

Appendix B

Biological Resources Report

BIOLOGICAL RESOURCES REPORT

**SOLANO LANDING
ROCKVILLE, SOLANO COUNTY, CALIFORNIA**



LSA

July 2023

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BIOLOGICAL RESOURCES REPORT

SOLANO LANDING ROCKVILLE, SOLANO COUNTY, CALIFORNIA

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July 2023

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LIST OF ABBREVIATIONS AND ACRONYMS

ATC	Agricultural Tourist Center
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of Solano
CWA	Clean Water Act
DBH	diameter at breast height
HCP	Solano Habitat Conservation Plan
HM	Habitat Management
MBTA	Migratory Bird Treaty Act
NRCS	Natural Resources Conservation Service
project	Solano Landing Development
RWQCB	Regional Water Quality Control Board
sf	square foot/feet
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

1.1.1 Location

Solano Landing is a planned new development (project) at 2316 Rockville Road (Assessor's Parcel Number 0027-200-150), Rockville, Solano County, California. The 24.42-acre project site is currently undeveloped and is accessible via Suisun Valley Road and Rockville Road (Figure 1, Project Location, and Figure 2, Project Site Location on Topographic Base; Figure 3, Project Site Location on Aerial Base; all figures provided in Appendix A).

1.1.2 Land Use and Zoning

The project site is situated in the gateway to the Suisun Valley Wine Region and part of the area known as the Rockville Corners Business Community. Suisun Valley is a thriving regional agricultural destination supported by Agricultural Tourist Centers (ATC) that sustain and enhance the unique rural characteristic of the area. When the Suisun Valley Strategic Plan was developed, ATC designation was envisioned to support the continued viability of agriculture within the Suisun Valley. This project aims to enhance the vision and the characteristics of the Suisun Valley while bringing additional tourism to the Suisun Valley.

Solano Landing plans to use the unique zoning of the property for both commercial and agricultural uses. The property currently contains two small outbuildings that were used as produce stands years ago. The only recent use of the property is that a local farmer has grown alfalfa on it for the past several years. The property is part of the Suisun Valley Strategic Plan and currently has designated 2.1 acres ATC.

The applicant is requesting an additional 7.4 acres of ATC zoning for the developed portion of the property, which would bring the total to 9.1 acres of ATC zoned classification. This request is made in accordance with the Suisun Valley Strategic Plan. The Suisun Valley Strategic Plan allows for reserve acreage to be allocated to certain portions of the Suisun Valley for tourist-orientated projects.

1.1.3 Project Details

Once approved, the project would consist of 9.5 acres of ATC developed land and 10.5 acres of planted vineyards. The proposed project would include the construction of a total of 32,141 square feet (sf) of commercial development. The development of the property would include:

- A boutique market to sell locally grown products grown in the Suisun Valley and promoted on the property ;
- Six stand-alone tasting rooms with 1,500 sf each featuring high-quality wines from local or regional wineries and/or breweries;
- A multi-purpose/dining hall to support the hotel and other property-related events;

- A restaurant offering local food, beer and wine;
- A hotel concierge building used for administering the daily needs of the Boutique Hotel;
- A boutique hotel consisting of 10 prefabricated, stand-alone cottages.

The proposed project would include a total of 192 parking spaces and would include shuttle service from the project site to designated spots within the Suisun Valley.

1.2 PURPOSE OF THIS REPORT

The purpose of this Biological Resources Report is to satisfy the Solano County Department of Resource Management's requirement for additional technical studies identified during review of the rezoning submittal and project plans. The County of Solano (County) requested a biological resource analysis including characterization of existing habitats on site and a tree survey indicating type, species and size of existing trees as well as an analysis of trees to be removed. In addition, California Environmental Quality Act (CEQA) compliance requires the identification of special-status species and their habitats, wetlands and other regulated waters, and other potential biological resource constraints to property development.

This report includes a description of the project, an explanation of the methods used to conduct the analysis, results of field surveys including documentation of plant and wildlife species observed, a complete tree inventory, and a list of special-status species (plants and animals) that could potentially occur at the site (and their likelihood of occurrence). The report furthermore provides recommended mitigation measures to address the requirements of CEQA.

2.0 METHODS

2.1 DATABASE REVIEW

Prior to conducting the field survey, LSA compiled a list of sensitive plant and wildlife species potentially occurring within the project area to evaluate potential impacts resulting from project construction. This report provides a site assessment of the potential presence of special-status species, sensitive biological communities, and wetlands and other waters under the jurisdiction of the United States Fish and Wildlife Service (USFWS), United States Army Corps of Engineers (USACE), and/or the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). In addition, we reviewed the updated Solano Habitat Conservation Plan (HCP) database (Solano County Water Agency 2019), which incorporates California Natural Diversity Database (CNDDB) (CDFW 2023a) records and the California Native Plant Society (CNPS 2023) rare plant database, the Solano County General Plan (County of Solano 2008), and other in-house information LSA has obtained regarding potential regulatory constraints on developing the site.

Vegetation communities in the project area were classified based on descriptions in *A Manual of California Vegetation, Second Edition* by Sawyer, Keeler-Wolf, and Evans (2008), as appropriate. Names of plant species are consistent with the *Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin, B.G. et. al. 2012) and the Jepson Online Interchange for California Floristics (Jepson Flora Project 2023). Plant communities were mapped using a Global Positioning System (GPS) unit with submeter accuracy. All data were entered into a geographic information system (GIS) database to calculate the extent of the communities within the project area and to produce the final mapping.

2.2 FIELD SURVEY AND EVALUATION

LSA biologist and certified arborist Anna Van Zuuk conducted a general biological survey on January 20, 2023. During the survey, Ms. Van Zuuk walked the entire project area recording plant communities, wildlife species, and potential aquatic resources. Ms. Van Zuuk also assessed the potential for the project area to support special-status species and sensitive habitats. On January 26–27 and February 8, 2023, LSA conducted a tree inventory of the 24.42-acre parcel. The purpose of these site visits was to inventory all trees and identify other potential biological resource constraints to property development.

LSA inventoried and evaluated all trees within the project boundaries with a single main stem of at least 6 inches diameter at breast height (DBH)¹. LSA also reviewed applicable tree protection and preservation ordinances for the site. The Solano County General Plan includes policies and regulations encouraging the protection of oak woodlands consistent with the Oak Woodland

¹ Diameter at breast height or DBH is normally measured at 54 inches above the average ground height. Exceptions including leaning trees, trees on sloped terrain, and trees with low branches or multiple stems. Leaning trees or trees on sloped terrain are measured at a right angle to the trunk, 54 inches from the ground height along the center axis of the trunk. Trees with branches below 54 inches are measured at the smallest diameter below the smallest branch. Trees with multiple stems (from ground level) are measured at 54 inches from the average ground height for each stem. A combination logger/diameter tape or a caliper was used to measure DBH.

Conservation Act. The primary regulations are related to RS.I-3: “Develop and adopt an ordinance to protect oak woodlands as defined in Senate Bill (SB) 1334 and heritage oak trees.” Heritage trees are defined as: (a) trees with a trunk diameter of 15 inches or more measured at 54 inches above natural grade, (b) any oak tree native to California, with a diameter of 10 inches above natural grade, or (c) any tree or group of trees specifically designated by the County for protection because of its historical significance, special character, or community benefit. The general plan further describes considerations for the development of an ordinance for the County; however, no such ordinance has been adopted.

LSA performed a Level 2–Basic Visual Assessment in accordance with the International Society of Arboriculture’s best management practices. This assessment level is limited to the observation of conditions and defects, which are readily visible from the ground. No laboratory or chemical testing or analysis was performed. Data collected included species identification and measurements of DBH, height, and canopy; each tree was also evaluated for overall health (including a rating) and notes were made for identifying features, including wildlife nesting. Each tree was tagged.

3.0 BIOLOGICAL RESOURCES

3.1 ENVIRONMENTAL SETTING

The project area is in Suisun Valley, one of several designated agricultural region in western Solano County identified in the County's General Plan. Suisun Valley is bordered on the south and east by Fairfield, to the north by Napa County, and to the east by Green Valley. Excellent soil and climatic conditions have sustained viable agriculture in this area, despite being surrounded by urban development on three sides. The Suisun Valley Agricultural Region is identified in the Solano County General Plan and is also covered by the Suisun Valley Strategic Plan. The area encompasses approximately 9,000 acres, with the majority of land in agricultural use (92 percent) and the remainder of the land in public, industrial, commercial, or residential use.

3.2 HYDROLOGY

The project site is within the Suisun Bay watershed (HUC18050001) at the southern end of the Suisun Creek Watershed. The Suisun Creek Watershed straddles Solano and Napa counties and empties into Suisun Marsh and Suisun Bay. The project site is 0.8 kilometer (0.5 mile) west of Suisun Creek.

LSA did not detect any evidence of wetlands on the site, possibly due to vegetation management activities (spraying, mowing, tillage). A formal delineation including soil pits and an examination of hydrology was not conducted. Aquatic resources identified include an unnamed irrigation ditch along the southern boundary of the site and a roadside drainage along Suisun Valley Road to the east (Figure 4, Preliminary Aquatic Resources).

The unnamed irrigation ditch runs along the entirety of the southern boundary of the project site. This ditch is an average of 25 feet wide from top of bank to top of bank and supplies irrigation water to agricultural fields east and west of the project site. This ditch may have hydrological connectivity to Suisun Creek, located approximately 0.5 mile east of the project site or to Dan Wilson Creek in Fairfield. Both eventually drain into Suisun bay. This ditch is channelized with steep banks and no riparian zone, is largely unvegetated, and is lined with large concrete blocks along most of its length.

The ephemeral roadside drainage is parallel to Suisun Valley Road along the eastern boundary of the project site. This drainage is an average of 4 feet wide, shallow, and collects runoff during rain events, discharging storm water into the irrigation ditch. The drainage is vegetated with a variety of nonnative ruderal species including wild oats (*Avena* sp.), common bedstraw (*Galium aparine*), and Italian thistle (*Carduus pycnocephalus*), none of which are considered hydrophytic plant species.

On January 18, 2023, the Environmental Protection Agency and the U.S. Department of the Army ("the agencies") published a "Revised Definition of 'Waters of the United States'" in the *Federal Register*, which took effect on March 20, 2023. According to this rule, ditches (including roadside ditches) are specifically excluded from the agencies' definition of "waters of the United States". Therefore, the roadside drainage may only be subject to Section 401 of the Clean Water Act (CWA) and regulated by the RWQCB. The irrigation ditch would still be subject to Section 404 of the CWA in addition to Section 401. Permitting by the RWQCB may be needed if the project affects these

ditches or if culverts, driveways, or bridge structures are needed. CDFW generally does not regulate irrigation ditches or roadside drainages; therefore, it is unlikely that a 1602 permit would be required.

3.3 SOILS

The project site is a flat lot with a substrate of compacted natural soil underlying the roadways and recently farmed/tilled natural soil. The parcel has two soil types: Brentwood clay loam (0 to 2 percent slopes, approximately 95 percent) and Conejo soils, wet (approximately 5 percent; Figure 5, NRCS Soil Types). Brentwood soils are on nearly level to gently sloping fans formed in valley fill from sedimentary rocks at elevations from 40 to 400 feet. Most areas with these soils are irrigated and used for tree fruit, nut crops, vegetables, and field crops. Natural vegetation is annual grasses, forbs, and scattered oaks. The Conejo series soils consist of very deep, well-drained soils that formed in alluvium from basic igneous or sedimentary rocks. They are typically found on alluvial fans and stream terraces at elevations from 30 to 2,000 feet. Areas with these soils are typically used for irrigated row crops, orchards, and hay, pasture, and grain production. Similar to the Brentwood soils, natural vegetation is annual grasses and forbs with a few scattered oaks. Neither of these two soil types are considered hydric soils.

Pursuant to Government Code Section 65570, the California Department of Conservation Farmland Mapping and Monitoring Program compiles important farmland maps for the state. These maps combine soil survey and current land use information from the United States Department of Agriculture and Natural Resource Conservation Service to provide an inventory of agricultural resources in each county. County, state, and federal agencies have established several classifications of important agricultural land based on factors such as soil characteristics, climate, and water supply.

Soils of the project site are classified as Prime Farmland. This land has the best combination of physical and chemical features and is able to sustain long-term agricultural production. The site has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. According to Appendix G of the *State CEQA Guidelines*, a project would have a significant effect on the environment if it would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use.

The project would convert 9.1 acres of prime farmland to ATC zoned classification. This request is made in accordance with the Suisun Valley Strategic Plan.

3.4 VEGETATION COMMUNITIES

The project site contains three natural communities: coyote brush scrub, mixed oak woodland, and open water (associated with the irrigation ditch mentioned above), totaling 3.93 acres (Figure 6, Natural Communities and Land Uses). Two semi-natural communities, wild radish fields and ruderal/disturbed vegetation, are also present totaling 19.79 acres. The remainder of the site

consists of developed land uses totaling 0.68 acre. Developed areas within the project site include the unvegetated roadway adjacent to the irrigation ditch and several derelict buildings to the north.

3.4.1 Coyote Brush Scrub Community

The coyote brush scrub community, also referred to as *Baccharis pilularis* Shrubland Alliance, is dominated by coyote brush in the shrub layer with scattered plants of poison oak (*Toxicodendron diversilobum*), Valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), and Italian stone pine (*Pinus pinea*). This community has a state rarity ranking of S5 (Apparently Secure) and a global rarity ranking of G5 (Secure) and is therefore, this community is not considered a sensitive natural community.

3.4.2 Mixed Oak Woodland

The mixed oak woodland, also referred to as *Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni)* Forest and Woodland Alliance, is dominated by valley oak and coast live oak. This community is defined as an oak species dominated canopy in which three or more oak species typically co-dominate. Other tree species present at lower cover include Northern California black walnut (*Juglans hindsii*), English walnut (*Juglans regia*), and persimmon (*Diospyros virginiana*), which are likely remnant orchard trees. The herbaceous layer is sparse but contains seedlings of both oak species, poison oak, and Himalayan blackberry (*Rubus armeniacus*). This community has a state rarity of S4 (Apparently Secure) and a global rarity of G4 (Apparently Secure); therefore, this community is not considered a sensitive natural community.

3.4.3 Open Water

The open water community within the project site is largely devoid of vegetation but does contain small quantities of hydrophytic vegetation on the fringes, such as rough cocklebur (*Xanthium strumarium*), curly dock (*Rumex crispus*), and tall flatsedge (*Cyperus eragrostis*). These species are not present in sufficient quantities to be considered a wetland (i.e., less than 5 percent). Waters are typically considered a sensitive natural community and are regulated by the RWQCB and the USACE.

3.4.4 Wild Radish Fields

Wild radish fields, also referred to as *Brassica nigra – Centaurea (solstitialis, melitensis)* Herbaceous Semi-Natural Alliance, cover the majority of the project site. This community is defined as *Brassica nigra*, *Hirshfeldia incana*, *Raphanus sativus*, or other mustards occurring with other nonnative plants at greater than 80 percent relative cover in the herbaceous layer and mustards are the dominant herb. Within the project site, wild radish (*Raphanus sativus*) overwhelmingly dominates, with smaller quantities of yellow star thistle (*Centaurea solstitialis*) and Italian thistle. Since this community is dominated by a variety of plant species not native to California, it is not considered a sensitive natural community.

3.4.5 Ruderal/Disturbed Vegetation

Ruderal/disturbed vegetation is present in open areas adjacent to Suisun Valley Road on the eastern edge of the project site and surrounding developed areas to the north. Ruderal species typically colonize quickly following disturbance, such as mowing, spraying, or grading. Ruderal species

observed in disturbed areas within the project site include wild oats, wild radish, white stemmed filaree (*Erodium moschatum*), spring vetch (*Vicia sativa*), common bedstraw, Italian thistle, cut leaved geranium (*Geranium dissectum*), and orchard grass (*Dactylis glomerata*).

3.5 WILDLIFE

Wildlife species observed on or near the project site included western scrub jay (*Aphelocoma californica*), house finch (*Haemorhous mexicanus*), red-winged blackbird (*Agelaius phoeniceus*), American crow (*Corvus brachyrhynchos*), acorn woodpecker (*Melanerpes formicivorus*), red-tailed hawk (*Buteo jamaicensis*), brewer’s blackbird (*Euphagus cyanocephalus*), great blue heron (*Ardea herodias*), northern harrier (*Circus cyaneus*), turkey vulture (*Cathartes aura*), and Anna’s hummingbird (*Calypte anna*). These species are typical of open grasslands, agricultural fields, and open woodlands in the Central Valley. No raptor nests were observed at the property.

Mammal species observed included California mouse (*Peromyscus californicus*) and eastern fox squirrel (*Sciurus niger*), as well as evidence of Botta’s pocket gopher (*Thomomys bottae*) and California ground squirrel (*Otospermophilus beecheyi*) within the ruderal/disturbed areas and along the banks of the irrigation ditch, respectively. Burrows of Botta’s pocket gopher and California ground squirrel provide important underground shelter for other animals, including special-status species, such as the burrowing owl (*Athene cunicularia*). A dusky-footed woodrat (*Neotoma fuscipes*) nest was observed at the base of a 28-inch Valley oak.

Amphibians and reptiles observed included gophersnake (*Pituophis catenifer*), American bullfrog (*Lithobates catesbeianus*), and Pacific chorus frog (*Pseudacris regilla*). Both amphibians were observed within the irrigation ditch, while the gophersnake was observed at the edge of the wild radish field in the center of the project site. All three of these species, as well as several of the mammal species mentioned above, are important prey items for many raptors.

3.6 TREE INVENTORY

A total of 252 trees were inventoried and evaluated within the project limits. All trees identified are summarized in Table 3.A below, and shown in Figure 7, Tree Locations. A table listing all tree species, their size, general health, and any supporting notes or recommendations is included in Appendix B.

Table 3.A: Summary of Trees Observed in the Project Area

Species	Count	Protected
Buckeye (<i>Aesculus californica</i>)	1	1
English walnut (<i>Juglans regia</i>)	15	0
Northern California black walnut (<i>Juglans hindsii</i>)	27	0
Italian stone pine (<i>Pinus pinea</i>)	2	0
California sycamore (<i>Platanus racemosa</i>)	1	0
Coast live oak (<i>Quercus agrifolia</i>)	98	98
Persimmons (<i>Diospyros kaki</i>)	15	0
Valley oak (<i>Quercus lobata</i>)	93	93
Total	252	192

Source: Compiled by LSA (2023).

The Solano County General Plan includes policies and regulations encouraging the protection of oak woodlands consistent with the Oak Woodland Conservation Act. The primary regulations are related to RS.I-3: “Develop and adopt an ordinance to protect oak woodlands as defined in Senate Bill (SB) 1334 and heritage oak trees.” Heritage trees are defined as: (a) trees with a trunk diameter of 15 inches or more measured at 54 inches above natural grade, (b) any oak tree native to California, with a diameter of 10 inches above natural grade, or (c) any tree or group of trees specifically designated by the County for protection because of its historical significance, special character or community benefit. The general plan further describes considerations for the development of an ordinance for the County; however, no such ordinance has been adopted.

Based on the definitions of heritage trees set forth in the Solano County General Plan, a total of 54 valley oaks and 58 coast live oaks may be considered heritage trees (greater than 10 inches DBH) and an additional 45 trees of other California native species and escaped orchard trees may be considered heritage trees (greater than 15 inches DBH) (Table 3.A, Figure 7). Although tree removals will be required as part of project implementation, removal of heritage trees would not conflict with any adopted policies or ordinances protecting trees. No mitigation is required by the County.

3.7 POTENTIAL IMPACTS TO BIOLOGICAL RESOURCES

The following CEQA checklist summarizes potential impacts from the proposed project on biological resources on the project site. Each item is addressed in detail on the following pages.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The CNDDDB (CDFW 2023a) lists 26 plant species and 21 animal species occurrences within 5 miles of the project site (Table 3.B, Figures 8A and 8B). No special-status species were observed on the site during field surveys. The following general mitigation measure is designed to minimize impacts to all sensitive species, habitats, and environmental resources.

Mitigation Measure BIO-1

Worker Environmental Awareness Program (WEAP). During construction of the Project, before any work occurs on the Project site, including grading, vegetation removal and equipment staging, all construction personnel shall participate in an environmental awareness training regarding special-status species and sensitive habitats present on the Project site. Any additional construction personnel that are employed following the initial start of construction shall receive mandatory training before starting work. As part of the training, an environmental awareness handout shall be provided to all personnel that describes and illustrates sensitive resources (i.e., special-status species and habitat, nesting birds/raptors) to be avoided during proposed Project construction and lists measures to be followed by personal for the protection of biological resources. Such measures shall include, but are not limited to:

- Procedures to follow if a special-status species is found within the work area.
- Checking under equipment and staging areas for wildlife species each morning prior to work.
- Staying within designated work areas and maintaining exclusion/silt fencing.
- Reduced Project speed limits.
- No pets or firearms on-site.
- Contain trash/food waste and remove daily to avoid encouraging predators onto the Project site.
- Following Project Best Management Practices (BMPs).

Table 3.B: Special-Status Species Occurring Within 5 Miles of the Project Site

Common Name Scientific Name	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Habitat	Potential to Occur
Plants								
Alkali milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	None	None	G2T1	S1	1B.2		Playas, valley and foothill grassland (adobe clay), vernal pools	No suitable habitat
Pool orache (<i>Atriplex persistens</i>)	None	None	G2	S2	1B.2		Alkaline vernal pools	No suitable habitat
Big scale balsam root (<i>Balsamorhiza macrolepis</i>)	None	None	G2	S2	1B.2		Open grassy or rocky slopes, valleys	No suitable habitat
Narrow-flowered California brodiaea (<i>Brodiaea leptandra</i>)	None	None	G3	S3	1B.2		Open mixed-evergreen forest, chaparral in gravelly soil	Marginally suitable habitat present
Hollyleaf ceanothus (<i>Ceanothus purpureus</i>)	None	None	G2	S2	1B.2		Volcanic substrates, slopes, chaparral	No suitable habitat
Pappose tarplant (<i>Centromadia parryi</i> ssp. <i>parryi</i>)	None	None	G3T2	S2	1B.2		Chaparral, coastal prairie and marshes, meadows and seeps, valley and foothill grassland (vernally mesic)	No suitable habitat
Soft bird's-beak (<i>Chloropyron molle</i> ssp. <i>molle</i>)	Endangered	Rare	G2T1	S1	1B.2		Coastal salt marshes	No suitable habitat
Bolander's water hemlock (<i>Cicuta maculata</i> var. <i>bolanderi</i>)	None	None	G5T4T5	S2	2B.1		Coastal wetlands	No suitable habitat
Suisun thistle (<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>)	Endangered	None	G2T1	S1	1B.1		Tidal marshes	No suitable habitat
Greene's narrow-leaved daisy (<i>Erigeron greenei</i>)	None	None	G3	S3	1B.2		Chaparral, woodlands, and conifer forest generally on serpentine, sometimes rocky alluvium	Marginally suitable habitat present
Mt. Diablo buckwheat (<i>Eriogonum truncatum</i>)	None	None	G1	S1	1B.1		Northern coastal scrub, chaparral, and valley grassland on sand substrates	No suitable habitat

Table 3.B: Special-Status Species Occurring Within 5 Miles of the Project Site

Common Name Scientific Name	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Habitat	Potential to Occur
Jepson's button-celery (<i>Eryngium jepsonii</i>)	None	None	G2	S2	1B.2		Moist clay soils, generally in vernal pools	No suitable habitat
San Joaquin spearscale (<i>Extriplex joaquinana</i>)	None	None	G2	S2	1B.2		Shadscale scrub, valley grassland, meadows, occasionally in wetlands	No suitable habitat
Contra Costa goldfields (<i>Lasthenia conjugens</i>)	Endangered	None	G1	S1	1B.1		Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools	No suitable habitat
Brewer's dwarf flax (<i>Hesperolinon breweri</i>)	None	None	G2	S2	1B.2		Chaparral or grassland, occasionally on serpentine	No suitable habitat
Delta tule pea (<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>)	None	None	G5T2	S2	1B.2		Coastal and estuarine marshes	No suitable habitat
Legenere (<i>Legenere limosa</i>)	None	None	G2	S2	1B.1		Wet areas, vernal pools, ponds	No suitable habitat
Jepson's leptosiphon (<i>Leptosiphon jepsonii</i>)	None	None	G2G3	S2S3	1B.2		Open or partially shaded grassy slopes	No suitable habitat
Mason's lilaepsis (<i>Lilaeopsis masonii</i>)	None	Rare	G2	S2	1B.1		Intertidal marshes, streambanks	No suitable habitat
California alkaligrass (<i>Puccinellia simplex</i>)	None	None	G2	S2	1B.2		Saline flats and mineral springs in valley grassland	No suitable habitat
Long styled sand spurrey (<i>Spergularia macrotheca</i> var. <i>longistyla</i>)	None	None	G5T2	S2	1B.2		Alkaline marshes, mud flats, meadows, and hot springs	No suitable habitat
Fineleaf pondweed (<i>Stuckenia filiformis</i> ssp. <i>alpina</i>)	None	None	G5T5	S2S3	2B.2		Shallow, clear water of lakes, drainage channels	Habitat present
Suisun marsh aster (<i>Symphyotrichum lentum</i>)	None	None	G2	S2	1B.2		Marshes and swamps (brackish and freshwater)	No suitable habitat
Napa bluecurls (<i>Trichostema ruygtii</i>)	None	None	G1G2	S1S2	1B.2		Open areas, generally thin clay soils, possibly seasonally saturated	No suitable habitat

Table 3.B: Special-Status Species Occurring Within 5 Miles of the Project Site

Common Name Scientific Name	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Habitat	Potential to Occur
Saline clover (<i>Trifolium hydrophilum</i>)	None	None	G2	S2	1B.2		Salt marshes, open areas in alkaline soils, alkaline grassland	No suitable habitat
Oval-leaved viburnum (<i>Viburnum ellipticum</i>)	None	None	G4G5	S3	2B.3		Chaparral, yellow pine forest, generally on north facing slopes	No suitable habitat
Fish								
Longfin smelt (<i>Spirinchus thaleichthys</i>)	Candidate	Threatened	G5	S1			Coastal lagoons, bays, estuaries, sloughs, tidal freshwater streams and offshore	No suitable habitat
Invertebrates								
Crotch's bumble bee (<i>Bombus crotchii</i>)	None	Candidate Endangered	G2	S2			Open grassland and scrub habitats	No suitable habitat
Western bumble bee (<i>Bombus occidentalis</i>)	None	Candidate Endangered	G3	S1			Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows.	No suitable habitat
Monarch – California overwintering population (<i>Danaus plexippus plexippus</i>) pop. 1	Candidate	None	G4T1T2	S2			Overwintering sites require eucalyptus, Monterey pines, Monterey cypress, or other suitable evergreen tree for protection	No suitable habitat
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	Threatened	None	G3T2T3	S3			Dependent on host plant, the elderberry, which grows in riparian areas and foothill oak woodlands	No suitable habitat
Reptiles and Amphibians								
Western pond turtle (<i>Emys marmorata</i>)	None	None	G3G4	S3		CSC	Occurs in permanent or nearly permanent water sources, ponds, marshes, rivers, streams and irrigation ditches with emergent vegetation and basking sites.	No suitable habitat
Foothill yellow-legged frog – north coast DPS (<i>Rana boylei</i>) pop. 1	None	None	G3TNRQ	S4		CSC	Partly-shaded, shallow streams and riffles with a rocky substrate for egg-laying	No suitable habitat
California red-legged frog	Threatened	None	G2G3	S2S3		CSC	Deep, quiet pools of streams, marshes, and occasionally ponds,	No suitable habitat

Table 3.B: Special-Status Species Occurring Within 5 Miles of the Project Site

Common Name Scientific Name	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Habitat	Potential to Occur
(<i>Rana draytonii</i>)							with dense, shrubby vegetation at edges	
Mammals								
Hoary bat (<i>Lasiurus cinereus</i>)	None	None	G3G4	S4			Primarily found in coniferous forest and broadleaf trees. Prefers woodlands, typically with foliage of mature deciduous and coniferous trees, forages near the edge of open areas.	Marginal foraging habitat present
Salt-marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	Endangered	Endangered	G1G2	S1S2		FP	Found in saline or subsaline marsh habitats around the San Francisco Bay Estuary, and mixed saline or brackish areas in the Suisun Bay area.	No suitable habitat
Suisun shrew (<i>Sorex ornatus sinuosus</i>)	None	None	G5T1T2Q	S1S2		CSC	Tidal and brackish marshes dominated by bulrush and cattails	No suitable habitat
Birds								
Tricolored blackbird (<i>Agelaius tricolor</i>)	None	Threatened	G1	S1S2			Forages in grassland and cropland habitats. Nests near fresh water, preferably in emergent wetland but also in tall herbs	Marginal nesting and foraging habitat present
Burrowing owl (<i>Athene cucularia</i>)	None	None	G4	S3		CSC	Usually occupies ground squirrel burrows in open, dry grasslands, agricultural and range lands. Often utilizes man-made structures, such as earthen berms, cement, asphalt, or rock.	Habitat present
Swainson's hawk (<i>Buteo swainsoni</i>)	None	Threatened	G5	S3			Grasslands, agricultural fields	Marginal foraging habitat present
Yellow rail (<i>Coturnicops noveboracensis</i>)	None	None	G4	S1S2		CSC	Shallow freshwater and brackish marshes and wet meadows	No suitable habitat
White-tailed kite (<i>Elanus leucurus</i>)	None	None	G5	S3S4		FP	Open grassland, meadows, or marshes	Marginal foraging habitat present

Table 3.B: Special-Status Species Occurring Within 5 Miles of the Project Site

Common Name Scientific Name	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Habitat	Potential to Occur
American peregrine falcon (<i>Falco peregrinus anatum</i>)	Delisted	Delisted	G4T4	S3S4		FP	Marshes and grasslands near lakes and rivers, protected cliffs and ledges near water	No suitable habitat
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	None	None	G5T3	S3		CSC	Brackish or freshwater marsh	No suitable habitat
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	None	Threatened	G3T1	S1		FP	Marshes and wet meadows	No suitable habitat
Suisun song sparrow (<i>Melospiza melodia maxillaris</i>)	None	None	G5T3	S3		CSC	Tidal marshes in Suisun Bay	No suitable habitat
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	Endangered	Endangered	G3T1	S1		FP	Saltwater and freshwater marshes	No suitable habitat

Sources: CNPS (2023); CDFW (2023); USFWS (2023).

Status Codes:

Federal (U.S. Fish and Wildlife Service)

FE = Listed as Endangered (in danger of extinction) by the Federal Government.

FT = Listed as Threatened (likely to become Endangered within the foreseeable future) by the Federal Government.

FC = Candidate to become a proposed species.

FSC = Federal Species of Concern. May be Endangered or Threatened, but not enough biological information has been gathered to support listing at this time.

CNPS = California Native Plant Society

CDFW = California Department of Fish and Wildlife

DPS = distinct population segment

USFWS = United States Fish and Wildlife Service

State (California Department of Fish and Game)

CE = Listed as Endangered by the State of California

CSC = California Species of Special Concern

CT = Listed as Threatened by the State of California

CR = California Rare

CC = State Candidate for listing as an Endangered Species

California Native Plant Society Rare Plant Inventory

Rank 1A: Plants Presumed Extinct in California

Rank 1B: Plants Rare, Threatened, or Endangered in California

and Elsewhere

Rank 2: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

Rank 3: Plants About Which We Need More Information—A Review List

Rank 4: Plants of Limited Distribution—A Watch List

3.7.1 Plants

The project site has no vernal pools, marshes, or wetlands present; hence, there is no suitable habitat for species that rely on these habitats. Only two special-status plant species, Jepson's leptosiphon (*Leptosiphon jepsonii*) and Suisun marsh aster (*Symphotrichum lentum*) have CNDDB occurrences within 1 mile of the project site. Neither of these species are expected to occur, based on habitats observed at the site. The site contains marginally suitable habitat for narrow-flowered California brodiaea (*Brodiaea leptandra*) and Greene's narrow-leaved daisy (*Erigeron greenei*) in mixed oak woodland and chaparral habitats; suitable habitat for fine leaf pondweed (*Stickenia filiformis ssp. alpina*) is present in the irrigation ditch. Although these species are not expected to occur since the site has been disturbed by mowing, tilling, grading and previous agricultural activity, impacts to any of these species would be considered significant under CEQA.

Mitigation Measure BIO-2

Avoid and Minimize Impacts to Rare Plants. Before the initiation of any vegetation removal or ground-disturbing activities, in areas that provide suitable habitat for special-status plants, the following measures shall be implemented:

- A qualified botanist shall conduct appropriately timed surveys for special-status plant species, in all suitable habitat that would be potentially disturbed by the Project.
- Surveys shall be conducted following CDFW or other approved protocol.
- If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter to the lead agency, and other appropriate agencies as needed, and no further mitigation will be required.
- If special-status plants are found during focused surveys, the following measures shall be implemented:
 - Information regarding the special-status plant population shall be reported to the CNDDB.
 - If the populations can be avoided during Project implementation, they shall be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel shall be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat.
 - If special-status plant populations cannot be avoided, consultations with CDFW and/or USFWS would be required.

If allowed under the appropriate regulations, the plants shall be mapped, photographed, and then transplanted to a suitable location by a qualified botanist. If required by the relevant agency, a plan to compensate for the loss of special-status plant species will be prepared, detailing appropriate replacement ratios, methods for implementation, success criteria, monitoring and reporting protocols, and contingency measures that would be implemented if the initial mitigation fails; the plan would be developed in consultation with the appropriate agencies prior to the start of local construction activities.

3.7.2 Invertebrates

3.7.2.1 Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) is a migratory butterfly that has been listed as a candidate for inclusion on the USFWS list of endangered and threatened wildlife since December 2020. The USFWS has concluded that listing monarchs under the federal Endangered Species Act would be warranted but is precluded due to other high-priority species. Currently, the monarch is scheduled to be federally listed in 2024. Monarchs are not listed as threatened or endangered under the California Endangered Species Act. However, monarch butterflies are listed by the State of California as a California Special Resource because their overwintering habitat is threatened by disturbance and by alteration and destruction of habitat. However, the likelihood that the monarch butterfly is overwintering in the project site is considered to be very unlikely.

Monarchs rely exclusively on milkweed species as a larval host plant. No milkweed plants have been identified during surveys of the site, which were conducted outside the flowering period of milkweed species. Milkweed plants, however, may be present in the project action area; therefore, monarch larvae may be present as well. The likelihood that monarch butterfly is present in the project area is considered to be moderate; therefore, project activities could impact this species. Implementation of Mitigation Measure BIO-3 would reduce potential impacts to milkweed and monarch butterfly to a less than significant level because preconstruction surveys would be required to identify and relocate (if needed) monarch breeding habitat prior to project construction activities.

Mitigation Measure BIO-3

Monarch Butterfly Avoidance. Preconstruction surveys shall be conducted during the monarch breeding season (March 16 through November 30) to determine if milkweed is present on the site and, if present, is being used for monarch breeding. Surveys shall be conducted by a qualified biologist no more than 14 days prior to ground or vegetation disturbance activities. The biologist shall search for evidence of monarch eggs, caterpillars, chrysalises, and adults. If active monarch breeding is identified, the milkweed stand shall be avoided until the applicant develops and implements a salvage and relocation plan that has been reviewed and approved by the applicable Resource Agencies.

3.7.2.2 Bumble Bees

Western bumble bee (*Bombus occidentalis*) and Crotch's bumble bee (*Bombus crotchii*) are currently considered candidate species by the CDFW. As candidate species, the western and Crotch's bumble bees receive the same legal protection afforded to endangered or threatened species.² There is a record of Crotch's bumble bee occurrence 1.3 miles due north of the project site (CNDDDB occurrence 2746). Project activities would not affect meadow habitat or grasslands; thus, the potential for destruction of underground nests is very low. However, there is some suitable habitat and nectar plants within the project site; therefore, the potential for Crotch's and western bumble bees to occur in the project area is moderate.

Implementation of **Mitigation Measure BIO-1** would minimize potential impacts to western and Crotch's bumble bees by requiring that workers be trained to identify special-status species and associated habitats and to implement appropriate measures to avoid impacts during construction activities. In addition, implementation of the following mitigation measure would limit all herbaceous vegetation removal activities from September 1 through February 28, which would benefit pollinators. With implementation of these mitigation measures, impacts to western bumble bee and Crotch's bumble bee would be reduced to a less than significant level.

Mitigation Measure BIO-4

Avoid Project Impacts to Western and Crotch's Bumble Bee.

Surveys should be performed by a qualified biologist familiar with the species behavior and life history to determine the presence/absence of special status bumble bees within 6 weeks prior to vegetation removal and/or grading. Surveys should be conducted during the flying season when the species is most likely to be detected above ground, between March 1 to September 1. Survey results, including negative findings, should be submitted to CDFW prior to implementing Project-related ground-disturbing activities. At minimum, a survey report should provide the following:

- A description and map of the survey area, focusing on areas that could provide suitable habitat for special-status bumble bees.
- Field survey conditions that should include name(s) of qualified biologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched.
- Map(s) showing the location of nests/colonies.
- A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological

² California Code, Fish and Game Code - FGC § 2074.2 and §2085.

conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).

- If adverse impacts to Crotch's bumble bee cannot be avoided either during Project activities or over the life of the Project, the County should consult with CDFW to determine appropriate avoidance and/or minimization measures for the species.

3.7.3 Birds

Wild radish fields are the result of the area being left fallow after years of cultivation, most recently of alfalfa. The site may provide marginally suitable foraging habitat for tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athena cunicularia*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*). In addition, the existing trees and shrubs on the site provide adequate nesting habitat for migratory birds, which are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3513.

3.7.3.1 Tricolored Blackbird

Tricolored blackbirds breed in colonies in thorny shrubs, such as Himalayan blackberry (*Rubus armeniacus*), or California wild rose (*Rosa californica*) adjacent to wetlands and near an abundant source of insects, such as pastures or croplands. They are also known to nest in dense thickets of tall herbs, such as the wild radish fields present at the project site. The nearest CNDDDB record is roughly 5 miles southwest of the project site in Lynch Canyon North. While the project site itself is not a high value foraging or nesting site for tricolored blackbirds, it could be used by this species on an occasional basis. Thus, development of the property contributes to the regional reduction of foraging habitat for this species and may therefore require mitigation under CEQA. The following mitigation measure is recommended to reduce direct impacts to tricolored blackbird nesting and foraging habitat to a less than significant level.

Mitigation Measure BIO-5

Avoid Impacts to Tricolored Blackbird. If construction activities begin between February 1 and August 31, a preconstruction survey for nesting tricolored blackbirds shall be performed by a qualified biologist to ensure that no individuals of this species are harmed during construction activities. This survey may be conducted concurrently with other bird surveys (e.g., Swainson's hawk, burrowing owl). If an active tricolored blackbird colony is discovered within the project site or within a 100-foot radius, a qualified biologist shall evaluate the potential for construction to disturb nesting activities. CDFW shall be contacted to review the evaluation and determine if the project can proceed without adversely affecting nesting activities. CDFW shall also be consulted to establish protection measures, such as buffers. Disturbance of active nests shall be avoided until it is determined by a qualified biologist that nesting is complete and the young have fledged, or

that the nest has failed. If work is allowed to proceed, at a minimum, a qualified biologist shall be on-site during the start of construction activities during the nesting season to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.

3.7.3.2 Burrowing Owl

Burrowing owls occur in warmer valleys, open, dry grasslands, deserts, and scrublands associated with agriculture and urban areas that support populations of California ground squirrels. Burrowing owls nest below ground, using abandoned burrows of other species (mostly ground squirrels) and feed on insects and small mammals. The nearest CNDDDB record sighting is approximately 3 miles east of the project site along Cordelia Road. Though no burrowing owls or sign were observed within the project site, burrowing owls may utilize the numerous burrows and adjacent agricultural fields for nesting and foraging. Thus, development of the property contributes to the regional reduction of foraging habitat for these species and may therefore require mitigation under CEQA. Mitigation for lost foraging habitat is also required under the Solano HCP once it is adopted. The following mitigation measures are recommended to reduce direct impacts to burrowing owl nesting and foraging habitat to a less than significant level.

Mitigation Measure BIO-6

Avoid Impacts to Burrowing Owl. Preconstruction surveys for western burrowing owl shall be conducted by a qualified biologist in accordance with CDFW's 2012 Staff Report on Burrowing Owl Mitigation and measures outlined in the Solano HCP. If burrowing owls are identified during the preconstruction survey, passive exclusion shall be implemented per CDFW's 2012 Staff Report on Burrowing Owl Mitigation (including avoidance of occupied burrows during the breeding season).

3.7.3.3 Swainson's Hawk

Swainson's hawk occurs widely in the lowlands of Solano County, and Swainson's hawks are known to nest in trees within industrial landscapes as long as suitable foraging habitat is nearby. There are no known, active, or recently active Swainson's hawk or other raptor nests within the project site. There are three known Swainson's hawk nest site within 1 mile of the project site along Suisun Creek. Other raptors include the white-tailed kite, which uses trees in open areas for nesting and open grasslands and marshes for foraging. The closest known CNDDDB nest site of white-tailed kite is approximately 1 mile southeast of the project site near Suisun Creek in Cordelia.

Since the project proposes to remove trees as a result of project construction, Swainson's hawk may be impacted in the event they are nesting in the project area when construction begins. The following mitigation measure is recommended to reduce direct impacts to potentially nesting and foraging Swainson's hawk and other raptors to a less than significant level.

Mitigation Measure BIO-7

Swainson's Hawk Avoidance. For any construction activities initiated between March 15 and September 1, surveys for nesting Swainson's hawk shall be conducted within 0.5 mile of areas of

disturbance for this species as described in the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in the California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000). The recommended minimum survey protocol is completion of surveys for at least the two survey periods immediately prior to a project’s initiation. Survey periods correspond to typical migration, courtship, and nesting behavior and defined as follows:

Survey Period	Survey Dates	Survey Time	Number of Surveys
1	January 1 to March 20	All day	1
2	March 20 to April 5	Sunrise to 1000 or 1600 to sunset	3
3	April 5 to April 20	Sunrise to 1200 or 1630 to sunset	3
4	April 21 to June 10	All day; monitoring known nests only	Ongoing
5	June 10 to July 30	Sunrise to 1200 or 1630 to sunset	3

If surveys determine that the species is present and nesting within this area, a buffer zone of 0.5 mile shall be established and coordination with CDFW shall be required prior to any work in this buffer zone during the nesting season. Work within 0.5 mile may be permitted with CDFW approval if a qualified biologist monitors the nest when Project disturbance activities occur within 0.5 mile of the nest. If the monitor determines that construction may result in abandonment of the nest, all construction activities within 0.5-mile shall be halted until the nest is abandoned or all young have fledged. The monitor shall continue monitoring the nest until construction within 0.5 mile of the nest is completed, or until all chicks have completely fledged and are no longer dependent on the nest. The monitor shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.

3.7.3.4 Nesting Birds

The project area provides suitable nesting habitat for a number of bird species protected under Section 3503 of the California Fish and Game Code; however, the survey was conducted outside of the nesting bird season (February 1 to August 31). Since the project proposes to remove trees as a result of project construction, migratory bird species may be impacted in the event they are nesting in the project area when construction begins. Therefore, the project has the potential to impact nesting bird species protected under Section 3503. Birds protected under the California Fish and Game Code and the MBTA could potentially nest on or near the property; however, as long as the project complies with provisions of the MBTA and California Fish and Game Section 3513, the project will not result in significant impacts to any protected nesting birds. The following general avoidance and minimization measures are recommended to reduce potential impacts to nesting birds to a less than significant level.

Mitigation Measure BIO-8

Nesting Birds. A pre-construction survey by a qualified biologist for nesting birds shall be required if construction activities are scheduled to occur during the breeding season (February 1 to August 31) for raptors and other migratory birds, including special-status bird species. The survey shall be conducted 15 days prior to ground disturbing activities and shall cover a 500-foot radius surrounding the construction zone. If active nests are found, actions typically include, but are not limited to, monitoring by agency-approved biologists, establishment or refinement of species-specific buffers, reduction or elimination of the use of loud equipment, reducing foot traffic and remaining in the vehicles, and the maintenance of visual screens. Migratory birds shall be protected from project area staging and operations through the use of a buffer established based on the birds' sensitivity and response to the potential activity. Baseline behavior of the bird should be established to inform the buffer size. The qualified biologist may start with a 100-foot nest buffer or a 250-foot nest buffer for raptors but may adjust the buffer size based on the reaction of the bird to the activity. If there is a potential for nest abandonment due to intrusion into the buffer zone, as established by the qualified biologist, then CDFW and the USFWS shall be consulted. The biologist should have the authority to stop work if it is determined that the project is adversely affecting nesting activities. If a lapse in Project-related work of 15 days or longer occurs, another focused survey, and if required, consultation with CDFW and the USFWS shall be performed before Project work can resume. Tree removal activities should be conducted outside the nesting bird season (February 1 – August 31).

3.7.4 Mammals

3.7.4.1 Bats

No bats or evidence of roosting bats were observed; however, hoary bats (*Lasiurus cinereus*) may forage over the wild radish field and use the adjacent woodlands for night roost habitat. Hoary bats are solitary and can be found in all woodlands and forests with medium to large-size trees and dense foliage. Generally, individuals prefer open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. They primarily feed on moths and require access to water. The nearest CNDDDB record sighting is 4.25 miles east of the project site in Suisun City. Development of the property contributes to the regional reduction of habitat for this species and may therefore require mitigation under CEQA. The following mitigation measures are recommended to reduce impacts to hoary bat foraging and roosting habitat to a less than significant level.

Mitigation Measure BIO-9

Avoid and Minimize Impacts to Special-Status Bats. Potential bat roost trees shall be identified by a qualified bat biologist during a tree habitat assessment conducted several months prior to tree

removal. Any potential bat roost trees in the project site shall be removed only between approximately March 1 and April 15, or when evening temperatures are above 45°F and rainfall less than 0.5 inch in 24 hours occurs, prior to parturition of pups. The next acceptable period is after pups become self-sufficiently volant – September 1 through about October 15, or prior to evening temperatures dropping below 45°F and onset of rainfall greater than 0.5 in in 24 hours. In areas where suitable habitat occurs and there is potential for special-status bat species to be present, specific mitigation measure(s) will be developed in consultation with CDFW.

Mitigation Measure BIO-10

Roost Tree Removal. If non-bat roost trees or other vegetation must be removed outside the dates listed above, a 100 ft buffer around each bat roost tree shall be established to reduce potential of disturbance of non-volant young during maternity season, or torpid bats during winter months. Work activities shall be limited to daylight hours to minimize potential effects to foraging bats. Bat roost trees shall be removed only during seasonal periods of bat activity as described above, and only after:

- a. Negative results from a night emergence survey conducted no more than 1-2 nights prior to tree removal by a qualified bat biologist, using night vision and/or IR-sensitive camera equipment and bioacoustics recording equipment, or;
- b. All other vegetation other than potential roost trees within the impact area has been removed at least 4 days prior to removal of the bat roost trees.

Potential bat roost trees shall be removed using a two-step tree process spanning two consecutive days:

- a. **Day 1:** Small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat, as determined by a qualified bat biologist, are removed using chainsaws only. Trees containing suitable potential habitat shall be trimmed with chainsaws on Day 1 under initial field supervision by a qualified bat expert to ensure that the tree cutters fully understand the process and avoid incorrectly cutting potential habitat features or trees. After tree cutters have received sufficient instruction, the qualified bat expert does not need to remain on the site.
- b. **Day 2:** The remainder of the tree is to be removed. The disturbance caused by chainsaw noise and vibration, coupled with the physical alteration of the tree, has the effect of causing

colonial bat species to abandon the roost tree after nightly emergence for foraging. Removing the tree the next day prevents re-habituation and re-occupation of the tree.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No riparian or other sensitive natural communities are present on the project site.

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

Aquatic resources identified on the project site include an unnamed irrigation ditch along the southern boundary of the site and an ephemeral roadside drainage ditch along Suisun Valley Road along the eastern boundary of the project site.

The unnamed irrigation ditch runs along the entirety of the southern boundary of the project site. This ditch is an average of 25 feet wide from top of bank to top of bank and supplies irrigation water to agricultural fields east and west of the project site. This ditch may have hydrological connectivity to Suisun Creek, located approximately 0.5 mile east of the project site or to Dan Wilson Creek in Fairfield. Both eventually drain into Suisun bay. This ditch is channelized with steep banks and no riparian zone, is largely unvegetated, and is lined with large concrete blocks along most of its length. The irrigation ditch would be considered Waters of the United States and Waters of the State, subject to regulation by the USACE and the RWQCB.

The ephemeral roadside drainage is parallel to Suisun Valley Road along the eastern boundary of the project site. This drainage is an average of 4 feet wide, shallow, and collects runoff during rain events, discharging storm water into the irrigation ditch. The drainage is vegetated with a variety of nonnative ruderal species including wild oats (*Avena* sp.), common bedstraw (*Galium aparine*), and Italian thistle (*Carduus pycnocephalus*), none of which are considered hydrophytic plant species. The roadside drainage would only be subject to Section 401 of the Clean Water Act (CWA) and regulated by the RWQCB.

The proposed project would not directly impact the unnamed irrigation ditch along the southern boundary of the site. However, implementation of the proposed project may result in direct impacts to the ephemeral roadside drainage to accommodate the proposed access driveway off of Suisun Valley Road and proposed parking/access for the market along Suisun Valley Road. As described above, the ephemeral roadside ditch is considered Waters of the State and regulated by the RWQCB. Implementation of the following mitigation measure, which requires that the project applicant obtain the necessary regulatory permit and comply with all permit conditions, would reduce potential impacts to wetlands to a less than significant level. With implementation of this mitigation measure, this impact would be less than significant with mitigation incorporated.

Mitigation Measure BIO-11 Wetland Mitigation. The proposed project shall be designed to minimize fill of jurisdictional waters. If direct impacts to the ephemeral roadside drainage cannot be avoided, prior to ground disturbance, the project applicant shall obtain a permit from the Regional Water Quality Control Board (RWQCB, CWA Section 401 water quality certification). Impacts to waters of the State shall be mitigated by providing compensatory mitigation at a minimum 1:1 ratio in area. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented for the proposed mitigation approach. This plan shall be subject to approval by the RWQCB prior to any disturbance of waters of the State.

d) 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?

There are no wildlife nursery sites on the property. The CDFW Biogeographic Information and Observation System (CDFW 2023b) was reviewed to determine if the project site is within an Essential Connectivity Area. The Solano Landing project site is at the periphery of an identified Essential Connectivity Area; therefore, the project may—but is not likely to—adversely affect migratory corridors. Connectivity to open farmland, coast range oak woodlands and other habitats would not be significantly reduced by implementation of the project as long as wildlife-friendly fencing is installed. Mitigation of direct impacts to migration and movement habitat will reduce the CEQA impact category to a level of less than significant with mitigation incorporated.

Mitigation Measure BIO-12 Minimize Impacts to Wildlife Movement. To minimize the impact of development on wildlife movement, all perimeter fencing shall meet the following standards:

- Fence heights shall be limited to a maximum of 5 feet above ground level (limited height variations based on topographic changes are allowable).
- Welded wire or other mesh fences shall have a minimum 4-inch by 4-inch opening. No-climb horse fencing is prohibited as perimeter fencing.
- Solid perimeter fences are prohibited.
- Wood or metal picket fences shall have a minimum spacing of 4 inches between pickets and shall not have sharp or pointed spikes or decorations along the top.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

LSA inventoried 252 trees (Table 3.A, and Figure 7, Tree Locations). Most of these trees are within the footprint of the planned development and therefore need to be removed. Based on the definitions of heritage trees set forth in the Solano County General Plan, a total of 54 valley oaks and 58 coast live oaks may be considered heritage trees (greater than 10 inches DBH) and an additional 45 trees of other California native species and escaped orchard trees may be considered heritage trees (greater than 15 inches DBH) (Table 3.A, Figure 7). Removal of heritage trees would not conflict with any adopted policies or ordinances protecting trees. Mitigation Measure BIO-13 is suggested if the County requires mitigation for these removals.

Mitigation Measure BIO-13 **Heritage Tree Mitigation.** All native oak trees meeting the heritage definition of the Solano County General Plan shall be protected from damage to the maximum extent possible. This protection measure includes designating no work zones by exclusion fencing along the canopy dripline. If a heritage tree cannot be protected from damage or removal, the loss of each mature tree shall be mitigated by planting saplings of the same species in areas where mature trees will not interfere with ongoing operations of the vineyard, tasting rooms, hotel and associated parking areas. Trees planted within the parking area for shade may count towards the heritage tree mitigation as long as they consist of native oak species. The following guidelines for oak restoration shall be followed:

- **Mitigation Planting:** To compensate for the loss of mature native oaks, saplings of the same species shall be planted for each mature tree removed. The number of saplings planted sufficient to replace the tree canopy for each tree removed. Every effort shall be made to incorporate preservation of oak trees as part of the project. Oak saplings shall be sourced from a certified *Phytophthora ramorum*-free nursery. Saplings must be at least 3 years old and shall be spaced at least 15 feet from each other. Each sapling shall be staked with two wooden stakes and caged to a sufficient height. Saplings shall be planted in moist soil, after the first substantial rain. In the following summer, watering may be necessary to enhance survival.
- **Performance and Success Criteria:** Performance criteria for the revegetation area shall be assessed for at least 3 years following the conclusion of grading activities. The oak planting site(s) shall have at least 65 percent cover by native or naturalized plants (primarily grasses), and no more than 20 percent of the area shall be covered by nonnative weeds. The survival of planted

oak saplings shall exceed 65% (i.e., 10 living oak saplings per mature tree removed).

- **Verification:** The Solano County Department of Resource Management shall verify that the impacts to native trees are mitigated consistent with the above requirements, including ongoing monitoring to ensure revegetation success.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

The County is not a participant in the Solano HCP and the HCP has not yet been adopted. This project will not conflict with the provisions of the Solano HCP nor interfere with the implementation of this plan once it is adopted. No impact would occur.

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4.0 CONCLUSIONS

In summary, LSA makes the following conclusions and recommendations:

- A wetland delineation is recommended to fully document the conditions within aquatic features and ascertain jurisdictional status.
- Implementing appropriate best management practices for erosion control during construction. Rehabilitating soils and establishing bio-retention swales will avoid potential impacts to water quality.
- A rare plant survey during the normal blooming period is recommended for three special-status plant species with potential to occur in natural communities on site: California brodiaea, Greene's narrow-leaved daisy, and fine leaf pondweed.
- The project site contains habitat for five special-status animal species: hoary bat, tricolored blackbird, burrowing owl, Swainson's hawk, and white-tailed kite. Implementation of mitigation measures listed above will reduce the impacts to these species to a less than significant level.

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5.0 REFERENCES

Baldwin, Bruce G. et. al., eds. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press.

California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. State of California Natural Resources Agency. March 20, 2018.

_____. 2023a. California Natural Diversity Database (CNDDDB). Website: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data#43018408-cnddb-in-bios>

_____. 2023b. Biogeographic Information and Observation System.

California Native Plant Society. 2023. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Rare Plant Program. Website: <http://www.rareplants.cnps.org> (accessed 20 January 20, 2023).

County of Solano. 2008. Solano County General Plan.

Jepson Flora Project (eds.). 2019. Jepson eFlora. Website: www.ucjeps.berkeley.edu/eflora/ (accessed March 26, 2023).

Sawyer, John O. Keeler-Wolf, Todd. and Evens, Julie M. 2008. A Manual of California Vegetation: Second Edition. Sacramento: California Native Plant Society.

Solano County Water Agency. 2019. Solano Habitat Conservation Plan and Database. Prepared by LSA Associates, Point Richmond, California.

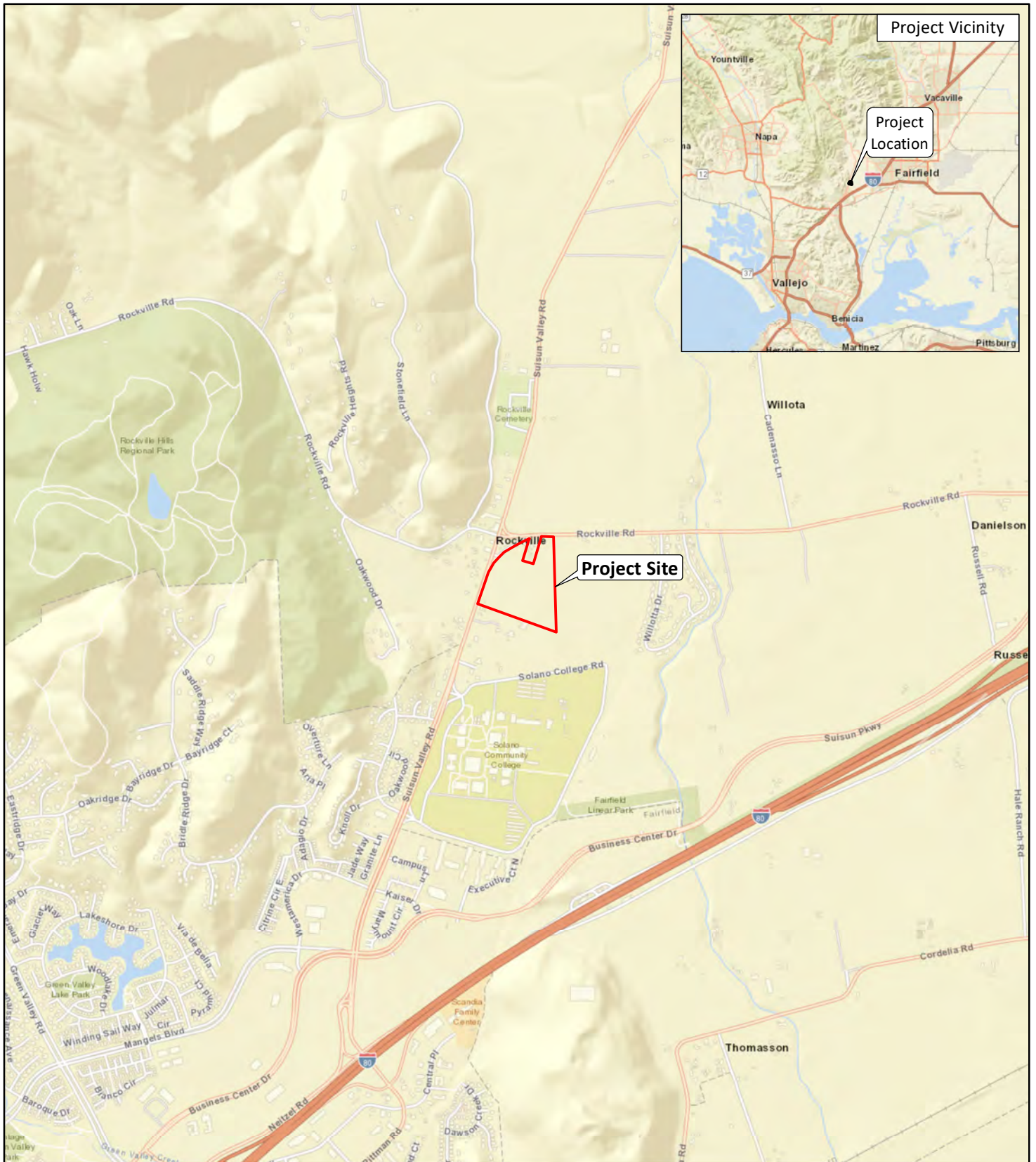
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APPENDIX A

FIGURES

- Figure 1: Project Location
- Figure 2: Project Site Location on Topographic Base
- Figure 3: Project Site Location on Aerial Base
- Figure 4: Preliminary Aquatic Resources
- Figure 5: NRCS Soil Types
- Figure 6: Natural Communities and Land Uses
- Figure 7: Tree Locations
- Figure 8A: Special-Status Plant Species Occurrences
- Figure 8B: Special-Status Animal Species Occurrences

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LSA

LEGEND

Project Site

FIGURE 1



SOURCE: Esri World Street Map (2023).

I:\20230890\GIS\MXD\Biological Resources Report\Fig1_Project Location.mxd (4/13/2023)

Solano Landing Development
Solano County, California
LSA Project No. 20230890
Project Location

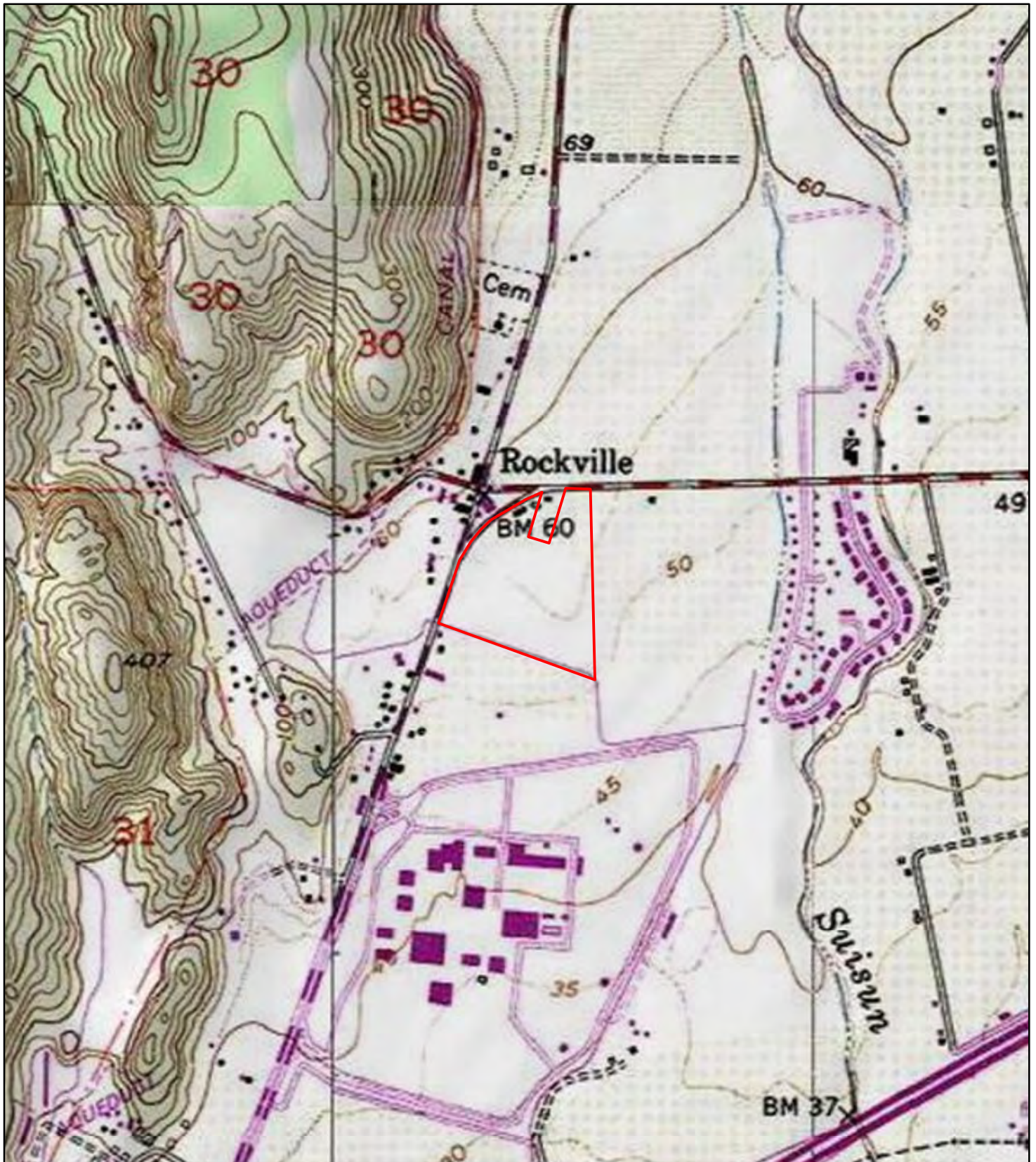


FIGURE 2

LSA

LEGEND

Project Site



SOURCE: USGS 7.5-Minute Quadrangle, Fairfield South (1949, ed. 1985).

I:\20230890\GIS\MXD\Biological Resources Report\Fig2_Project Site Topo.mxd (4/13/2023)

Solano Landing Development
Solano County, California
LSA Project No. 20230890

Project Site Location on Topographic Base



FIGURE 3

LSA

LEGEND

 Project Site



0 100 200
FEET

SOURCE: Vivid Maxar Aerial Imagery (06/2021)

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Solano Landing Development
Solano County, California
LSA Project No. 20230890
Project Site Location on Aerial Base



Roadside Drainage

Irrigation Ditch

LSA

LEGEND

- Project Site
- ~ Culverts
- Preliminary Non-Wetland Waters - (0.76 ac)

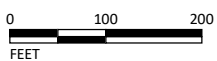


FIGURE 4

Solano Landing Development
 Solano County, California
 LSA Project No. 20220500
 Preliminary Aquatic Resources




FIGURE 5


LSA

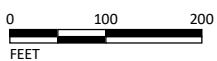
LEGEND

 Project Site

Soil Types

 BrA - Brentwood clay loam, 0 to 2 percent slopes

 Cs - Conejo soils, wet



SOURCE: Vivid Maxar Aerial Imagery (06/2021); USDA NRCS (08/2004)

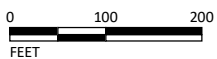
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Solano Landing Development
 Solano County, California
 LSA Project No. 20230890
 NRCS Soil Types



FIGURE 6

LSA



LEGEND

Project Site

Natural Communities and Land Uses - (24.40 ac)

Coyote Brush Scrub - (0.45 ac)

Mixed Oak Woodland - (2.77 ac)

Open Water - (0.71 ac)

Wild Radish Fields - (19.44 ac)

Ruderal / Disturbed - (0.35 ac)

Developed - (0.68 ac)

*Solano Landing Development
Solano County, California
LSA Project No. 20230890*

Natural Communities and Land Uses

SOURCE: Vivid Maxar Aerial Imagery (06/2021); Mapping - LSA (02/2023)

I:\20230890\GIS\MXD\Biological Resources Report\Fig6_Plant Communities.mxd (4/13/2023)



FIGURE 7

LSA

LEGEND

Project Site

Tree Locations by Species

● California buckeye - (1)

● California sycamore - (1)

● Cherry plum - (2)

● Coast live oak - (98)

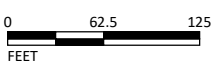
● English walnut - (15)

● Italian stone pine - (2)

● Northern California black walnut - (27)

● Persimmon - (15)

● Valley oak - (93)



SOURCE: Vivid Maxar Aerial Imagery (06/2021); Mapping - LSA (02/2023)

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Solano Landing Development
Solano County, California
LSA Project No. 20220500

Tree Locations

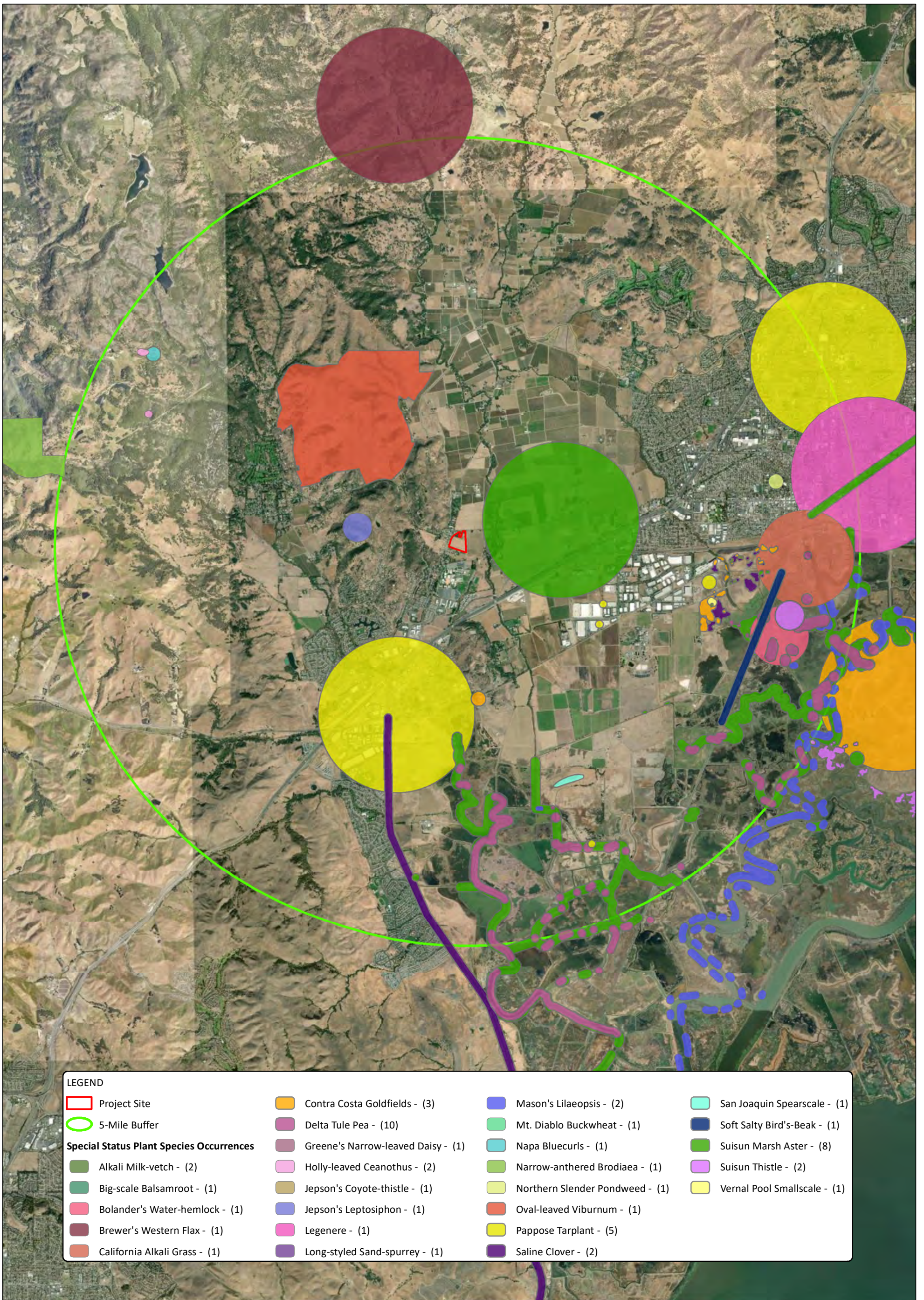
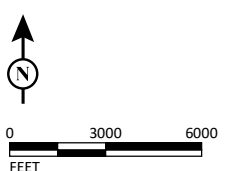


FIGURE 8A

LSA



SOURCE: Vivid Maxar Aerial Imagery (06/2021); Mapping - CDFW(03/2023)
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Solano Landing Development
 Solano County, California
 LSA Project No. 20230890

Special Status Plant Species Occurrences

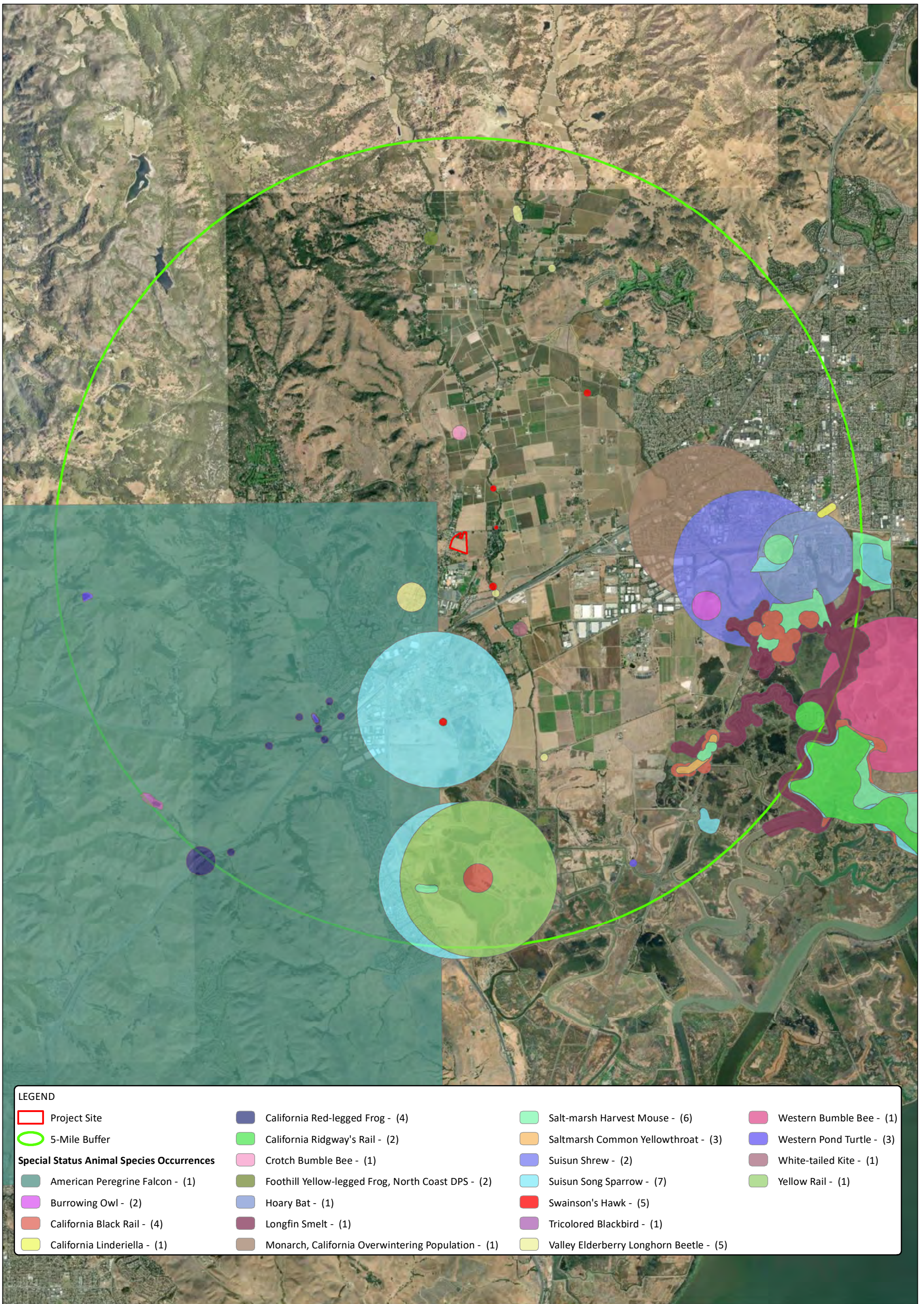


FIGURE 8B

LSA



0 3000 6000
FEET

SOURCE: Vivid Maxar Aerial Imagery (06/2021); Mapping - CDFW (03/2023)

I:\20230890\GIS\MXD\Biological Resources Report\Fig7B_CNDDDB Animal Occ.mxd (4/13/2023)

Solano Landing Development
Solano County, California
LSA Project No. 20230890

Special Status Animal Species Occurrences

APPENDIX B

TREE INVENTORY

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Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radius (ft)	Height (ft)	Health	Notes
A2122	Valley oak	<i>Quercus lobata</i>	11	11' 10"	13.5	3	
A4116	Valley oak	<i>Quercus lobata</i>	12.25	15.5	21.5	3	Stick nest.
A4117	English walnut	<i>Juglans regia</i>	19	13'	14.5	2	Trunk hollow, rot. Sprouting from base (rootstock)
A4118	English walnut	<i>Juglans regia</i>	24.25	12'	11	2	Trunk hollow, rot. Small valley oak rooted at base.
A4119	Valley oak	<i>Quercus lobata</i>	22	19' 8"	16.5	3	
A4120	Northern California black walnut	<i>Juglans hindsii</i>	34	14' 1"	18	3	Graft dead, only rootstock remaining.
A4121	English walnut	<i>Juglans regia</i>	15	11' 6"	10	1	Minimal canopy remaining, large branches broken. Trunk hollow, rot.
A4123	Coast live oak	<i>Quercus agrifolia</i>	15.75	13' 2"	12	3	DBH taken at ground level (below branching).
A4124	Northern California black walnut	<i>Juglans hindsii</i>	23.75	16' 3"	12	3	English walnut graft dead, only rootstock remaining.
A4125	Northern California black walnut	<i>Juglans hindsii</i>	41	16' 4"	19.5	3	English walnut graft dead, only rootstock remaining.
A4126	Valley oak	<i>Quercus lobata</i>	18.5	13' 10"	20.5	3	Lower limbs (roadway side) pruned, ~3-inch cuts.
A4127	Northern California black walnut	<i>Juglans hindsii</i>	28.75	17' 5"	17	3	English walnut graft dead, only rootstock remaining.
A4128	Valley oak	<i>Quercus lobata</i>	8	15'	17	3	Tree leans N.
A4129	Valley oak	<i>Quercus lobata</i>	8.5	8' 2"	18.5	3	
A4130	Northern California black walnut	<i>Juglans hindsii</i>	10	15' 8"	14	1	English walnut graft dead, only rootstock remaining. 2 large (~6" dbh) scaffold branches dead.
A4131	Valley oak	<i>Quercus lobata</i>	16.5	8' 5"	25.5	3	Growing underneath powerlines, trimmed, resprouting.
A4132	Valley oak	<i>Quercus lobata</i>	10.25	11' 10"	25	3	DBH taken at 4 feet (below branching). Growing underneath powerlines.
A4133	Northern California black walnut	<i>Juglans hindsii</i>		22' 3"	16	3	
A4134	Valley oak	<i>Quercus lobata</i>	10.25	15' 6"	16	3	
A4135	Valley oak	<i>Quercus lobata</i>	16.25	8' 7"	18.5	3	
A4136	Coast live oak	<i>Quercus agrifolia</i>	40.75	11' 5"	18.5	3	Lots of low branches.
A4137	Valley oak	<i>Quercus lobata</i>	14.25	12' 10"	17	3	
A4138	Valley oak	<i>Quercus lobata</i>	7	7'	26.5	3	
A4139	Valley oak	<i>Quercus lobata</i>	27.75	10' 5"	26	3	
A4140	Northern California black walnut	<i>Juglans hindsii</i>	57.75	21' 2"	15.5	2	Trunk hollow, rot.

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radians (ft)	Height (ft)	Health	Notes
A4141	Valley oak	<i>Quercus lobata</i>	15.5	18' 7"	22.5	3	
A4142	Valley oak	<i>Quercus lobata</i>	7.25	5'	27	3	
A4143	Northern California black walnut	<i>Juglans hindsii</i>	48.5	25' 9"	28.5	3	Mistletoe.
A4144	Coast live oak	<i>Quercus agrifolia</i>	23.75	15'	20.5	3	
A4145	Coast live oak	<i>Quercus agrifolia</i>	6.75	11' 6"	13.5	3	Tree leans W.
A4146	Valley oak	<i>Quercus lobata</i>	7.75	12'	20.5	3	
A4147	Valley oak	<i>Quercus lobata</i>	10.75	15'	16	3	
A4148	Coast live oak	<i>Quercus agrifolia</i>	9.25	8' 9"	10.5	3	DBH taken at ground level (below branching).
A4149	Coast live oak	<i>Quercus agrifolia</i>	7.25	8' 11"	11.5	3	DBH taken at 2 feet (below branching).
A4150	Valley oak	<i>Quercus lobata</i>	6.25	9'	24	3	
A4151	Northern California black walnut	<i>Juglans hindsii</i>	61.5	19' 8"	19.5	2	English walnut graft dead (largest trunk), only rootstock remaining.
A4152	Northern California black walnut	<i>Juglans hindsii</i>	64.25	29' 2"	26.5	3	English walnut graft dead, only rootstock remaining.
A4153	Valley oak	<i>Quercus lobata</i>	25.5	16' 1"	24	3	
A4154	Northern California black walnut	<i>Juglans hindsii</i>	34.5	16' 5"	18.5	2	English walnut graft dead, only rootstock remaining.
A4155	Valley oak	<i>Quercus lobata</i>	12.75	12' 9"	25	3	
A4156	Northern California black walnut	<i>Juglans hindsii</i>	28.75	13' 6"	13	2	English walnut graft dead, only rootstock remaining. Trunk rot.
A4157	Valley oak	<i>Quercus lobata</i>	7.5	13' 3"	16	3	
A4158	Northern California black walnut	<i>Juglans hindsii</i>	71	26'	40	1	Trunk hollow, rot. Main leaders dead or dying. Healthy vegetation resprouting from base. Nails in trunk.
A4159	Coast live oak	<i>Quercus agrifolia</i>	16.5	11'	18	3	
A4160	Valley oak	<i>Quercus lobata</i>	19.5	19'	28	3	DBH taken at 4 feet (below branching).
A4161	Valley oak	<i>Quercus lobata</i>	6	8' 6"	22	3	
A4162	Valley oak	<i>Quercus lobata</i>	15	20' 2"	26	3	
A4163	Coast live oak	<i>Quercus agrifolia</i>	13.25	8'	31.5	3	Stick nest.
A4164	Valley oak	<i>Quercus lobata</i>	52.5	23' 8"	28.5	3	
A4165	English walnut	<i>Juglans regia</i>	34	26' 9"	28	1	Dead? Poison oak growing at base.
A4166	English walnut	<i>Juglans regia</i>	41	20' 7"	30.5	2	Lots of basal sprouts from rootstock.
A4167	Valley oak	<i>Quercus lobata</i>	10.5	14' 8"	30.5	3	
A4168	Valley oak	<i>Quercus lobata</i>	18.5	15' 8"	18.5	3	
A4169	Coast live oak	<i>Quercus agrifolia</i>	15.25	11'	20.5	3	Stick nest.
A4170	Valley oak	<i>Quercus lobata</i>	6.75	20' 5"	27	3	

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radius (ft)	Height (ft)	Health	Notes
A4171	Valley oak	<i>Quercus lobata</i>	6.75	9'	28	3	
A4172	English walnut	<i>Juglans regia</i>	19.5	24'	32	3	Lots of basal sprouts from rootstock.
A4173	Valley oak	<i>Quercus lobata</i>	11.25	13' 5"	23.5	3	
A4174	Coast live oak	<i>Quercus agrifolia</i>	9.25	12' 6"	17	3	Stick nest.
A4175	Valley oak	<i>Quercus lobata</i>	9.5	9' 8"	17	3	DBH taken at 2 feet (below branching).
A4176	Coast live oak	<i>Quercus agrifolia</i>	33	24' 10"	38	3	
A4177	Coast live oak	<i>Quercus agrifolia</i>	23.5	17' 10"	24	3	
A4178	Valley oak	<i>Quercus lobata</i>	6.75	28' 4"	22	3	
A4179	Valley oak	<i>Quercus lobata</i>	7	7' 3"	14.5	3	
A4180	Coast live oak	<i>Quercus agrifolia</i>	10	7' 7"	14	3	DBH taken at 1 foot (below branching).
A4181	Valley oak	<i>Quercus lobata</i>	9.5	15' 10"	28	3	
A4182	Coast live oak	<i>Quercus agrifolia</i>	18	15' 7"	27.5	3	Far side of chain link fence surrounded by blackberry.
A4183	Valley oak	<i>Quercus lobata</i>	13.5	15'	15	3	Surrounded by blackberry.
A4184	English walnut	<i>Juglans regia</i>	36.5	14' 7"	26.5	2	Mistletoe infestation.
A4185	California sycamore	<i>Platanus racemosa</i>	26.25	16' 5"	20.5	3	Growing next to barn.
A4186	Coast live oak	<i>Quercus agrifolia</i>	40.5	28' 5"	55	4	
A4187	Valley oak	<i>Quercus lobata</i>	27.75	21' 3"	30	3	
A4188	Italian stone pine	<i>Pinus pinea</i>	6	3' 10"	24	3	Large gall at 6 feet.
A4189	Valley oak	<i>Quercus lobata</i>	7	16' 11"	27.5	3	Tree leans E.
A4190	Coast live oak	<i>Quercus agrifolia</i>	46	25' 1"	27.5	4	Small mud nests (cup)
A4191	Coast live oak	<i>Quercus agrifolia</i>	12.75	10' 5"	25.5	3	
A4192	Valley oak	<i>Quercus lobata</i>	7	7' 3"	27	3	
A4193	Coast live oak	<i>Quercus agrifolia</i>	8	7' 2"	26	3	
A4194	Coast live oak	<i>Quercus agrifolia</i>	8.5	8'	21	3	
A4195	Valley oak	<i>Quercus lobata</i>	7.75	13' 4"	26	3	
A4196	Coast live oak	<i>Quercus agrifolia</i>	11.5	17' 5"	24	3	
A4197	Coast live oak	<i>Quercus agrifolia</i>	34.25	15' 8"	25	3	
A4198	Valley oak	<i>Quercus lobata</i>	20.25	17' 5"	28	3	
A4199	Coast live oak	<i>Quercus agrifolia</i>	14.5	11'	29	3	Stick nest.
A4200	Coast live oak	<i>Quercus agrifolia</i>	6.5		15	3	
A4201	Coast live oak	<i>Quercus agrifolia</i>	16.5	6'	25	3	
A4202	Coast live oak	<i>Quercus agrifolia</i>	6	6'	15	3	
A4203	Valley oak	<i>Quercus lobata</i>	7.75		20	3	Surrounded by blackberry.
A4204	Valley oak	<i>Quercus lobata</i>	31.25			3	

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radians (ft)	Height (ft)	Health	Notes
A4205	Coast live oak	<i>Quercus agrifolia</i>	9			3	Surrounded by blackberry.
A4206	Coast live oak	<i>Quercus agrifolia</i>	8			3	Surrounded by blackberry.
A4207	Italian stone pine	<i>Pinus pinea</i>	7.5			3	Surrounded by coyote brush. Galls.
A4208	Coast live oak	<i>Quercus agrifolia</i>	13.75			3	
A4209	Coast live oak	<i>Quercus agrifolia</i>	7			3	
A4210	Coast live oak	<i>Quercus agrifolia</i>	14.25	12' 9"		3	
A4211	Coast live oak	<i>Quercus agrifolia</i>	25	13' 10"		3	
A4212	Valley oak	<i>Quercus lobata</i>	10.5	14' 8"		3	
A4213	Coast live oak	<i>Quercus agrifolia</i>	18.75	14' 2"	18.5	3	
A4213	Persimmon	<i>Diospyros virginiana</i>	25	14' 8"	20	3	Smaller stems have wildly different bark, but all stems connected at base.
A4214	Coast live oak	<i>Quercus agrifolia</i>	26.5	11' 9"	18.5	3	
A4215	Coast live oak	<i>Quercus agrifolia</i>	6	7' 6"	17.5	3	
A4216	Valley oak	<i>Quercus lobata</i>	9.75	10' 1"	20.5	3	Included bark at branch union.
A4217	Coast live oak	<i>Quercus agrifolia</i>	12.5	16' 10"	14.5	3	Trunk leaning west, on ground. Lots of deadwood.
A4218	Valley oak	<i>Quercus lobata</i>	7.5	7' 11"	20.5	3	
A4219	Valley oak	<i>Quercus lobata</i>	6	8' 9"	26	3	
A4220	Valley oak	<i>Quercus lobata</i>	8.5	14' 11"	18.5	3	Included bark.
A4221	Coast live oak	<i>Quercus agrifolia</i>	6	7' 1"	16	3	
A4222	Valley oak	<i>Quercus lobata</i>	6.75	7' 6"	21	3	Surrounded by blackberry.
A4223	Coast live oak	<i>Quercus agrifolia</i>	10.25	11' 9"	27	3	
A4224	Valley oak	<i>Quercus lobata</i>	29.25	29' 6"	26	3	
A4225	Coast live oak	<i>Quercus agrifolia</i>	15	13' 11"	26	3	
A4226	Coast live oak	<i>Quercus agrifolia</i>	8.5	10' 8"	26	3	Growing into/through canopy of valley oak.
A4227	Coast live oak	<i>Quercus agrifolia</i>	6	11' 10"	15.5	3	Tree leans E.
A4228	Valley oak	<i>Quercus lobata</i>	8.5	13' 4"	30.5	3	
A4229	Valley oak	<i>Quercus lobata</i>	34.25	28' 3"	27.5	3	Stick nest.
A4230	Coast live oak	<i>Quercus agrifolia</i>	12	17'	25	3	
A4231	Valley oak	<i>Quercus lobata</i>	28.25	15'	26.5	3	Trunks merged at 3 feet, included bark.
A4232	Coast live oak	<i>Quercus agrifolia</i>	8.5	8'	23	3	
A4233	Coast live oak	<i>Quercus agrifolia</i>	9	5'	28	3	
A4234	Coast live oak	<i>Quercus agrifolia</i>	6	3'	22	3	Tagged on N side. Surrounded by poison oak.
A4235	Coast live oak	<i>Quercus agrifolia</i>	12	5'	27	3	

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radians (ft)	Height (ft)	Health	Notes
A4236	English walnut	<i>Juglans regia</i>	13.25	8'	15	3	DBH taken at 2 feet (below branching). Cavity at base.
A4237	Valley oak	<i>Quercus lobata</i>	12.5	15'	27	3	
A4238	Valley oak	<i>Quercus lobata</i>	7.5	14'	25	3	Surrounded by woody debris.
A4239	Coast live oak	<i>Quercus agrifolia</i>	98.25	20'	25	3	dbh cont: 8, 4.5
A4240	Northern California black walnut	<i>Juglans hindsii</i>	10	12'	13	3	Surrounded by blackberry. DBH taken at 3 feet (below branching)
A4241	Valley oak	<i>Quercus lobata</i>	7	5'	22.5	3	Surrounded by blackberry.
A4242	Valley oak	<i>Quercus lobata</i>	11.25	14'	23	3	
A4243	Valley oak	<i>Quercus lobata</i>	14.25	14'	22	3	
A4244	Valley oak	<i>Quercus lobata</i>	10.25	14'	21	3	Included bark, codominant leaders.
A4245	Valley oak	<i>Quercus lobata</i>	17.75	17'	29	3	
A4246	Valley oak	<i>Quercus lobata</i>	18.25	13'	22.5	3	
A4247	Coast live oak	<i>Quercus agrifolia</i>	17.5	15'	19	3	
A4248	Coast live oak	<i>Quercus agrifolia</i>	27	19'	30.5	3	
A4249	Coast live oak	<i>Quercus agrifolia</i>	8.25	13'	15	3	
A4250	Persimmon	<i>Diospyros virginiana</i>	7.25	12'	15	3	DBH taken at 1 foot (below branching).
A4251	Coast live oak	<i>Quercus agrifolia</i>	12	12'	19	3	DBH taken at 1 foot (below branching).
A4252	Coast live oak	<i>Quercus agrifolia</i>	8.5	12'	17	3	
A4253	Valley oak	<i>Quercus lobata</i>	12.25	13'	18	3	DBH taken at 3 feet (below branching).
A4254	Valley oak	<i>Quercus lobata</i>	7.25	13' 4"	20	3	
A4255	Coast live oak	<i>Quercus agrifolia</i>	15.5	5' 10"	15.5	3	Stick nest.
A4256	Valley oak	<i>Quercus lobata</i>	7	11' 1"	16.5	3	
A4257	Valley oak	<i>Quercus lobata</i>	7	11' 2"	17.5	3	
A4258	Coast live oak	<i>Quercus agrifolia</i>	23.5	23' 6"	26.5	3	DBH taken at 2 feet (below branching).
A4259	Coast live oak	<i>Quercus agrifolia</i>	6.25	8' 4"	17	3	
A4260	Cherry plum	<i>Prunus cerasifera</i>	8	15' 5"	18.5	3	
A4261	Northern California black walnut	<i>Juglans hindsii</i>	17.5	9'	12	2	Trunk rot, peeling bark.
A4262	Coast live oak	<i>Quercus agrifolia</i>	6.25	7' 9"	15.5	3	
A4263	Valley oak	<i>Quercus lobata</i>	10.5	21' 6"	25	3	
A4264	Coast live oak	<i>Quercus agrifolia</i>	10	9'	24	3	Stick nest.
A4265	Coast live oak	<i>Quercus agrifolia</i>	35.25	12' 9"	23.5	3	
A4266	Valley oak	<i>Quercus lobata</i>	7.25	12' 5"	16.5	3	
A4267	Northern California black walnut	<i>Juglans hindsii</i>	24.75	13' 4"	15.5	3	
A4268	Valley oak	<i>Quercus lobata</i>	6.25	9'	22	3	

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radians (ft)	Height (ft)	Health	Notes
A4269	Valley oak	<i>Quercus lobata</i>	22.5	25' 6"	21.5	3	
A4270	Coast live oak	<i>Quercus agrifolia</i>	10.5	11' 3"	19	3	
A4271	Coast live oak	<i>Quercus agrifolia</i>	13.5	11' 6"	29.5	3	DBH taken at 3 feet (below branching).
A4272	Coast live oak	<i>Quercus agrifolia</i>	22.75	15'	21	3	
A4273	Coast live oak	<i>Quercus agrifolia</i>	11.5	13'	22	3	
A4274	Coast live oak	<i>Quercus agrifolia</i>	7.5	9'	19	3	
A4275	Coast live oak	<i>Quercus agrifolia</i>	6.25	5'	19.5	3	
A4276	Coast live oak	<i>Quercus agrifolia</i>	6	12'	20	3	
A4277	Valley oak	<i>Quercus lobata</i>	33.5	13'	19	3	
A4278	Valley oak	<i>Quercus lobata</i>	59	22'	20	3	
A4279	Valley oak	<i>Quercus lobata</i>	13.5	33'	27	3	
A4280	English walnut	<i>Juglans regia</i>	11	15'	18	3	DBH taken at 2 feet (below branching).
A4281	Coast live oak	<i>Quercus agrifolia</i>	9.75	5'	26.5	3	
A4282	Coast live oak	<i>Quercus agrifolia</i>	10.5	14'	24.5	3	
A4283	Valley oak	<i>Quercus lobata</i>	7	21'	18.5	3	Tree leans S.
A4284	Coast live oak	<i>Quercus agrifolia</i>	7	17'	25	3	Tree leans E.
A4285	Coast live oak	<i>Quercus agrifolia</i>	8.5	11'	16	3	DBH taken at 2 feet (below branching).
A4286	Coast live oak	<i>Quercus agrifolia</i>	9.5	13'	22	3	
A4287	Coast live oak	<i>Quercus agrifolia</i>	9.5	8'	15.5	3	
A4288	Northern California black walnut	<i>Juglans hindsii</i>	39	15'	20.5	2	Surrounded by blackberry, ground squirrel burrows at base. English walnut graft dead, only rootstock remaining.
A4289	Northern California black walnut	<i>Juglans hindsii</i>	55	26'	28.5	3	English walnut graft dead, only rootstock remaining.
A4290	Coast live oak	<i>Quercus agrifolia</i>	11	10' 10"	14.5	3	Large limb broken but alive, growing into walnut.
A4291	Northern California black walnut	<i>Juglans hindsii</i>	80.5	20'	22.5	3	Mistletoe.
A4292	Northern California black walnut	<i>Juglans hindsii</i>	25	15' 2"	19	2	Deadwood in canopy.
A4293	Valley oak	<i>Quercus lobata</i>	22	18' 6"	29	3	
A4294	Coast live oak	<i>Quercus agrifolia</i>	10.5	9' 10"	28	3	Surrounded by poison oak.
A4295	Northern California black walnut	<i>Juglans hindsii</i>	26.5	22'	18	2	Minimal canopy, lots of deadwood. Surrounded by poison oak.
A4296	Coast live oak	<i>Quercus agrifolia</i>	27.5	18'	31	3	Surrounded by poison oak.
A4297	Coast live oak	<i>Quercus agrifolia</i>	12	13' 4"	31	3	Surrounded by poison oak.
A4298	Northern California black walnut	<i>Juglans hindsii</i>	28	14' 4"	27	3	Surrounded by poison oak. Mistletoe.
A4299	Northern California black walnut	<i>Juglans hindsii</i>	15	21	21.5	3	Mistletoe.

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radius (ft)	Height (ft)	Health	Notes
A4300	Northern California black walnut	<i>Juglans hindsii</i>	54.25	22' 10"	15	3	Mistletoe.
A4301	Coast live oak	<i>Quercus agrifolia</i>	33.5	15' 10"	29	3	
A4302	Northern California black walnut	<i>Juglans hindsii</i>	7	6' 5"	16.5	1	Dead?
A4303	Persimmon	<i>Diospyros virginiana</i>	13.25	14'	16	3	
A4304	Persimmon	<i>Diospyros virginiana</i>	11.25	14' 8"	16	3	DBH taken at 1 foot (below branching).
A4305	Valley oak	<i>Quercus lobata</i>	19.75	18' 9"	30	3	
A4306	Persimmon	<i>Diospyros virginiana</i>	10.5	13'	14	3	DBH taken at 1 foot (below branching).
A4307	Coast live oak	<i>Quercus agrifolia</i>	15.5	16' 9"	24	3	
A4308	Valley oak	<i>Quercus lobata</i>	19.75	18' 2"	27.5	3	
A4309	Persimmon	<i>Diospyros virginiana</i>	18.25	13' 7"	16	3	Surrounded by poison oak.
A4310	Persimmon	<i>Diospyros virginiana</i>	11.25	14' 10"	18	3	DBH taken at 2 feet (below branching).
A4311	Coast live oak	<i>Quercus agrifolia</i>	12	15' 2"	24.5	3	
A4312	Valley oak	<i>Quercus lobata</i>	13.5	13'	28	3	
A4314	Persimmon	<i>Diospyros virginiana</i>	16.5	18' 4"	18	3	DBH taken at 1 foot (below branching).
A4315	Persimmon	<i>Diospyros virginiana</i>	11.5	20'	12	3	DBH taken at 1 foot (below branching). Growing at base of oak.
A4316	Valley oak	<i>Quercus lobata</i>	32.75	22' 3"	29.5	3	Surrounded by poison oak.
A4317	Coast live oak	<i>Quercus agrifolia</i>	12.5	16' 8"	28	3	Surrounded by poison oak.
A4318	Valley oak	<i>Quercus lobata</i>	7.25	19'	19.5	3	Surrounded by poison oak.
A4319	Coast live oak	<i>Quercus agrifolia</i>	9.25	15' 5"	24	3	Surrounded by poison oak.
A4320	Valley oak	<i>Quercus lobata</i>	23.75	18' 7"	39	3	Surrounded by poison oak.
A4321	Valley oak	<i>Quercus lobata</i>	6.75	10' 8"	21	3	Surrounded by poison oak.
A4322	Persimmon	<i>Diospyros virginiana</i>	31.75	12' 3"	13	3	Surrounded by poison oak.
A4323	Valley oak	<i>Quercus lobata</i>	11.5	14' 7"	26	3	Surrounded by poison oak.
A4324	Valley oak	<i>Quercus lobata</i>	53	19'	31.5	3	Surrounded by poison oak.
A4325	Persimmon	<i>Diospyros virginiana</i>	11	9' 11"	15	3	Surrounded by poison oak.
A4326	Valley oak	<i>Quercus lobata</i>	8	9' 9"	15	3	Surrounded by poison oak.
A4327	Persimmon	<i>Diospyros virginiana</i>	13.25	12' 5"	14.5	3	
A4328	Valley oak	<i>Quercus lobata</i>	10.25	13' 6"	20.5	3	
A4329	Coast live oak	<i>Quercus agrifolia</i>	8	12' 4"	25.5	3	
A4330	Coast live oak	<i>Quercus agrifolia</i>	13.75	10' 6"	29.5	3	
A4331	Valley oak	<i>Quercus lobata</i>	13.5	17' 8"	30.5	3	
A4332	Coast live oak	<i>Quercus agrifolia</i>	46.5	17'	30	3	
A4333	Coast live oak	<i>Quercus agrifolia</i>	10	15' 6"	26.5	3	
A4334	Coast live oak	<i>Quercus agrifolia</i>	40.5	18'	30.5	3	

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radians (ft)	Height (ft)	Health	Notes
A4335	Coast live oak	<i>Quercus agrifolia</i>	9.5	15' 5"	16.5	3	
A4336	Coast live oak	<i>Quercus agrifolia</i>	13	9'	17	3	
A4337	English walnut	<i>Juglans regia</i>	28.75	13' 7"	21	3	
A4338	English walnut	<i>Juglans regia</i>	22.75	18' 7"	21.5	3	Basal sprouting.
A4339	Cherry plum	<i>Prunus cerasifera</i>	12	10' 9"	19.5	3	
A4340	California buckeye	<i>Aesculus californica</i>	36.75	11' 4"	15	3	Infested with mistletoe, including low on main trunks. Growing underneath powerlines.
A4341	Coast live oak	<i>Quercus agrifolia</i>	6.5	9' 5"	15	3	
A4342	Coast live oak	<i>Quercus agrifolia</i>	7.5	8' 8"	15.5	3	
A4343	Valley oak	<i>Quercus lobata</i>	12	16'	23.5	3	
A4344	Coast live oak	<i>Quercus agrifolia</i>	6.25	8' 10"	13	3	
A4345	English walnut	<i>Juglans regia</i>	19.5	12' 2"	19.5	3	Basal sprouting, ground squirrel burrow underneath.
A4346	Coast live oak	<i>Quercus agrifolia</i>	15	17' 3"	19	3	
A4347	Coast live oak	<i>Quercus agrifolia</i>	8.25	11'	14	3	
A4348	Valley oak	<i>Quercus lobata</i>	8.5	12' 8"	18	3	California wild grape growing into canopy.
A4349	Persimmon	<i>Diospyros virginiana</i>	28.5	16' 7"	17.5	3	Trunk hollow, rot?
A4350	Coast live oak	<i>Quercus agrifolia</i>	10.75	13' 9"	21.5	3	
A4351	Valley oak	<i>Quercus lobata</i>	43.75	37' 4"	23.5	3	Tree leaning strongly S.
A4352	Valley oak	<i>Quercus lobata</i>	7.5	16'	18.5	3	
A4353	Persimmon	<i>Diospyros virginiana</i>	33.75	12' 10"	13	3	
A4354	Coast live oak	<i>Quercus agrifolia</i>	14	7' 1"	22.5	3	
A4355	Valley oak	<i>Quercus lobata</i>	6.75	8'	29	3	California wild grape growing into canopy.
A4356	Valley oak	<i>Quercus lobata</i>	6.25	7' 7"	14	3	
A4357	Persimmon	<i>Diospyros virginiana</i>	40.5	14' 3"	14	3	
A4358	Coast live oak	<i>Quercus agrifolia</i>	9	14' 8"	10	3	
A4359	Northern California black walnut	<i>Juglans hindsii</i>	56.5	22'	27	3	
A436-	Northern California black walnut	<i>Juglans hindsii</i>	45.5	14' 3"	25	3	Mistletoe.
A4360	English walnut	<i>Juglans regia</i>	84.75	16' 2"	20	3	Mistletoe. Main stems of english walnut and rootstock.
A4361	Coast live oak	<i>Quercus agrifolia</i>	35.75	24'	21.5	3	Canopy on E side only.
A4362	Valley oak	<i>Quercus lobata</i>	10.5	14' 10"	19	3	Canopy on S side.
A4363	Valley oak	<i>Quercus lobata</i>	28	26'	32.5	3	Wood rat nest at base.
A4364	Coast live oak	<i>Quercus agrifolia</i>	7.5	18' 9"	16.5	3	
A4365	Coast live oak	<i>Quercus agrifolia</i>	7.5	11'	20	3	

Tree Inventory

Tag #	Species Common Name	Scientific Name	DBH Combined (inches)	Canopy Radians (ft)	Height (ft)	Health	Notes
A4366	Coast live oak	<i>Quercus agrifolia</i>	12	10'	20.5	3	
Not tagged	English walnut	<i>Juglans regia</i>	22	9'	13	1	Surrounded by blackberry. Trunk hollow, rot. Dead?
Not tagged	English walnut	<i>Juglans regia</i>	20	10'	17.5	3	Growing in thicket of coyote brush and blackberry, lower trunk not visible.

APPENDIX C

USFWS LIST OF THREATENED AND ENDANGERED SPECIES

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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 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Project Code: 2023-0034323
Project Name: Solano Landing

January 16, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location 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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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 Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Project Code: 2023-0034323

Project Name: Solano Landing

Project Type: Commercial Development

Project Description: A new development called “Solano Landing” comprised of six stand-alone Tasting Rooms, a Restaurant, a Boutique Market, Multi-Purpose Facility, ten (10) stand-alone cottages which will make up the Boutique Hotel, Hotel Concierge Building and accompanying landscape nestled about vineyards. The project will consist of 9.5 acres of ATC developed land and 10.5 acres of planted vineyards.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.242304950000005,-122.12102784775516,14z>



Counties: Solano County, California

Endangered Species Act Species

There is a total of 14 threatened, endangered, or candidate species on this 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
California Freshwater Shrimp <i>Syncaris pacifica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7903	Endangered
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Contra Costa Goldfields <i>Lasthenia conjugens</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7058	Endangered
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6832	Threatened
Soft Bird's-beak <i>Cordylanthus mollis ssp. mollis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8541	Endangered
Suisun Thistle <i>Cirsium hydrophilum var. hydrophilum</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2369	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

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