jepsonii*, 4, 13, 14, 56, 89, 122, 124, 125, 130, 161.
- two-forked clover, *Trifoium amoenum*, 7, 23, 24.
- saline clover, *Trifolium hydrophilum*, 13, 35.
- northern California black walnut, *Juglans hindsii*, 6.
- Marin knotweed, *Polygonum marinense*, 5, 14,
- Jepson's leptosiphon, *Leptosiphon jepsonii*, 12.
- holly-leaved ceanothus, *Ceanothus purpureus*, 9, 11, 12, 13, 14, 47, 49.
- soft salty bird's-beak, *Chloropyron molle ssp. molle*, 3, 8, 30.
- Greene's narrow-leaved daisy, *Erigeron greenei*, 16.
- Lyngbye's sedge, *Carex Lyngbyei, 28.*
- narrow-anthered brodiaea, *Brodiaea leptandra, 30.*

BY:	CJL	DATE:	05/31/2016, 05:15 pm
PROJECT:	1054 NGI		
FILE:	D:\Graphic Designer\My Documents\PROJECTS\1000-1100\1054 Fedrick Warehouse\Adobe\1054 CNDDB 5mi 16-05-18		
SOURCE:	CNDDB shapefiles May 2016		

known to occur within 5 miles of the site, which are shown on **Figure 4**. The CNDDB and USFWS species lists are provided in **Appendix C**. The definitions for the special status species designations are provided in **Appendix D**.

1. Wildlife

The 27 special status wildlife species that occur in the project region are described in **Table 1**, along with their regulatory status, habitat requirements, and an evaluation of their potential to occur on the site. The wildlife species that have potential to occur on the project site are described in more detail below. The majority of the species are highly unlikely to occur onsite because they are out of the range of the species or due to the lack of suitable habitat onsite or the lack of local occurrences.

Of the remaining special status wildlife species occurring in the project region, only Swainson's hawks (*Buteo swainsoni*) were observed in proximity to the site during site surveys. The following species have not been seen but have at least some potential to nest on-site at some time, move through the site, or otherwise depend on the site for some function given the presence of potentially suitable habitat and known occurrences in the surrounding area.

Amphibians

California red-legged frog (*Rana aurora draytonii;* CRLF); (FT, CSC, IUCN:VU, SA)

The California Red-legged frog (CRLF) historically ranged from Redding and Marin County, south to northern Baja California (Jennings and Hayes 1994). Due to the loss and modification of habitat, predation by the non-native bullfrog, and impacted water quality, its range has been reduced to isolated drainages within coastal ranges and near-coastal foothills. The United States Fish and Wildlife Service (USFWS) notes that the CRLF once occupied 46 counties, but is now found in only 22 with the greatest concentrations in Monterey, San Luis Obispo and Santa Barbara Counties (USFWS 2002).

The CRLF is a relatively large, spade-shaped species at 1.7 to 5.1 inches in length. They vary in color, and may be brown, grey, olive, or reddish in color with black spots and irregular blotches. The lower abdomen and undersides of the legs are often, but not always, red. They have a dark mask above the upper jaw. The species is characterized by its prominent dorsolateral fold which extends on the body from eye to hip. The tadpoles are brown and marked with small, dark spots. The lower body is creamy white and also flecked with small spots.

From late-November to late-April, adult CRLF are typically found in or near breeding habitat, which consists of perennial or near-perennial, deep (greater than 2 foot) ponds, pools or similar habitats associated with dense riparian or marsh vegetation (Hayes and Jennings 1989, 1994, Jennings 1988). Breeding takes place in streams, deep pools, backwaters within streams and creeks, ponds, marshes, and stock ponds. CRLF can occur in ephemeral ponds or

Scientific name	Common name	Status	Habitat	Potential habitat on-site	Range	Known range/ Critical habitat	Potential for occurrence on-site
AMPHIBIANS							
Rana draytonii	California red-legged frog	FT, CSC, IUCN:VU, SA	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	No breeding habitat	Mendocino County to Baja California, primarily west of the Cascade-Sierra crest.	Yes	Unlikley: No breeding habitat
BIRDS							
Agelaius tricolor	tricolored blackbird	BLM:S, CSC, IUCN:EN, NABCI:RWL, USFWS:BCC, SA	Freshwater marsh, Marsh & swamp, Swamp, Wetland	No	Oregon to southern California; primarily along the central California coast and the Central Valley.	Yes	None: No habitat
Aquila chrysaetos	golden eagle	BLM:S, CDF:S, CFP, CDFW:WL, IUCN:LC, USFWS:BCC, SA	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	No breeding habitat	Permanent resident in mountainous areas throughout California.	Yes	None: No breeding habitat; foraging potential only
Athene cunicularia	burrowing owl	BLM:S, CSC, IUCN:LC, USFWS:BCC, SA	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland	Marginal	Permanent resident of southern California valleys, from the Bay Area to Los Vegas, Nevada. Breeding range extends through the northern Central Valley.	Yes	Unlikely: Marginal habitat
Buteo regalis	ferruginous hawk	CDFW:WL, IUCN:LC, USFWS:BCC, SA	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland	No	Nonbreeding resident throughout most of California except the northernmost counties.	Not in breeding range	None: No breeding habitat
Buteo swainsoni	Swainson's hawk	ST, BLM:S, IUCN:LC, USFWS:BCC, SA	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland	Yes	Breeding range extends throughout California's interior counties inluding Contra Costa and Alameda.	Yes	Likely: occurrences within proximity to site
Charadrius alexandrinus nivosus	western snowy plover	FT, CSC, NABCI:RWL, USFWS:BCC, SA	Great Basin standing waters, Sand shore, Wetland	No	Along the Pacific coast of the U.S., but more numerous in valleys and deserts in southern California.	Yes	None: No habitat
Circus cyaneus	northern harrier	CSC, IUCN:LC, SA	Coastal scrub, Great Basin grassland, Marsh & swamp, Riparian scrub, Valley & foothill grassland, Wetland	Marginal	From Alaska to eastern Canada and south to Southern California	Yes	Unlikely: Marginal habitat, would have been observed
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	CSC, USFWS:BCC, SA	Marsh & swamp	No	Breeds in the San Francisco Bay area from the Tomales Bay to Carquinez Strait and San Jose. Non-breeding range extends down to San Diego.	No	None: No habitat

Laterallus jamaicensis coturniculus	California black rail	ST, BLM:S, IUCN: NT, CFP, NABCI:RWL, USFWS:BCC, SA	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland	No	Fragmented populations in San Francisco Bay area, including San Pablo Bay, Tomales Bay and Bolinas Lagoon.	No	None: No habitat
Melospiza melodia samuelis	San Pablo song sparrow	CSC, USFWS:BCC, SA	geranium	No	Salt marshes along the north side and San Francisco and San Pablo bays and on the south side of San Pablo Bay southwest to San Pablo Point on Richmond headland.	No	None: No habitat
Rallus longirostris obsoletus	California clapper rail	FE, SE, CFP, NABCI:RWL, SA	Brackish marsh, Marsh & swamp, Salt marsh, Wetland	No	The San Francisco Bay area, including all 9 counties that border the bay.	Yes	None: No habitat
Sternula antillarum browni	California least tern	FE, SE, CFP, NABCI:RWL, SA	Alkali playa, Wetland	No	Breeds along the California coast from the San Francisco Bay to Baja California. Winters in Baja or Mexico.	Yes	None: No habitat
Strix occidentalis caurina	Northern Spotted owl	FT, SC, CDF:S, CSC, IUCN:NT, NABCI:YWL, SA	Ponderosa Pine/Douglas-fir forestes in the eastern Cascade Ranges of Washington and in Douglas fir/evergreen hardwood forests in northwestern California.	No	Southwestern British Columbia south through western Washington and Oregon to Marin County on the north-central coast of California.	No	None: No habitat

FISH

Eucyclogobius newberryi	tidewater goby	FE, AMS:E, CSC, IUCN:VU, SA	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters	No	Coastal streams from Oregon to San Diego, although it is possibly extirpated from the San Francisco Bay.	Yes	None: No habitat
Hypomesus transpacificus	Delta smelt	FT, SE, AMS:T, IUCN:EN, SA	Open waters of bays, tidal rivers, channels, and sloughs.Rarely occurs in salt water with a sality greater than 10-12ppt.	No	The upper Sand Francisco Estuary, particularily the upper Sacramento-San Joaquin Delta and Suisun Bay.	No	None: No habitat
Oncorhynchus mykiss irideus	Steelhead- central California coast DPS	FT, AMS:T, SA	Streams and rivers, deep low velocity pools, freshwater bodies, estuaries, Pacific ocean	No	Bir Sur Coast, Carmel Basin, Interior Coast Range, and San Luis Obispos Terrace.	Yes	None: No habitat
Spirinchus thaleichthys	longfin smelt	FC, ST, CSC, SA	Aquatic, Estuary	No	California coastal streams from the San Francisco Bay northward. However populations in the San Francisco Bay Estuary and Delta may be extirpated.	No	None: No habitat

INVERTEBRATES

Bombus occidentalis	western bumble bee	USFS:S, X:IM, SA	Once relatively widespread	Marginal	Once realtively widespread, now in serious decline in central to southern California	Marginal	Unlikely: Historic records only
Branchinecta conservatio	Conservancy fairy shrimp	FE, IUCN:EN, SA	Inhabit astatic pools located in swales formed by old, braided alluvium and filled by winter and spring rians, last until June.	No	Endemic to the grassland of the norther two-thirds of the Central Vally. Not known from Napa County	No	None: No habitat, Out of Range

Branchinecta lynchi	vernal pool fairy shrimp	FT, IUCN:VU, SA	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools (astatic rain-filled pools).	No	Central Valley, Central Coast mountains, and south coast mountains	No	None: No habitat
Calasellus californicus	An isopod	SA	Found in freshwater habitats; the known collections are from a freshwater well and two springs	No	Known from Lake, Napa, Marin, Santa Curz, and Santa Clara Counties	Yes	None: No habitat
Callophrys mossii bayensis	San Bruno elfin butterfly	FE, X:CI, SA	Valley & foothill grassland;Only occurs on north-facing slopes within fogbelt with hostplant, stonecrop (Sedum spathulifolium).	No	Primarily open ridges in San Mateo County and Contra Costa County.	No	None: No habitat
Speyeria callippe callippe	Callippe silverspot butterfly	FE, X:CI, SA	Restricted to northern coastal scurb of the SF Peninsula. Requires hostplant Viola pedunculata.	No	SF Peninsula	No	None: No habitat
Syncaris pacifica	California freshwater shrimp	FE, SE, IUCN:EN, SA	Found in low elevation, low gradient streams where riparian cover is moderate to heavy; Requires shallow pools away from main streamflow withi undercut banks and exposed roots in the winter and leafy branches touching the water in the summer.	No	Endemic to Marin, Napa, Sonoma Counties	Yes	None: No habitat
MAMMALS							
Antrozous pallidus	pallid bat	BLM:S, CSC, IUCN:LC, USFS:S, WBWG:H, SA	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland	Marginal	Permanent resident throughout California and western U.S. from Washington to Colorado to Mexico	Yes	Unlikely: Habitat marginal, no evidence of roosts observed
Reithrodontomys raviventris	salt-marsh harvest mouse	FE, SE, CFP, IUCN:EN, SA	Marsh & swamp, Wetland	No	Primarily in salt marshes in south San Francisco Bay including San Mateo, Santa Clara, Contra Costa Alameda, Marin, Napa, Solano and Sonoma counties.	Yes	None: No habitat
Taxidea taxus	American badger	CSC, IUCN:LC, SA	Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Coastal prairie, Coastal scrub, Meadow & seep, Riparian forest, Riparian scrub, Riparian woodland, Ultramafic, Valley & foothill grassland.	Yes	Throughout California and North American; from British Columbia to the Great Lake Region and south to Central Mexico.	Yes	Unlikely: Not observed during surveys; no signs of potential burrows observed
REPTILES							
Emys marmorata	western pond turtle	BLM:S, CSC, IUCN:VU, USFS:S, SA	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	No	Isolated populations exist in the western half of California from the Sierra Nevada foothills to the Pacific coast, throughout the length of the state.	Yes	None: No habitat

permanent streams and ponds; however, populations probably cannot persist in ephemeral streams (Jennings and Hayes 1985). Habitats with the highest densities of CRLF are deep-water ponds with dense stands of overhanging willows and a fringe of cattails (Jennings 1988; Rathbun et al. 1993).

During rainy nights, however, they may also be found 200 to 300 feet away from the aquatic habitat (Zeiner et al 1988). From late-spring through fall, CRLF will stay near aquatic habitat, but during the end of this period they may move away from the breeding locale into nearby moist locations.

CRLF breeds during the winter and early spring, from as early as late November through April and May. Larvae (tadpoles) remain in breeding ponds until metamorphosis in the summer months. Mortality rates are high, with less than 1 percent of eggs laid reaching metamorphosis (Jennings et al. 1992). Males reach sexual maturity about 2 years after metamorphosis, while females require 3 years to attain sexual maturity (Jennings and Hayes 1985). Individuals of this species may live up to 10 years (Jennings et al. 1992). Young CRLF (eggs, larvae, and tadpoles) are found almost exclusively in ponds (such as stockponds) or slow moving water in creeks, ditches, or similar habitat. Typically, these ponds or creeks are well-vegetated (Zeiner et al 1988) but habitat may also consist of well-grazed stockponds with little marsh vegetation (USFWS 2002). Young CRLF generally do not occur in aquatic habitats which also contain bullfrogs (Jennings and Hayes 1989).

Determining the location of CRLF habitat is complicated by CRLF movement away from relatively easily identified riparian and wetland habitats. Much of the movement ecology of CRLF is still poorly understood (Jennings and Hayes 1994), but they appear to move significant distances at two times during a year. First, adults move between winter oviposition sites and spring and summer foraging habitat (Jennings and Hayes 1989). Frogs observed in upland habitat at night during winter rains may represent such movement, but new aquatic habitat may also be found and colonized during such periods of reduced water stress. Movement into upland riparian habitat at such time may also protect frogs from catastrophic injury and transport by floodwaters (Jennings and Hayes 1994). Second, CRLF move into the shelter of riparian thickets during fall, when stream habitat is often much reduced (Rathbun et al. 1993). Such behavior appears to resemble estivation of amphibians like California tiger salamanders and spadefoots (Jameson 1981), however, the CRLF, especially the coastal populations, does not experience seasonal dormancy.

According to the CNDDB, there have been three observations of CRLF within five miles of the project site. All three occurrences are located south of the project site between approximately 3 to 5 miles from the site in sites with either perennial water and/or emergent vegetation. One occurrence is located in an ephemeral drainage within a 317-acres of preserved CRLF habitat owned by the Napa Valley Unified School District. The second occurrence was noted within a large quarry pond in 2006 and the third within North Slough Creek. Critical Habitat for this species has been identified; the closest is Unit SOL-2, whose closest border is approximately 2.25 miles east of the project site.

CRLF are not likely to occur on the site as there is no breeding habitat on or near the site. The only aquatic habitat on or near the site is Suscol Creek, which CRLF are not known from. In the vicinity of the project site, Suscol Creek is an intermittent channel that is characterized by relatively flashy flows. Once the flash flows have stopped after the end of heavy rains, the creek does not maintain deep or long-lasting ponds with emergent vegetation. Instead, the creek channel is relatively shallow and bare, with a few short-lived ponds. These characteristics are not indicative of CRLF breeding habitat. While CRLF could use the creek as a movement corridor, it is unlikely given the lack of vegetation and water within the channel, when the creek is not flowing rapidly. As well, there are no known observations upstream of the channel and CRLF are not likely to move through or towards the site seeking summer habitat as there is no nearby breeding habitat. Therefore, CRLF are unlikely to occur on the project site. However, a preconstruction survey should be conducted to ensure that no CRLF are in the vicinity when work commences in the unlikely event that a stray CRLF moves along the creek corridor.

Birds (nesting birds unless noted otherwise)

Golden Eagle (*Aquila chrysaetos*) (BLM:S, CDF:S, CFP, CDFW:WL, IUCN:LC, USFWS:BCC, SA)

The golden eagle is a large, mostly dark-colored raptor with a golden nape that can have wingspans up to 79 inches wide (Sibley 2000). It is a resident and migrant throughout California, excluding for the Central Valley. It is found in elevation ranges from sea level up to about 11,500 feet (Zeiner 1990). Their habitat typically includes foothills, mountain areas, sage-juniper flats and desert. They utilize secluded cliffs with overhanging ledges and large trees for cover.

The golden eagle breeds from late January to August, with its peak between March and July. Nests are constructed on cliffs and in large trees in open areas. Their large nests (10 feet wide) are made of sticks, twigs and greenery.

There is one CNDDB record of a golden eagle within five miles of the project site. The occurrence is located west of the project site between Cuttings Wharf Road and horseshoe bend on the Napa River, nearly 2.0 miles northwest of the site. At this CNDDB observation, birds were observed in a nest from 2003 to 2005, no birds were observed in the nest in 2006, the nest was no longer present in the tree in 2008, and the tree was removed in 2008. The CNDDB presence is listed as "possibly extirpated."

There have been no recorded observations of golden eagles within five miles of the project site since 2005 and the previous observation is listed as possibly extirpated. Additionally, no golden eagles have been seen during recent site surveys. Therefore, it is unlikely that this species occurs on the project site.

Burrowing Owl (*Athene cunicularia*) (BLM:S, CSC, IUCN:LC, USFWS:BCC, SA)

The burrowing owl (*Athene cunicularia hypugaea*) is a small ground-dwelling owl that lives in open, dry grasslands, agricultural and range lands, and desert habitats associated with burrowing mammals (Zeiner et. al. 1990). The owl typically nests in old ground squirrel (*Spermophilus beecheyi*) or similar burrows for breeding, wintering, foraging, and migration stopovers. They have been known to occupy artificially constructed burrows. Burrowing owls are commonly seen perching on fences or on mounds outside their burrows. The owl is a mostly opportunistic feeder and forages on level areas with short grass or bare ground. Grasshoppers, beetles, mice, ground squirrels, rats, and gophers comprise the majority of their diet, however, they may also feed on reptiles, young cottontails, amphibians, scorpions, bats, and birds. The owl tends to inhabit areas where food sources are stable and available year-round. They are migratory (leaving the breeding grounds in fall) but often return to the same nest sites in spring to lay eggs from late March to May.

Burrowing owls were once common throughout California but are now found mainly in the Central and Imperial Valleys (DeSante et al. 1997). Over 60% of the breeding pairs known to exist in the 1980's disappeared by the early 1990's. The population decline is due to predation by non-native species, small mammal controls in farmlands, and habitat loss. This species also has very low fledgling success rates (Trulio 1997).

According to CNDDB, there have been three observations of burrowing owls within five miles of the project site. All three occurrences are located south of the project site. The closest occurrence is located approximately 0.5 miles away on the flat, ruderal shoulder of Devlin Road. The CNDDB record lists this occurrence as a "wintering site…no burrow or whitewash observed; owl may have flushed from concrete utility box partly covered with plywood." The other two occurrences are from Hudeman Slough near Appleby Bay, which are approximately 5 miles southwest of the site near the Napa River marshes.

A single burrowing owls observation was noted in proximity to the site, but was a wintering site only. There are no known occurrences of burrowing owls on the project site and there have not been any observed on the project site during recent site surveys. The project site is not good burrowing owl habitat, as the ruderal grassland vegetation is relatively tall and dense. In addition, the history of farming and tilling reduces the likelihood of this species and no burrows of any kind were noted on the project. For all of the above reason, burrowing owls are unlikely to be found on the site.

Swainson's hawk (*Buteo swainsoni*) (ST, BLM:S, IUCN:LC, USFWS:BCC, SA) Nesting and Foraging Habitat

The Swainson's hawk is a large, long-winged species that ranges from 18 to 22 inches in height. It is an even, brown color on its upper parts and white below with a light brown breast. Its tail is banded and brown. Its wings are longer and more pointed than most hawks and soars with wings in a shallow V-shape (Woodbridge 1998).

The hawk nests in western North America from March to July and migrates to southern South America for the winter starting in August. This hawk is similar in size compared to the red tailed hawk (*Buteo jamaicencis*) and utilizes open habitats. Potential habitats include mixed and short grass grasslands with scattered trees, dry grasslands and meadows, agricultural fields, riparian areas, oak savannas, and juniper-sage flats (Woodbridge 1998).

The hawk forages for insects, small mammals including California voles (*Microtus californicus*), deer mice (*Peromyscus maniculatus*), and valley pocket gopher (*Thomomys bottae*), and birds by flying 100 to 300 feet above the ground. The hawk is highly adapted to human disturbance, unlike most other raptors, and they actively seek fields where activities including discing, mowing, flooding, and harvesting which force small mammals from their burrows. The raptor may forage up to 18 miles from a nest but usually tries to minimize flight distance to prey. Fledglings normally forage within 0.5 miles of the nest. Fledgling mortality is an important factor in the decline in population levels. Mortality may reach 80% among fledglings and is often at least 60% (Woodbridge 1998).

The Central Valley and the Great Basin support the majority of the California's Swainson's hawk populations. Historically, the species was found throughout the state, in bioregions such as the Southern Transverse Ranges, Central Coast Ranges, Central Valley, Great Basin, and Mojave-Colorado Desert. Typically, the raptors nest in large native riparian trees in close proximity to agricultural land, which supports accessible prey. Swainson's hawk typically occurs in valley oak (*Quercus lobota*), Fremont cottonwood (*Populus fremontii*), black walnut (*Juglans hindsii*), and willows (*Salix ssp*.). Although the hawk will fly some distance from the nest tree to forage, most will seek foraging habitat near the nest. Consequently, the Central Valley population is clustered in areas where suitable nesting and foraging habitat occur together. The Swainson's hawk population has declined by 90% since the 1940's due primarily to loss of nesting habitat (Woodbridge 1998).

According to CNDDB, there have been five observations of Swainson's hawks within five miles of the project site. Two of the occurrences are located north of the project site and three are located south of the project site. The closest occurrence is located within one quarter mile of the project site along Suscol Creek. The CNDDB record for this occurrence states "nesting suspected in 2003 but no nest found. 1 pair nested, a 2nd pair may have nested nearby in 2005; nest-building, copulation, & courtship display observed, May 2005. Nest fledged 3 young in 2012." The second CNDDB occurrence describes the presence of a nesting pair in early 2012 approximately 0.4 miles northeast of the project site in Suscol creek. The other three CNDDB records are located within two miles of the project site along the railroad tracks north of the Napa County Airport (2008), north of an unnamed drainage on the east side of the wastewater treatment plant (2008), and approximately 0.3 miles north of Sheehy Creek (2007 & 2012).

As noted above, there are several records of Swainson's hawks within five miles of the project site, though none within the past few years. A single Swainson's hawk was observed flying over the riparian woodland surrounding Suscol Creek near the northwestern corner of the site

and over the fields to the west and northwest during a site survey in June. However, the Caltrans SR 29/221 Draft EIR (Caltrans 2015), which covered most of the project site including the riparian corridor noted that, "currently no known actively used nests occur within 600 feet of the project study area. Because the site is primarily composed of relatively dense, ruderal grassland, the quality of the foraging habitat for Swainson's hawk and other raptors is only moderate in value and would be considered secondary foraging habitat. In comparison, the spray fields to the southwest of the site contain shorter, irrigated pasture that Swainson's hawks prefer due to the increased presence of rodents and other prey species and would be considered primary foraging habitat. However, the blue gum trees adjacent to the site and Suscol Creek riparian woodland provide suitable nesting habitat for this species. Though no Swainson's Hawks were observed nesting this season, they are known to nest near the site and the recent observations indicates continued presence in the area.

Because the site contains secondary foraging habitat and the suitable nesting habitat, this species is likely to occur on or near the project site. Preconstruction nesting season surveys should be conducted to determine the presence/absence of this species and the closest known, active nesting site.

Northern harrier (Circus cyaneus) (CSC, IUCN:LC, SA)

The northern harrier (*Circus cyaneus*), formerly known as the marsh hawk, is a medium-sized raptor with long, narrow wings and tail. The species has a rectangular, white rump and owl-like facial disk. Adult males are pale gray above, with mostly white below and black wing tips. Females are generally larger and are brown above with brown-streaked breast. The species utilizes a wide variety of open habitats, with North American populations breeding from Alaska to eastern Canada, and south to southern California, Arizona, Kansas, and Virginia, and wintering from South America to southern Canada (Cripe 2000).

Breeding habitat includes fresh and brackish wetlands, open wet meadows and grasslands, shrub-steppe, desert sinks, areas along rivers and lakes, and crop fields (Grinnel and Miller 1944, MacWhirter and Bildstein 1996, Martin 1987). The species commonly nests on the ground in shrubby vegetation at marsh edges but may also nest several miles from water (CNDDB).

CNDDB has one observation of a northern harrier within five miles of the project site. The CNDDB record describes a nesting pair observed nesting on Coon Island, 6 miles south of Napa, from March 1, 2004 to June 15, 2004. This occurrence is approximately 4 miles southwest of the project.

Although the project site contains moderately suitable foraging habitat and potential nesting habitat, primarily along the Suscol Creek riparian woodland, no northern harriers have been observed within the immediate vicinity of the project site. Additionally, no northern harriers have been observed on the project site during recent site visits. However, pre-construction surveys should be completed to determine the presence/absence of the species within the project vicinity.

Other Nesting raptors (various species), generally protected under the CDFW Code and the Migratory Bird Treaty Act (MBTA).

The site does support moderately suitable foraging habitat for raptor species and suitable nesting habitat for nesting raptors within the blue gum and Suscol Creek riparian woodland. An active red-tail hawk nest was observed in the blue gum tree that lies adjacent to the proposed entrance road. Therefore, a preconstruction survey should be completed to determine the presence/absence of nesting raptors prior to the start of construction.

Other Migratory Nesting Birds; protected by the MBTA

The site provides suitable habitat for nesting birds protected by the MBTA, primarily along the Suscol Creek corridor, but also within the blue gum and other smaller trees and shrubs on site. Accordingly, there is some limited potential for this migratory nesting birds to nest on or adjacent to the site and a preconstruction nesting bird survey should be completed

Mammals

American Badger *(Taxidea taxus*), (CSC, IUCN:LC, SA)

The American badger is a carnivorous mammal found throughout the state of California, except in the North Coast area (Grinnell et al. 1937). They have stocky, low-slung bodies with short powerful legs and long foreclaws (up to 5 cm in length). They are 23.6 to 29.5 inches in length and weigh approximately 15 to 20 pounds. Male individuals are slightly larger than females. Their bodies are covered in silvery coat of coarse fur and heads with distinctive white and black markings.

Badgers occur throughout California except in humid coastal forests and areas of dense forest and they do not survive on cultivated land (CDFG 1986). Typically, they are most abundant in drier open stages of most shrub, forest and herbaceous habitats with friable soils.

American badgers predate on small mammal populations, particularly ground squirrels and pocket gophers (Zeiner et al 1990). They dig burrows in friable soils and frequently reuse old burrows. Badger populations have declined in the past century, although still little is known about their current population size and extent. They mate in the summer and early fall and give birth to a litter of 2 to 3 in March and April (Long 1973). They are nocturnal and diurnal and active yearlong with potential for periods of torpor (Long 1973).

CNDDB lists two records of the American badger within 5 miles of the project site. The nearest record is approximately 2.7 miles northwest of the project site and the second observation is approximately 3 miles north of the project site. The first record describes a female collected in 1911. The second record is based on information taken from Grinnell, J., J. S. Dixon and J.M.

Linsdale. 1937. Fur-Bearing Mammals of California. Their Natural History, Systematic Status, and Relations to Man. Univ. Calif. Press, Berkeley 1:1-375, 2L376-777.

Badgers are not likely to occur on the project site. There have been no observations of badgers within the vicinity of the project since 1911. Additionally, the project site was formerly cultivated and contains disturbed soils and ruderal vegetation that are not favored by the species. No badgers or signs of badgers or potential badger burrows were observed on the site. Therefore, this species is unlikely to occur on the site and the proposed project is unlikely impact this species.

Pallid Bat (*Antrozous pallidus*) (BLM:S, CSC, IUCN:LC, USFS:S, WBWG:H, SA)

The pallid bat is a large, long-eared vespertilionid bat. There are six subspecies of the pallid bat. Three are found in California, including *A. p. pacificus*, *A. p. pallidus*, and *A. p. minor*. This species is easily distinguished from other bat species with its large size, eyes, and ears, light tan coloration, pig-like snout, and distinctive skunk odor. Its color varies dependent on location, blond in desert locations and tan along the coast and farther north. Pallid bat scat commonly contains the remains of insects like scorpions, Jerusalem crickets, sphinx moths, and/or long-horned beetles.

In California, the species occurs throughout the state in a variety of habitats including low desert, oak woodland and coastal redwood forests, extending up to 3,000 m elevation in the Sierra Nevada. Of the three present subspecies, *A. p. pacificus*, the largest subspecies, occurs along the coast and in the Coast Ranges west of the Central Valley. *A. p. minor*, the smallest subspecies, occurs in the Colorado River basin and adjacent mountain ranges. *A. p. pallidus* occurs throughout the rest of the state (including western San Diego County, the Central Valley, all of the Sierra Nevada and areas east of the crest, and, farther north, all areas east of the coast ranges) (Martin and Schmidly 1982).

The pallid bat is colonial with colonies forming in March to May and remaining until October (Barbour and Davis 1969). They are primarily a crevice roosting species and seek out rock crevices, old buildings, bridges, caves, mines and hollow trees (Barbour and Davis 1969). Breeding occurs in the spring and one to two young are born in the early summer. They remain dependent on their mothers for a minimum of 6 weeks.

CNDDB lists seven records of the pallid bat within 5 miles of the project site. Five of the records are located west of the project site and two of the records are located north of the project site. The records describe the presence of maternity and bachelor roosts, breeding habitats, and foraging areas within the project vicinity. Several of the records describe multi-species assemblages of bats.

The pallid bat is not likely to occur on the project site as CNDDB has no records of the species on the site nor have any been observed during recent site visits. However, the project site contains potential foraging habitat and the old barn and shed on the site provide potential roosting habitat, though no observations or indications of use have been made of this species

on-site. Therefore, a pre-construction survey should be conducted to ensure that pallid or other bat species do not move into the structure prior to its removal.

Invertebrates

Western Bumblebee (*Bombus occidentalis*) (USFS:S, X:IM, SA)

The western bumblebee has many color variations. In general, bumblebees from northern California north to British Columbia and east to southwest Saskatchewan and Montana have the following coloring: yellow hairs on the front part of the thorax, then black hair on the first through half of the fourth abdominal segments and white hairs are on the edge of the fourth, fifth, and sixth segments. Black hair covers the bumblebee's head (Thorp et al. 2008).

The western bumblebee was widespread and common throughout the western United States and western Canada before 1998 inhabiting northern California, Oregon, Washington, Alaska, Idaho, Montana, western Nebraska, western North Dakota, western South Dakota, Wyoming, Utah, Colorado, northern Arizona, and New Mexico (Xerces Society 2009). Since 1998 bumblebee populations have declined drastically though it is difficult to assess the magnitude of the declines since most of the historic range has not been systematically sampled. Viable populations exist in Alaska and east of the Cascades in the Canadian and U.S. Rocky Mountains. Populations in central California, Oregon, Washington, and southern British Columbia have mostly disappeared.

Bumblebee colonies are annual. In late winter or early spring, the queen emerges from hibernation and selects a nest site, typically a pre-existing hole such as an abandoned rodent hole (Goulsen 2003a). Bumblebees do not depend on a specific type of flower, but visit a range of different plant species. They are important generalist pollinators of a wide variety of crops and flowering plants (Foulsen 2003).

CNDD has one record of the western bumble bee within five miles of the project site. The records describe collections taken in 1913, 1949, and 1953 and the exact location of this record is unknown though CNDDB mapped the occurrence in the general vicinity of the City of Napa.

The western bumblebee is not likely to be impacted by the project as the species has not been observed on or nesting on the project site. In addition, the CNDDB records for this species are historic and no indications are that this species has been observed since. The continual disturbance of the site including farming and tilling of the soils would have made the site inhospitable to this species. Therefore, this species is unlikely to occur on-site.

2. Plants

A total 29 special status plant species occur in the nine USGS quadrangles that surround the project site. These species are described in **Table 2** along with their regulatory status, habitat

Scientific name	Common name	Status	Habitat	Potential habitat on-site	Range	Known Range	Elevation	Life Form	Potential for Occurrence On-site	Flowering/ Survey Period
Amsinckia lunaris	bent-flowered fiddleneck	CRPR 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland	Marginal	Alameda, Contra Costa, Colusa, Lake, Marin, Napa, San Benito, Santa Clara, Santa Cruz, San Mateo, Sonoma, Yolo	Yes	3-500 meters	annual herb	None: not observed during surveys, marginal habitat	March - June
Astragalus tener var. tener	alkali milk-vetch	CRPR 1B.2	Playas, valley & foothill grassland, vernal pool, wetland	Marginal	Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanslaus, Yolo	Yes	1 - 60 meters	annual herb	None: not observed during surveys, marginal habitat	March - June
Balsamorhiza macrolepis	big-scale balsamroot	CRPR 1B.2; BLM:S	Chaparral, cismontane woodland, ultramafic, valley and foothill grassland; sometimes on serpentine	Marginal	Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, Tuolumne	Yes	90 -1555 meters	perennial herb	None: not observed during surveys, marginal habitat	March - June
Calamagrostis ophitidis	Serpentine reed grass	CRPR 4.3	Chaparral (often north facing slopes), lower montane coniferous forest, meadows and seeps, valley and foothill grasslands	No	Lake, Mendocino, Marin, Napa, Sonoma	Yes	90 - 1065 meters	perennial herb	None: no habitat	April - July
Carex lyngbyei	Lyngbye's sedge	CRPR 2B.2	Marshes and swamps (brackish or freshwater)	No	Del Norte, Humbolt, Mendocino, Marin, Napa	Yes	0 - 10 meters	perennial rhizomatous herb	None: no habitat	April - August
Castilleja affinis var. neglecta	Tiburon paintbrush	ST, FE, CRPR 1B.2	Valley and foothill grassland (serpentinite); rocky serpentine sites	No	Marin, Napa, Santa Clara	Yes	60 - 400 meters	Perennial herb	None: no habitat	April - June
Castilleja ambigua var. ambigua	Johnny-nip	CRPR 4.2	Coastal bluff scrub, coastal prarie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools margins	Marginal	Alameda, Contra Costa, Del Norte, Humbolt, Mendocino, Marin, Napa, Santa Cruz, San Francisco, San Luis Obispo, San Mateo, Sonoma	Yes	0 - 435 meters	annual herb	None: not observed during surveys, no observations in County	March - August
Ceanothus purpureus	Holly-leaved ceanothus	CRPR 1B.2	Chaparral, cismontane woodland, volcanic and rocky	No	Napa, Shasta, Solano, Sonoma, Trinity	Yes	120 - 640 meters	perennial evergreen shrub	None: no habitat	February - June
Centromadia parryi spp. parryi	Pappose tarplant	CRPR 1B.2; BLM:S	Chaparral, coastal prarie, meadows and seeps, marshes and swamps (coastal salt), and valley and foothill grassland (vernally mesic) often alkaline	Marginal	Butte, Colusa, Glenn, Lake, Napa, San Mateo, Solano, Sonoma	Yes	0 - 420 meters	annual herb	Unlikely-Need a late season survey	May - November
Chloropyron molle spp. molle	soft bird-s beak	CRPR 1B.2, FE, SR	Marshes and swamps	No	Contra Costa, Marin, Napa, Sacramento, Solano, Sonoma	Yes	0 - 3 meters	annual herb	None: no habitat	July - November

Downingia pusilla	dwarf downingia	CRPR 2B.2	Valley and foothill grassland (mesic sites), vernal pools	No	Amador, Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, Yuba	Yes	1 - 445 meters	annual herb	None: no habitat	March - May
Eleocharis parvula	small spikerush	CRPR 4.3	Marshes and swamps	No	Butte, Contra Costa, Glenn, Humbolt, Mono, Napa, Orange, Plumas, Siskiyou, San Luis Obispo, Sonoma, Ventura	Yes	1 - 3020 meters	perennial herb	None: no habitat	April - Septermber
Erigeron greenei	Greene's narrow-leaved daisy	CRPR 1B.2	Chaparral serpentinite or volcanic	No	Colusa, Lake, Napa, Sonoma	Yes	80 - 1005 meters	perennial herb	None: no habitat	May - September
Erigeron biolettii	streamside daisy	CRPR 3	Broadleaded upland forest, cismontane woodland, North Coast coniferous forest	No	Humbolt, Mendoconio, Marin, Napa, Solano, Sonoma	Yes	30 - 1100 meters	perennial herb	None: no habitat	June - October
Extriplex (Atroplex) joaquinana	San Joaquin spearscale	CRPR 1B.2, BLM:S	Chenopod scrub, alkali meadows and seeps, playas, valley and foothill grassland	Marginal	Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara, San Joaquin, San Luis Obispo, Solano, Tulare, Yolo	Yes	1 - 835 meters	annual herb	None: not observed during surveys, marginal habitat	April - October
Iris longipetala	Coast iris	CRPR 4.2	Coastal prarie, lower montane coniferous forest, meadows and seeps	No	Alameda, Contra Costa, Humbolt, Mendocino, Monterey, Main, Napa, San Benito, Santa Clara, San Francisco, San Mateo, Solano, Sonoma	Yes	0 - 600 meters	perennial rhizomatous herb	None: no habitat	March - May
Juglans hindsii	Northern California black walnut	CRPR 1B.1	Riparian forest, riparian woodland	Yes	Contra Costa, Lake, Napa, Sacramento, Solano, Yolo	Yes	0 - 440 meters	perennial deciduous tree	Unlikely: not observed during surveys	April - May
Lasthenia conjugens	Contra Costa goldfields	FE, CRPR 1B.1	Alkali playa, cismontane woodland, valley and foothill grassland, vernal pool, wetland	No	Alameda, Contra Costa, Mendocino, Monterey, Marin , Napa, Santa Barbara, Santa Clara, Solano, Sonoma	Yes	0 - 470 meters	annual herb	None: no habitat, not observed	March - June
Lathyrus jepsonii var. jepsonii	Delta tule pea	CRPR 1B.2	Marshes and swamps (freshwater and brackish)	No	Contra Costa, Napa, Sacramento, San Joaquin, Solano, Sonoma, Yolo	Yes	0 - 5 meters	perennial herb	None: no habitat	May - September
Legenere limosa	Legenere	CRPR 1B.1, BLM:S	Vernal pools	No	Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Yuba	Yes	1 - 880 meters	annual herb	None: no habitat	April - June
Lessingia hololeuca	lessingia	CRPR 3.1	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland	Marginal	Alameda, Monterey, Marin, Napa, Santa Clara, San Mateo, Solano, Sonoma, Yolo	Yes	15 - 305 meters	annual herb	Unlikely: not observed during surveys	June - October

Lilaeopsis masonii	Mason's lilaeopsis	SR, CRPR 1B.1	Marshes and swamps (brackish or freshwater), riparian scrub	No	Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, Solano, Yolo	Yes	0 - 10 meters	perennial rhizomatous herb	None: no habitat	April - November
Micropus amphibolus	Mt. Diablo cottonweed	CRPR 23.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland; bare, grassy or rocky slopes	Marginal	Alameda, Contra Costa, Colusa, Lake, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Santa Cruz, San Joaquin, Solano, Sonoma	Yes	45 - 825 meters	annual herb	None: not observed during surveys, marginal habitat	March - May
Polygonum marinense	Marin knotweed	CRPR 3.1	Brackish marsh, marsh & swamp, salt marsh, wetland	No	Alameda, Humboldt, Marin, Napa, Solano, Sonoma	Yes	0 - 10 meters	annual herb	None: no habitat	April - October
Ranunculus lobbii	Lobb's aquatic buttercup	CRPR 4.2	Cismontane woodland, North Cost coniferous forest, valley and foothill grassland, vernal pools	No	Alameda, Contra Costa, Mendocino, Marin, Napa, Santa Cruz, San Mateo, Solano, Sonoma	Yes	15-470 meters	annual herb	None: no habitat	February - May
Symphyotrichum lentum	Suisun Marsh aster	CRPR 1B.2	Marshes and swamps brackish and freshwater	No	Contra Costa, Napa, Sacramento, San Joaquin, Solano, Yolo	Yes	0 - 3 meters	perennial rhizomatous herb	None: no habitat	April - November
Trifolium amoenum	Two-fork clover	FE, CRPR 1B.1	Coastal bluff scrub, valley and foothill grassland	Marginal	Marin, Napa, Santa Clara, San Mateo, Solano, Sonoma	Yes	5 - 415 meters	annual herb	None: not observed during surveys, marginal habitat	April - June
Trifolium hydrophilum	saline clover	CRPR 1B.2	Marsh & swamp, valley & foothill grassland, vernal pool, wetland	No	Alameda, Contra Costa, Colusa, Lake, Monterey, Napa, Sacramento, San Benito, Santa Clara, Santa Cruz, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Yolo	Yes	0 - 300 meters	annual herb	None: no habitat	April - June
Viburnum ellipticum	oval-leaved viburnum	CRPR 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest	No	Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, Tehama	Yes	215 - 1400 meters	perennial deciduous shrub	None: no habitat	May - June

requirements, and an evaluation of their potential to occur on the site. The majority of the species are highly unlikely to occur onsite because they are out of the range of the species, lack suitable habitat onsite or lack of local occurrences and were not observed during vegetation surveys on the site during their blooming period.

Of the remaining special status species occurring in the project region, none have been observed within the project site boundaries. While the following species have not been observed, they have at least some likelihood to occur on-site given the presence of potentially suitable habitat and known occurrences in the region.

Pappose tarplant (*Centromadia parryi spp. parryi*); CRPR 1B.1; BLM:S

Pappose tarplant is an annual herb in the Asteraceae family that is native to California. It is known from Butte, Colusa, Glenn, Lake, Napa, San Mateo, Solano and Sonoma Counties. It is found in a variety of habitats including chaparral, coastal prairie, meadows, seeps, coastal salt marshes and swamps, valley and foothill grassland, and alkaline coastal prairies (CNPS 2007). This species can be found at elevations from zero to 420 meters.

Pappose tarplant blooms May through November with yellow aster flowers. The species has small spiny, hairy leaves and inflorescence sepals.

There are no CNDDB records for this species within five miles of the project site.

The project site contains moderate habitat for this species and though there are none in the vicinity, they are known from the region. Therefore, a botanical survey should be conducted during its blooming period to ensure that this species does not occur on the project site and will not be impacted by the project.

Lessingia (*Lessingia hololeuca*); CRPR 3.1

Lessingia is an annual herb in the Asteraceae family. It is known in Alameda, Monterey, Marin, Napa, Santa Clara, San Mateo, Solano, Sonoma, and Yolo Counties. In it found in clay serpentinite soils and in broadleafed upland forests, coastal scrub, lower montane coniferous forest, and valley and foothill grasslands (CNPS 2007).

Lessingia varies in size and shape from flat and a few centimeters tall to erect and over 40 centimeters tall. The leaves reach approximately 13 centimeters long and may or may not have several deep lobes. The flowers are funnel-shaped and pink to lavender in color (Jepson 1993).

CNDDB does not list this species within five miles of the project site. In addition, the site does not contain serpentinite soils and the history of site disturbance makes this species unlikely. Finally, this species would have been observed during the site survey completed in June. Therefore, this species is unlikely to occur on the site.

3. Wildlife Movement Corridors

Wildlife corridors are generally described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or human induced factors such as urbanization. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species and thus, adversely affecting both genetic and species diversity. Corridors often partially or largely eliminate the adverse effects of fragmentation by 1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available; 2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and 3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

Suscol Creek and its surrounding riparian woodland offer an east-west wildlife movement corridor along the northern border of the project from the hills approximately 2 miles to the east and west to the Napa River. While the creek does not provide water from mid-summer on, there are a few small pockets of shallow water for wildlife into late spring and occasionally into early summer. The riparian corridor also offers shade, structure and potential hiding spots for both predators and prey. This corridor is likely used by wildlife in the area and impacts to this habitat should be avoided. However, the project does not propose any work within the Creek, riparian woodland or within 150 feet of the top of bank of the creek. This 150-foot setback takes in all of the riparian zone as well as a substantial buffer, which will protect the riparian zone and allow wildlife to continue to use this movement corridor.

C. Wetlands and Other Sensitive Habitats

1. Wetlands and Waters of the State/U.S.

"Wetlands" are areas periodically or permanently saturated by surface or groundwater and typically support vegetation adapted to life in saturated (hydric) soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and floodwaters, promotion of groundwater recharge, and their water filtration and purification functions. Waters of the State/U.S. are typically streams and other waterways that hold flowing water or pond but do not have a predominance of wetland vegetation.

Technical standards for delineating wetlands have been developed by the Corps in its Wetlands Delineation Manual (Army Corps of Engineers, Environmental Laboratory, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss., 1987

["Delineation Manual"]) and adopted by many local agencies. The upland boundary of Waters of the State/U.S. is defined by the "ordinary high water mark" (OHWM), a line on the stream or channel marked by a topographic change or other feature.

Wetlands are defined by the Corps Section 404 regulations as: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions". Thus to be designated a wetland according to Corps regulation, a site must have a predominance of hydrophytic vegetation, evidence of hydric soils, and wetland hydrology under normal circumstances.

Other waters are defined based on water elevations and geomorphic features. In freshwater conditions, the boundary between uplands and other waters is the ordinary high water mark, which is roughly equivalent to the mean annual flood line. In tidal conditions, the boundary is set by the high tide line, roughly equivalent to mean high water.

The study area and directly adjacent areas were reviewed for any existing or potential jurisdictional habitats. The only jurisdictional area within the site and study area is Suscol Creek, which is an intermittent creek, which flows directly into the Napa River. Suscol Creek itself is largely unvegetated with a bed of predominantly cobble-sized material and is, therefore, an "other water" rather than a wetland. No additional jurisdictional areas were observed within 25 feet of the study area.

The remainder of the site is upland containing riparian woodland and ruderal grassland habitats, which are non-jurisdictional.

2. Other Special Status Habitats

A total of two special status habitats are known from the region. These habitats include:

1. Coastal Brackish Marsh
2. Northern Vernal Pool

Neither of these habitats are present on the project site. Coastal brackish marsh is known to occur along the edges of the Napa River approximately 2.0 miles to the southwest where there is salt and freshwater mixing. Northern vernal pool habitat is known from approximately 0.50 miles northeast of the site on the other side of Highway 29 from the project site. The vernal pool habitat is characterized by a complex of shallow, vernally wet pools with native, annual forb vegetation. The project site does not have any wet areas such as seasonal wetlands or vernal pools and the vegetation on-site is dominated by weedy, non-native species.

IV. BIOLOGICAL RESOURCES

A. Regulatory Setting and Federal Framework

1. Federal Endangered Species Act

The Federal Endangered Species Act (FESA) forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

8. Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.
9. Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.
10. Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.
11. Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3).

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain an incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. The Section 7 consultation process applies only to actions taken by federal agencies, or actions by private parties that require federal agency permits, approval, or funding (for example, a private landowner applying to the Corps for a permit). Section 7's consultation process is triggered by a

determination of the "action agency" (i.e., the federal agency that is carrying out, funding, or approving a project) that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation with the USFWS is required.

2. Federal Migratory Bird Treaty Act (FMBTA)

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to "take" (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

3. Federal Clean Water Act

Section 404

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into "waters of the United States" (33 CFR Part 320 *et seq.*). This requires project applicants to obtain authorization from the USACE prior to discharging dredged or fill material into any water of the United States. The "waters of the United States" are defined in federal regulations at 33 CFR section 328.3, and may include wetlands, ponds, drainages, creeks, streams, and other types of waterbodies, depending on whether any such aquatic feature meets current jurisdictional standards.

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to acquire authorization from the USACE prior to discharging or otherwise impacting "waters of the United States." This authorization is typically given by reference to compliance with an existing Nationwide Permit(s) or by issuance of a project-specific Individual Permit.

Section 401

Prior to issuance by a Section 404 authorization by the USACE, Section 401 of the federal Clean Water Act requires the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB) to certify, conditionally certify, or waive certification on the question of whether issuance of the USACE permit will violate water quality standards of the State. This certification (or waiver thereof) applies only to the proposed impacts to the "waters of the United States" that are at issue in the proposed Section 404 permit. Potential impacts to "waters of the State" that may not be jurisdictional for the USACE are addressed under the RWQCB's Porter-Cologne Water Quality Control Act statutory authority (see below).

B. State Framework

1. California Endangered Species Act

In 1984, the state legislated the California Endangered Species Act (CESA) (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats.

If proposed projects would result in impacts to a State listed species, an "incidental take" permit pursuant to §2081 of CDFG Code would be necessary (versus a Federal incidental take permit for Federal listed species). No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take."

State and federal incidental take permits are typically only authorized if applicants are able to demonstrate that impacts on the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review.

2. California Fish and Game Code

Section 4700

In accordance with California Fish and Game Code, Section 4700, "fully protected" mammals or parts thereof may not be taken or possessed (held in captivity) at any time (a) (1), except as provided in Section 2081.7. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected mammal, and no permits or licenses heretofore issued shall have any force or effect for that purpose. However, subject to certain notice requirements, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species.

Sections 3503, 3503.5, 3511, and 3513

CDFG Code §§ 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of the nest or eggs of any bird. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Take of any migratory nongame bird is also prohibited, except in compliance with rules promulgated under the Migratory Bird Treaty Act.

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under CDFG Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

Section 1602

Pursuant to Section 1602 of the Fish and Game Code, CDFG regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream. CDFG's jurisdiction includes the outer extent of any riparian vegetation associated with the stream. Any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, would require entering into a Streambed Alteration Agreement (SBAA) with CDFG prior to commencing work in the stream.

3. Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act, Water Code § 13260, requires that "any person discharging waste, or proposing to discharge waste, that could affect the waters of the State to file a report of discharge" with the RWQCB through an application for waste discharge (Water Code Section 13260(a)(1). The SWRCB and its several RWQCBs have interpreted this authority to extend to proposed fills of "waters of the State" that include all "waters of the United States" that are subject to the jurisdiction of the USACE, and any other "isolated" waters that are beyond the reach of the USACE claim of jurisdiction.

C. Applicable Local Restrictions

1. Napa County Code

18.40.170 - Watercourse protection.

a. Setbacks.

1. Unobstructed development setback corridors shall be established and maintained along the following watercourses to facilitate movement of wildlife, to reduce the impacts of localized flooding, to provide visual amenities, to improve water quality and associated habitat, and to contribute to a separation between the geographic portions of the industrial park.

Unless specifically authorized by the applicable specific plan, no development or improvements, including storage of equipment or materials or construction of fences, shall be permitted in the setbacks established below:

a. Suscol Creek: one hundred fifty feet

3. Setback may be required to be increased if a greater distance is set by the State Department of Fish and Game, the Napa County Water Conservation and Flood Control District, or the department if such increase is necessary to increase biological values, or is necessary to achieve integrated habitat retention or restoration.

4. Setbacks established in this section shall be measured from the top of the bank.

5. Where establishment of these corridors would reduce the developable area under this chapter on a parcel existing prior to the effective date of the ordinance codified in this chapter by more than thirty-five percent, the width of the corridor required shall be reduced to allow sixty-five percent of the parcel's potential developable area to be developed. All development setback corridors provided shall be counted as landscaped for purposes of meeting the minimum landscaping percentages required under Section 18.40.110(B).

6. A permanent conservation easement covering the required corridor along the creeks enumerated in subsection (A)(1) of this section shall be irrevocably offered by the property owner to the county of Napa, appropriate state agency or a public non-profit land conservation entity prior to project completion or parcel/subdivision map recordation, whichever comes first. Said corridor shall include a landscaped ten-foot-wide easement between the riparian growth (if any) and the edge of the planned development. Said easement, which shall be measured from the outside drip line of the riparian canopy as indicated by the aerial photography taken of the area in March of 1984, shall be maintained in a natural condition.

b. Uses of Setback Areas.

Unless specifically authorized by the applicable specific plan, previously approved discretionary permit or certificate of extent of legal nonconformity issued pursuant to Chapter 18.132, uses within the setback area shall be limited to habitat restoration/mitigation, landscaping, pedestrian/bicycle improvements, storm-water retention/detention facilities or similar uses that do not adversely affect habitat values, wildlife movement or flood water storage.

c. Setback Restoration.

1. Plans for restoration, enhancement and permanent maintenance of required setback areas for the purposes set forth in Section 18.40.170(A)(1) shall be required as part of any site plan or discretionary or administrative permit approval.

2. Alterations or improvements to any watercourse within the IP zoning district shall be designed to maintain or enhance the aesthetic qualities of the channel through preservation of existing vegetation and introduction of appropriate new landscaping. Plantings of native species shall be introduced into the setback areas to increase cover and enhance the wildlife habitat. Where applicable, the Department of Fish and Game shall be consulted regarding appropriate selection and use of plant materials to ensure successful growth and wildlife adaptation.

d. Wetlands, Pools and Similar Lands.

1. All wetlands, pools, pond areas or similar lands with resource value, shall be protected in their natural state and enhanced to the maximum extent feasible. Mitigation compensation shall be required on a replacement basis for all such habitats impacted.

2. Minimum setbacks of twenty-five feet as measured from the edge of the resource shall be required, unless a greater setback is recommended by the Department of Fish and Game or by a qualified expert who has assessed the resource.

3. Uses of the setback area identified in subsection (D)(2) of this section shall be limited to habitat mitigation or introduced landscaping designed to enhance the resource area.

(Ord. 1234 § 5, 2004: Ord. 1161 § 18, 1999: Ord. 845 § 1 (part), 1987: prior code § 12278.16)

D. Environmental Analysis

1. CEQA Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the proposed project would have significant impacts on biological resources if it would:

1. 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 CDFG or U.S. Fish and Wildlife Service (USFWS).
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFG or USFWS.
3. Have a substantial adverse effect on federally protected "wetlands" or "Waters of the U.S." as defined by Section 404 of the Clean Water Act or "Waters of the State" as defined by the Porter-Cologne Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. 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.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2. POTENTIAL IMPACTS AND MITIGATION MEASURES

a. Less Than Significant Impacts

1.0 Stormwater Quality and Restoration Activities within Creek Setback

Two types of activities may take place within the Suscol Creek setback; stormwater quality features such as a bioretention area and swale and restoration/enhancement activities. Both of these activities are allowed by the County Code and restoration-related activities are required by the Code, though approval of a restoration/enhancement plan may be required by the County. Because the Stormwater quality features are proposed in areas where the vegetation is dominated by non-native, weedy vegetation and these types of features are in accordance with the normal functioning of these types of areas as well as the planned uses, these activities are no a significant impact. As well, restoration and enhancement activities will provide an overall benefit to the riparian and creek setback zone and are also anticipated by the County Code and therefore are not a significant impact.

2.0 Loss of Ruderal Grassland Habitat

The proposed project will result in the loss of non-native, ruderal grassland habitat. This habitat is dominated by weedy, non-native species, though a small number of common native plants are present. This habitat is relatively degraded due to extensive and lengthy disturbance. The loss of this habitat is not a significant impact as there is an abundance of non-native ruderal grassland habitats in the region. Similarly, impacts to common wildlife species that may potentially use this habitat are not significant as these species are common and capable of using adjacent lands.

Though this habitat is considered secondary foraging habitat for Swainson's hawk, there are no known, currently active nests in the area. In addition, the Caltrans SR 29/221 Draft EIR noted that the loss of 22.71 acres of grassland vegetation "would not make a considerable contribution to the loss of nesting and/or foraging habitat for the Swainson's hawk" (Caltrans 2015). Grasslands are considered one of the primary foraging habitats for Swainson's hawk. The proposed project would impact significantly less area (16.87 acres) and the impacts would also be to secondary habitat (ruderal grassland) rather than primary (spray fields, alfalfa fields etc…), and therefore, the impacts would be even less significant than those evaluated for the Caltrans project. While Swainson's hawk's nests are protected, foraging habitat mitigation has generally not been required in this area. LSA noted that they were "not aware of any projects in Napa County that have required mitigation for loss of Swainson's hawk

foraging habitat" (LSA 2015). Therefore, given the quality of the ruderal habitat, which would not make a significant contribution to the loss of foraging habitat for the Swainson's hawk, the loss of 16.87 acres of ruderal habitat is not a significant impact.

b. Potentially Significant Impacts Before Mitigation

Special Status Species

1.0 Development of the project could have a potentially significant impact on nesting raptors other migratory nesting birds

Impact Analysis

Suitable potential nesting habitat for Swainson's hawk, northern harrier and other raptors, as well as other migratory nesting birds (excluding burrowing owls), is present on the project site or directly adjacent to the project site. These birds are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their nest, eggs, and young are protected under California CDFG Code §§3503, 3503.5, 3800, and 3513. Any project-related impacts on the nesting success of these species would be considered a significant adverse impact. Potential impacts from the proposed project include loss of nesting habitat, disturbance to nesting birds, and possibly death of adults and/or young. These impacts could be mitigated to a level considered less than significant by Mitigation Measure 1.0-1.

Mitigation Measure

1.0-1 If construction would commence anytime during the nesting/breeding season of the Swainson's hawk, northern harrier or other raptors, or other bird species listed in the Migratory Bird Treaty Act (typically February through September 15), a pre-construction survey of the project vicinity for nesting birds should be conducted. This survey should be conducted by a qualified biologist (experienced with the nesting behavior of bird species of the region) within 14 days prior to the commencement of construction activities that would occur during the nesting/breeding season. The intent of the survey should be to determine if active nests are present within or adjacent to the construction zone within approximately 250 feet. The surveys should be timed such that the last survey is concluded no more than two weeks prior to initiation of construction. If ground disturbance activities are delayed following a survey, then an additional pre-construction survey should be conducted such that no more than two weeks will have elapsed between the last survey and the commencement of ground disturbance activities.

If active nests are found in areas that could be directly or indirectly affected by the project, a no-disturbance buffer zone should be created around active nests during the breeding season or until a qualified biologist determines that all young have

fledged. The size of the buffer zones and types of construction activities restricted within them should be determined through consultation with the CDFW depending on the species, taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;

- Distance and amount of vegetation or other screening between the construction site and the nest; and

- Sensitivity of individual nesting species and behaviors of the nesting birds.

The buffer zone around an active nest should be established in the field with orange construction fencing or another appropriate barrier and construction personnel should be instructed on the sensitivity of nest areas. The qualified biologist should serve as a construction monitor during those periods when construction activities would occur near active nest areas of special status bird species to ensure that no impacts on these nests occur.

Level of Significance After Mitigation: Less Than Significant

1.1 Development of the project could have a potentially significant impact on special status bat species

Impact Analysis

The trees within the riparian corridor and the old barn and shed on the site provide potentially suitable habitat for bats, including pallid bat. While the riparian area will not be impacted by the project and, therefore, impacts to bats within the riparian area are unlikely, the barn and the shed will be removed as part of the project. Though no signs of bat use have been observed within these structures, there is a possibility that bat species could move into these structures prior to construction and any project-related impacts to bat species would be considered a significant adverse impact.

Mitigation Measure

1.1-1 Prior to the commencement of construction activities during the breeding season of native bat species in California (generally occurring from April 1 through August 31), a qualified biologist shall conduct a focused survey to determine if hibernation or active maternity roosts of special-status bats are present within the barn and shed proposed for removal. Hibernation sites with evidence of prior occupation shall be sealed before the hibernation season (November–March), and nursery sites shall be sealed before the nursery season (April–August). If the site is occupied, then the action shall occur either prior to or after

the hibernation season for hibernacula and after August 15 for nursery colonies. Construction shall not take place as long as the site is occupied by hibernating or unfledged bats.

1.1-2 Should an active maternity roost of a special-status bat species be identified, the roost shall not be disturbed until the roost is vacated and juveniles have fledged, as determined by the biologist. The structure may be removed once all young have fledged. If an actively used maternity roost requires removal, species-appropriate replacement roosting habitat (e.g., bat boxes) shall be provided.

Level of Significance After Mitigation: Less Than Significant

1.2 Development of the project could have a potentially significant impact on California red-legged frog

Impact Analysis
As noted previously, the project site does not contain habitat for CRLF, however, they are known from the region south of the site. Suscol Creek is not known to contain CRLF and the creek does not provide breeding habitat for CRLF. In addition, while the creek and riparian habitats are a likely potential movement corridor for wildlife, it is an unlikely movement corridor for CRLF. Therefore, although CRLF are very unlikely, a preconstruction survey should be conducted to ensure that no CRLF are in the vicinity when work commences.

Mitigation Measure
1.2-1 Within 48 hours prior to the commencement of construction activities, a qualified biologist shall conduct a preconstruction CRLF survey to ensure that no CRLF are located on or in proximity to the site. If CRLF are found, the CDFW and USFW will be contacted to determine appropriate mitigation measures and the work shall be placed on halted until the consultations are completed.

Level of Significance After Mitigation: Less Than Significant

SPECIAL-STATUS PLANTS

2.0 The proposed project could have a potentially significant adverse impact on special-status plant species.

Impact Analysis
The project site provides potentially suitable habitat for at least one special-status plant species. While this species has not been observed on-site, directed surveys for fall-blooming species have not yet taken place. To prove absence of these species formal surveys must be conducted at appropriate time of the year. The project site provides potentially suitable

habitat for Pappose tarplant. Future development activities within the project site could result in the loss of this species. Until such time that formal surveys are conducted that demonstrate absence of these species, impacts to these species are regarded as potentially significant pursuant to CEQA. These impacts could be mitigated to levels considered less than significant by Mitigation Measure 2.0-1.

Mitigation Measure

2.0-1 Prior to County approval of any specific development, special status plant surveys shall be conducted by a qualified biologist in appropriate habitats during the appropriate period in which the species are most identifiable. These surveys shall be in compliance with all CDFW (2009), USFWS (1996), and CNPS (2001) published survey guidelines.

If the survey finds that there are no special-status plants on the property that would be impacted or within the proposed project site, then there would be no further mitigation and the project may proceed, provided all other applicable permits and authorizations are obtained for the project.

If special-status plant species are found, populations will be mapped and enumerated. If any populations are found within the proposed development area, project development plans shall consider avoidance to the extent practicable. If avoidance is not practicable while otherwise obtaining the project's objectives, then other suitable measures and mitigation shall be implemented as detailed below.

The following measures shall be implemented if special-status plants are found on the project site:

A. Initially the practicability of avoidance shall be evaluated as noted above.

B. If avoidance is not practicable, a mitigation plan shall be developed and approved by the County for implementation of steps 1 through 3 below prior to site disturbance.

The mitigation plan shall include the following elements:

1. Prior to construction within the project area, a qualified botanist shall collect the seeds, propagules, and top soils, or other part of the plant that would ensure successful replanting of the population elsewhere. The seeds, propagules, or other plantable portion of all plants shall be collected at the appropriate time of the year.
2. At least 2/3 of the seeds, propagules, or other plantable portion of all plants shall be planted at the appropriate time of year (late-fall months) within the protected creek setback area. Half of the seeds and top soils collected shall be appropriately stored and propagated at a native plant nursery to ensure germination. This material will be planted within the creek setback area during the appropriate season as part of the restoration work. Planting location, timing, collection methods etc… will be detailed in the mitigation plan required by Measure B above.

3. The applicant shall hire a qualified biologist to conduct annual monitoring surveys of the transplanted plant population for a five-year period and shall prepare annual monitoring reports reporting the success or failure of the transplanting efforts. These reports shall be submitted to the City no later than December 1st each monitoring year.
4. These steps shall be implemented prior to site disturbance.

A CNDDB form shall be filled out and submitted to CDFW for any special-status plant species identified within the project site.

In lieu of the above prescribed mitigation, as allowed in writing by the County, mitigation requirements may be satisfied via the purchase of qualified mitigation credits or the preservation of offsite habitat.

When implemented, these measures would reduce potentially significant adverse impacts on special-status plant species to a level considered less than significant.

Level of Significance After Mitigation: Less Than Significant

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APPENDIX A

List of Observed Vegetation

Vegetation Observed

Common Name	***Botanical Name***
wild oats	*Avena fatua*
ripgut	*Bromus diandrus*
soft chess	*Bromus hordeaceus*
Italian thistle	*Carduus pycnocephalus*
prickly ox-tongue	*Helminthotheca echioides*
rose clover	*Trifolium hirtum*
shortpod mustard	*Hirschfeldia incana*
vulpia	*Festuca bromoides*
rattail fescue	*Festuca myuros*
coyote bush	*Baccharis pilularis* *
plantain	*Plantego lanceolata*
Harding grass	*Phalarus aquatica*
Mediterranean barley	*Hordeum marinum*
hare barley	*Hordeum murinum*
slender vetch	*Vicia hassei*
cats ear	*Hypochaeris radicata*
small lupine	*Lupinus bicolor* *
little quaking grass	*Briza minor*
sharpleaf cancerwort	*Kixia elantine*
bindweed	*Convulvulus arvensis*
curly dock	*Rumex crispus*
doveweed	*Croton setigerus*
stickyweed	*Galium aparine**
Italian ryegrass	*Festuca perennis*
Himalayan blackberry	*Rubus armeniacus*
fiddleneck	*Amsinckia menziesii*
California poppy	*Eschscholzia californica*
storks bill	*Erodium botrys*
cut-leaved geranium	*Geranium dissectum*
prickly lettuc	*Lactuca serriola*
spring vetch	*Vicia sativa*
winter vetch	*Vicia villosa*
radish	*Raphanus sativus*
hyssopy loosetrife	*Lythrum hyssopifolia*
sonchus	*Sonchus asper*
sock destroyer	*Torilis arvensis*
oyster root	*Tragopogon porrifolius*
coast live oak	*Quercus agrifolia* *
blue gum	*Eucalyptus globulus*
medusa head grass	*Taeniatherum caput-medusae*

toad rush	*Juncus bufonius* *
stinkweed	*Dittrichia graveolens*

<u>Within Riparian zone only</u>

buckeye	*Aesculus californica* *
black locust	*Robinia psuedoacacia*
valley oak	*Quercus lobata* *
mugwort	*Artemesian douglasiana* *
cherry plum	*Prunus cerasifera*
sandbar willow	*Salix lasiolepis* *
yellow willow	*Salix lasiandra* *
wild grape	*Vitis californica* *
wild cucumber	*Marah fabaceus* *
bee plant	*Scrophularia californica* *
goldenback fern	*Pentagramma triangularis* *
California bay	*Umbellularia californica* *

* Denotes Native Species

APPENDIX B

List of Observed Wildlife

Wildlife Observed

BIRDS

mourning dove	*Zenaida macroura*	
red wing blackbird	*Agelaiis phoeniceus*	
scrub jay	*Aphelocoma californica*	
red tail hawk	*Buteo jamaicensis*	
house finch	*Haemorhous mexicanus*	
turkey vulture	*Cathartes aura*	flying high over site
barn swallow	*Hirundo rustica*	
barn owl	*Tyto alba*	pellets in barn
mouse (likely deer mouse)	*Peromyscus maniculatus*	
starling	*Sturnus vulgaris*	
wild turkey	*Meleagris gallopavo*	observed in the riparian area
American crow	*Corvus brachyrhynchos*	
great egret	*Ardea alba*	
mockingbird	*Mimus polyglottos*	
acorn woodpecker	*Melanerpes formicivorus*	
Bullocks oriole	*Icterus bullockii*	
Swainsons hawk	*Buteo swainsoni*	flying over riparian woodland adjacent to site
Eurasian collared dove	*streptopelia decaocto*	
black pheobe	*Sayornis nigricans*	

REPTILES

western fence lizard	*Sceloporus occidentalis*	

APPENDIX C

State and Federal Species Lists

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: BIOS selection

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Brodiaea leptandra narrow-anthered brodiaea	PMLIL0C022	None	None	G3?	S3?	1B.2
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calasellus californicus An isopod	ICMAL34010	None	None	G2	S2	
Carex lyngbyei Lyngbye's sedge	PMCYP037Y0	None	None	G5	S3	2B.2
Ceanothus purpureus holly-leaved ceanothus	PDRHA04160	None	None	G2	S2	1B.2
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chloropyron molle ssp. molle soft salty bird's-beak	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2
Circus cyaneus northern harrier	ABNKC11010	None	None	G5	S3	SSC
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erigeron greenei Greene's narrow-leaved daisy	PDAST3M5G0	None	None	G3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Juglans hindsii Northern California black walnut	PDJUG02040	None	None	G1	S1	1B.1
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Leptosiphon jepsonii Jepson's leptosiphon	PDPLM09140	None	None	G3	S3	1B.2
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Melospiza melodia samuelis San Pablo song sparrow	ABPBXA301W	None	None	G5T2?	S2?	SSC
Northern Vernal Pool Northern Vernal Pool	CTT44100CA	None	None	G2	S2.1	
Oncorhynchus mykiss irideus steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
Polygonum marinense Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
Rallus longirostris obsoletus California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	FP
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
Speyeria callippe callippe callippe silverspot butterfly	IILEPJ6091	Endangered	None	G5T1	S1	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Syncaris pacifica California freshwater shrimp	ICMAL27010	Endangered	Endangered	G1	S1	
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 44

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2016-SLI-1419 May 04, 2016
Event Code: 08ESMF00-2016-E-03060
Project Name: Fedrick Properties

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2)

of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2016-SLI-1419
Event Code: 08ESMF00-2016-E-03060

Project Type: DEVELOPMENT

Project Name: Fedrick Properties
Project Description: Biological assessment of property for habitat and special status species.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:

Project Coordinates: MULTIPOLYGON (((-122.27025747299194 38.238972244711334, -122.27072954177856 38.239005951963016, -122.27126598358154 38.239208195144876, -122.2722315788269 38.23902280558299, -122.27248907089232 38.23878685454784, -122.2723388671875 38.236022799686694, -122.26929187774658 38.23512951558999, -122.26566553115845 38.23764079577116, -122.26806879043579 38.23927560941379, -122.26864814758301 38.23883741554842, -122.2685408592224 38.23833180396059, -122.26869106292725 38.23755652603051, -122.27002143859863 38.23755652603051, -122.2702145576477 38.23811270451398, -122.26995706558229 38.2383823652776, -122.27025747299194 38.238972244711334)))

Project Counties: Napa, CA

Endangered Species Act Species List

There are a total of 17 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	**Status**	**Has Critical Habitat**	**Condition(s)**
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
Birds			
California Clapper rail *(Rallus longirostris obsoletus)* Population: Entire	Endangered		
California Least tern *(Sterna antillarum browni)*	Endangered		
Northern Spotted owl *(Strix occidentalis caurina)* Population: Entire	Threatened	Final designated	
western snowy plover *(Charadrius nivosus ssp. nivosus)* Population: Pacific coastal pop.	Threatened	Final designated	
Crustaceans			
California Freshwater shrimp *(Syncaris pacifica)*	Endangered		

Population: Entire			
Conservancy fairy shrimp *(Branchinecta conservatio)* Population: Entire	Endangered	Final designated	
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Fishes			
Delta smelt *(Hypomesus transpacificus)* Population: Entire	Threatened	Final designated	
steelhead *(Oncorhynchus (=salmo) mykiss)* Population: Northern California DPS	Threatened	Final designated	
Tidewater goby *(Eucyclogobius newberryi)* Population: Entire	Endangered	Final designated	
Flowering Plants			
Contra Costa goldfields *(Lasthenia conjugens)*	Endangered	Final designated	
Showy Indian clover *(Trifolium amoenum)*	Endangered		
Soft bird's-beak *(Cordylanthus mollis ssp. mollis)*	Endangered	Final designated	
Insects			
Callippe Silverspot butterfly *(Speyeria callippe callippe)* Population: Entire	Endangered		

San Bruno Elfin butterfly *(Callophrys mossii bayensis)* Population: Entire	Endangered		
Mammals			
Salt Marsh Harvest mouse *(Reithrodontomys raviventris)* Population: wherever found	Endangered		

Critical habitats that lie within your project area

There are no critical habitats within your project area.

CNPS California Native Plant Soc Rare and Endangered Plant Inventory

Plant List

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

Search Criteria

Found in Napa County, Found in 9 Quads around 38122A3

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	1B.2	S2?	G2?
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2
Calamagrostis ophitidis	serpentine reed grass	Poaceae	perennial herb	4.3	S3	G3
Carex lyngbyei	Lyngbye's sedge	Cyperaceae	perennial rhizomatous herb	2B.2	S3	G5
Castilleja affinis var. neglecta	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	1B.2	S1S2	G4G5T1T2
Castilleja ambigua var. ambigua	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	4.2	S4	G4T5
Ceanothus purpureus	holly-leaved ceanothus	Rhamnaceae	perennial evergreen shrub	1B.2	S2	G2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	1B.2	S2	G3T2
Chloropyron molle ssp. molle	soft bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.2	S1	G2T1
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
Eleocharis parvula	small spikerush	Cyperaceae	perennial herb	4.3	S4	G5
Erigeron biolettii	streamside daisy	Asteraceae	perennial herb	3	S3?	G3?
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	4.2	S3	G3
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	1B.1	S1	G1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	1B.2	S2	G5T2
Legenere limosa	legenere	Campanulaceae	annual herb	1B.1	S2	G2
	woolly-headed					

Lessingia hololeuca	lessingia	Asteraceae	annual herb	3	S3?	G3?
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	1B.1	S2	G2
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	S3S4	G3G4
Polygonum marinense	Marin knotweed	Polygonaceae	annual herb	3.1	S2	G2Q
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb	4.2	S3	G4
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	2B.3	S3?	G4G5

Suggested Citation

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APPENDIX D

Definitions
for
Special Status Species Designations

DEFINITIONS FOR SPECIAL STATUS SPECIES DESIGNATIONS

Federal Endangered Species Act

The following are the standard definitions for the status designations under the federal Endangered Species Act (ESA), implementing regulations and relevant notices (as published in the Federal Register). The ESA is administered by the U.S. Fish and Wildlife Service (USFWS).

Endangered – A species that is in danger of extinction throughout all or a significant portion of its range.

Threatened – A species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Proposed for Listing – Taxa formally noticed as being under review to determine whether listing as threatened or endangered is warranted.

Candidate – Taxa for which USFWS has on file sufficient information on biological vulnerability and threat to support a proposed rule to list the species as endangered or threatened. Proposals to list have not yet been issued because this action is precluded by other listing activity. Species in this category are assigned a listing priority in order to assist the FWS in determining those species most in need of protection.

[Note: As of February 1996, the USFWS eliminated the differing categories of candidate species and now has only one category of candidate species as defined above.]

California Endangered Species Act

The following are the standard definitions for the status classifications under the California Endangered Species Act (CESA), administered by the California Department of Fish and Game (CDFG), now renamed the California Department of Fish and Wildlife (CDFW).

Endangered species – A native California bird, mammal, fish, amphibian, reptile or plant (species or subspecies) is endangered when it is in serious danger of becoming extinct throughout all, or a significant portion of, its range due to one or more causes, including loss of habitat, change of habitat, over-exploitation, predation, competition or disease (CDFW Code, Section 2062).

Threatened species – A native bird, mammal, fish, amphibian, reptile or plant (subspecies or species) is threatened when, although not presently threatened with extinction, it is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts. Any animal listed as "rare" by the Commission on or before January 1, 1985, is a threatened species (CDFW Code, Section 2067).

Candidate species – A native California species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant is a candidate when the Fish and Wildlife Commission (Commission) has formally noticed it as being under review by the CDFW to determine whether listing as threatened or endangered is warranted, or when it is the subject of a proposed rulemaking by the Commission to list as threatened or endangered (CDFW Code, Section 2068).

California Department of Fish and Game

Fully Protected – Fully Protected species may not be taken or possessed without a permit from the Fish and Wildlife Commission. Information of Fully Protected species can be found in the CDFW Code, (birds at §3511, mammals at §4700, reptiles and amphibians at §5050, and fish at §5515). Additional information on Fully Protected fish can be found in the California Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 2, Article 4, §5.93. The category of Protected Amphibians and reptiles in Title 14 has been repealed.

Species of Special Concern – A California species of special concern is a plant or animal species or subspecies that is possibly declining or is vulnerable to extirpation and may be considered for listing or for special management and protection measures. These species, although not legally protected under the CESA, are monitored by the CDFW.

It is the goal and responsibility of the CDFW to maintain viable populations of all native species. To this end, the CDFW has designated certain species as “Species of Special Concern” because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as “Species of Special Concern” is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long term viability. Not all “Species of Special Concern” have declined equally; some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a “Threatened” or “Endangered” species under the State and/ or Federal Endangered Species Acts.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA), administered by the CDFW, protects "rare" plant species.

Rare – A native California plant (species, subspecies or variety) is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens (CDFW Code, Section 1901).

California Native Plant Society (CNPS) List of Rare, Threatened and Endangered Vascular Plants of California

The CNPS maintains a list of rare, threatened and endangered vascular plants of California which summarizes the distribution, rarity, endangerment, and ecology of these plants. CNPS updates this list approximately every four years. The most recent edition (8th ed.) was published in December 2010. The CNPS listing designations are as follows:

California Rare Plant Rank (CRPR) 1A – The plants Ranked as 1A are presumed extinct because they have not been seen or collected in the wild in California for many years. All of the List 1A plants meet the definitions of "rare", "endangered", or "threatened" contained in Fish and Game Code Section 1901 (Native Plant Protection Act), and Sections 2062 and 2067 (CESA).

CRPR 1B – The plants Ranked as 1B are rare throughout their range, and all but a few are endemic to California. List 1B plants are considered vulnerable under present circumstances or have a high potential for becoming so because of their limited or vulnerable habitat, low numbers of individuals per population, or their limited number of populations. As with List 1A plants, all of the 1B plants meet the definitions of "rare", "endangered", or "threatened" contained in Sections 1901, 2062 and 2067 of the Fish and Game Code.

CRPR 2 – Except for being common outside California, Rank 2 plants are defined similarly to List 1B plants.

CRPR 3 – Rank 3 contains plants about which more information is needed to assign them to one of the other lists or reject them. Some List 3 plants meet the definitions of "rare", "endangered", or "threatened" contained in Sections 1901, 2062 and 2067 of the Fish and Game Code.

CRPR 4 – The plants in Rank 4 are of limited distribution or infrequent throughout a broader area in California, and their susceptibility to threat appears low at this time. These plants are uncommon enough that their status should be monitored regularly. Very few List 4 plants meet the definitions of "rare", "endangered", or "threatened" contained in Sections 1901, 2062 and 2067 of the Fish and Game Code, and few, if any, are eligible for state listing.

CNPS Threat Code extensions and their meanings:

.1 – Seriously endangered in California

.2 – Fairly endangered in California

.3 – Not very endangered in California

CNPS Local Listings (Alameda and Contra Costa Counties)

***A1** or ***A2** – Species in Alameda and Contra Costa Counties listed as rare, threatened or endangered statewide by federal or state agencies or by the state level of CNPS.

A1x – Species previously known from Alameda or Contra Costa Counties, but now presumed extirpated here.

A1 – Species currently known from two or less regions in Alameda and Contra Costa Counties.

A2 – Species currently known from three to five regions in the two counties, or, if more, meeting other important criteria such as small populations, stressed or declining populations, small geographical range, limited or threatened habitat, etc.

A1? – Species with taxonomic or distribution problems that make it unclear if they actually occur here.

Special Animals

California Department of Fish and Wildlife (CDFW)

Special Animals – Special animals is a general term that refers to all of the taxa that the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species". The CDFW considers the taxa on this list to be those of greatest conservation need and were used in the development of California's Wildlife Action Plan (CDFG 2009). Special animals includes a broad list of agency designations.
For more information see: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf

Watch List – The Watch List consists of taxa that were previously Species of Special Concern (SSC's) but no longer merit SSC status or which do not meet SSC criteria but for which there is concern and a need for additional information to clarify status.

Other "Special Animal" Status Codes:

The status of species on the Special Animals List according to other conservation organizations is provided. Taxa on these lists are reviewed for inclusion in the CNDDB Special Animals List, but are not automatically included. For example, taxa that are regionally rare within a portion of California may not be included, because they may be of lesser conservation concern across their full range in California.

These species, which are also tracked regardless of their legal or protection status, are provided below.

U.S Fish and Wildlife Service (USFWS)

Birds of Conservation Concern – The goal of the Birds of Conservation Concern report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the US Fish and Wildlife Service's highest conservation priorities and draw attention to species in need of conservation action.

National Marine Fisheries Service (NMFS) also known as NOAA Fisheries

Species of Concern – NOAA Fisheries is responsible for the management, conservation, and protection of living marine resources within the United States Exclusive Economic Zone. Species of Concern are those species about which we have some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act (ESA). Though NMFS wishes to draw proactive attention and conservation action to these species, "Species of concern" status does not carry any procedural or substantive protections under the ESA.

Bureau of Land Management

Sensitive – According to BLM Manual 6840, a Bureau Sensitive Species must meet the following criteria to be considered for sensitive species listing:

- They must be native species found on BLM-administrated lands for which BLM has the capability to significantly affect the conservation status of the species through management.
- Information is available that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range.

- The species depends on ecological refugia or specialized or unique habitats on BLM-administrated lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.
- All federally designated candidate species, proposed species, and delisted species in the 5 years following their delisting shall be conserved as Bureau Sensitive Species.

Once a species is declared sensitive by the BLM, it is their obligation to determine its distribution and manage the species' habitat.

California Dept. of Forestry & Fire Protection

CDF Sensitive **–** California Department of Forestry and Fire Protection classifies "sensitive species" as those species that warrant special protection during timber operations. The list of "sensitive species" is given in §895.1 (Definitions) of the California Forest Practice Rules.

International Union for Conservation of Nature (IUCN)

IUCN List **–** The IUCN assesses, on a global scale, the conservation status of species, subspecies, varieties and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation. Detailed information on the IUCN and the Red List is available at: http://www.iucnredlist.org

Marine Mammal Commission

Species of Special Concern **–** Section 202 of the Marine Mammal Protection Act directs the Marine Mammal Commission, in consultation with its Committee of Scientific Advisors, to make recommendations to the Department of Commerce, the Department of the Interior, and other federal agencies on research and management actions needed to conserve species of marine mammals. To meet this charge, the Commission devotes special attention to particular species and populations that are vulnerable to various types of human-related activities, impacts, and contaminants. Such species may include marine mammals listed as Endangered or Threatened under the Endangered Species Act or as depleted under the Marine Mammal Protection Act. In addition, the Commission often directs special attention to other species or populations of marine mammals not so listed whenever special conservation challenges arise that may affect them.

More information on the Marine Mammal Protection Act and the Marine Mammal Species of Special Concern list is available at: http://www.mmc.gov/species/welcome.shtml

U.S Forest Service

Sensitive – USDA Forest Service defines sensitive species as plant and animal species identified by a regional forester that are not listed or proposed for listing under the Federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. Regional Foresters identify sensitive species occurring within each region. California is the Pacific Southwest Region (Region 5).
More information is available at: http://www.fs.usda.gov/main/r5/plants-animals and at:
http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5435266.xlsx

North American Bird Conservation Initiative (NABCI)

North American Bird Conservation Initiative Watchlist – The North American Bird Conservation Initiative is a coalition of private organization and government agencies. They work to ensure the long-term health of North America's native bird populations and publish an annual State of the Birds report. The annual State of the Bird report includes a watch list of bird species in need of conservation help and classifies the birds as either Red Watch List or Yellow Watch List species. Species on the Red Watch List have extremely high vulnerability, and Yellow Watch List species are species that may be range restricted or may be widespread but with declines and high threats. More information is available at http://stateofthebirds.org.

American Fisheries Society (AFS)

AFS List – Designations for freshwater and diadromous species were taken from the paper: Jelks,.L., S.J. Walsh, N.M. Burkhead, S.Contreras-Balderas, E. Díaz-Pardo, D.A. Hendrickson, J. Lyons, N.E. Mandrak, F. McCormick, J.S. Nelson, S.P. Platania, B.A. Porter, C.B. Renaud, J. J. Schmitter-Soto, E.B. Taylor, and M.L. Warren, Jr. 2008. Conservation status of imperiled North American freshwater and diadromous fishes. Fisheries 33(8):372-407. Available at:
http://www.fisheries.org/afs/docs/fisheries/fisheries_3308.pdf
Designations for marineand estuarine species were taken from the paper: Musick, J.T. et al. 2000. "Marine, Estuarine, and Diadromous Fish Stocks at Risk of Extinction in North America (Exclusive of Pacific Salmonids). Fisheries 25(11):6-30. Available at:
http://www.flmnh.ufl.edu/fish/sharks/sawfish/Reprint1390.pdf

Western Bat Working Group (WBWG)

WBWG List – The WBWG is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. The goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs. Species are ranked as High, Medium, or Low Priority in each of 10 regions in western North America. Because California includes multiple regions where a species may have different WBWG Priority ranks, the CNNDB includes categories for Medium-High, and Low-Medium Priority. The CNDDB tracks bat species that are at least Low-Medium Priority in California. More information is available at: http://www.wbwg.org

The Xerces Society

Red List – The Xerces Society is an international non-profit organization dedicated to protecting biological diversity through invertebrate conservation. The Society advocates for invertebrates and their habitatsby working with scientists, land managers, educators, and citizens on conservation and education projects. Their core programs focus on endangered species, native pollinators, and watershed health. More information on the Red List is available at:
http://www.xerces.org

Special Status Species Abbreviations

Federal Endangered Species Act

FE	Federally-listed as endangered
FT	Federally-listed as threatened
FPE	Federally proposed for listing as endangered or threatened
FC	Federal candidate for listing as endangered or threatened

State Endangered Species Act

SE	State-listed as endangered
ST	State-listed as threatened
SC	State candidate for listing as endangered or threatened

California Department of Fish and Wildlife

CFP	Fully protected
CSC	California species of special concern

California Native Plant Protection Act

CNPPA: Rare	Rare plant

California Native Plant Society

CRPR	California Rare Plant Rank

SPECIAL ANIMALS (SA)

California Department of Fish and Wildlife

CDFW: WL Watch list

CDFW: SA Special Animal

US Fish and Wildlife Service

USFWS:BCC Birds of Conservation Concern

NMFS (NOAA Fisheries)

NMFS: SC Species of Concern

Bureau of Land Management

BLM:S Sensitive

California Dept. of Forestry & Fire Protection

CDFS:S Sensitive

International Union for Conservation of Nature

IUCN:CD Conservation Dependent

IUCN:CR Critically Endangered

IUCN:DD Data Deficient

IUCN:EN Endangered

IUCN:LC Least Concern

IUCN:NT Near Threatened

IUCN:VU Vulnerable

Marine Mammal Commission

MMC:SSC Species of Special Concern

National Marine Fisheries Service

NMFS:SC Species of Special Concern

U.S Forest Service

USFS:S Sensitive

Western Bat Working Group

WBWG: H High priority

WBWG: LM low-medium priority

WBWG: M medium priority

WBWG: MH medium-high priority

Xerces Society Red List

X: CI Critically imperiled

X: DD Data deficient

X: IM Imperiled

X: VU Vulnerable

North American Bird Conservation Initiative

NABCI: RWL Red watch list

NABCI: YWL Yellow watch list

American Fisheries Society

AMS: E Endangered

AMS: T Threatened

AMS: V Vulnerable