HELIX
Environmental Planning

43 Middle Rincon Road

Biological Resources Assessment

July 2020 | TTA-07

Prepared for:

TAIT & Associates
11280 Trade Center Drive
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Prepared by:

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ACRONYMS AND ABBREVIATIONS

BRA	Biological Resources Assessment
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
DBH	Diameter at breast height
FESA	Federal Endangered Species Act
HCP	Habitat Conservation Plan
HELIX	HELIX Environmental Planning, Inc.
IPaC	Information for Planning and Consultation
ISA	International Society of Arboriculture
MBTA	Migratory Bird Treaty Act
MSL	Mean sea level
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
OHWM	Ordinary high water mark
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SWRCB	State Water Resources Control Board
WDM	Waste Diversion Measures
WMP	Waste Management Plan
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) biologist Halie Goeman conducted a Biological Resources Assessment (BRA) on January 10, 2020 for the 43 Middle Rincon Road project (Project) located within the City of Santa Rosa, California. The site was visited again on June 26, 2020 by an ISA-Certified arborist to assess onsite trees potentially subject to regulation under the City of Santa Rosa Tree Ordinance. The site is located within Township 7N, Range 7W, Section 8 of the USGS 7.5-minute series *Santa Rosa* quadrangle. The approximate location of the site is 38.4643° North, -122.6658° West (Study Area).

The purpose of this BRA is to summarize the general biological resources on the site, to assess the suitability of the site to support special-status species and sensitive vegetation communities or habitats, and to provide recommendations for any regulatory permitting or further analysis that may be required prior to development activities occurring on the site.

The ±2.36-acre Study Area is located in a developed corner lot that resides where Middle Rincon Road and Highway 12 meet. The Study Area contains a disturbed/developed habitat which consists of a convenience store, a martial arts studio, a residential home, a dirt lot and disturbed grassland. Surrounding land uses include gas stations, residential homes, and disturbed grassland.

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

- Potential nesting and foraging habitat for special-status birds and other migratory birds and raptors;
- Potential roosting habitat for Pallid bat and Townsend's big-eared bat;
- Potential habitat for *Bombus* species (bumblebees) including crotch bumblebee, obscure bumblebee and western bumblebee; and
- Protected coast redwood within the Study Area.

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1.0 INTRODUCTION

This report summarizes the findings of a BRA completed by HELIX for the ±2.36-acre 43 Middle Rincon Road project (Project) located within the City of Santa Rosa, Sonoma County, California. This document addresses the onsite physical features, plant communities present and the common plant and wildlife species occurring, or potentially occurring, in the Study Area. In addition, the suitability of habitats to support special-status species and sensitive habitats are analyzed and recommendations are provided for any regulatory permitting or further analysis required prior to development activities occurring on the site.

1.1 PROJECT DESCRIPTION

The proposed project would demolish the existing structures that are present on the 1.28-acre project impact area, including a commercial building (a 7-11 convenience store), a barn containing a martial arts studio, and a small single-family home with associated structures. In their place a new, approximately 4,191-square foot convenience store, and fuel station would be constructed. This analysis also addresses future development of the dirt lot and grassland habitat located immediately north of the project area that comprises the remainder to the 2.36-acre Study Area.

2.0 REGULATORY FRAMEWORK

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

2.1 FEDERAL REGULATIONS

2.1.1 Federal Endangered Species Act

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

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

In the context of the proposed Project, FESA consultation with the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) would be initiated if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species or adversely modify critical habitat of such a species.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt. The U.S. Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit 1991).

2.1.3 The Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (Eagle Act) prohibits the taking or possession of and commerce in bald and golden eagles with limited exceptions. Under the Eagle Act, it is a violation to "take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof." Take is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. Disturb is further defined in 50 CFR Part 22.3 as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

2.2 STATE JURISDICTION

2.2.1 California Endangered Species Act

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

2.2.2 California Department of Fish and Game Codes

A number of species have been designated "fully protected" species under Sections 5515, 5050, 3511, and 4700 of the Fish and Game Code, but are not listed as endangered (Section 2062) or threatened (Section 2067) species under CESA. Except for take related to scientific research, all take of fully

protected species is prohibited. The California Fish and Game Code defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Additionally, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA), enacted in 1977, allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants protected under the NPPA. The NPPA prohibits take of endangered or rare native plants, with some exceptions for agricultural and nursery operations and emergencies. Vegetation removal from canals, roads, and other sites, changes in land use, and certain other situations require proper advance notification to CDFW.

2.3 JURISDICTIONAL WATERS

2.3.1 Federal Requirements

Any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403).

On April 21, 2020, the Environmental Protection Agency (EPA) and USACE published the Navigable Waters Protection Rule to define "Waters of the United States" in the Federal Register. On June 22, 2020 the Navigable Waters Protection Rule: Definition of "Waters of the United States" (NWPR) became effective in 49 states, including California, and in all US territories.

The NWPR regulates traditional navigable waters and perennial or intermittent tributary systems, and defines four categories of regulated waters including:

- The territorial seas and traditional navigable waters;
- Perennial and intermittent tributaries to those waters;
- Certain lakes, ponds, and impoundments; and
- Wetlands adjacent to jurisdictional waters.

The NWPR also defines 12 categories of exempted aquatic resources:

- Waters not listed as WOTUS
- Groundwater
- Ephemeral features
- Diffuse stormwater run-off
- Ditches not identified as WOTUS
- Prior converted cropland (PCC)
- Artificially irrigated areas
- Artificial lakes and ponds

- Water-filled depressions incidental to mining or construction activity
- Stormwater control features
- Groundwater recharge, water reuse, and wastewater recycling structures
- Waste treatment systems

With non-tidal waters, in the absence of adjacent wetlands, the extent of USACE jurisdiction extends to the ordinary high-water mark (OHWM) – the line on the shore established by fluctuations of water and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris. Wetlands are defined in 33 CFR Part 328 as:

> "those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Federal and state regulations pertaining to waters of the U.S., including wetlands, are discussed below.

Clean Water Act (33 USC 1251-1376). The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

2.3.2 State Requirements

2.3.2.1 Waters of the State

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by section 401 of the Federal CWA. Although the Clean Water Act is a Federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring U.S. Army Corps of Engineers' (Corps) permits for fill and dredge discharges within Waters of the United States, and now also

implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Office of administrative Law approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code §13050(e)), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

California Department of Fish and Wildlife

The CDFW is a trustee agency that has jurisdiction under Section 1600 et seq. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will "*substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds…except when the department has been notified pursuant to Section 1601.*" Additionally, CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over 4-inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures. Generally, CDFW recommends submitting an application for a Streambed Alteration Agreement (SAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.

2.4 CEQA SIGNIFICANCE

Section 15064.7 of the State CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded

Initial Study Checklist included in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;

- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and

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

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

2.4.1 California Native Plant Society

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

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

All plants appearing on CNPS Rank 1 or 2 are considered to meet CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA. Furthermore, the CNPS Rare Plant Rankings include levels of threat for each species. These threat ranks include the following:

0.1 - Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat);

0.2 - Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat); and

0.3 - Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

Threat ranks do not designate a change of environmental protections, so that each species (i.e., CRPR 1B.1, CRPR 1B.2, CRPR 1B.3, etc.), be fully-considered during preparation of environmental documents under CEQA.

2.4.2 California Department of Fish and Wildlife Species of Concern

Some additional fish, amphibian, reptile, bird, and mammal species may receive consideration by CDFW and lead agencies during the CEQA process, in addition to species that are formally listed under FESA and CESA or are fully protected. These species are included on the Special Animals List, which is maintained by CDFW. This list tracks species in California whose numbers, reproductive success, or habitat may be in decline. In addition to "Species of Special Concern" (SSC), the Special Animals List includes species that are tracked in the California Natural Diversity Database (CNDDB) but warrant no legal protection. These species are identified as "California Special Animals" (CSA).

2.5 CITY OF SANTA ROSA POLICIES AND REGULATIONS

2.5.1 City of Santa Rosa General Plan

In addition to the federal and State regulations described above, the *Santa Rosa General Plan 2035* (General Plan) includes goals, objectives, and policies to provide further protection to biological resources within the City's limits (City of Santa Rosa 2009). Applicable General Plan policies are summarized and included in Appendix A.

2.5.2 City of Santa Rosa Tree Ordinance

The City of Santa Rosa regulates impacts to protected trees under Title 17 of the Santa Rosa City Code. Under the Santa Rosa Tree Ordinance (Tree Ordinance), a protected tree is defined as "any tree, including a heritage tree, designated to be preserved on an approved development plan or as a condition of approval of a tentative map, a tentative parcel map, or other development approval issued by the City." (City of Santa Rosa 2009). However, under the Tree Ordinance, "When property is situated within the R-1, R-1-6, R-1-7.5, R-1-9, PRD, or R-1-PD zoning districts, a tree designated as a "protected tree" in connection with the approval of the property's development shall lose that designation when

the property has been improved or developed as described in subsection G of Section 17-24.020 and the dwelling on the property has been occupied as a residence." (City of Santa Rosa 2019.)

Under the Tree Ordinance, a heritage tree is defined as:

(2) "Any of the following trees, native to the County, whether located on private or public property, which has a diameter or circumference equal to or greater than that listed":

Species/Common Name	Diameter	Circumference
1. Oak Family		
(a) *Quercus lobata* – valley oak	6"	19"
(b) *Q. agrifolia* – live oak	18"	57"
(c) *Q. kelloggii* – black oak	18"	57"
(d) *Q. garryana* – Oregon or white oak	18"	57"
(e) *Q. chrysolepis* – canyon oak	18"	57"
(f) *Q. douglasii* – blue oak	6"	19"
(g) *Q. wislizenii* – interior live oak	18"	57"
2. *Sequoia sempervirens* – redwood	24"	75"
3. *Umbelluloria californica* – bay	24"	75"
4. *Arbutus menziesii* – madrone	12"	38"
5. *Aesculus californica* – buckeye	6"	19"
6. *Pseudotsugas menziesii* – Douglas fir	24"	75"
7. *Alnus oregona* – red alder	18"	57"
8. *Alnus rhombifolia* – white alder	18"	57"
9. *Acer macrophyllum* – big leaf maple	24"	75"

Section 17-24.030 of the Tree Ordinance states: "No person shall alter, remove or relocate, or permit or cause the alteration, removal or relocation, of any tree, including any heritage, protected, or street tree, situated in the City, without a permit." However, under the Tree Ordinance, the provisions of this section shall not apply to the following: (City of Santa Rosa 2009).

(1) "The alteration, removal or relocation of a tree, except a protected or heritage tree, situated on "developed property in a R-1, R-1-6, R-1-7.5, R-1-9, PRD, and R-1-PD zoning district," unless the adopted policy statement for a particular PRD or R-1-PD zoning district states that a permit is required." (City of Santa Rosa 2009.)

Section 17-24.050 of the Tree Ordinance states:

(A) "All development proposals and subdivision applications shall clearly designate all trees and heritage trees on the property by trunk location and an accurate outline of each tree's drip line and shall indicate those trees which are proposed to be altered, removed, or relocated and those trees proposed to be designated protected trees. The reasons for the proposed removal of any tree shall be stated in writing. The development plan or tentative subdivision map shall indicate genus and species, the shape, the drip line and the trunk circumference of each tree and heritage tree. These tree delineations must also be shown on every page of the development and improvement plans where any work is proposed within the root zone of any tree. The owner of the property and the person in control of the proposed development shall protect and preserve each tree and heritage tree situated within the site

of the proposed development during the period the application(s) for the proposed development is being considered by the City." (City of Santa Rosa 2009.)

3.0 METHODS

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

- California Department of Fish and Wildlife (CDFW). 2020. *California Natural Diversity Database* (CNDDB); For: *Healdsburg, Mark West Springs, Calistoga, Sebastopol, Santa Rosa, Kenwood, Two Rock, Cotati, Glen Ellen* U.S. Geological Survey (USGS) 7.5-minute series quadrangles, Sacramento, CA. Accessed [November 14, 2019];

- California Native Plant Society (CNPS). 2020. *Inventory of Rare and Endangered Plants* (online edition, v8-02) For: *Healdsburg, Mark West Springs, Calistoga, Sebastopol, Santa Rosa, Kenwood, Two Rock, Cotati, Glen Ellen*, quadrangles. Accessed [November 14, 2019];

- USDA, NRCS. 2019. *Web Soil Survey.* Available online at http://websoilsurvey.sc.egov.usda.gov. Accessed [November 20, 2019];

- U.S. Fish and Wildlife Service (USFWS). 2020. *Information for Planning and Consultation* (IPaC) 43 Middle Rincon Road, Sonoma County, California. Accessed [November 14, 2019];

- USGS. 2019. *Hydrological Unit Maps.* United States Department of Interior. Available online at https://water.usgs.gov/GIS/huc.html. Accessed [December 4, 2019]; and

- USGS. 2012. *Santa Rosa.* 7.5-minute series topographic quadrangle. United States Department of Interior.

Prior to conducting the biological field survey, existing information concerning known habitats and special-status species that may occur in the Study Area was reviewed. The results of the database query and five-mile radius CNDDB query for the Study Area are summarized in Tables 1-3 of Appendix B. The biological field survey was conducted on January 10, 2020 by HELIX biologist Halie Goeman. The weather during the field survey was clear with an average temperature of 43° F. The survey area was surveyed on foot to ensure total search coverage, with attention given to areas that could contain special-status species and sensitive habitats. All plant and animal species observed were recorded (Appendix C), and all biological communities occurring onsite were characterized. A tree survey of the site was conducted on June 26, 2020.

Following the field survey, the potential for each species identified in the database queries to occur within the Study Area was determined based on the site survey, soils, habitats present within the Study Area, and species-specific information, as shown in Appendix B.

4.0 RESULTS

4.1 SITE LOCATION AND DESCRIPTION

The ±2.36-acre Study Area is located in the City of Santa Rosa, Sonoma County, California. The Study Area is located within Township 7N, Range 7W, Section 8 of the USGS 7.5-minute series *Santa Rosa* quadrangle. The approximate location of the Study Area is 38.4643° North, -122.6658° West (Figure 1). The Study Area is located within the City of Santa Rosa, at the intersection of Middle Rincon Road and Highway 12 (Figure 2). The Study Area is currently developed with a convenience store, a single-family home, a martial arts studio, and other miscellaneous structures. Adjacent to the existing structures is a dirt lot and disturbed grassland habitat.

4.2 PHYSICAL FEATURES

4.2.1 Topography and Drainage

The general topography of the Study Area is mostly flat. The northern portion of the Study Area is approximately 260 feet above mean seal level (MSL), while the southern portion of the Study Area is slightly higher at 270 feet above MSL.

The Study Area is located in the Russian River watershed, USGS Hydrological Unit Code HUC12-18010110 within the Northern California Coastal region in Sonoma County, California (USGS 2019). No creeks, streams, rivers, or other aquatic resources are located within or adjacent to the Study Area.

4.2.2 Soils

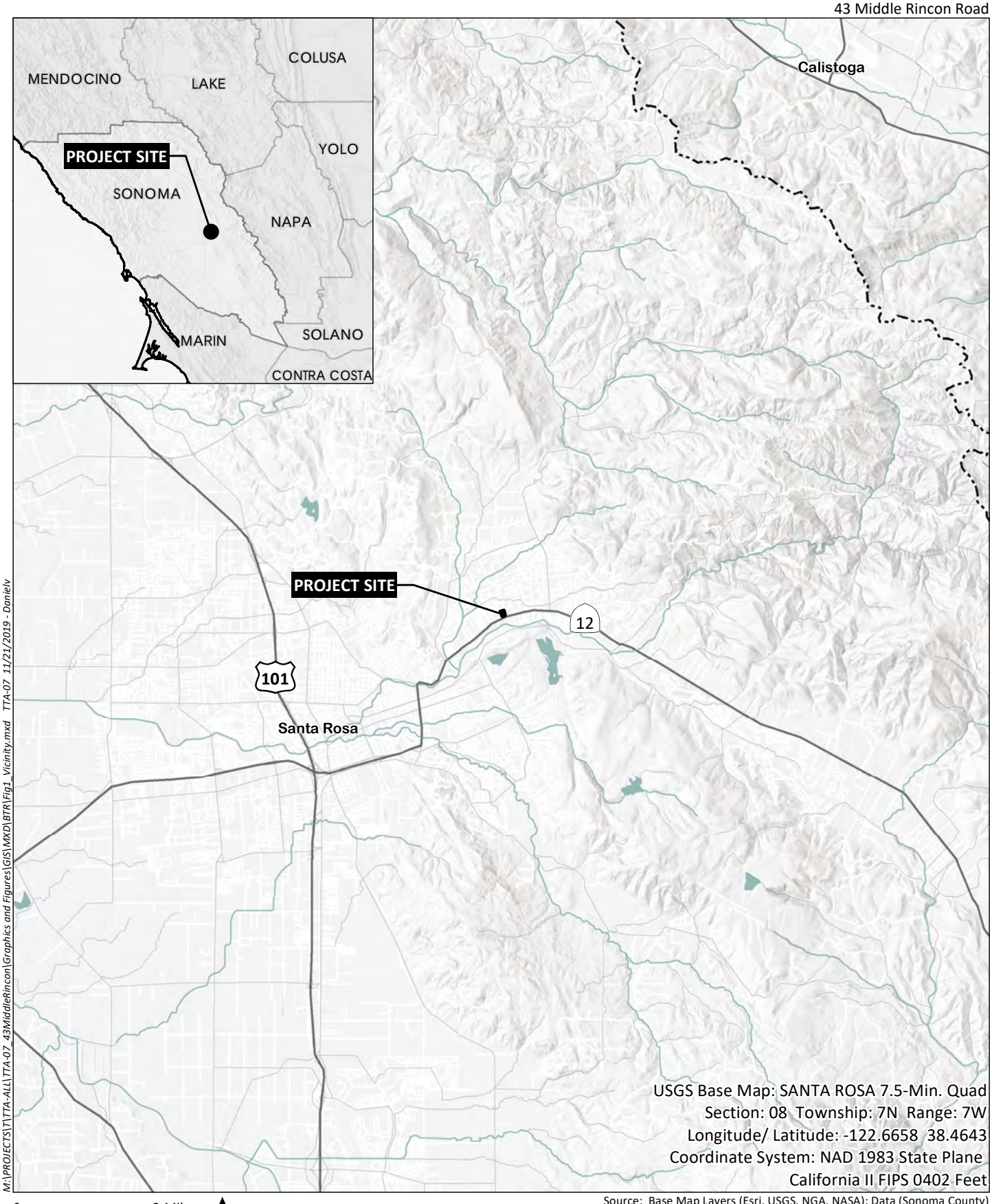
The Natural Resources Conservation Service (NRCS) has mapped two soil units in the Study Area: Pleasanton clay loam, 2 to 5 percent slopes, and Pleasanton-Haire complex, 0 to 9 percent slopes. (Figure 3). The general characteristics and properties associated with these soil types are described below (USDA 2019, NRCS 2019).

Pleasanton clay loam, 2 to 5 percent slopes: This soil unit is alluvium derived from sedimentary rock. It is typical of backslopes and tread. This soil unit is well drained, has a medium runoff class, and no frequency of flooding or ponding. There is no hydric soil rating for this soil type.

Pleasanton-Haire complex, 0 to 9 percent slopes: The Pleasanton soil unit is alluvium derived from sedimentary rock. It is typical of backslopes and tread. This soil unit is well drained, has a high runoff class, and no frequency of flooding or ponding. There is no hydric soil rating for this soil type. The Haire soil unit is also alluvium derived from sedimentary rock, and typical of backslopes and tread. This soil unit is moderately well drained and has no frequency of flooding or ponding. There is no hydric soil rating for this soil type.

4.3 BIOLOGICAL COMMUNITIES

One biological community occurs within the Study Area: disturbed/developed; and is described in more detail below (Figure 4). A comprehensive list of all plant species observed within this community is provided in Appendix C. Representative site photographs are included in Appendix D.



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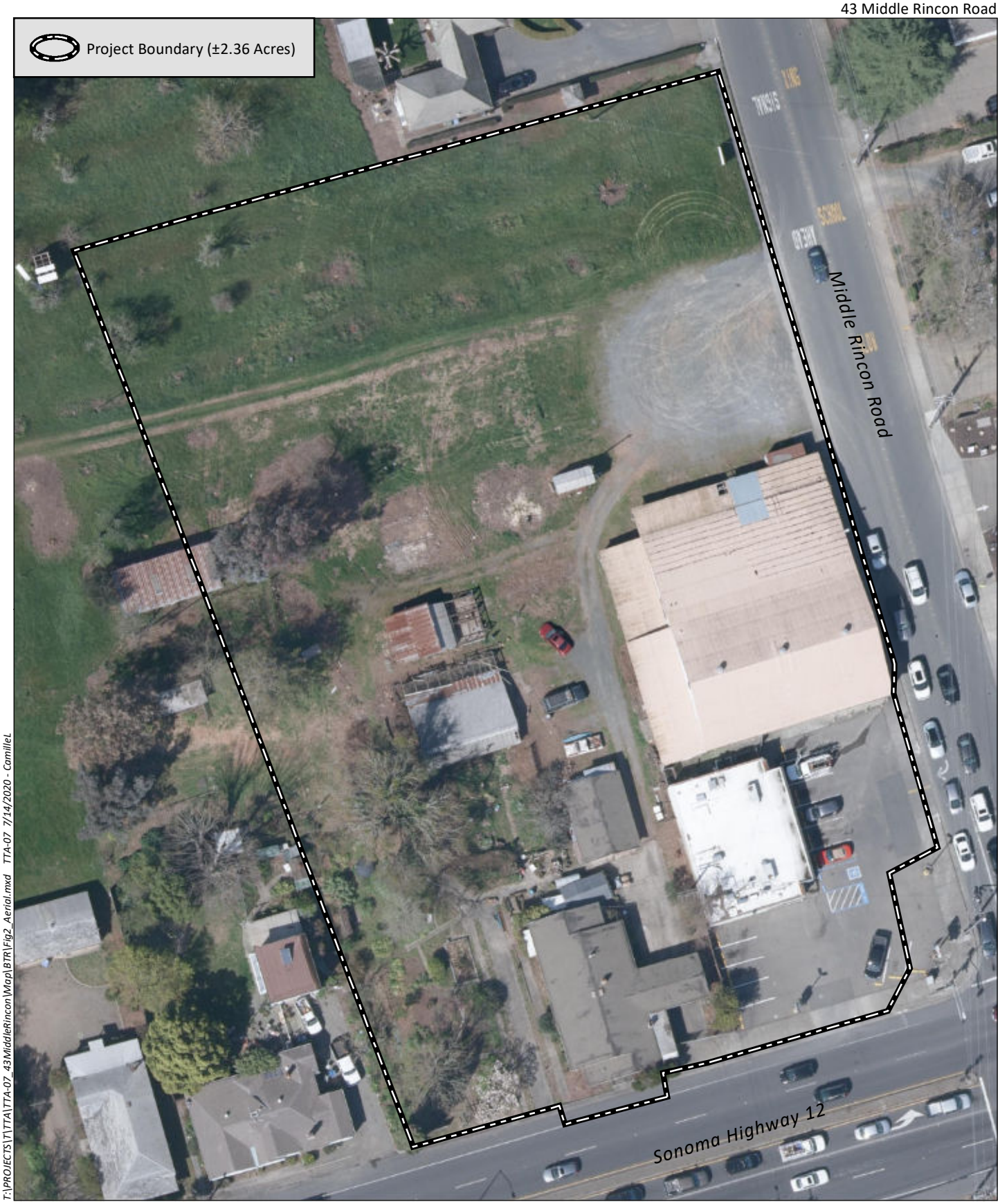
Vicinity Map

Figure 1



T:\PROJECTS\T\TTA\TTA-07_43MiddleRincon\Map\BTR\Fig2_Aerial.mxd TTA-07 7/14/2020 - CamilleL

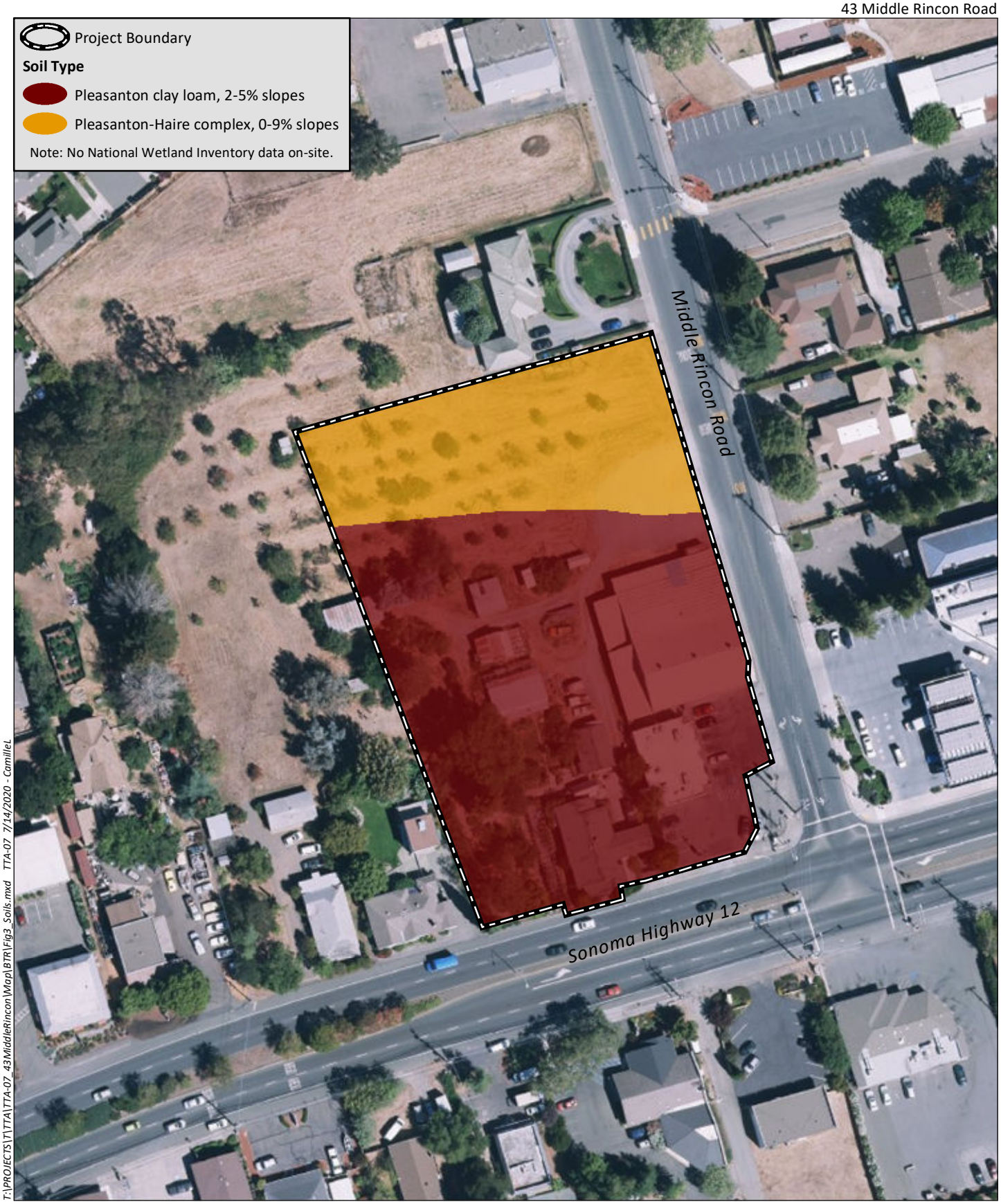
0 55 Feet

Source: Base Map Layers (Esri, USDA, USGS); Data (Sonoma County)

HELIX Environmental Planning

Aerial Map

Figure 2



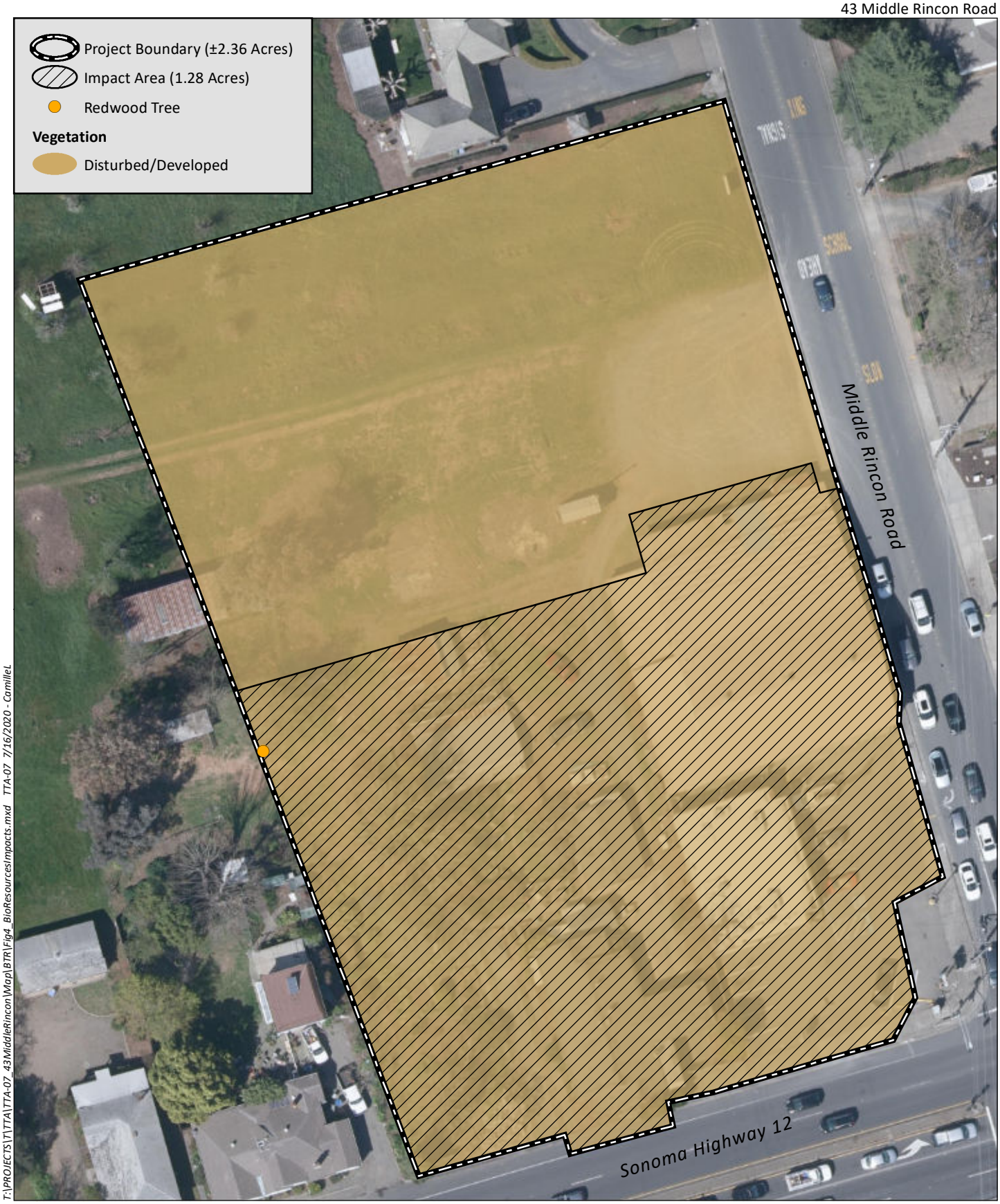
T:\PROJECTS\T\TTA\TTA-07_43MiddleRincon\Map\BTR\Fig3_Soils.mxd TTA-07 7/14/2020 - CamilleL

Source: Base Map Layers (Esri, USDA, USGS); Data (Sonoma County, USFWS, USDA NRCS)

HELIX Environmental Planning

Soils and National Wetland Inventory Map

Figure 3



Source: Base Map Layers (Esri, USDA, USGS); Data (Sonoma County)

HELIX Environmental Planning

Biological Resources and Impacts

Figure 4

4.3.1 Disturbed/Developed

Disturbed/developed habitat is comprised of ruderal (weedy) vegetation or ornamental vegetation and contains built structures and/or maintained surfaces such as roads or parking lots. Vegetation that does occur within this community type is often comprised of non-native grasses and forbs. The entire ±2.36-acre Study Area is comprised of built structures, ornamental plants, and non-native grasses and forbs. Evidence of disturbance such as vehicle tracks and mowing were also observed.

Plant species observed in the Study Area within this community include: Incense cedar (*Calocedrus decurrens*), bermuda grass (*Cynodon dactylon*), crabgrass (*Digitaria sanguinalis*), blue gum (*Eucalyptus globulus*), silver-leaf mountain gum (*Eucalyptus pulveulenta*), ash (*Fraxinus sp.*), American holly (*Ilex* opaca), prickly lettuce (*Latuca serriola*), sweet gum (*Liquidambar styraciflua*), scarlet pimpernel (*Lysimachia arvensis*), apple (*Malus sp.*), cheeseweed mallow (*Malva parviflora*), cherry (*Prunus sp.*), and willow (*Salix sp.*).

4.4 AQUATIC RESOURCES

No aquatic resources occur within or adjacent to the Study Area.

4.5 SPECIAL-STATUS SPECIES

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

- Listed or proposed for listing under CESA or FESA;
- Protected under other regulations (e.g., Migratory Bird Treaty Act);
- Included on the CDFW Special Animals List;
- Identified as Rare Plant Rank 1 to 4 by CNPS; or
- Receive consideration during environmental review under CEQA.

Special-status species considered for this analysis are based on queries of the CNDDB, the USFWS, and CNPS ranked species (online versions) for the *Santa Rosa* USGS quadrangle and eight surrounding quadrangles. Appendix B includes the common name and scientific name for each species, regulatory status (federal, State, local, CNPS), habitat descriptions, and potential for occurrence in the Study Area. The following set of criteria has been used to determine each species' potential for occurrence in the Study Area:

- **Present**: Species known to occur within the Study Area based on CNDDB records and/or observed within the Study Area during the biological surveys.

- **High**: Species known to occur on or in the vicinity of the Study Area (based on CNDDB records within five miles and/or based on professional expertise specific to the Study Area or species) and there is suitable habitat within the Study Area.

- **Low**: Species known to occur in the vicinity of the Study Area and there is marginal habitat within the Study Area -OR- Species is not known to occur in the vicinity of the Study Area, however, there is suitable habitat on the Study Area.

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

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

4.5.1 Listed and Special-Status Plants

According to the database queries, 83 special-status plant species have the potential to occur onsite or in the vicinity of the Study Area (CDFW 2020). Based on field observations, published information, and literature, no special-status plant species have the potential to occur onsite. The Study Area does not contain a biological community in which special-status plant species would be supported and the Study Area has been previously developed or otherwise disturbed.

4.5.2 Listed and Special-Status Wildlife

According to database queries and field observations, 44 special-status wildlife species have the potential to occur onsite or in the vicinity of the Study Area (CDFW 2020). Based on field observations, published information, and literature review, six special-status wildlife species have the potential to occur within the Study Area. These include: California horned lark (*Eremophila alpestris actia*), crotch bumblebee (*Bombus crotchii*), obscure bumblebee (*Bombus caliginosus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western bumblebee (*Bombus occidentalis*). These species are discussed in detail below.

Special-Status Wildlife with a High Potential for Occurrence

Pallid Bat

The pallid bat is designated as a California Special Animal and occurs in a variety of habitats. The habitats include grasslands, shrublands, woodlands, and forests. This species roosts in colonies in rock crevices, caves, mines, hollow trees, and buildings. The Study Area provides suitable roosting habitat within the existing trees and structures onsite. Therefore, this species has a high potential to occur. The nearest documented occurrence of this species was 3.2 miles from the Study Area (CDFW 2020).

Townsend's Big-eared Bat

The Townsend's big-eared bat is designated as a California Species of Special Concern and occurs in a variety of habitats. The habitats are usually mesic featuring brush, trees, and habitat edges . This species roosts in small colonies in caves, tunnels, mines, and buildings. The Study Area provides suitable roosting habitat within the existing trees and structures onsite. Therefore, this species has a high potential to occur. The nearest documented occurrence of this was species was 9.2 miles from the Study Area (CDFW 2020).

Special-Status Wildlife with a Low Potential for Occurrence

Bombus Species

The crotch bumblebee (California Candidate Endangered Species), the western bumblebee (California Candidate Endangered Species), and the obscure bumblebee (California Special Animal) are ground-nesting solitary bees that are found in a variety of habitats, including grassland (Black and Vaughan 2005; USDA 2011). The Study Area contains grasses within the disturbed/developed habitat suitable for ground nests, and some flowering vegetation. However, there is only minimal space to serve as suitable nesting habitat, and there is not a variety of flowering vegetation for long-term sustainability. Therefore, these species have a low potential to occur. The nearest documented occurrence of the crotch bumblebee was 11.5 miles from the Study Area (CDFW 2020). The nearest documented occurrence of the western bumblebee was 6.5 miles from the Study Area (CDFW 2020). The nearest documented occurrence of the obscure bumblebee was 2.0 miles from the Study Area (CDFW 2020).

California Horned Lark

The California horned lark is designated as a California Special Animal and occurs in grasslands and other herbaceous communities along the coast, transverse ranges, and in the Central Valley. This species nests on the ground in grass-lined hollows in cultivated areas, prairies, open fields, and urban areas (Zeiner et al. 1990). The Study Area contains grasses and other herbaceous vegetation. However, there is only minimal space to serve as potentially suitable nesting habitat. Therefore, this species has a low potential to occur. The nearest documented occurrence of this species was 10.4 miles from the Study Area (CDFW 2020)

Migratory Birds and Raptors

Migratory birds are protected under the MBTA of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10; this also includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All raptors, including common species not considered special-status, are protected under the California Fish and Wildlife Code (Section 3503.5). Removal or destruction of an active raptor nest is considered a violation of the Fish and Wildlife Code. Additionally, Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird and Section 3513 specifically states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act.

Migratory birds and raptors have the potential to nest in or adjacent to the Study Area. Suitable nest locations may include but are not limited to trees, shrubs, bare ground, buildings, and structures.

4.6 SENSITIVE HABITATS

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code, and/or Sections 401 and 404 of the Clean Water Act. Additionally, sensitive habitats are protected under the specific policies outlined in the Santa Rosa General Plan 2035. Sensitive habitats or resource types are discussed below.

4.6.1 Protected Trees

ISA-Certified arborist Stephanie McLaughlin conducted a survey of the trees within the Study Area on June 26, 2020. Tree species documented within the Study Area included cherry, apple, American holly , sweet gum, ash (*Fraxinus sp.*), silver leaf mountain gum, blue gum, willow (*Salix sp.*), incense cedar (*Calocedrus decurrens*), and coast redwood (*Sequoia sempervirens*).

There is a single coast redwood that would be subject to protection under the City's tree Ordinance. The tree is approximately 100 feet tall, has a DBH of 38 inches, and a dripline radius of 20 feet (Figure 4). The structure of the tree is rated as good and the health and vigor is rated as poor. Although this tree meets the heritage tree standard under the Tree Ordinance (City of Santa Rosa 2009), due to its poor health (it suffers from crown dieback) this tree is recommended for removal and therefore may not require mitigation from the City. The remaining tree species onsite are not subject to regulation under the City's tree ordinance.

4.6.2 Wildlife Migration Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation can also occur when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs. The Study Area does not link two significant natural areas and is surrounded by similar disturbed habitat types; therefore, it is not considered a wildlife migration corridor.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The ±2.36-acre Study Area is comprised of disturbed/developed habitat. Sensitive resources that may be impacted by the proposed Project include special-status wildlife habitat.

No special-status wildlife species were observed within the Study Area during the field survey on January 10, 2020. However, suitable habitat is present for several special-status wildlife species and there is potential these species may occur within the Study Area. Recommendations, including avoidance and minimization measures to limit or avoid impacts to special-status species that may occur in the Study Area are included in Section 5.1.

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

- Potential nesting and foraging habitat for special-status birds and other migratory birds and raptors;
- Potential roosting habitat for pallid bat and Townsend's big-eared bat;

- Potential habitat for *Bombus* species (bumblebees) including crotch bumblebee, obscure bumblebee and western bumblebee; and

- Protected coast redwood tree that may require a permit prior to removal.

5.1 RECOMMENDATIONS

5.1.1 Special-Status Birds and Other Migratory Birds and Raptors

California horned lark, (a California Special Animal), and other migratory birds and raptors have potential to occur and nest within the Study Area. No active nests were observed at the time of the field survey on January 10, 2020, but the Study Area has the potential to support nesting birds within various trees and shrubs, bare ground, and existing buildings and structures.

Active nests and nesting birds are protected by the California Fish and Wildlife Code Section 3503, 3503.5, 3513 and the MBTA. Ground-disturbing and other development activities including grading, vegetation clearing, tree removal, and construction could impact nesting birds if these activities occur during the nesting season (generally February 1 to August 31). To avoid impacts to nesting birds, all ground disturbing activity should be completed between September 1 and January 31, if feasible.

If development activities occur during the nesting season, a qualified biologist should conduct a nesting bird survey to determine the presence of any active nests within the Study Area. Additionally, the surrounding 500 feet of the Study Area should be surveyed for active raptor nests, where accessible, and with binoculars as necessary. The nesting bird survey should be conducted within 14 days prior to commencement of ground-disturbing or other development activities. If the nesting birds survey shows that there is no evidence of active nests, then a letter report should be prepared to document the survey and be provided to the Project proponent and no additional measures are recommended. If development does not commence within 14 days of the nesting bird survey, or halts for more than 14 days, then an additional survey is required prior to starting or resuming work.

If active nests are found, the qualified biologist should establish species-specific buffer zones to prohibit development activities and minimize nest disturbance until the young have successfully fledged or the biologist determines that a nest is no longer active. Buffer distances may range from 20 feet for some songbirds up to 250 to 500 feet for most raptors. Nest monitoring may also be warranted during certain phases of development to ensure nesting birds are not adversely impacted by adjacent construction. If active nests are found within any trees slated for removal, an appropriate buffer should be established around the tree, and all trees within the buffer should not be removed until a qualified biologist determines that the nest has successfully fledged and is no longer active.

In addition, a qualified biologist should conduct an environmental awareness training to all Project-related prior to the initiation of work. The training should include identification of special-status bird species, required practices before the start of construction, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of the permitted disturbance zones. Upon completion of the training, all Project-related personnel should sign a form stating that they have attended the training and understand all the measures. Proof of this instruction should be kept on file with the Project proponent.

If construction occurs outside of the nesting bird season (September 1 to January 31) a nesting bird survey and environmental training for nesting birds would not be required.

5.1.2 Pallid Bat and Townsend's Big-Eared Bat

Pallid bat (included on the California Special Animal List) and Townsend's big-eared bat (designated as a California Species of Special Concern) have the potential to occur within the Study Area. Although no signs of roosting were observed during the field survey on January 10, 2020, these species have the potential to roost within trees or various structures or buildings within the Study Area. A qualified biologist should conduct a pre-construction survey for these species within 14 days prior to development or ground disturbing activities including grading, vegetation clearing, tree removal, or construction. The surrounding 100 feet of the Study Area should also be surveyed for roosting bats, where accessible. If no signs of bats are observed, then a letter report should be prepared to document the survey and provided to the Project proponent and no additional measures are recommended. If development does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional survey is required prior to resuming or starting work.

If special-status bats are present in the Study Area of the surrounding 100 feet of the Study Area, the qualified biologist should establish an appropriate no disturbance buffer around the roost site prior to the commencement of ground disturbing activities or development. At a minimum, no trees or structures should be removed until the biologist has determined that a roost site is no longer active, and no bats are present. In addition, a qualified biologist should conduct an environmental awareness training to all Project-related personnel prior to the initiation of work. The training should follow the same guidelines as for special-status birds. As applicable, the pre-construction survey and environmental training may be combined with other recommended surveys and trainings.

Additional mitigation measures for bat species, such as installation of bat boxes or alternate roost structures, would be recommended only if special-status bat species are found to be roosting within the Study Area.

5.1.3 Crotch Bumblebee, Obscure Bumblebee, and Western Bumblebee

The crotch bumblebee (California Candidate Endangered Species), the western bumblebee (California Candidate Endangered Species), and the obscure bumblebee (California Special Animal) have the potential to occur within the Study Area. Vegetation clearing and ground-disturbing activities within the Study Area could impact this species during construction, if present. However, since Bombus species establish new nests annually, the potential loss of individual nests is not expected to have a significant impact on these species. Therefore, no species-specific mitigation measures are recommended for these species.

5.1.4 Protected Tree

The coast redwood meets the diameter requirements in order to be considered a protected heritage tree under the City's Tree Ordinance. Under the Tree Ordinance, a permit would be required for removal of this heritage tree and mitigation would be required according to the Tree Ordinance under Section 17-25.050, which includes the permit process and the tree replacement program. However, the tree in question is in poor health and has been subjected to intense pruning. Therefore, HELIX would

recommend this tree be removed based on poor health and vigor which may preclude a requirement for mitigation. The City should be consulted regarding the need to mitigate for removal of the tree.

5.2 SUMMARY OF AVOIDANCE AND MINIMIZATION MEASURES

- A qualified biologist should conduct pre-construction surveys for nesting birds including the California horned lark, if construction occurs within the typical nesting bird season (February 1 to August 31). Pre-construction surveys should also be completed for special-status bats. These surveys should be conducted within 14 days prior to development or ground disturbing activities and may be combined as appropriate. If development does not commence within 14 days of the pre-construction surveys, or halts for more than 14 days, additional surveys are required prior to resuming or starting work.

- If the surveys show that there is no evidence of active nests or occupied special-status wildlife habitat, then a letter report(s) should be prepared to document the survey results and provided to the Project proponent and no additional measures are recommended.

- If active nests or occupied special-status wildlife are found, a qualified biologist should establish species-specific buffer zones to prohibit development activities and minimize disturbance until the biologist determines that a buffer is no longer necessary.

- A qualified biologist should conduct an environmental awareness training to all Project-related personnel prior to the initiation of work. The training should cover all special-status wildlife species with the potential to occur within the Study Area.

- A tree permit may be required by the City of Santa Rosa for removal of the coast redwood.

6.0 REFERENCES

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Appendix A

Applicable Sections of the City of Santa Rosa General Plan 2035

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Appendix A
Applicable Sections of the City of Santa Rosa General Plan 2035

City of Santa Rosa General Plan 2035

The City of Santa Rosa General Plan 2035 (General Plan) was adopted November 3, 2009 and updated July 2019. It sets forth specific goals, policies, and implementation programs for a variety of topics and elements. These include urban design, housing, open space and conservation, growth management, youth and family, economic vitality, historic preservation, noise and safety, art and culture. The plan must analyze issues of importance to the community, set forth policies in text and diagrams for conservation and development, and outline specific programs for implementing these policies. Applicable sections of the General Plan are discussed below.

Section 7: Open Space and Conservation

Biological Resources and Wetlands

Goal OSC-D: Conserve wetlands, vernal pools, wildlife ecosystems, rare plant habitats, and waterways.

Policy OSC-D-1. Utilize existing regulations and procedures, including Subdivision Guidelines, Zoning, Design Review, and environmental law, to conserve wetlands and rare plants. Comply with the federal policy of no net loss of wetlands using mitigation measures such as:

- Avoidance of sensitive habitat;
- Clustered development;
- Transfer of development rights; and/or
- Compensatory mitigation, such as restoration or creation

Policy OSC-D-2. Protect high quality wetlands and vernal pools from development or other activities as determined by the Vernal Pool Ecosystem Preservation Plan

Policy OSC-D-3. Preserve and restore the elements of wildlife habitats and corridors throughout the Planning Area.

Policy OSC-D-4. Continue to consult with the California Department of Fish and Wildlife to identify significant environments. Identify priorities for acquisition or maintenance of open space areas based on biological and environmental concerns, and develop an overall strategy for the maintenance of areas that will preserve the populations of plants and animals currently found within the Urban Growth Boundary.

Policy OSC-D-5. Consult with North Coast Regional Water Quality Control Board staff as part of the CEQA process for proposed developments to help them identify wetland and vernal pool habitat that has candidacy for restoration/protection based on actual and potential beneficial uses, and determine appropriate locations for mitigation banking.

Policy OSC-D-6. Preserve waterways by informing residents of the environmental effects of dumping yard waste into creeks, or other wastes, such as motor oil, into storm drains that empty into creeks.

Policy OSC-D-7. Rehabilitate existing channelized waterways, as feasible, to remove concrete linings and allow for a connection with the stream channel and the natural water table. Avoid creating additional

channelized waterways, unless no other alternative is available to protect human health, safety, and welfare.

Policy OSC-D-8. Restore channelized waterways to a more natural condition which allows for more natural hydraulic functioning, including development of meanders, pools, riffles, and other stream features. Restoration should also allow for growth of riparian vegetation which effectively stabilizes banks, screens, pollutants from runoff entering the channel, enhances fisheries, and provides other opportunities for natural habitat restoration.

Policy OSC-D-9. Ensure that construction adjacent to creek channels is sensitive to the natural environment. Ensure that natural topography and vegetation is preserved along the creek, and that construction activities do not disrupt or pollute the waterway.

Policy OSC-D-10. Orient development and buildings toward creeks, while providing privacy, security, and an open transition between public and private open spaces.

Policy OSC-D-11. New development along channelized waterways should allow for an ecological buffer zone between the waterway and development. This buffer zone should also provide opportunities for multi-use trails and recreation.

Policy OSC-D-12. New development should maintain an adequate setback from channelized waterways to recognize the 100-year flood elevation, and allow for stream corridor restoration. Setbacks identified in the zoning code should serve as minimum setbacks. Larger setbacks are encouraged in accordance with Restoration Concept Plans to meet restoration and enhancement goals.

Vegetation and Trees

Goal OSC-H: Conserve significant vegetation and trees and plant new trees.

Policy OSC-H-1. Preserve trees and other vegetation, including wildflowers, both as individual specimens and as parts of larger plant communities.

Policy OSC-H-2. Preserve and regenerate native oak trees.

Policy OSC-H-3. Preserve the Highway 12 scenic route in eastern Santa Rosa including the corridor of oak trees. Encourage CalTrans to preserve the oaks on site where possible, and to replace destroyed trees.

Policy OSC-H-4. Require incorporation of native plants into landscape plans for new development, where appropriate and feasible, especially on areas adjacent to open space areas or along waterways.

Policy OSC-H-5. Plant trees on public property including park strips, open space and park areas and encourage tree planting on private property to help offset carbon emissions.

Appendix B

Regionally Occurring Listed and Special-Status Species

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Appendix B
Regionally Occurring Listed and Special-Status Species

Table 1 — Legally Protected Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Plants				
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--; CE; --; 1B.2	Annual herb that occurs in clay soils. Found in marshes and swamps at lake margins, and in vernal pools.	April – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Burke's goldfields *Lasthenia burkei*	FE; CE; --; 1B.1	Small annual herb found in meadows, seeps and vernal pools.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur. Two occurrences within 5 miles of Study Area (CDFW 2019).
Clara Hunt's milk-vetch *Astragalus clarianus*	FE; CT; --; 1B.1	Annual herb that occurs in serpentinite, volcanic, rocky, or clay soils. Found in chaparral openings, cismontane woodland, and valley and foothill grassland.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur. Two occurrences within 5 miles of Study Area (CDFW 2019).
Contra Costa goldfields *Lasthenia conjugens*	FE; --; --; 1B.1	Annual herb that occurs in mesic soil. Found in cismontane woodland, alkaline playas, vernal pools, valley and foothill grassland.	March – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Golden larkspur *Delphinium luteum*	FE; CR; --; 1B.1	Perennial herb found in chaparral, coastal scrub, and coastal prairie.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur.
Kenwood Marsh checkerbloom *Sidalcea oregana* ssp. *valida*	FE; CE; --; 1B.1	Perennial rhizomatous herb found in freshwater marshes and swamps.	June – September	**None**. The Study Area does not contain suitable habitat for this species to occur.
Loch Lomond button-celery *Eriogonum nervulosum*	FE; CE; --; 1B.1	Annual/perennial herb found in vernal pools.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Many-flowered navarretia *Navarretia leucocephala* ssp. *plieantha*	FE; CE; --; 1B.2	Annual herb found in vernal pools (volcanic ash flow).	May – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
North Coast semaphore grass *Pleuropogan hooverianus*	--; CT; --; 1B.1	Perennial rhizomatous herb found in open, mesic areas. Occur in broadleaved upland forest, meadows and seeps, and North Coast coniferous forest.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Pitkin Marsh lily *Lilium pardalinum* ssp. *pitkinense*	FE; CE; --; 1B.1	Perennial bulbiferous herb found in cismontane woodland, meadows, seeps, marshes and swamps. Usually occurs in mesic sandy soil.	June – July	**None**. The Study Area does not contain suitable habitat for this species to occur. Two occurrences within 5 miles of Study Area (CDFW 2019).
Pitkin Marsh paintbrush *Castilleja uliginosa*	--; CE; --; 1A	Perennial herb found in freshwater swamps and marshes.	June – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Sebastopol meadowfoam *Limnanthes vinculans*	FE; CE; --; 1B.1	Annual herb occurs in vernally mesic soil. Found in meadows and seeps, valley and foothill grassland, and vernal pools.	April – May	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Sonoma alopecurus *Alopecurus aequalis* var. *sonomensis*	FE; --; --; 1B.1	Perennial found in freshwater marshes and swamps and riparian scrub.	May – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Sonoma spineflower *Chorizanthe valida*	FE; CE; --; 1B.1	Annual herb found in sandy coastal prairie.	June – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Sonoma sunshine *Blennosperma bakeri*	FE; CE; --; 1B.1	Annual shrub found in mesic valley and foothill grasslands and vernal pools.	May – July	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Two-fork clover *Trifolium amoenum*	FE; --; --; 1B.1	Annual herb found in coastal bluff scrub, valley and foothill grasslands, and sometime serpentinite soils. Occurs usually in wetlands.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Vine Hill manzanita *Arctostaphylos densiflora*	--; CE; --; 1B.1	Annual herb that occurs in acidic sandy loam soil. Found in chaparral and valley and foothill grassland.	February – April	**None**. The Study Area does not contain suitable habitat for this species to occur.
Vine Hill clarkia *Clarkia imbricata*	FE; CE; --; 1B.1	Perennial evergreen herb found in chaparral and acid marine sand.	June – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Invertebrates				
California freshwater shrimp *Syncaris pacifica*	FE; CE; --; --	Occurs in small, perennial coastal streams with exposed live roots of trees. Banks have overhanging woody debris or stream vegetation and vines such as stinging nettles, grasses, vine maple and mint.	Year – Round	**None**. The Study Area does not contain coastal streams or banks for this species to occur.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
San Bruno Elfin Butterfly *Callophrys mossii bayensis*	FE; --; --; --	Inhabits north-facing slopes on San Bruno Mountain and nearby summits on the Peninsula south of San Francisco. Larvae are restricted to stonecrop (*Sedum spathulifolium*) which grows on steep slopes in chaparral from 50-2,500 m above mean sea level (Black and Vaughan 2005b).	February – April	**None**. The Study Area does not contain suitable habitat for this species to occur.
Fish				
Steelhead-central California coast DPS *Onocorhynchus mykiss irideus pop. 8*	FT; --; --; --	Spawn in rivers and streams with cool, clear, water and suitable substrate. This distinct population segment includes all naturally spawned anadromous *O. mykiss* (steelhead) populations below natural and manmade impassable barriers from the Russian River to Aptos Creek, Santa Cruz County and their tributaries, including drainages from the San Francisco and San Pablo Bays and their tributaries (NOAA 2006).	Year – Round	**None**. The Study Area does not contain river and streams for this species to occur,
Coho salmon-central California coast ESU *Onocorhynchus kisutch pop. 4*	FE; CE; --; --	Requires aquatic habitat with beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Year – Round	**None**. The Study Area does not contain aquatic habitat for this species to occur.
Amphibians/ Reptiles				
California red-legged frog *Rana draytonii*	FT; CSC; --; --	Occupies a distinct habitat, combining both specific aquatic and upland components. The adults require dense, shrubby or emergent vegetation and are closely associated with deep (greater than 2/3-feet deep) still or slow-moving water. The largest densities of California red-legged frogs are associated with deep-water pools with dense stands of overhanging willows (*Salix* spp.) and an intermixed fringe of cattails (*Typha latifolia*). Well-vegetated terrestrial areas within the aquatic habitat corridor provide important sheltering habitat during winter. California red-legged frogs aestivate (enter a dormant state during summer or dry weather) in small mammal burrows and moist leaf litter. They have been found up to 100 feet from water in adjacent dense vegetation. Studies have indicated that this species cannot inhabit water bodies that exceed 70° F, especially if there are no cool, deep portions (USFWS 2002).	Year – Round	**None**. The Study Area does not contain aquatic habitat, deep-water pools with dense vegetation, or dense vegetation for this species to occur. Three occurrences within 5 miles of Study Area (CDFW 2019).
Foothill yellow-legged frog *Rana boylii*	--; CT; CSC; --	Occurs along the coast ranges from Oregon to Los Angeles and along the western side of the Sierra Nevada. This species uses perennial rocky streams in a wide variety of habitats up to 6,400 feet above MSL. This species rarely ventures far from water, it is usually found basking in the water, or under surface debris near the water edge. Eggs are laid in clusters attached to gravel or rocks along stream margins in flowing water. Tadpoles typically require up to four months to complete aquatic development. Breeding typically follows winter rainfall and snowmelt, which varies based upon location (Jennings and Hayes 1994).	Spring – Fall	**None**. The Study Area does not contain rocky streams for this species to occur. Five occurrences within 5 miles of Study Area (CDFW 2019).
California tiger salamander *Ambystoma californiense*	FT; CT; --; --	Generally restricted to vernal pools and seasonal ponds, including constructed stock ponds, in grassland and oak savannah plant communities from sea level to about 1,500 feet in central California. This species spends the majority of its life in upland areas in the vicinity of suitable breeding ponds, where it inhabits rodent burrows. Suitable breeding habitat must be present in combination with suitable upland habitat. In the Coastal region, populations are scattered from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County, and in the Central Valley and Sierra Nevada	Year – Round	**None**. The Study Area does not contain vernal pools and seasonal ponds for this species to occur, nor does it contain suitable upland areas near breeding ponds for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
		foothills from Yolo to Kern counties (USFWS 2017).		
Green sea turtle *Chelonia mydas*	FT; --; --; --	Occurs in shallow waters inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting.	Year – Round	**None**. No reefs, bay, and inlets occur within the Study Area; suitable habitat is absent.
Birds				
Bank swallow *Riparia riparia*	--; CT; --; -- Nesting	Found primarily over open riparian areas, but also over grassland, brushland, wetlands, and cropland. Nests near water in colonies of tunnels dug into sandy banks or cliffs.	February – October	**None**. The Study Area does not contain riparian areas, wetlands, and croplands for this species to occur.
Golden eagle *Aquila chrysaetos*	FSC; CFP; --; -- Nesting and Wintering	Found in rolling foothill and mountain terrain up to 3850 meters. Nests on cliffs and in large trees.	Year – Round	**None**. The Study Area does not contain rolling foothill and mountain terrain for this species to occur. If golden eagles were to occur, it would likely be in passing.
Northern spotted owl *Strix occidentalis caurina*	FT; --; --; --	Resides in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 7,600 ft.	Year – Round	**None**. The Study Area does not contain dense mixed conifer, redwood, and Douglas-fir habitats for this species to occur.
Tricolored blackbird *Agelaius tricolor*	FSC; CT; --; -- Nesting Colony	Found near fresh water, usually in emergent wetlands with tall, dense cattails or tule, but also in thickets of willow, blackberry, wild rose, and tall herbs. Nests in colonies in dense cattails, tule, or similar vegetation within a few feet of fresh water.	Year – Round	**None**. The Study Area does not contain freshwater wetlands with dense vegetation for this species to occur.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT; CE; --; -- Nesting	Found in extensive deciduous riparian thickets or forests along slow-moving watercourses dominated by willow. Nests in dense cover on horizontal limbs up to 25 feet above the ground.	February – October	**None**. The Study Area does not contain deciduous riparian thickets or forest along watercourses for this species to occur.

Table 1 includes federal threatened or endangered species and eagles, and State threatened, endangered, or fully protected species.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Table 2 — Species Subject to CEQA Review

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Plants				
Baker's goldfields *Lasthenia californica* ssp. *bakeri*	--; --; --; 1B.2	Perennial herb found in closed-cone coniferous forest openings, coastal scrub, meadows and seeps, and marshes and swamps.	April – October	**None**. The Study Area does not contain suitable habitat for this species to occur.
Baker's navarretia *Navarretia leucicephala* ssp. *bakeri*	--; --; --; 1B.1	Annual herb found in mesic areas of cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools.	April – July	**None**. The Study Area does not contain suitable habitat for this species to occur. Two occurrences within 5 miles of Study Area (CDFW 2019).
Bent-flowered fiddleneck *Amsinckia lunarius*	--; --; --; 1B.2	Annual herb found in coastal bluff scrub, cismontane woodland, and valley and foothill grassland.	March – June	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Big-scale balsamroot *Balsamorhiza macrolepis*	--; --; --; 1B.2	Perennial herb found in chaparral, cismontane woodland, valley and foothill grassland, sometimes on serpentinite soil.	March – June	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Brownish beaked-rush *Rhynchospora capitellata*	--; --; --; 2B.2	Perennial herb found on mesic sites within lower montane coniferous forest. Also found in meadows, seeps, marshes, swamps, and upper montane coniferous forest.	July – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
California beaked-rush *Rhynchospora californica*	--; --; --; 1B.1	A perennial rhizomatous herb in bogs and fens, lower montane coniferous forest, meadows and seeps and marshes and swamps	May – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Calistoga ceanothus *Ceanothus divergens*	--; --; --; 1B.1	Perennial evergreen shrub found in chaparral. Occurs in serpentinite, rocky or volcanic soils.	(Feb.) March – June	**None**. The Study Area does not contain suitable habitat for this species to occur. Six occurrences within 5 miles of Study Area (CDFW 2019).
Coastal triquetrella *Triquetrella californica*	--; --; --; 1B.2	Moss found in coastal bluff scrub and coastal scrub.	May – June	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Cobb Mountain lupine *Lupinus sericatus*	--; --; --; 1B.2	Perennial herb found in broadleaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest.	March – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Colusa layia *Layia septentrionalis*	--; --; --; 1B.2	Annual herb found on sandy, serpentinite soils in chaparral, cismontane woodland, and valley and foothill grassland.	April – May	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Congested-headed hayfield tarplant *Hemizonia congesta* ssp. *congesta*	--; --; --; 1B.2	Annual herb found on valley and foothill grassland, and roadsides.	April – November	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Cunningham Marsh cinquefoil *Potentilla uliginosa*	--; --; --; 1A	Perennial herb found in freshwater, permanent, oligotrophic wetlands, and marshes and swamps.	May – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Dwarf downingia *Downingia pusilla*	--; --; --; 2B.2	Found in mesic valley and foothill grassland and vernal pools, and roadside ditches.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Fragrant fritillary *Fritillaria liliacea*	--; --; --; 1B.2	Perennial bulbiferous herb found often on serpentinite soils in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland.	February – April	**None**. The Study Area does not contain suitable habitat for this species to occur. Five occurrences within 5 miles of Study Area (CDFW 2019).
Franciscan onion *Alium peninsulare* var. *franciscanum*	--; --; --; 1B.2	Perennial bulbiferous herb that occurs in clay, volcanic, and often serpentinite soils. Found in cismontane woodland and valley and foothill grassland.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Holly-leaved ceanothus *Ceanothus purpureus*	--; --; --; 1B.2	Perennial evergreen shrub that occurs in volcanic and rocky soils. Found in chaparral and cismontane woodland.	February – June	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Jepson's leptosiphon *Leptosiphon jepsonii*	--; --; --; 1B.2	Annual herb that occurs usually in volcanic soil. Found in chaparral, cismontane woodland, valley and foothill grassland.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur. Three occurrences within 5 miles of Study Area (CDFW 2019).
Legenere *Legenere limosa*	--; --; --; 1B.1	Annual herb found in vernal pools.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Marsh microseris *Microseris paludosa*	--; --; --; 1B.2	Perennial herb found in closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland.	April – June (Jul.)	**None**. The Study Area does not contain suitable habitat for this species to occur.
Napa checkerbloom *Sidalcea oregana* ssp. *napensis*	--; --; --; 1B.2	Perennial that occurs in rhyolitic soil. Found in chaparral.	April – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Napa false indigo *Amorpha californica* var. *napensis*	--; --; --; 1B.1	Perennial deciduous shrub found in cismontane woodland, broadleaved upland forest openings and chaparral.	(Apr.) May – June	**None**. The Study Area does not contain suitable habitat for this species to occur. Multiple occurrences within 5 miles of Study Area (CDFW 2019).
Narrow-anthered brodiaea *Brodiaea leptandra*	--; --; --; 1B.2	Perennial bulbiferous herb found in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland.	May – July	**None**. The Study Area does not contain suitable habitat for this species to occur. Four occurrences within 5 miles of Study Area (CDFW 2019).
Oval-leaved viburnum *Viburnum ellipticum*	--; --; --; 2B.3	Perennial deciduous shrub found in chaparral, cismontane woodland and lower montane coniferous forest.	May – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Pappose tarplant *Centromadia parryi* ssp. *parryi*	--; --; --; 1B.2	Annual herb found in chaparral, coastal prairie, meadows and seeps, coastal salt marshes and swamps and vernally mesic valley and foothill grassland.	May – November	**None**. The Study Area does not contain suitable habitat for this species to occur.
Pennell's bird's-beak *Cordylanthus tenuis* ssp. *capillaris*	--; --; --; 1B.2	A hemi-parasitic annual herb that occurs in serpentinite soil. Found in closed-cone coniferous forest and chaparral.	June – September	**None**. The Study Area does not contain suitable habitat for this species to occur.
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	--; --; --; 2B.2	Annual parasitic vine found in marshes and swamps.	July – October	**None**. The Study Area does not contain suitable habitat for this species to occur.
Rincon Ridge ceanothus *Ceanothus confusus*	--; --; --; 1B.1	Perennial evergreen shrub that occurs in volcanic or serpentinite soils. Found in closed-cone coniferous forest, chaparral, and cismontane woodland.	February – June	**None**. The Study Area does not contain suitable habitat for this species to occur. Three occurrences within 5 miles of Study Area (CDFW 2019).
Rincon Ridge manzanita *Arctostaphylos stanfordiana* ssp. *decumbens*	--; --; --; 1B.1	Perennial evergreen shrub found in rhyolitic chaparral and cismontane woodland.	February – April (May)	**None**. The Study Area does not contain suitable habitat for this species to occur. Five occurrences within 5 miles of Study Area (CDFW 2019).
Round-headed beaked-rush *Rhynchospora globularis*	--; --; --; 2B.1	Perennial rhizomatous herb found in freshwater marshes and swamps.	July – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Saline clover *Trifolium hydrophilum*	--; --; --; 1B.2	Annual herb found in marshes and swamps, mesic and alkaline valley and foothill grassland, and vernal pools.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Santa Cruz clover *Trifolium buckwestiorum*	--; --; --; 1B.1	Annual herb that occurs in gravelly and margins. Found in broadleaved upland forest, cismontane woodland, and coastal prairie.	April – October	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Serpentine cryptantha *Cryptantha dissita*	--; --; --; 1B.2	Annual herb found in serpentinite chaparral.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Serpentine daisy *Erigeron serpentinus*	--; --; --; 1B.3	Perennial herb found in serpentinite or seep chaparral.	May – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Sonoma beardtongue *Penstemon newberryi* var. *sonomensis*	--; --; --; 1B.3	Perennial herb found in rocky chaparral.	April – August	**None**. The Study Area does not contain suitable habitat for this species to occur.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Sonoma ceanothus *Ceanothus sonomensis*	--; --; --; 1B.2	Perennial evergreen shrub found in volcanic, sandy, or serpentinite chaparral.	February – April	**None**. The Study Area does not contain suitable habitat for this species to occur. Six occurrences within 5 miles of Study Area (CDFW 2019).
Swamp harebell *Campanula californica*	--; --; --; 1B.2	Perennial rhizomatous herb that occurs in mesic soil. Found in bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marshes and swamps, and North Coast coniferous forest.	June – October	**None**. The Study Area does not contain suitable habitat for this species to occur.
Thin-lobed horkelia *Horkelia tenuiloba*	--; --; --; 1B.2	Perennial herb that occurs in mesic openings and sandy soils. Found in broadleaved upland forest, chaparral, valley and foothill grassland.	May – July (Aug.)	**None**. The Study Area does not contain suitable habitat for this species to occur.
Thurber's reed grass *Calamagrostis crassiglumis*	--; --; --; 2B.1	Perennial rhizomatous herb found in mesic coastal scrub, freshwater marshes and swamps.	May – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Vine Hill ceanothus *Ceanothus foliosus* var. *exaltatus*	--; --; --; 1B.1	Perennial evergreen shrub found in chaparral.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur.
White beaked-rush *Rhynchospora alba*	--; --; --; 2B.2	Perennial rhizomatous herb found in bogs and fens, meadows and seeps, freshwater marshes and swamps.	June – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Woolly-headed gilia *Gilia capitata* ssp. *tomentosa*	--; --; --; 1B.1	Annual herb that occurs in serpentinite, rocky, and outcrops. Found in coastal bluff scrub, valley and foothill grassland.	May – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Fish				
Navarro roach *Lavinia symmetricus navaroensis*	--; CSC; --; --	Prefers pool habitats with low water velocity, where they tend to be found throughout the water column. Larvae bunch in dense schools in low velocity habitats often associated with structural cover. Tend to be most abundant in mid-elevation stream habitats associated with agricultural land use, rangeland, and development.	Year – Round	**None**. The Study Area does not contain streams or pool habitats for this species to occur.
Russian River tule perch *Hysterocarpus traskii pomo*	--; CSC; --; --	Requires clear, flowing water and abundant cover. Also requires deep pool (> 1 m) habitat	Year - Round	**None**. The Study Area does not contain flowing water or deep pools for this species to occur.
Amphibians/ Reptiles				
California giant salamander *Dicamptodon ensatus*	--; CSC; --; --	Found in wet coastal forests near streams and seeps. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds.	Year – Round	**None**. The Study Area does not contain wet coastal forests near streams and seeps for this species to occur. Four occurrences within 5 miles of Study Area (CDFW 2019).
Red-bellied newt *Taricha rivularis*	--; CSC; --; --	Inhabits rapid flowing, rocky, permanent streams in redwood forest, mixed coniferous forest, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Migrates to streams during the rainy season to breed, which it may move across uplands up to one mile. During the summer, it aestivates underground (Jennings and Hayes 1994).	February - May	**None**. The Study Area does not contain streams in redwood forest and mixed coniferous forests and woodlands for this species to occur. Three occurrences within 5 miles of Study Area (CDFW 2019).
Western pond turtle *Emys marmorata*	--; CSC; --; --	Inhabits slow-moving water with dense submerged vegetation, abundant basking sites, gently sloping banks, and dry clay or silt soils in nearby uplands. Turtles will lay eggs up to 0.25-mile from water, but typically go no more than 600 feet (Jennings and Hayes 1994).	Year – Round	**None**. The Study Area does not contain slow-moving water with dense vegetation for this species to occur. Twelve occurrences within 5 miles of the Study Area (CDFW 2019).
Birds				
Burrowing owl *Athene cunicularia*	FSC; CSC; --; -- Burrow sites and some wintering sites	Found in dry, open grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats up to 1600 meters. Nests in old burrow of ground squirrel or other small mammals.	Year – Round	**None**. The Study Area does not contain suitable burrowing habitat for this species to occur.
California horned lark *Eremophila alpestris actia*	--; CSA; --; --	Found in grasslands and other herbaceous communities along the coast, the transverse ranges, and in the Central Valley. Nests on the ground (Zeiner et al. 1990).	Year – Round	**Low**. The Study Area provides minimally suitable habitat for this species to occur within the disturbed grassland.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Cooper's hawk *Accipiter cooperii*	--; CSA; --; -- Nesting	Found in stands of live oak, riparian deciduous, and other forest habitats, most frequently near water. Nests in trees up to 80 feet above the ground.	Year – Round	**None**. The Study Area does not contain suitable forest habitats near water for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Ferruginous hawk Buteo regalis	FSC; CSA; --; -- Wintering	Found in open grassland, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. No breeding records from California.	September – April	**None**. The Study Area does not contain suitable habitat for this species to occur.
Grasshopper sparrow *Ammodramus savannarum*	--; CSC; --; -- Nesting	Found in dense, dry or well-drained grassland with scattered shrubs for perches. Nests in a slight depression in ground hidden at the base of an overhanging clump of vegetation.	February – October	**None.** The Study Area does not contain suitable habitat for this species to occur.
Great blue heron *Ardea herodias*	--; CSA; --; -- Nesting colony	Found in shallow estuaries and fresh and saline emergent wetlands, and less often in marine shores, croplands, pastures, and mountains above foothills. Nests in colonies in tops of secluded snags or live trees, and less often on the ground, rock ledges, sea cliffs, mats of tule, and shrubs.	Year – Round	**None**. The Study Area does not contain estuaries, fresh and saline wetlands, marine shores, croplands, pastures, and mountains for this species to occur.
Osprey *Pandion haliaetus*	--; CSA; --; -- Nesting	Occur in a variety of habitats near water sources such as lakes, rivers, reservoirs, and ponds. Nests in open areas near water, often in snags or human-made structures.	Year – Round	**None**. The Study Area does not contain any water sources for this species to occur.
White-tailed kite *Elanus leucurus*	--; CFP; --; -- Nesting	Found in herbaceous lowlands with variable tree growth and a dense vole population. Nests near open areas near the top of dense tree stand from 20 to 100 feet above the ground.	February – October	**None**. The Study Area does not contain herbaceous lowlands and dense vole populations for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Yellow rail *Coturnicops noveboracensis*	--; CSC; --; -- Wintering and breeding	Found in freshwater marsh, meadows and seeps.	Year – Round	**None**. The Study Area does not contain freshwater marsh, meadows and seeps for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Mammals				
American badger *Taxidea taxus*	--; CSC; --; --	Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Dens in dry, sandy soils, usually in areas with sparse overstory cover.	Year – Round	**None**. The Study Area does not contain dry and sandy soils with sparse overstory cover for this species to occur.
Fringed myotis *Myotis thysanodes*	--; CSA; --; --	Found in open habitats in early successional stages near streams, lakes, and ponds up to 2850 meters. Roosts in colonies in caves, mines, buildings, and crevices.	March – October	**None**. The Study Area does not contain open habitats near streams, lakes, and ponds for this species to occur.
Hoary bat *Lasiurus cinereus*	--; CSC; --; --	Found in open woodlands and forests up to 4125 meters. Roosts in trees with dense foliage.	March – October	**None**. The Study Area does not contain trees with dense foliage and woodlands and forests are absent.
Long-legged myotis *Myotis volans*	--; CSA; --; --	Found in open habitats near water and denser woodlands and forests, usually from 1200 to 3600 meters. Roosts in colonies under bark or in hollow trees, occasionally in crevices and buildings.	Year – Round	**None**. The Study Area does not contain open habitats near water and denser woodlands and forests are absent.
North American porcupine *Erethizon dorsatum*	--; CSA; --; --	Found in montane conifer forest with good understory of herbs, grasses, and shrubs; and also wet meadow habitats. Dens in caves, rock crevices, hollow logs, snags, abandoned burrows, and dense foliage.	Year – Round	**None**. The Study Area does not contain montane conifer forests or wet meadow habitats for this species to occur.
Pallid bat *Antrozous pallidus*	--; CSA; --; --	Found in grasslands, shrublands, woodlands, and forests. Roosts in colonies usually in rock crevices, as well as caves, mines, hollow trees, and buildings.	March – October	**High**. The Study Area provides suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Townsend's big-eared bat *Corynorhinus townsendii*	--; CSC; --; --	Found in a variety of habitats, usually mesic, featuring brush, trees, and habitat edges. Roosts in small colonies in caves, tunnels, mines, and buildings.	(Mar.) April – October	**High**. The Study Area provides suitable habitat for this species to occur.
Western red bat *Lasiurus blossevillii*	--; CSC; --; --	Found in grasslands, shrublands, open woodlands and forests, and croplands from sea level through mixed conifer forests. Roosts in trees and shrubs up to 40 feet above ground.	March – October	**None**. The Study Area does not contain suitable habitat for this species to occur.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Yuma myotis *Myotis yumanensis*	--; CSA; --; --	Found in open forests and woodlands with sources of water. Roosts in large colonies in buildings, caves, mines, and under bridges.	March – October	**None**. The Study Area does not contain woodlands with sources of water for this species to occur.

Table 2 includes state and federal species of concern and Rank 1 and 2 CNPS species.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Table 3 — Other Species of Interest

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Plants				
Bolander's reed grass *Calamagrostis bolanderi*	--; --; --; 4.2	Perennial rhizomatous herb that occurs in mesic soil. Found in bogs and fens, broadleaved upland forest, closed-cone coniferous forest, coastal scrub, mesic meadows and seeps, freshwater marshes and swamps, and North Coast coniferous forest.	May – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Brewer's calandrinia *Calandrinia breweri*	--; --; --; 4.2	Annual herb found on sandy or loamy soils in disturbed and burned areas of chaparral and coastal scrub.	(Jan.) March – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Brewer's milk-vetch *Astragalus breweri*	--; --; --; 4.2	Annual herb that occurs often in serpentinite and volcanic soils. Found in chaparral, cismontane woodland, meadows and seeps, open and often gravelly valley and foothill grasslands.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Bristly leptosiphon *Leptosiphon acicularis*	--; --; --; 4.2	Annual herb found in chaparral, cismontane woodland, coastal prairie, valley and foothill grassland.	April – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Coast iris *Iris longipetala*	--; --; --; 4.2	Perennial rhizomatous herb that occurs in mesic soil. Found in coastal prairie, lower montane coniferous forest, meadows and seeps.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur.
Cotula navarretia *Navarretia cotulifolia*	--; --; --; 4.2	Annual herb that occurs in adobe. Found in chaparral, cismontane woodland, and valley and foothill grassland.	May – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Gairdner's yampah *Perideridia gairdneri* ssp. *gairdneri*	--; --; --; 4.2	Perennial herb found in broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, and vernal pools.	June – October	**None**. The Study Area does not contain suitable habitat for this species to occur.
Glory brush *Ceanothus gloriosus* var. *exaltatus*	--; --; --; 4.3	Perennial evergreen shrub found in chaparral.	March – June (Aug.)	**None**. The Study Area does not contain suitable habitat for this species to occur.
Green monardella *Monardella viridis*	--; --; --; 4.3	Perennial rhizomatous herb found in broadleaved upland forest, chaparral, and cismontane woodland.	June – September	**None**. The Study Area does not contain suitable habitat for this species to occur.
Harlequin lotus *Hosackia gracilis*	--; --; --; 4.2	Perennial rhizomatous herb that occurs in wetlands and roadsides. Found in broadleaved upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest, valley and foothill grassland.	March – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Johnny-nip *Castilleja ambigua* var. *ambigua*	--; --; --; 4.2	Hemi-parasitic annual herb found in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, and vernal pools.	March – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Lobb's aquatic buttercup *Ranunculus lobbii*	--; --; --; 4.2	Annual herb, sometimes aquatic, found in cismontane woodland, North Coast coniferous forest, valley and foothill grassland, and vernal pools.	February – May	**None**. The Study Area does not contain suitable habitat for this species to occur.
Mountain lady's-slipper *Cypripedium montanum*	--; --; --; 4.2	A perennial rhizomatous herb found in cismontane woodland and chaparral.	March – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Mt. Diablo cottonweed *Micropus amphibolus*	--; --; --; 3.2	Annual herb that occurs in rocky soil. Found in broadleaved upland forest, chaparral, cismontane woodland, and valley and foothill grasslands.	March – May	**None**. The Study Area does not contain suitable habitat for this species to occur.
Mt. Saint Helena morning-glory *Calystegia collina* ssp. *oxyphylla*	--; --; --; 4.2	Perennial rhizomatous herb that occurs in serpentinite soil. Found in chaparral, lower montane coniferous forest, and valley and foothill grassland.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Napa lomatium *Lomatium repostum*	--; --; --; 4.3	Perennial herb that occurs in serpentinite soil. Found in chaparral and cismontane woodland.	March – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Pink star-tulip *Calochortus uniflorus*	--; --; --; 4.2	Perennial bulbiferous herb found in coastal prairie, coastal scrub, meadows and seeps, and North Coast coniferous forest.	April – June	**None**. The Study Area does not contain suitable habitat for this species to occur.
Redwood lily *Lilium rubescens*	--; --; --; 4.2	Perennial bulbiferous herb that occurs sometimes in serpentinite soil and also roadsides. Found in broadleaved upland forest, lower montane coniferous forest, North Coast coniferous forest, and upper montane coniferous forest.	April – August (Sep.)	**None**. The Study Area does not contain suitable forest habitat for this species to occur.

Appendix B (cont.)
Regionally Occurring Listed and Special-Status Species

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Serpentine bird's-beak *Cordylanthus tenuis* ssp. *brunneus*	--; --; --; 4.3	Annual hemi-parasitic herb that occurs usually on serpentinite soils. Found in closed-cone coniferous forest, chaparral, and cismontane woodland.	July – August	**None**. The Study Area does not contain suitable habitat for this species to occur.
Serpentine reed grass *Calamagrostis ophitidis*	--; --; --; 4.3	Perennial herb that occurs in serpentinite or rocky soils. Found in open, often north-facing sloped chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland.	April – July	**None**. The Study Area does not contain suitable habitat for this species to occur.
Slender cottongrass *Eriophorum gracile*	--; --; --; 4.3	Emergent perennial rhizomatous herb that occurs in acidic soil. Found in bogs and fens, meadows and seeps, and upper montane coniferous forest.	May – September	**None**. The Study Area does not contain suitable habitat for this species to occur.
Slender silver moss *Anomobryum julaceum*	--; --; --; 4.2	Moss that occurs in damp rock and soil on outcrops, usually on roadcuts. Found in broadleaved upland forest, lower montane coniferous forest, and North Coast coniferous forest.	N/A	**None**. The Study Area does not contain suitable habitat for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Streamside daisy *Erigeron biolettii*	--; --; --; 3	Perennial herb that occurs in rocky and mesic soils. Found in broadleaved upland forest, cismontane woodland, and North Coast coniferous forest.	June – October	**None**. The Study Area does not contain suitable habitat for this species to occur.
Woolly-headed lessingia *Lessingia hololeuca*	--; --; --; 3	Annual herb found on clayey, serpentinite soils in broadleaved upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland.	June – October	**None**. The Study Area does not contain suitable habitat for this species to occur.
Invertebrates				
Blennosperma vernal pool andrenid bee *Andrena blennospermatis*	--; CSA; --; --	Ground-nesting solitary bee found in grasslands near vernal pools.	Spring – Fall	**None**. The Study Area does not contain vernal pools for this species to occur.
California linderiella *Linderiella occidentalis*	--; CSA; --; --	Freshwater fairy shrimp found in vernal pools and other ephemeral wetlands.	December – May	**None**. The Study Area does not contain vernal pools and other ephemeral wetlands for this species to occur. One occurrence within 5 miles of Study Area (CDFW 2019).
Crotch bumblebee *Bombus crotchii*	--; CCE; --; --	Ground-nesting solitary bumble bee found in a variety of open habitats.	Spring – Fall	**Low**. The Study Area provides minimally suitable habitat for this species to occur within the disturbed grassland.
Leech's skyline diving beetle *Hydroporus leechi*	--; CSA; --; --	Aquatic beetle found in freshwater ponds.	Spring – Fall	**None**. The Study Area does not contain freshwater ponds for this species to occur.
Obscure bumblebee *Bombus caliginosus*	--; CSA; --; --	Ground-nesting solitary bumble bee found in a variety of open habitats.	Spring – Fall	**Low**. The Study Area provides minimally suitable habitat for this species to occur within the disturbed grassland. One occurrence within 5 miles of Study Area (CDFW 2019).
Ricksecker's water scavenger beetle *Hydrochara rickseckeri*	--; CSA; --; --	Aquatic beetle found in freshwater ponds and streams.	Spring – Fall	**None**. The Study Area does not contain freshwater ponds and streams for this species to occur.
Tomales isopod *Caecidotea tomalensis*	N/A	Inhabits localized freshwater ponds or streams with still or near-still water.	N/A	**None**. The Study Area does not contain freshwater ponds or streams with still or near-still water for this species to occur.
Western bumblebee *Bombus occidentalis*	--; CCE; --; --	Ground-nesting solitary bumble bee found in a variety of open habitats.	Spring – Fall	**Low**. The Study Area provides minimally suitable habitat for this species to occur within the disturbed grassland.

Table 3 includes Rank 3 and 4 CNPS species and non-listed invertebrates, which may not be subject to CEQA review.

Regulatory Status Definitions
FE: Federal Endangered
FT: Federal Threatened
FTC: Federal Candidate Threatened
FC: Federal Candidate for Listing
FSC: Federal Special Concern
FD: Federal Delisted
CE: California Endangered
CT: California Threatened
CFP: California Fully Protected
CCE: California Candidate Endangered
CCT: California Candidate Threatened
CSC: California Special Concern
CSA: California Special Animal

Appendix C

Plant and Wildlife Species Observed in the Study Area

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Appendix C
Plant Species Observed in the Study Area

Family	Scientific Name	Common Name
Apiaceae	*Conium maculatum*	Poison hemlock
Apiaceae	*Torilis arvensis*	Field hedge parsley
Aristolochiaceae	*Asarum caudatum*	Creeping wild ginger
Asteraceae	*Baccharis salicifolia*	Mule fat
Asteraceae	*Latuca serriola*	Prickly lettuce
Asteraceae	*Taraxacum serriola*	Common dandelion
Brassicaceae	*Brassica nigra*	Black mustard
Brassicaceae	*Raphanus sativus*	Wild radish
Caprfoliaceae	*Lonicera involucrate*	Twin berry
Cupressaceae	*Sequoia sempervirens*	Coastal redwood
Fabaceae	*Lotus corniculatus*	Bird's foot trefoil
Geraniaceae	*Erodium cicutarium*	Coastal heron's bill
Geraniaceae	*Geranium molle*	Crane's bill geranium
Grossulariaceae	*Ribes californicum*	California gooseberry
Lamiaceae	*Marrubium vulgare*	White horehound
Malvaceae	*Malva parviflora*	Cheeseweed mallow
Myrsinaceae	*Lysimachia arvensis*	Scarlet pimpernel
Plantaginaceae	*Plantago lanceolata*	English plantain
Poaceae	*Cortaderia sp.*	Pampas grass
Poaceae	*Cynodon dactylon*	Bermuda grass
Poaceae	*Digitaria sanguinalis*	Crabgrass
Poaceae	*Elymus sp.*	Wild rye
Poaceae	*Phalaris aquatica*	Bulbous canarygrass
Polygonaceae	*Rumex crispus*	Curly dock
Rhamnaceae	*Rhamnus ilicifolia*	Evergreen buckthorn
Rosaceae	*Heteromeles arbutifola*	Christmas berry
Rosaceae	*Rosa sp.*	Rose
Rosaceae	*Rubus armeniacus*	Himalayan blackberry

Appendix C (cont.)
Wildlife Species Observed in the Study Area

Scientific Name	Common Name
Aphelocoma californica	Western scrub jay
Baeolophus inornatus	Oak titmouse
Cathartes aura	Turkey vulture
Contopus sordidulus	Western wood pewee
Corvus brachyrhyrnchos	American crow
Passer domesticus	House sparrow
Sayornis saya	Says phoebe
Troglodytes aedon	House wren

Appendix D

Representative Site Photos

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Photo 1. Disturbed grassland area looking west.

Photo 2. Disturbed grassland area looking west from the northeast corner.

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Photo 3. Dirt lot adjacent to the martial arts studio looking southwest.

Photo 4. Disturbed grassland area looking north.

Photo 5. Disturbed grassland area looking east.

Photo 6. Residential home and disturbed grassland looking south.

Photo 7. 7-11 convenience store looking southwest from the southeast corner. This is the corner where Middle Rincon Rd and Highway 12 meet.

Photo 8. 7-11 convenience store and martial arts studio looking north from the southeast corner. This is the corner where Middle Rincon Rd and Highway 12 meet.

Photo 9. 7-11 convenience store looking southwest.

Photo 10. Dirt lot and disturbed grassland looking west.

Photo 11. Dirt lot and disturbed grassland looking towards the northeast corner.