



Biological Resources Assessment

Green Business Park

Town of Loomis, Placer County, California
12 May 2021



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1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) conducted for the Green Business Park project (Study Area) by Madrone Ecological Consulting, LLC (Madrone). The approximately 98-acre Study Area is generally located west of the intersection of Taylor Road and Sierra College Boulevard, in southwestern Loomis, Placer County, California. The Study Area is within Sections 8 and 9, Township 11 North, Range 7 East (MDB&M) of the "Rocklin, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2018) (Figure 1).

1.1 Project Description

The Green Business Park is a roughly 98-acre unique business park adjacent to Sierra College Boulevard at the southern boundary of the Town of Loomis. The business park can provide industrial/flex space, office uses, limited supporting commercial services, and residences in a self-contained project area that is buffered from surrounding uses, particularly to the west, northeast, and east, with an existing industrial park in Rocklin immediately to the south of the project site. See **Attachment A** for a preliminary site plan layout.

Green Business Park seeks to focus primarily on "flex space", with clusters of buildings internally situated around a central core of parking, common use loading docks to allow for optimum efficiency, and truck access to the rear of buildings away from pedestrian and personal vehicles. Dedicated office buildings will extend out to Sierra College Boulevard for increased visibility, as well as along the business park's western boundary, where such uses will be nested among existing trees to benefit from existing resources on-site that will be preserved. Also, along the western boundary and nested among existing trees, is a residential area accommodating up to 126 residences. Limited retail commercial uses will be allowed that supports the industrial, flex, office, and residential space in the project.

An internal pedestrian/bike trail will be located throughout the business park, with a gated entry for the industrial/flex space building area for security purposes for those uses and their yard spaces. Such gated entry will be located off of the internal roadway connecting Sierra College Boulevard to Delmar Avenue, with turning movements at the intersection with Delmar Avenue restricted to left turns out of the business park to eliminate traffic impacts to Delmar Avenue neighborhoods to the northwest of the business park.

The Project will bring 700,000 square feet of industrial/flex space, 300,000 square feet of office space, and 15,000-20,000 square feet of supporting retail commercial space, with the retail space targeted for the Sierra College Boulevard entrance including such potential uses as a fruit stand, deli, drive-thru coffee, event space, community meeting room, and the like. A proposed berm and vegetation will be located along the Sierra College Boulevard and Bankhead Way frontages.

Road improvements along Sierra College Boulevard will include the addition of a second lane and turn lane, as well as a signal at the project's entrance on Sierra College Boulevard, and the connecting roadway through the site from Sierra College Boulevard to Delmar Avenue. Full frontage improvements, including landscaping, street lights, curb, gutter and sidewalk would be incorporated.

A sewer trunk line replacement and extension along Delmar Avenue and Del Rio Court will provide increased capacity for the local area.

2.0 REGULATORY SETTING

This section describes federal, state, and local laws and policies that are relevant to this assessment of biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized “take” of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized “take.” In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

2.1.2 Clean Water Act, Section 404

Section 404 of the Federal Clean Water Act requires that a Department of the Army permit be issued prior to the discharge of any dredged or fill material into waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) administers this program, with oversight from the U. S. Environmental Protection Agency. Waters of the United States include all navigable waters; interstate waters and wetlands; all intrastate waters and wetlands that could affect interstate or foreign commerce; impoundments of the above; tributaries of the above; territorial seas; and wetlands adjacent to the above.

2.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the “take or possession” of any migratory non-game bird identified under the

MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

2.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 USC 668(a); 50 CFR 22]. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the California Department of Fish and Game (2009) as Species of Special Concern;
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the Clean Water Act (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g. tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

2.2.2 State Endangered Species Act

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

2.2.3 California Fully Protected Species

The State of California first began to designate species as “fully protected” prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code, § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species. CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

2.2.4 California Species of Special Concern

The Species of Special Concern (SSC) are defined by CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal or California ESAs or the California Fish and Game Code, but currently satisfies one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered, or meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with habitats that are threatened. Project-related impacts to SSC, state-threatened or endangered species are considered “significant” under CEQA.

2.2.5 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.2.6 Clean Water Act, Section 401

Section 401 of the Clean Water Act requires any applicant for a 404 permit in support of activities that may result in any discharge into waters of the United States to obtain a water quality certification with the Regional Water Quality Control Board (RWQCB). This program is meant to protect these waters and wetlands by ensuring that waste discharged into them meets state water quality standards. Because the water quality certification program is triggered by the need for a Section 404 permit (and both programs are a part of the Clean Water Act), the definition of waters of the United States under Section 401 is the same as that used by the USACE under Section 404.

2.2.7 California Water Code, Porter-Cologne Act

The Porter Cologne Act, from Division 7 of the California Water Code, requires any person discharging waste or proposing to discharge waste that could affect the quality of waters of the state to file a report of waste discharge (RWD) with the RWQCB. The RWQCB can waive the filing of a report, but once a report is filed, the RWQCB must either waive or adopt water discharge requirements (WDRs). "Waters of the state" are defined as any surface water or groundwater, including saline waters, within the boundaries of the state.

2.2.8 California Fish and Game Code, Section 1600 – Lake and Streambed Alteration Agreement

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, Section 1602, requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that will:

- substantially divert or obstruct the natural flow of any river, stream or lake;
- substantially change or use any material from the bed, channel, or bank of any river, stream, or lake;
- or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams and lakes must flow at least intermittently through a bed or channel. If notification is required and CDFW believes the proposed activity is likely to result in adverse

harm to the natural environment, it will require that the parties enter into a Lake or Streambed Alteration Agreement (LSAA).

2.2.9 California Fish and Game Code, Section 3503.5 - Raptor Nests

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

2.2.10 Oak Woodland Conservation

Section 21083.4 of the Public Resources Code, which went into effect in January 2005, requires California counties acting as lead agencies under CEQA to determine whether a project “may result in a conversion of oak woodlands that will have a significant effect on the environment.” If individual or cumulative impacts on oak woodlands are identified, the law requires that the impacts be mitigated. Acceptable mitigation measures include but are not limited to using conservation easements to conserve other oak woodlands, planting replacement trees that must be maintained for 7 years, and contributing to the Oak Woodland Conservation Fund established under Section 1363(a) of the California Fish and Game Code.

2.3 Local Regulations

2.3.1 Town of Loomis Tree Conservation Ordinance

The Town of Loomis Tree Conservation Ordinance (Chapter 13.54 of the Town of Loomis Municipal Code (Tree Ordinance) regulates the removal and preservation of trees within the Town boundaries. The highest priority of the tree ordinance is to maximize the preservation of existing protected trees. “Protected Tree” under the Tree Ordinance includes any native oak tree with a trunk that is a minimum of 6 inches in diameter as measured at breast height (DBH) for interior live oak, Valley oak, and oracle oak and 4 inches DBH for blue oak; any oak tree with multiple trunks that have an aggregate DBH of at least 10 inches, or any Heritage Tree.

Each Protected Tree has a “Critical Root Zone” (CRZ) which is a circle equal to the largest radius of a protected tree’s dripline plus one foot. The radius is measured from the trunk at the base of the tree to the greatest extent of the tree’s dripline. The Tree Ordinance requires a Tree Permit for any activity within the Protected Zone of a Tree related to a discretionary project. In addition, a Tree Permit is required for the removal of any Protected Tree, unless otherwise exempted.

2.3.2 Town of Loomis General Plan Conservation Element

The Town of Loomis General Plan contains policies governing conservation of resources within its jurisdiction. The applicable Natural Resources and Open Space policies are summarized below (Town of Loomis 2001).

Policy 2: Biotic resources evaluation. Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, the Town shall require, as part of the environmental review process, a biotic resources evaluation by a qualified biologist. The biologist shall follow accepted protocols for surveys (if needed) and subsequent procedures that may be necessary to complete the evaluation.

Policy 5: Native tree protection. Individual heritage trees and significant stands of heritage trees shall be preserved. Healthy heritage trees shall be removed or significantly trimmed only when necessary because of safety concerns, conflicts with utility lines and other infrastructure, the need for thinning to maintain a healthy stand of trees, or where there is no feasible alternative to removal. Proposed development shall be designed, constructed, and maintained to preserve individual heritage trees and significant stands of heritage trees, and provide for the protection of root zones and the continuing health of the trees. When trees are removed, they shall be replaced in sufficient numbers to maintain the volume of the Town's overall tree canopy over a 20-year period. Tree removal within stream corridors is also subject to the above policy on stream corridor protection. **Policy 6:** Stream corridor protection. The streams of Loomis are among the most significant and valuable of the Town's natural resources. Development adjacent to streams shall be designed, constructed, and maintained to avoid adverse impacts on riparian vegetation, stream bank stability, and stream water quality to the maximum extent feasible. These policies shall apply to all watercourses shown as blue lines on the most recent United States Geological Survey (USGS) 7.5-minute topographic quadrangle maps applicable to the Town. See also the policies for wetland protection below.

Policy 8: Wetlands. The following policies apply to properties with wetland areas. Additional applicable policies may be found under "stream corridor protection," above.

- a. The environmental review of development on sites with wetlands shall include a wetlands delineation, and the formulation of appropriate mitigation measures. The Town shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game (CDFW). Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.
- b. The Town shall require new development to mitigate wetland loss in both regulated and non-regulated wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability:
 1. Avoidance of riparian habitat;
 2. Where avoidance is not feasible, minimization of impacts on the resource;
 3. Compensation, including use of a mitigation banking program that provides the opportunity to mitigate impacts to rare, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas, that are encouraged to be located within the Town; or
 4. Replacement of a degraded or destroyed wetland at a ratio of from 1:1 to 4:1, based on the biotic value of the wetland, as determined by the required environmental analysis. The review authority may reduce the replacement ratio as an incentive, where replacement wetlands are proposed to be located within or in close proximity to the Town.

The Town shall cooperate with regulating agencies to ensure that concerns are adequately addressed.

- d. The Town will require the preservation of native riparian and wetland areas as open space to the maximum extent feasible, using fee title or conservation easement acquisition, land conservancy participation, and/or other measures as appropriate.

3.0 METHODOLOGY

3.1 Literature Review

Madrone Ecological Consulting, LLC (Madrone) conducted protocol-level biological resources surveys within the Study Area in the fall of 2018 and summer of 2020. The results of these surveys are summarized in this document and in the following documents and are discussed throughout this document as appropriate:

- A Valley Elderberry Longhorn Beetle Habitat Survey was conducted 16-18 October and 28 November 2018. The surveys were conducted according to U.S. Department of the Interior, Fish and Wildlife Service (USFWS) *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017). Results of these surveys are included in this document;
- An aquatic resources delineation was conducted 16-18 October and 28 November 2018. The delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016). Results of the delineation are included in this document;
- A protocol-level special status plant survey was conducted on 2 May and 25 June 2019. The surveys were conducted in accordance with the U.S. Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 1996), California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018), and the *CNPS Botanical Survey Guidelines* (CNPS 2001). No special-status plants were observed within the Study Area.

Additionally, Abacus Consulting Arborists conducted an arborist survey of the majority of the Study Area. See **Attachment E** for tree inventory data. After the arborist survey was completed, an additional parcel was added to the southeast corner of the Study Area; the trees within this portion of the site have not yet been inventoried.

A list of special-status species with potential to occur within the Study Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDDB) (CNDDDB 2021) query of the Study Area and all areas within 5 miles of the Study Area (**Figures 2 and 3**);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2020) query for the Study Area (**Attachment B**);
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2020) query of the “Loomis, California” USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment C**); and
- Western Bat Working Group (WBWG) Species Matrix (WBWG 2020).

In addition, any special-status species that are known to occur in the region, but that were not identified in any of the above database searches were also analyzed for their potential to occur within the Study Area.

For the purposes of this Biological Resources Assessment, special-status species is defined as those species that are:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or species of special concern by CDFW;
- identified as Medium or High priority species by the WBWG (WBWG 2020); and
- plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
 - CRPR 1A: Plants presumed extinct.
 - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
 - CRPR 2A: Plants extirpated in California, but common elsewhere.
 - CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
 - CRPR 3: Plants about which the CNPS needs more information – a review list.

3.2 Field Surveys

Madrone biologists Dustin Brown and Matt Shaffer conducted field surveys of the Study Area on 16, 17, and 18 October and 28 November 2018, and on 11 August 2020 to assess the suitability of habitats on-site to support special-status species. Meandering pedestrian surveys were performed on foot throughout the Study Area. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009) but were cross-walked to the closest land cover types as described in the PCCP, and plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2020). A list of all wildlife species observed during field surveys is included as **Attachment D**.

4.0 EXISTING CONDITIONS

The Study Area is located west of the intersection of Taylor Road and Sierra College Boulevard. The site is bounded to the south by commercial development and to the north by Sierra College Boulevard. The western portion of the Study Area borders Antelope Creek and Delmar Avenue. Bankhead Road and low-

density residential housing abut the site to the east. The Study Area is accessible from the northern edge via a pullout along Sierra College Boulevard. In addition, the site may be accessed in the southwest corner from a gated entrance off of Delmar Avenue. The Study Area is roughly convex along the west-east vector, and slopes downhill from north to south. The site consists of gently rolling topography with elevations ranging from approximately 300 to 340 feet above mean sea level (MSL).

The Study Area primarily consists of multiple fenced pastures along the center, southern, and eastern portions of the site. The pastures are being utilized for grazing cattle. Several farm trailers and pieces of equipment are scattered throughout the area. Vegetation within the pastures is heavily grazed, with several areas supporting moderate to scattered plant cover. Although many plant species were unidentifiable at the time of the surveys, generally the pastures support upland annual grassland and ruderal species.

The northeast portion of the Study Area features annual grassland that is dominated by ruderal species. During the 2018 surveys a small fruit stand was located within this portion of the Study Area, along with an associated strawberry farm and chicken coop. However, by the time of the 2020 survey the fruit stand and strawberry farm had been removed, and this area consisted of ruderal land. Additionally, several other portions of the field have been historically disked and graded for agriculture, although they are now abandoned.

The western portion of the Study Area features oak savanna on sloped terrain with rock outcroppings, transitioning to interior live oak woodland and finally riparian vegetation along Antelope Creek. Several old remnant ditches are located along the slopes, and appear to have been historically used for irrigation.

An old orchard and remnant homestead are located in the southwest corner of the Study Area. This area was historically disturbed, and features several remnant ditches, cement foundations, soil spoils, and rubbish piles. Many exotic trees in this area are associated with the old orchard.

4.1 Terrestrial Land Cover Types

The Study Area contains several natural and human-influenced terrestrial land cover types including annual grassland, interior live oak woodland, ruderal, riparian woodland, valley oak woodland, olive, bramble, developed, and black locust. See below for descriptions of the various land cover types. **Figure 6** is a map of all land cover types within the Study Area.

Table 1. Terrestrial Land Cover Types Mapped within the Study Area

Resource Type	Acreage
Annual Grassland	67.1
Interior Live Oak Woodland	11.1
Ruderal	9.5
Riparian Woodland	4.2
Valley Oak Woodland	2.2
Olive	1.6
Bramble	0.6
Developed	0.5
Black Locust	0.1
Total	96.9

4.1.1 Annual Grassland

The most abundant vegetation community within the Study Area is annual grassland. The annual grassland is located throughout the Study Area, except for the far western portion of the site, and is dominated by upland annual grassland and ruderal species, including Bermuda grass (*Cynodon dactylon*), filaree (*Erodium botrys*), yellow star-thistle (*Centaurea solstitialis*), English plantain (*Plantago lanceolata*), rose clover (*Trifolium hirtum*), cut-leaf geranium (*Geranium dissectum*), hairy hawkbit (*Leontodon saxatilis*), prickly lettuce (*Lactuca serriola*), turkey mullein (*Croton setiger*), field bindweed (*Convolvulus arvensis*), soft chess (*Bromus hordeaceus*), Medusa head (*Elymus caput-medusae*), perennial ryegrass (*Festuca perennis*), wild oat (*Avena fatua*), and stinkwort (*Dittrichia graveolens*). Scattered valley oak (*Quercus lobata*), interior live oak (*Quercus wislizeni*), and blue oak (*Quercus douglasii*) are present throughout the annual grassland, along with several exotic species including walnut (*Juglans sp.*) and white poplar (*Populus alba*).

4.1.2 Interior Live Oak Woodland

Interior live oak woodland occurs predominantly along the western portion of the Study Area, representing a transition from annual grassland with scattered oaks to the riparian corridor along Antelope Creek. Interior live oak trees dominate the tree stratum. Other tree and shrub species present within the woodland include valley oak, blue oak, Oregon ash (*Fraxinus latifolia*), grey pine (*Pinus sabiniana*), tree of heaven (*Ailanthus altissima*), California buckeye (*Aesculus californica*), poison oak (*Toxicodendron diversilobum*), and coyote brush (*Baccharis pilularis*). Ground vegetation within the interior live oak woodland is robust and consists of several grassland and ruderal species such as soft chess, English plantain, rose clover, hairy hawkbit, prickly lettuce, turkey mullein, perennial ryegrass, ripgut brome (*Bromus diandrus*), hedgehog grass (*Cynosurus echinatus*), California poppy (*Eschscholzia californica*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), Fitch's spikeweed (*Centromadia fitchii*), sticky willy (*Galium aparine*), woolly mullein (*Verbascum thapsus*), and moth mullein (*Verbascum blattaria*).

4.1.3 Ruderal

Ruderal land is present in patches across the Study Area. The ruderal in the north, northeast, and east portions of the site is associated with a remnant homestead, abandoned farmland, and active disturbance, respectively. These areas are sparsely vegetated with ruderal species such as Bermuda grass and prickly lettuce. The large ruderal area in the southwest corner of the Study Area consists of the remnants of a historic orchard and homestead. Several exotic trees are associated with the old orchard, including walnut, Mediterranean cypress (*Cupressus sempervirens*), Canary Island date palm (*Phoenix canariensis*), common persimmon (*Diospyros virginiana*), pomegranate (*Punica granatum*), and Callery pear (*Pyrus calleryana*).

4.1.4 Riparian Woodland

There is a robust, mature riparian woodland along Antelope Creek within the western edge of the Study Area. Understory vegetation within the riparian corridor consists almost exclusively of Himalayan blackberry (*Rubus armeniacus*) monoculture, with some pokeweed (*Phytolacca americana*). Tree cover is dominated by a myriad of species including valley oak, Oregon ash, western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), sandbar willow (*Salix exigua*), Goodding's black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*).

4.1.5 Valley Oak Woodland

Valley oak woodland occurs in small patches throughout the annual grassland within the Study Area. This vegetation community is dominated by valley oak, with interior live oak and blue oak also present as associates. The understory consists of vegetation similar to the annual grassland.

4.1.6 Olive

A row of planted olive trees (*Olea europea*) is present along a fenceline separating several pastures within the central portion of the site, within the annual grassland.

4.1.7 Bramble

The bramble community consists of patches of Himalayan blackberry thickets, predominantly scattered within the annual grassland and associated with the swales within the Study Area.

4.1.8 Developed

The developed land cover type consists of the paved and compacted road base areas along Sierra College Boulevard.

4.1.9 Black Locust

A patch of black locust (*Robinia pseudoacacia*) is present within the annual grassland in the southern portion of the site. This area is a monoculture of the species.

4.2 Aquatic Resources

A protocol-level aquatic resources delineation has been conducted for the Study Area by Madrone (Madrone 2018). Aquatic resources mapped within the Study Area are depicted in Figure 4. A total of 0.857 acres of aquatic resources were mapped within the Study Area (Table 2) (Madrone 2018). A description of each of the aquatic resources types is included below.

Table 2. Aquatic Resources Mapped within the Study Area

Aquatic Resource Type	Acreage
Seasonal Wetland Swale	0.288
Antelope Creek (Perennial)	0.156
Pond	0.404
Roadside Ditch	0.009
Total	0.857

4.2.1 Seasonal Wetland Swale

Seasonal wetland swales are sloping, linear seasonal wetlands that convey storm water runoff, and may detain it for short periods of time. Several seasonal wetland swales are located within the eastern portion of the Study Area, and convey stormwater runoff into a large man-made pond in the southeast corner of the site. Water draining from the pond enters a swale which empties into an off-site culvert. At the time of the delineation, vegetation within the swales was heavily grazed and consisted of herbaceous grasses and forbs including curly dock (*Rumex crispus*), Carter's buttercup (*Ranunculus bonariensis*), rabbitsfoot grass (*Polypogon monspeliensis*), pennyroyal (*Mentha pulegium*), common purslane (*Portulaca oleracea*), hyssop loosestrife (*Lythrum hyssopifolia*), tall flatsedge (*Cyperus eragrostis*), swamp grass (*Crypsis schoenoides*), Bermuda grass, and prostrate knotweed (*Polygonum aviculare*).

4.2.2 Antelope Creek

Antelope Creek, a perennial creek, travels from north to south along the western margin of the Study Area. Vegetation within and along the banks of the creek is robust and includes tall flatsedge, curly dock, floating primrose willow (*Ludwigia peploides*), paniced willowherb (*Epilobium brachycarpum*), fringed willowherb (*Epilobium ciliatum*), common knotweed (*Persicaria lapathifolia*), common plantain (*Plantago major*), Johnsongrass (*Sorghum halepense*), cattail (*Typha sp.*), and rough cocklebur (*Xanthium strumarium*). Tree cover along Antelope Creek includes valley oak, Oregon ash, western sycamore, Fremont cottonwood, sandbar willow, Goodding's black willow, and arroyo willow.

4.2.3 Pond

There are four man-made ponds within the Study Area; three ponds are located in the central and southeast portion of the site, and one pond is located in the northern corner along Sierra College Boulevard. The northernmost pond features steep stone walls, and appears to have been created by impounding a historic swale. The pond is no longer in active use, and is only seasonally inundated. A spillway on the west side of the pond may drain overflow water into Antelope Creek. Vegetation is abundant within and along the margins of the pond, and includes bull thistle, tall flatsedge, Oregon ash, prostrate knotweed, Himalayan blackberry, curly dock, sandbar willow, rough cocklebur, and manyflower tobacco (*Nicotiana acuminata*).

The three other ponds located within the southeastern portion of the Study Area are earthen man-made stock ponds. Two of the ponds are located along seasonal wetland swales, while the other pond appears to be isolated from any drainage. These three ponds are heavily grazed and are mostly unvegetated with scattered species occurring along the margins, such as common purslane, prostrate knotweed, and Bermuda grass. The largest pond in the southeast corner appears to be perennially inundated, but the other two ponds are seasonal features.

4.2.4 Roadside Ditch

A single roadside drainage ditch is located within the Study Area, along Bankhead Road. The base of the ditch is mostly unvegetated, and much of the area is covered in leaf litter. Scattered vegetative ground cover includes Himalayan blackberry, perennial ryegrass, curly dock, and tall flatsedge. Several trees are growing within and along the ditch, including valley oak, interior live oak, grey pine, and Fremont cottonwood. Runoff flows south from a culvert at the northern end of the ditch, and eventually drains off-site onto a single-family home and property.

4.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2020), two soil mapping units occur within the Study Area: (106) Andregg coarse sandy loam, 2 to 9 percent slopes; and (194) Xerofluvents, frequently flooded, (Figure 5). The soils within the Study Area fall within the hydrological soil group B, which generally have a moderate infiltration rate when thoroughly wet and a moderate rate of water transmission. Neither of these soil map units have been identified as containing special soils, such as serpentine or saline-alkali inclusions (NRCS 2020).

4.4 Protected Trees

As mentioned in Section 3.1, an additional parcel was added to the Study Area after the arborist survey had been completed, and as a result the trees within this portion of the Study Area have not been inventoried. An arborist survey will be conducted to inventory the trees within this area at a future date. Within the surveyed portion of the Study Area, a total of 1,031 native oak trees with a single trunk diameter at breast

height (TDBH) of 6 inches or greater or aggregate TDBH of at least 10 inches were inventoried. See **Attachment E** for the tree inventory data for the Study Area. Of the 1,031 protected trees, 458 had either fair or poor health, vigor, and structure and were recommended for removal by the arborist. The remaining 573 trees totaling 8,705 inches TDBH had fair to good health, structure, and vigor and are considered Protected Trees by the Town of Loomis.

5.0 SPECIAL-STATUS SPECIES

Table 3 provides a list of special-status species that were evaluated, including their listing status, habitat associations, and their potential to occur in the Study Area. The following set of criteria was used to determine each species' potential for occurrence on the site:

- Present: Species occurs on the site based on CNDDDB records, and/or was observed on the site during field surveys.
- High: The site is within the known range of the species and suitable habitat exists.
- Moderate: The site is within the known range of the species and very limited suitable habitat exists.
- Low: The site is within the known range of the species and there is marginally suitable habitat or the species was not observed during protocol-level surveys conducted on-site.
- Absent/No Habitat Present: The site does not contain suitable habitat for the species, the species was not observed during surveys conducted on-site, or the site is outside the known range of the species.

Figures 2 and 3 exhibit CNDDDB occurrences within five miles of the Study Area. Below is a discussion of all special-status plant and animal species with potential to occur on the site.

Table 3. Special-Status Species with Potential to Occur within the Green Business Park Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Plants				
<i>Allium jepsonii</i> Jepson's onion	--	CRPR 1B.2	Serpentine or volcanic soils within chaparral, cismontane woodland, or lower montane coniferous forest.	No Habitat Present. No serpentine or volcanic soils located within the Study Area.
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, and valley and foothill grasslands. Often associated with serpentine soils.	Absent. Marginally suitable habitat is present in the annual grassland. However, this species was not observed during special-status plant surveys of the Study Area.
<i>Calystegia stebbinsii</i> Stebbin's morning-glory	FE	CE, CRPR 1B.1	Gabberonic or serpentine soils within chaparral openings or cismontane woodland.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Carex xerophila</i> Chaparral sedge	--	CRPR 1B.2	Chaparral, cismontane woodland, or lower montane coniferous forests within gabberonic or serpentine soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Ceanothus roderrickii</i> Pine Hill ceanothus	FE	CR, CRPR 1B.1	Chaparral or cismontane woodland within gabberonic soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	--	CRPR 1B.2	Chaparral, cismontane woodland, or lower montane coniferous forests within gabberonic or serpentine soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Chloropyron molle</i> ssp. <i>hispidum</i> Hispid bird's-beak	--	CRPR 1B.1	Prefers seasonally flooded, saline-alkali soils at elevations below 500 feet.	No Habitat Present. No saline-alkali soils are present within the Study Area.
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	--	CRPR 3.2	Prefers chaparral and often occurs in burned or disturbed areas on gabberonic or lone soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Downingia pusilla</i> Dwarf downingia	--	CRPR 2B.2	Vernal pools and other depressional wetlands.	Absent. Marginally suitable habitat is present in the two smallest ponds and the seasonal wetland swales. However, this species was not observed during special-status plant surveys of the Study Area.
<i>Fritillaria eastwoodiae</i> Butte County fritillary	--	CRPR 3.2	Chaparral, cismontane woodland, or lower montane coniferous forests within gabberonic soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	FE	CR, CRPR 1B.2	Chaparral or cismontane woodland within rocky serpentinite or gabberonic soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Galium californicum</i> ssp. <i>sierrae</i> El Dorado bedstraw	FE	CR, CRPR 1B.2	Chaparral, cismontane woodland, or lower montane coniferous forests within gabberonic soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Gratiola heterosepala</i> Bogg's Lake hedge-hyssop	--	CE, CRPR 1B.2	Vernal pools and margins of lakes/ponds.	Absent. The ponds and seasonal wetland swales within the Study Area represent low potential suitable habitat for this species. This species was not observed during special-status plant surveys of the Study Area.
<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	--	CRPR 1B.2	Edges of vernal pools and other seasonally ponded features.	Absent. The ponds and seasonal wetland swales within the Study Area represent low potential suitable habitat for this species. This species was not observed during special-status plant surveys of the Study Area.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Juncus leiospermus</i> var. <i>leiospermus</i> Red Bluff dwarf rush	--	CRPR 1B.1	Occurs in vernal mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools between 100' and 4,100' elevation.	Absent. The only documented occurrence in Placer County is, according to the notes on this occurrence, considered to be erroneous (CNDDDB 2018). The ponds and seasonal wetland swales within the Study Area represent low potential suitable habitat for this species. This species was not observed during special-status plant surveys of the Study Area.
<i>Lasthurus sulphureus</i> var. <i>argillaceus</i> Dubious pea	--	CRPR 3	Occurs in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest.	No Habitat Present. No cismontane woodland or coniferous forests are located within the Study Area.
<i>Legenere limosa</i> Legenere	--	CRPR 1B.1	Vernal pools.	Absent. The ponds and seasonal wetland swales within the Study Area represent low potential suitable habitat for this species. This species was not observed during special-status plant surveys of the Study Area.
<i>Navarretia myersii</i> ssp. <i>myersii</i> Pincushion navarretia	--	CRPR 1B.1	Vernal pools.	Absent. The seasonal wetland swales and two smallest ponds within the Study Area represent suitable habitat for this species. This species was not observed during special-status plant surveys of the Study Area.
<i>Orcuttia viscida</i> Sacramento orcutt grass	FE	CE, CRPR 1B.1	Vernal pools.	No Habitat Present. No vernal pools are present within the Study Area. Additionally, the Study Area is outside of the known range of the species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Packera layneae</i> Layne's ragwort	FT	CR, CRPR 1B.2	Chaparral or cismontane woodland within rocky serpentine or gabberonic soils.	No Habitat Present. No serpentine or gabberonic soils located within the Study Area.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--	CRPR 1B.2	Emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches.	Absent. The ponds and areas along Antelope Creek represent potential habitat for the species. However, this species was not observed during special-status plant surveys of the Study Area.
<i>Viburnum ellipticum</i> Oval-leaved viburnum	--	CRPR 2B.3	Chaparral, cismontane woodland, or lower montane coniferous forests.	No Habitat Present. No chaparral, cismontane woodland, or lower montane coniferous forests are present within the Study Area.
<i>Wolffia brasiliensis</i> Brazilian watermeal	--	CRPR 2B.3	Shallow freshwater marshes and swamps.	No Habitat Present. No swamps or shallow marshes are present within the Study Area.
<i>Wyethia reticulata</i> El Dorado County mule ears	--	CRPR 1B.2	Clay or gabberonic soils within chaparral, cismontane woodland, or lower montane coniferous forests.	No Habitat Present. No gabberonic clay soils are present within the Study Area.
Invertebrates				
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	--	Vernal pools and other depressional wetlands.	No Habitat Present. No vernal pools or appropriate depressional wetlands are present within the Study Area. Additionally, the Study Area is outside of the known range of the species.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT	--	Dependent upon elderberry (<i>Sambucus</i> species) shrubs as primary host species.	High. Two elderberry shrubs are located within the Study Area.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FE	--	Vernal pools and other depressional wetlands.	No Habitat Present. No vernal pools or appropriate depressional wetlands are present within the Study Area. Additionally, the Study Area is outside of the known range of the species.
Fish				
<i>Hypomesus transpacificus</i> Delta smelt	FT	CE	Adults are found in the brackish open surface waters of the Delta and Suisun Bay. Though spawning has never been observed, it is believed to occur in tidally influenced sloughs and drainages on the freshwater side of the mixing zone.	No Habitat Present. No tidally influenced sloughs or drainages are present within the Study Area.
<i>Oncorhynchus mykiss irideus</i> Central Valley steelhead	FE	--	Anadromous species requiring cool freshwater water courses with gravelly substrates for breeding. The young remain in freshwater areas before migrating to estuarine and marine environments.	Low. Suitable aquatic habitat for Central Valley steelhead occurs within Antelope Creek within the Study Area. However, there is a potential barrier to fish migration immediately downstream of the Study Area.
<i>Oncorhynchus tshawytscha</i> Central Valley fall/late-fall run Chinook salmon	--	CSC	Anadromous species requiring cool freshwater water courses with gravelly substrates for breeding. The young remain in freshwater areas before migrating to estuarine and marine environments.	Low. Suitable aquatic habitat for Central Valley fall/late-fall run Chinook salmon occurs within Antelope Creek within the Study Area. However, there is a potential barrier to fish migration immediately downstream of the Study Area.
Amphibians				
<i>Spea hammondi</i> Western spadefoot	--	CSC	Breeds in vernal pools, seasonal wetlands and associated swales. Forages and hibernates in adjacent grasslands.	Moderate. The ponds within the Study Area represent suitable habitat for this species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Rana draytonii</i> California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	No habitat present. Antelope Creek and the large pond represent low potential aquatic habitat for California red-legged frog. However, the nearest confirmed population of the species is 30-miles northeast of the Study Area in the town of Michigan Bluff.
Reptiles				
<i>Actinemys marmorata</i> Western pond turtle	--	CSC	Ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	High. There is high quality aquatic habitat for this species within Antelope Creek and the large pond within the Study Area.
Birds				
<i>Agelaius tricolor</i> Tricolored blackbird	--	CT, CSC	Colonial nester in cattails, bulrush, or blackberries associated with marsh habitats.	Low. The blackberry brambles within the eastern portion of the Study Area represent low quality nesting habitat for tricolored blackbird and the the annual grassland within the eastern portion of the Study Area represents low quality foraging habitat for the species.
<i>Progne subis</i> Purple martin	--	CSC	Nests in tall bridges and overpasses near water and open areas.	No Habitat Present. No tall bridges or overpasses are present within the Study Area.
<i>Circus cyaneus</i> Northern harrier	--	CSC	Nests in emergent wetland/marsh, open grasslands, or savannah habitats. Forages in open areas such as marshes, agricultural fields, and grasslands.	High. The annual grassland is suitable nesting and foraging habitat for this species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Lanius ludovicianus</i> Loggerhead shrike	--	CSC	Occurs in open areas with sparse trees, shrubs, and other perches.	High. The annual grasslands throughout the Study Area represent suitable foraging habitat for loggerhead shrike, and the trees and shrubs within the Study Area provide suitable nesting habitat.
<i>Athene cunicularia</i> Burrowing owl	--	CSC	Nests in abandoned ground squirrel burrows associated with open grassland habitats.	Low. Although few ground squirrel burrows were observed, the Study Area is just outside of the historical breeding range for the species (Shuford and Gardali 2008).
<i>Buteo swainsoni</i> Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	Low. The annual grassland within the eastern portion of the Study Area represents marginal foraging habitat for Swainson's hawk. Large trees within the Study Area provide marginally-suitable nesting habitat. The nearest CNDDDB-recorded Swainson's hawk nest (2115) is approximately 6 miles west of the Study Area. Recently, a nest has been identified within two miles of the Study Area, however this occurrence is an outlier and the Study Area is at the edge of the known range of the species.
<i>Elanus leucurus</i> White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	Present. The annual grasslands throughout the Study Area represent suitable foraging habitat for white-tailed kite, and the trees throughout the Study Area provide suitable nesting habitat. This species was observed foraging on-site during a field survey.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--	CT	Nests and forages in salt, brackish, and fresh marshes with abundant vegetative cover.	No Habitat Present. The aquatic resources within the Study Area do not provide suitable dense emergent marsh vegetation required by the species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--	CSC, WBWG H	Roosts in crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating bark, deciduous trees in riparian areas, and fruit trees in orchards), bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings (WBWG 2018).	High. Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees scattered throughout the site.
<i>Corynorhinus townsendii townsendii</i> Townsend's big-eared bat	--	CC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of coast redwoods and giant sequoias. Extremely sensitive to human disturbance. (WBWG 2018).	No Habitat Present. No caves or cave analogues present on-site.
<i>Lasionycteris noctivagans</i> Silver-haired bat	--	WBWG M	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. It forages in open wooded areas near water features.	High. Trees scattered throughout the site are suitable roosting habitat for this species.
<i>Lasiurus blossevillii</i> Western red bat	--	CSC, WBWG H	Roosts primarily in the foliage of trees or shrubs (WBWG 2018). Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (WBWG 2018).	High. Trees scattered throughout the site are suitable roosting habitat for this species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Lasiurus cinereus</i> Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings (WBWG 2018).	High. Trees scattered throughout the site are suitable roosting habitat for this species.
<i>Taxidea taxus</i> American badger	--	CSC	This species prefers dry open fields, grasslands, and pastures.	Low. The annual grasslands within the Study Area represents marginal habitat for the species.

Status Codes:

CC - CDFW Candidate for Listing
CE - CDFW Endangered
CFP - CDFW Fully Protected
CRPR - California Rare Plant Rank
CSC - CDFW Species of Concern
CR - California Rare

CT - CDFW Threatened
FE - Federally Endangered
FT - Federally Threatened
WBWG M - Western Bat Working Group Medium Threat Rank
WBWG H - Western Bat Working Group High Threat Rank

5.1 Invertebrates

5.1.1 Valley Elderberry Longhorn Beetle

The Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB) is listed as threatened pursuant to the federal Endangered Species Act. The historic range of this beetle is limited to moist Valley oak woodlands along margins of rivers and streams in the lower Sacramento and lower San Joaquin Valleys (USFWS 1980). At the time of its listing, the beetle was known from less than 10 localities in Merced, Sacramento, and Yolo Counties (USFWS 1984). Its current distribution is patchy throughout California's Central Valley and associated foothills (USFWS 1999).

VELB is completely dependent on its host plant, elderberry (*Sambucus* species), which occurs in riparian and other woodland communities in California's Central Valley and the associated foothills (USFWS 1999). Female beetles lay their eggs in crevices on the stems or on the leaves of living elderberry plants. When the eggs hatch, larvae bore into the stems. The larval stages last for one to two years. The fifth instar larvae create emergence holes in the stems and then plug the holes and remain in the stems through pupation (Talley 2003). Adults emerge through the emergence holes from late March through June. The short-lived adult beetles forage on leaves and flowers of elderberry shrubs.

Two elderberry shrubs are present in the western portion of the Study Area along Antelope Creek (Figure 7). The northernmost shrub has three stems with a diameter of one inch or greater, but no exit holes were observed. The southernmost shrub has one stem with a diameter of one inch or greater, but no exit holes were observed. Both of the shrubs are located within riparian habitat along Antelope Creek. There are eight documented occurrences of VELB within 5 miles of the Study Area, with the nearest being approximately 1 mile south of the Study Area along Secret Ravine (CNDDDB 2021).

5.2 Fish

5.2.1 Central Valley Steelhead

Steelhead (*Oncorhynchus mykiss irideus*) populations in the Central Valley ESU have been listed by the NMFS under the ESA as threatened. Steelhead, the anadromous form of rainbow trout, historically inhabited most tributaries to the Sacramento River. Juvenile steelhead may spend up to three years in freshwater prior to emigrating to the ocean as smolts. Typically, juvenile steelhead emigrate as age class 1+ fish (one year in fresh water) through the Sacramento River and the Sacramento-San Joaquin Estuary from November through May. Spawning steelhead require gravel or cobble substrates 0.2 to 5.1 inches in diameter for egg laying. Fine sediments (e.g., silt, fine sand, and clay) may suffocate eggs by preventing the transport of dissolved oxygen from the water to the eggs. The range of water temperatures for optimal survival and growth of rainbow trout is between 59 and 64°F (Moyle 2002). Both fry and older juveniles require instream object cover, cobble or boulders, large woody debris, undercut banks, or submerged and overhanging vegetation for protection against predators.

Steelhead have been observed within the lower reaches of the watershed in Dry Creek downstream of the Study Area (NMFS 2009). The Antelope Creek substrate within the Study Area is too degraded and sand-dominated to provide suitable spawning habitat, but steelhead could swim through it occasionally. Additionally, there is a potential fish passage barrier consisting of a small private dam immediately downstream of the Study Area.

5.2.2 Central Valley Fall-Run Chinook Salmon

Chinook salmon are an anadromous species which spawn in freshwater rivers but migrate to the ocean to rear (Moyle 2002). Chinook salmon typically return to their natal stream to spawn. Within the Central Valley there are four races of Chinook salmon: fall-run, late fall-run, winter-run, and spring-run. Adult fall-run Chinook salmon migrate through the Delta and into Central Valley rivers from July through December and spawn from October through December.

Chinook rely on suitable water temperature and substrate for successful spawning and incubation. Rearing habitat for juveniles includes riffles, runs, pools, and inundated floodplains. In streams, Chinook are opportunistic feeders. They eat aquatic insects, terrestrial insects and bottom invertebrates. Juvenile Chinook are significantly affected by predatory non-native fish (Moyle 2002).

Chinook salmon have been observed within the lower reaches of the watershed in Dry Creek downstream of the Study Area (NMFS 2009). The Antelope Creek substrate within the Study Area is too degraded and sand-dominated to provide suitable spawning habitat, but Chinook salmon could swim through it occasionally. Additionally, there is a potential fish passage barrier consisting of a small private dam immediately downstream of the Study Area.

5.3 Amphibians

5.3.1 Western Spadefoot

The western spadefoot (*Spea hammondi*) is not federally or state listed, but it is a CDFW species of special concern. This amphibian is a nocturnal animal that forages in grassland, open chaparral, and pine-oak woodlands for a variety of invertebrates such as insects and worms (USFWS 2005). Western Spadefoot breeds from January through May in variety of temporary wetlands including creeks, pools in intermittent drainages, vernal pools, and seasonal wetlands, and other fish-free water features. The tadpoles develop in 3 to 11 weeks, and must complete their metamorphosis before the temporary pools dry. Post-metamorphic juveniles feed and then immediately seek underground refugia. Following metamorphosis, the adults are largely terrestrial in nature and will burrow into sandy or gravelly soils utilizing the "spades" on the hind feet. The majority of the adult's life is spent in underground burrows (USFWS 2005). In Placer County, western spadefoot are known to breed in relatively deep man-made features, such as ponded areas adjacent to railroad tracks, and in intermittent drainage plunge pools or similar pools that hold water through late spring (CNDDDB 2021).

The ponds within the Project Area represent suitable breeding habitat for western spadefoot and the surrounding annual grasslands provide suitable dry-season habitat. The nearest documented occurrence of western spadefoot is located approximately 3.5 miles southwest of the Study Area near Taylor Road and the Highway 65 overcrossing (CNDDDB 2021).

5.4 Reptiles

5.4.1 Western Pond Turtle

The western pond turtle (*Emys marmorata*) is not federally or state listed, but it is a CDFW species of special concern. Its favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites (Jennings and Hayes 1994). Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also consume small fish, frogs, mammals and some plants. Western pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. This species breeds from mid to late spring in adjacent open grasslands or sandy banks (Jennings and Hayes 1994).

Antelope Creek and the large pond (P-3) within the southeast portion of the Study Area provides suitable habitat for western pond turtle. There are several documented occurrences of western pond turtle within 5 miles of the Study Area with the nearest being approximately 4 miles north of the Study Area (Figure 3) (CNDDDB 2021).

5.5 Birds

5.5.1 Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*) is not federally listed, but it is state listed as threatened. In addition, tricolored blackbird is listed by CDFW as a species of special concern. They are colonial nesters, preferring to nest in dense stands of cattails, bulrush, or blackberry thickets associated with perennial water (Shuford and Gardali 2008).

Several Himalayan blackberry brambles are located within the annual grassland within the far eastern portion of the Study Area. These brambles represent low potential nesting habitat for tricolored blackbird. The annual grassland within the Study Area represents marginal foraging habitat for tricolored blackbird. There is one documented occurrence of tricolored blackbird within 5 miles of the study area located approximately 3 miles northwest of the site (CNDDDB 2021).

5.5.2 Northern Harrier

The northern harrier (*Circus cyaneus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is considered to be a species of special concern by the CDFW. This species is

known to nest within the Central Valley, along the Pacific Coast, and in northeastern California (Shuford and Gardali 2008). The northern harrier is a ground nesting species that typically nests in emergent wetland/marsh, open grasslands, or savanna habitats. Foraging occurs within a variety of open habitats such as marshes, agricultural fields, and grasslands (Shuford and Gardali 2008).

The annual grasslands throughout the Study Area are suitable nesting and foraging habitat for this species. Northern harrier has not been documented in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021).

5.5.3 Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is not listed and protected pursuant to either the California or federal Endangered Species Acts; however, it is a CDFW species of special concern. Loggerhead shrikes nest in small trees and shrubs in woodland and savanna vegetation communities, and forage in open habitats throughout California (Shuford and Gardali 2008). The nesting season ranges from March through June.

The trees and annual grassland within the Study Area provide suitable habitat for loggerhead shrike. Loggerhead shrike has not been documented in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021).

5.5.4 Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a species of special concern by the CDFW. They typically inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. This species typically uses burrows created by fossorial mammals, most notably the California ground squirrel, but may also use man-made structures such as culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement (CDFW 2012). The breeding season extends from February 1 through August 31 (CBOC 1993, CDFW 2012).

Although few ground squirrel burrows were observed within the Study Area, they could provide suitable habitat for burrowing owl. The non-native annual grasslands provide suitable foraging habitat for this species. Burrowing owl has not been documented in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021).

5.5.5 Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species that is not federally listed, but is listed as threatened by CDFW. Breeding pairs typically nest in tall trees associated with riparian corridors, and forage in grassland, irrigated pasture, and cropland with a high density of rodents (Shuford and Gardali 2008). The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter (Shuford and Gardali 2008). Swainson's hawks nest sparsely in

Placer County with all CNDDDB-recorded records being west of the Cities of Roseville and Lincoln (CNDDDB 2021).

The Study Area is located along the eastern edge of the historically known range of the species, however the annual grassland within the Study Area represents marginal foraging habitat for Swainson's hawk, and the larger trees within the Study Area provide marginally-suitable nesting habitat. Swainson's hawk nesting has not yet been recorded in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021), however, Madrone biologists have documented the species nesting within the last two years approximately 1.25-miles southeast of the Study Area in the City of Rocklin. Development in western Placer County has been widespread over the last several decades, which has resulted in extensive biological surveys in the area. Given the lack of recorded occurrences of nesting/foraging Swainson's hawks in the area, Madrone believes that the newly documented nest is likely an outlier, and that this portion of Placer County is at the edge of the range for the species, and it is unlikely Swainson's hawks regularly utilize the Study Area for nesting or foraging. No Swainson's hawks have been observed using the site to date.

5.5.6 White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not federally or state listed, but it is a CDFW fully protected species. This species is a yearlong resident in the Central Valley and is primarily found in or near foraging areas such as open grasslands, meadows, farmlands, savannas, and emergent wetlands (Shuford and Gardali 2008). White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savanna habitats of the Central Valley and Coast Range (Shuford and Gardali 2008).

The annual grassland within the Study Area represents foraging habitat for white-tailed kite, and the trees within the Study Area provide suitable nesting habitat. This species was observed foraging in the Study Area during a field survey. The nearest documented occurrence of a white-tailed kite nest is located approximately 2.5 miles north of the Study Area (CNDDDB 2021).

5.6 Mammals

5.6.1 Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally or state listed, but it is considered a CDFW species of special concern, and is classified by the WBWG as a High priority species. It favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds (WBWG 2020). Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. The pallid bat is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing (WBWG 2020).

Tree hollows, exfoliating bark on trees, and structures throughout the Study Area represent suitable roosting habitat for pallid bat. Pallid bat has not been documented in the CNDDDB within 5 miles of the Study Area.

The nearest documented occurrence of Pallid bat is approximately 8 miles south of the Study Area (CNDDDB 2021).

5.6.2 Silver-Haired Bat

Silver-haired bat (*Lasiorycteris noctivagans*) is not federally or state listed, but it is classified by the WBWG as a Medium priority species. Primarily considered a coastal and montane forest species, the silver-haired bat occurs in more xeric environments during winter and seasonal migrations (WBWG 2020). It roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. This insectivore's favored foraging sites include open wooded areas near water features (WBWG 2020).

Tree hollows and exfoliating bark on trees throughout the Study Area represent suitable roosting habitat for silver-haired bat. Silver-haired bat has not been documented in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021).

5.6.3 Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not federally or state listed, but it is considered a CDFW species of special concern, and is classified by the WBWG as a High priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs (WBWG 2020). Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores) (WBWG 2020).

Trees within the Study Area represent suitable roosting habitat for western red bat. Western red bat has not been documented in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021).

5.6.4 Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or state listed, but it is classified by the WBWG as a Medium priority species. It is considered to be one of the most widespread of all American bats, with a range extending from Canada to central Chile and Argentina as well as Hawaii (WBWG 2020). Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches at the edge of a clearing (WBWG 2020). This species may also occasionally roost in caves, beneath a rock ledge, in a woodpecker hole, in a grey squirrel nest, under a wood plank, or clinging to the side of a building (WBWG 2020).

Trees and structures within the Study Area represent suitable roosting habitat for hoary bat. Hoary bat has not been documented in the CNDDDB within 5 miles of the Study Area (CNDDDB 2021).

5.6.5 American Badger

The American badger (*Taxidea taxus*) is not federally or state listed, but it is designated as a species of special concern by CDFW. The species historically ranged throughout much of the state except in humid coastal forests. Badgers were once numerous in the Central Valley; however, populations now occur in low numbers in the surrounding peripheral parts of the valley and in the adjacent lowlands of eastern Monterey, San Benito, and San Luis Obispo counties (Williams 1986). Badgers occupy a variety of habitats, including grasslands and savannas. The principal requirements seem to be significant food supply, friable soils, and relatively open uncultivated ground (Williams, 1986).

The annual grassland within the Study Area provides marginal suitable habitat for this species. There are no documented occurrences of American badger within 5 miles of the Study Area (CNDDDB 2021).

6.0 WILDLIFE MOVEMENT/CORRIDORS

The annual grassland within the Study Area currently provides an area of open space connecting the west and east portions of the Study Area. The annual grassland and woodlands may be used by terrestrial and semi-aquatic species as a wildlife movement corridor. The Antelope Creek corridor within the western portion of the Study Area may be used by aquatic or terrestrial species for dispersal and as a movement corridor.

7.0 IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

This section details potential impacts to the biological resources discussed above associated with construction of the Project, as discussed in Section 1.1 and shown in Attachment A.

7.1 Terrestrial Land Cover Types

A total of 92.8 acres (96%) of terrestrial land cover types will be impacted, and 4.1 acres (4%) will be avoided by the proposed Project (Figure 8). Refer to Table 4 below for a breakdown of the avoided and impacted land cover types.

Table 4. Impacts and Avoidance of Terrestrial Land Cover Types within the Study Area

Land Cover Type	Impact Acreage	Avoidance Acreage	Total Acreage
Annual Grassland	66.7	0.4	67.1
Interior Live Oak Woodland	10.6	0.5	11.1
Ruderal	9.4	0.1	9.5
Riparian Woodland	1.3	2.9	4.2
Valley Oak Woodland	2.1	<0.1	2.2
Olive	1.6	0	1.6
Bramble	0.5	<0.1	0.6
Developed	0.5	0	0.5

Black Locust	0.1	0	0.1
Total	92.8	4.1	96.9

7.2 Aquatic Resources

Of the 0.857 acre of aquatic resources mapped within the Study Area, 0.562 will be impacted by the Project (Table 5 and Figure 8).

Table 5. Impacts and Avoidance of Aquatic Resources within the Study Area

Aquatic Resource Type	Impact Acreage	Avoidance Acreage	Total Acreage
<i>Wetlands</i>			
Seasonal Wetland Swale	0.287	0.001	0.288
<i>Other Waters</i>			
Antelope Creek (Perennial)	0	0.156	0.156
Pond	0.266	0.138	0.404
Roadside Ditch	0.009	0	0.009
Total	0.562	0.295	0.857

7.3 Valley Elderberry Longhorn Beetle

Two elderberry shrubs with stems greater than 1 inch in diameter were mapped on-site (Figure 7). Although no exit holes were observed on either shrub, they represent potential habitat for VELB. Both of these shrubs will be impacted by Project construction, and thus potential VELB habitat will be impacted by the Project.

7.4 Salmonids

Antelope Creek within the Study Area represents Essential Fish Habitat for Chinook salmon, and serves as a potential migration corridor for both Central Valley steelhead and Central Valley fall/late-fall run Chinook salmon. Antelope Creek will be avoided and the Project is not expected to result in any direct impacts to salmonids. However, the Project may result in indirect water quality impacts if appropriate erosion control measures are not implemented during work near the creek.

7.5 Western Spadefoot

The four ponds within the Project Area represent suitable breeding habitat for western spadefoot and the surrounding annual grasslands provide suitable dry-season habitat. Impacts to these ponds and surrounding uplands may result in western spadefoot being injured or killed.

7.6 Western Pond Turtle

Antelope Creek and the large pond (P-3) within the southeast portion of the Study Area provide suitable habitat for western pond turtle, and the adjacent annual grassland within 150-feet of the aquatic habitat represents potential nesting habitat. If the potential aquatic and upland habitat will be impacted during

Project construction, western pond turtles or their nests could be injured or killed, or nests could be destroyed.

7.7 Nesting Raptors and Songbirds

Tricolored blackbird, northern harrier, loggerhead shrike, and white-tailed kite have the potential to nest within the Study Area, as do other more common bird species protected by the MBTA. Swainson's hawks have a low potential to nest within the Study Area. The Study Area is located along the eastern margin of the historic range (both nesting and foraging) of the species, although a nest was recently observed in Rocklin. If any of these species were nesting on-site, removal of the nests would impact these species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

7.8 Foraging Raptors and Songbirds

The annual grassland within the Study Area provides suitable foraging habitat for white-tailed kite, tricolored blackbird, and other more common raptors and songbirds. It also provides marginally-suitable foraging habitat for Swainson's hawk. Approximately 66.7 acres of annual grassland will be impacted during Project implementation (Figure 8). Impacts to this foraging habitat by the construction of the Project may lead to a decrease of prey for these species and a reduction in the population.

7.9 Burrowing Owl

The annual grassland throughout the Study Area provides suitable foraging habitat for burrowing owl, and occasional ground-squirrel burrows throughout the Study Area provide marginally suitable burrow habitat. If ground disturbance occurred while burrowing owls are in burrows, individuals of this species could be killed.

7.10 Roosting Bats

The buildings and trees throughout the Study Area provide habitat for various special-status bats species. If special-status bats were roosting in trees or buildings to be removed by Project construction, they could be injured or killed during the removal.

7.11 American Badger

The annual grassland throughout the Study Area provides suitable habitat for American Badger. If ground disturbance occurred while individuals are in burrows, individuals of this species could be killed.

7.12 Native Oak Trees

Of the 573 Protected Trees present within the surveyed portion of the Study Area, a total of 360 Protected Trees that have a combined TDBH of 5,617 inches will be impacted by the Project. The remaining 213 Protected Trees will not be impacted by the Project. Further Protected Trees may be impacted within the additional parcel, which will be inventoried at a future date.

8.0 MITIGATION FOR IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The following are mitigation measures that are often required by CEQA lead agencies for impacts to sensitive biological resources that may be associated with construction of the Project.

8.1 Aquatic Resources

1. The Project applicant shall apply for a Section 404 permit from the U.S. Army Corps of Engineers if any fill of USACE-jurisdictional aquatic resources occurs. A total of 0.562 acre of aquatic resources will be impacted by the Project, including 0.287 acre of wetlands and 0.275 acre of other waters. Based on current Clean Water Rule definitions, Madrone believes most of the aquatic resources present would not be considered USACE-jurisdictional at this time. Any USACE-jurisdictional aquatic resources impacts will be mitigated at a 1:1 ratio, such that they are replaced or rehabilitated on a “no-net-loss” basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE.
2. If any fill of RWQCB-jurisdictional aquatic resources occurs, the applicant shall apply for a Section 401 water quality certification from the RWQCB, and adhere to the certification conditions, including mitigation obligations.
3. The applicant shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW for any impacts to aquatic features with a bed and/or bank, or riparian habitat associated with a CDFW-jurisdictional aquatic resource. The information provided will include a description of all of the activities associated with the Project, not just those closely associated with the drainages and/or riparian vegetation. Impacts for each activity will be broken down by temporary and permanent, and a description of the proposed mitigation for biological resource impacts will be outlined per activity and then by temporary and permanent. Information regarding Project-specific drainage and hydrology changes resulting from Project implementation will be provided as well as a description of storm water treatment methods. Minimization and avoidance measures will be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/conservation bank off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW. A total of approximately 1.3 acres of riparian woodland will be

impacted by Project construction. All impacted riparian habitat will be mitigated at a minimum 1:1 ratio, or as otherwise required by the CDFW Streambed Alteration Agreement.

8.2 Western Pond Turtle

Prior to any ground disturbance or vegetation removal within 150 feet of Antelope Creek or the on-site ponds, a western pond turtle survey shall be conducted within 48 hours prior to construction. If no western pond turtles or nests are found, no further mitigation is necessary. If a western pond turtle is observed within the proposed impact area, a qualified biologist shall relocate the individual to suitable habitat outside of the proposed impact area prior to construction. If a western pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch and young disperse into the drainage or ponds. A qualified biologist shall monitor to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings will occur as stipulated above, if necessary.

8.3 Nesting Raptors and Other Birds

The following nest survey requirements apply if construction activities take place during the typical bird breeding/nesting season (typically February 15 through September 1).

8.3.1 Swainson's Hawk

A targeted Swainson's hawk nest survey shall be conducted throughout all accessible areas within ¼ mile of the proposed construction area no later than 14 days prior to construction activities. If active Swainson's hawk nests are found within ¼ mile of a construction area, construction shall cease within ¼ mile of the nest until a qualified biologist (Project Biologist) determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within ¼ mile of the nest, the applicant shall consult with CDFW and the Town of Loomis to determine if the nest buffer can be reduced. The Project applicant, the Project biologist, the Town of Loomis, and CDFW shall collectively determine the nest avoidance buffer, and what (if any) nest monitoring is necessary. If an active Swainson's hawk nest is found within the Project site prior to construction and is in a tree that is proposed for removal, then the Project applicant shall implement additional mitigation recommended by a qualified biologist based on CDFW guidelines and obtain any required permits from CDFW. As the Study Area is located along the margin of the historically known range (both nesting and foraging), it is likely that the recently documented nest in Rocklin is an outlier, and that this species is not likely to utilize the site. Therefore, we believe that a pre-construction nest survey is sufficient to reduce impacts to this species to a less than significant level.

8.3.2 Burrowing Owls

A targeted burrowing owl nest survey shall be conducted in all accessible areas within 500 feet of the proposed construction area within 14 days prior to construction activities. The surveying biologist shall utilize 60 foot transects as outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) (Staff Report). If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile

owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist (Project Biologist) determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within 250 feet of the nest burrow, the applicant shall consult with CDFW and the Town of Loomis to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined in the Staff Report.

8.3.3 Other Birds

A pre-construction nesting bird survey shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than three (3) days prior to the initiation of construction. If there is a break in construction activity of more than two (2) weeks then subsequent surveys shall be conducted.

If active raptor nests or a tricolored blackbird nesting colony are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer will be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the Project Biologist and approved by the Town of Loomis (and CDFW if it is a tricolored blackbird nesting colony) after taking into consideration the natural history of the species of nesting bird, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (if there are visual or acoustic barriers between the proposed activity and the nest). A qualified biologist can visit the nest as needed to determine when the young have fledged and are independent of the site, or the nest can be left undisturbed until the end of the nesting season.

8.3.4 Survey Report

A report summarizing the survey(s), including those for Swainson's hawk and other nesting birds, shall be provided to the Town of Loomis and CDFW within 30 days of the completed survey, and is valid for one construction season. If no nests are found, no further mitigation is required.

8.3.5 Changes to Buffers and Completion of Nesting

Should construction activities cause a nesting bird to exhibit any signs of distress (vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest), then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop this agitated behavior. The exclusionary buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the County.

Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared indicating that the nest (or nests) are no longer active, and that no new nests have been identified.

8.4 Roosting Bats

- A qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed development footprint. This habitat assessment will identify all potentially suitable roosting habitat and is recommended to be conducted up to a year prior to the start of construction;
- If potential roosting habitat is identified (cavities in trees) within the areas proposed for development, the qualified biologist will survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees F) to determine presence of roosting bats. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof;
- If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees should be removed outside of pup season on days with temperatures in excess of 50 degrees F. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree;
- Additionally, it is recommended that all other tree removal be conducted from January through March on days with temperatures in excess of 50 degrees F to avoid potential impacts to foliage-roosting bat species.

8.5 American Badger

- Conduct a pre-construction American badger survey of the Project construction area within 14 days prior to construction activities. It is anticipated that these surveys could be completed concurrently with the burrowing owl surveys.
- If American badgers or burrows with American badger sign are found, the burrow shall be excavated as follows. The qualified biologists will examine the burrow with a camera probe, if the entire burrow is inspected and no badgers are identified, the biologists will do a progress hand excavation to the terminal end of the burrow and backfill. If the burrow is occupied, detection of that would either be by sound (growling and digging sounds), a recent plug, a detection by the camera, or a rushing badger. If the burrow is determined to be occupied, the biologists will leave it as is and continue monitoring the burrow until the burrow is unoccupied. If presence is not detected until excavation has started, the biologists will abandon the excavation, plug the burrow with crumpled newspaper and return the next day. If the paper is in place, the biologists will continue monitoring until the paper is moved or gone (suggesting that the badger is gone) and resume excavation of the burrow.

8.6 Protected Trees and Oak Woodland

8.6.1 Individual Tree Mitigation

The Project would require the removal of at least 360 Protected Trees with a combined total diameter at breast height (TDBH) of at least 5,617 inches. Further Protected Trees are likely present within the additional parcel, which has not yet been inventoried. An arborist survey will be conducted for this additional parcel at a future date, and any Protected Trees slated for removal will be mitigated for consistent and concurrent with the tree mitigation within the remainder of the Study Area. To mitigate for the loss of Protected Trees, the Project Applicant shall obtain a Tree Permit from the Town of Loomis after the additional arborist survey has been conducted and prior to Improvement Plan approval. The Town of Loomis shall review the Tree Permit application as well as the final site improvement plans and determine the precise mitigation requirement at that time. Mitigation for the removal of the 360 Protected Trees that have currently been inventoried may include payment into the Town of Loomis Tree Preservation Fund, the planting of 1,681 #5 container oak trees, or the planting of 774 #15 container oak trees. Oak trees could be planted on the project site within the Antelope Creek corridor or as part of the project landscape design and to create shade for the parking lots of the business park. The removal of any Protected Trees within the additional parcel will also be mitigated for consistent with the methods described above.

To mitigate the loss of Protected Trees on the project site, the project applicant shall prepare an oak woodland tree replacement plan as described in the Town of Loomis Tree Ordinance. The oak woodland tree replacement plan shall include:

- Planting of 774 #15 container or 1,681 #5 container trees of appropriate oak species on the project site to attain tree replacement ratios prescribed by the Town of Loomis. Additional replacement trees shall be added to the tree replacement plan once the arborist survey for the additional parcel has been conducted;
- Preparation of a planting plan describing species composition and spacing, and an exhibit indicating the specific location of proposed tree plantings; and
- Schedules and methodologies for maintenance, monitoring, and annual reporting to ensure that the replacement trees survive for at least 5 years after the initial planting.

Efforts should be made to save trees where feasible and incorporate them into the landscaping. This may include the use of retaining walls, planter islands, pavers, or other techniques commonly associated with tree preservation. The Improvement Plans shall include a note and show placement of temporary construction fencing around trees to be saved. The applicant shall install a four foot tall, brightly colored (typically orange), synthetic mesh material fence (or an equivalent approved by the Town of Loomis) at the following locations prior to any construction equipment being moved on-site or any construction activities taking place: at the limits of construction; outside the Protected Zone of all single-trunk trees six inches DBH or greater, or 10 inches DBH aggregate for multi-trunk trees; within 50 feet of any grading, road

improvements, underground utilities, or other development activity; or as otherwise shown on the Tentative Map.

No development of the Project, including grading, shall be allowed until this requirement is satisfied. Any encroachment within these areas, including Protected Zones of trees to be saved, must first be approved by the Town of Loomis. Temporary fencing shall not be altered during construction without written approval of the Town of Loomis. No grading, clearing, storage of equipment or machinery, etc., may occur until a representative of the Town of Loomis has inspected and approved all temporary construction fencing.

8.6.2 Oak Woodland Mitigation

Before issuance of a grading permit, the project applicant shall prepare an oak woodland mitigation plan for review and approval by the Town of Loomis that describes the methods by which a minimum of 25.4 acres of oak woodland shall be conserved and protected as natural open space as mitigation for impacting 12.7 acres of oak woodland. Oak woodland conservation shall occur at a 2:1 ratio, as is consistent with the Placer County Tree Preservation Ordinance, or as otherwise required by the Town of Loomis. The mitigation plan shall be submitted to the Town of Loomis for approval. The oak woodland mitigation plan can be implemented by securing a conservation easement to protect, enhance, and manage a minimum of 25.4 acres of oak woodland. Before grading permits for the project site are issued, the oak woodland open space mitigation plan shall be approved by the Town of Loomis.

8.7 Worker Environmental Awareness Training

Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Project's permits and CEQA documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife; location of any avoided Waters of the U.S; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species. The WEAT will also discuss the different habitats used by the species' different life stages and the annual timing of these life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT, workers will sign a form stating that they attended the training, understand the information presented, and will comply with the regulations discussed. Workers will be shown designated "avoidance areas" during the WEAT; worker access should be restricted to outside of those areas to minimize the potential for inadvertent environmental impacts. Fencing and signage around the boundary of avoidance areas may be helpful.

9.0 REFERENCES

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Figures

Figure 1. Vicinity Map

Figure 2. California Natural Diversity Database Occurrences of Plant Species

Figure 3. California Natural Diversity Database Occurrences of Wildlife Species and Critical Habitat

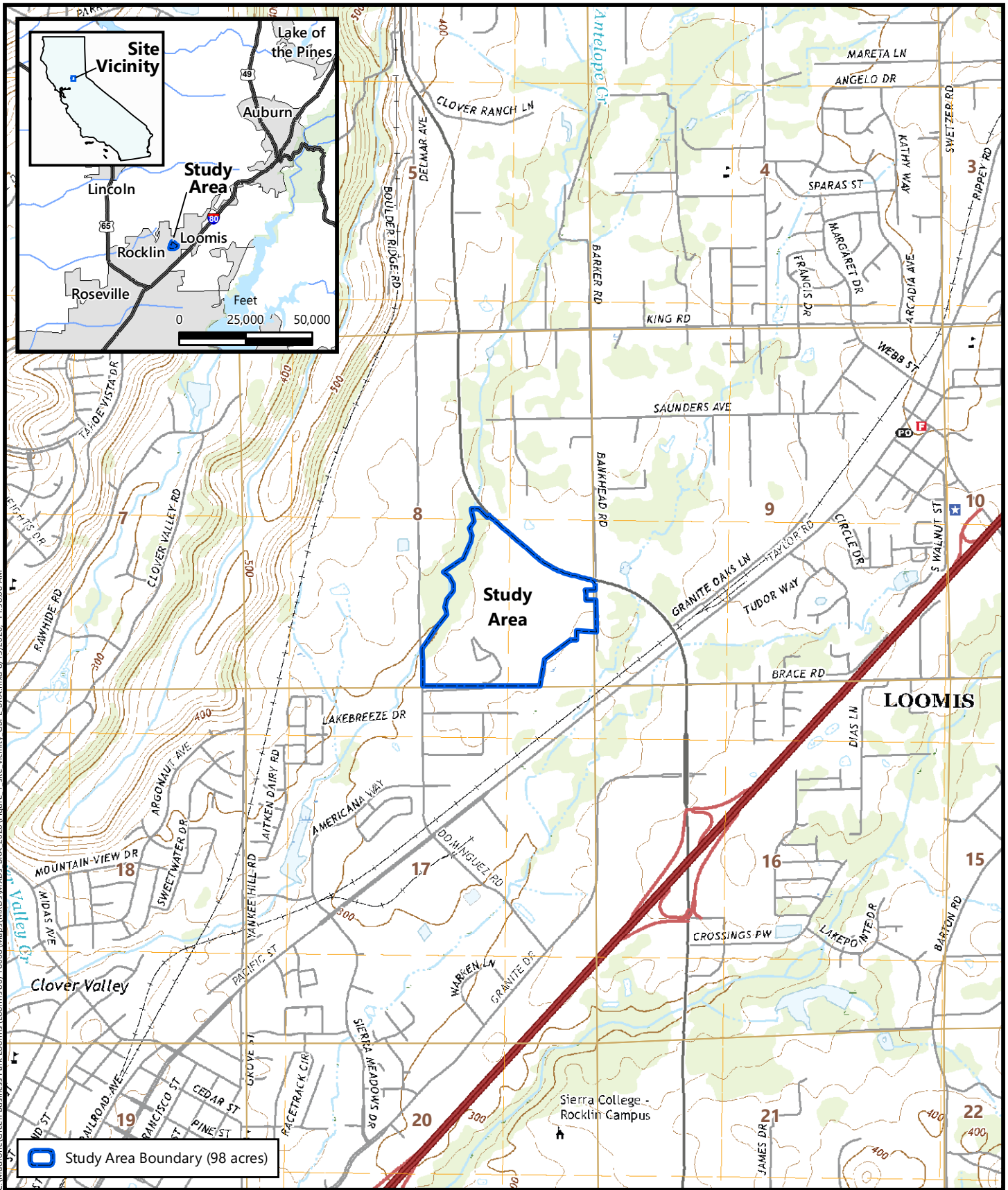
Figure 4. Aquatic Resources

Figure 5. NRCS Soils Map

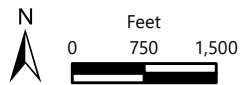
Figure 6. Land Cover Types

Figure 7. Elderberry Shrub Locations

Figure 8. Impacts to Aquatic Resources and Land Cover Types



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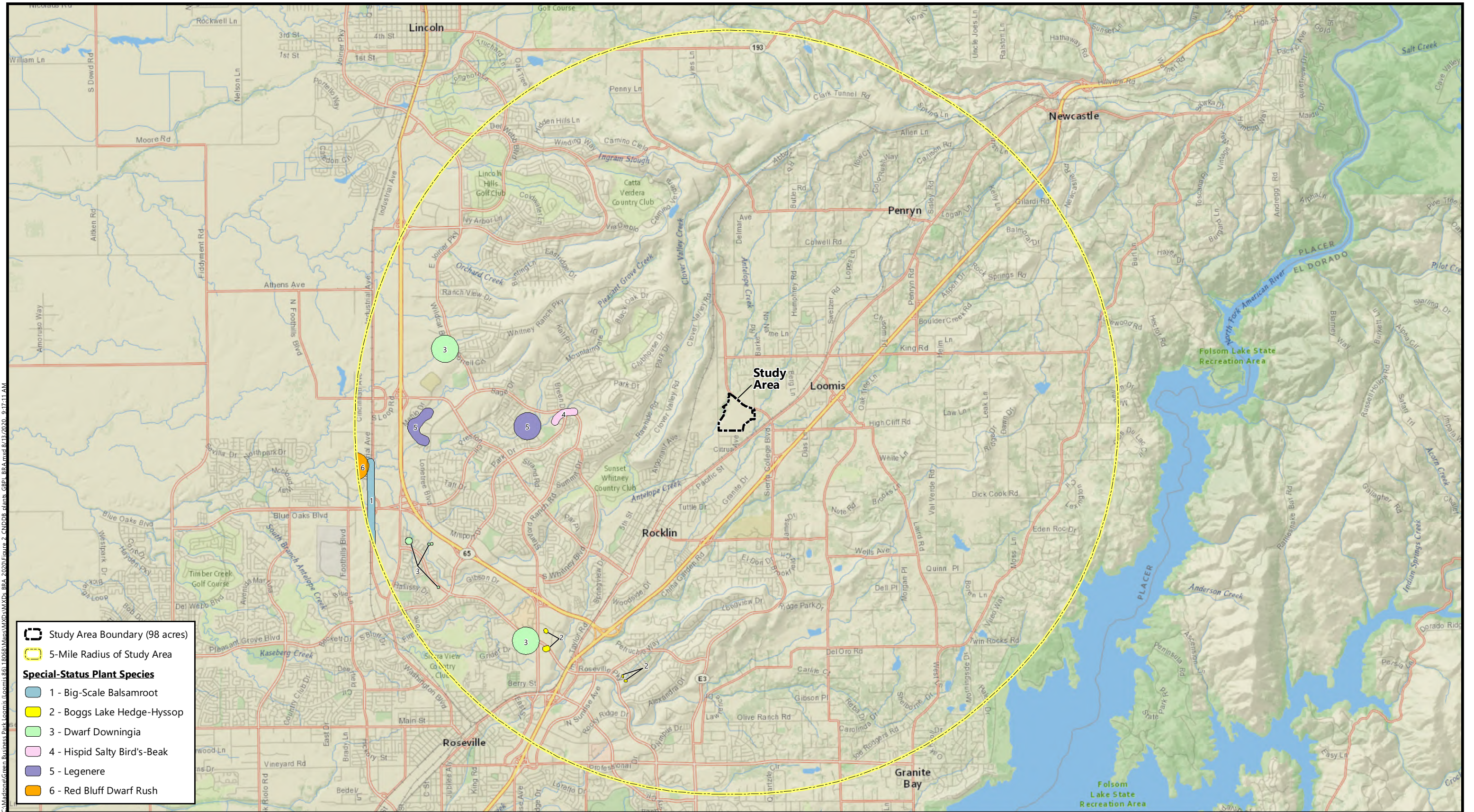


Source: United States Geologic Survey, 2018
 Sections 8 and 9, Township 11 North, Range 7 East, MDB&M
 "Rocklin" California 7.5-Minute Topographic Quadrangle
 Longitude -121.214995, Latitude 38.813248

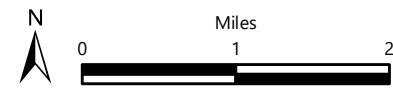
**Figure 1
Vicinity Map**

Green Business Park
 Loomis, Placer County, California





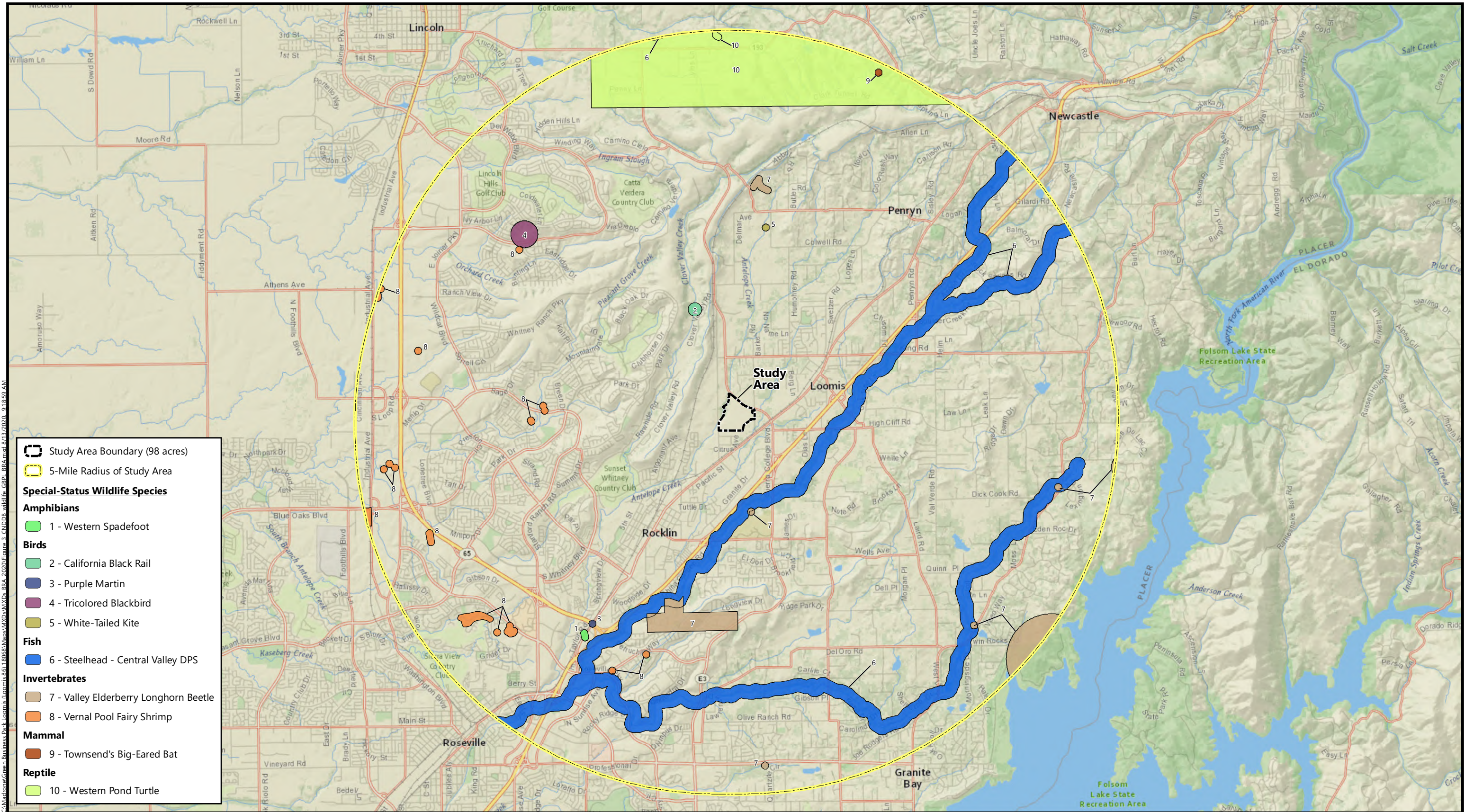
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Source: California Department of Fish and Wildlife, August 2020.
 Basemap Source: National Geographic and ESRI

Figure 2
California Natural Diversity Database
Occurrences of Special-Status
Plant Species
 Green Business Park
 Loomis, Placer County, California





Study Area Boundary (98 acres)
5-Mile Radius of Study Area

Special-Status Wildlife Species

Amphibians

- 1 - Western Spadefoot

Birds

- 2 - California Black Rail
- 3 - Purple Martin
- 4 - Tricolored Blackbird
- 5 - White-Tailed Kite

Fish

- 6 - Steelhead - Central Valley DPS

Invertebrates

- 7 - Valley Elderberry Longhorn Beetle
- 8 - Vernal Pool Fairy Shrimp

Mammal

- 9 - Townsend's Big-Eared Bat

Reptile

- 10 - Western Pond Turtle

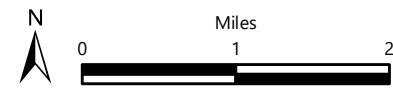







Figure 3
California Natural Diversity Database
Occurrences of Special-Status
Wildlife Species
 Green Business Park
 Loomis, Placer County, California



Source: California Department of Fish and Wildlife, August 2020.
 Basemap Source: National Geographic and ESRI



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 Study Area Boundary (98 acres)	Other Waters
Aquatic Resources (0.857 acre)	 Antelope Creek (0.156 acre)
Wetlands	 Pond (0.404 acre)
 Seasonal Wetland Swale (0.288 acre)	 Roadside Ditch (0.009 acre)

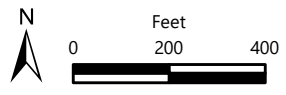
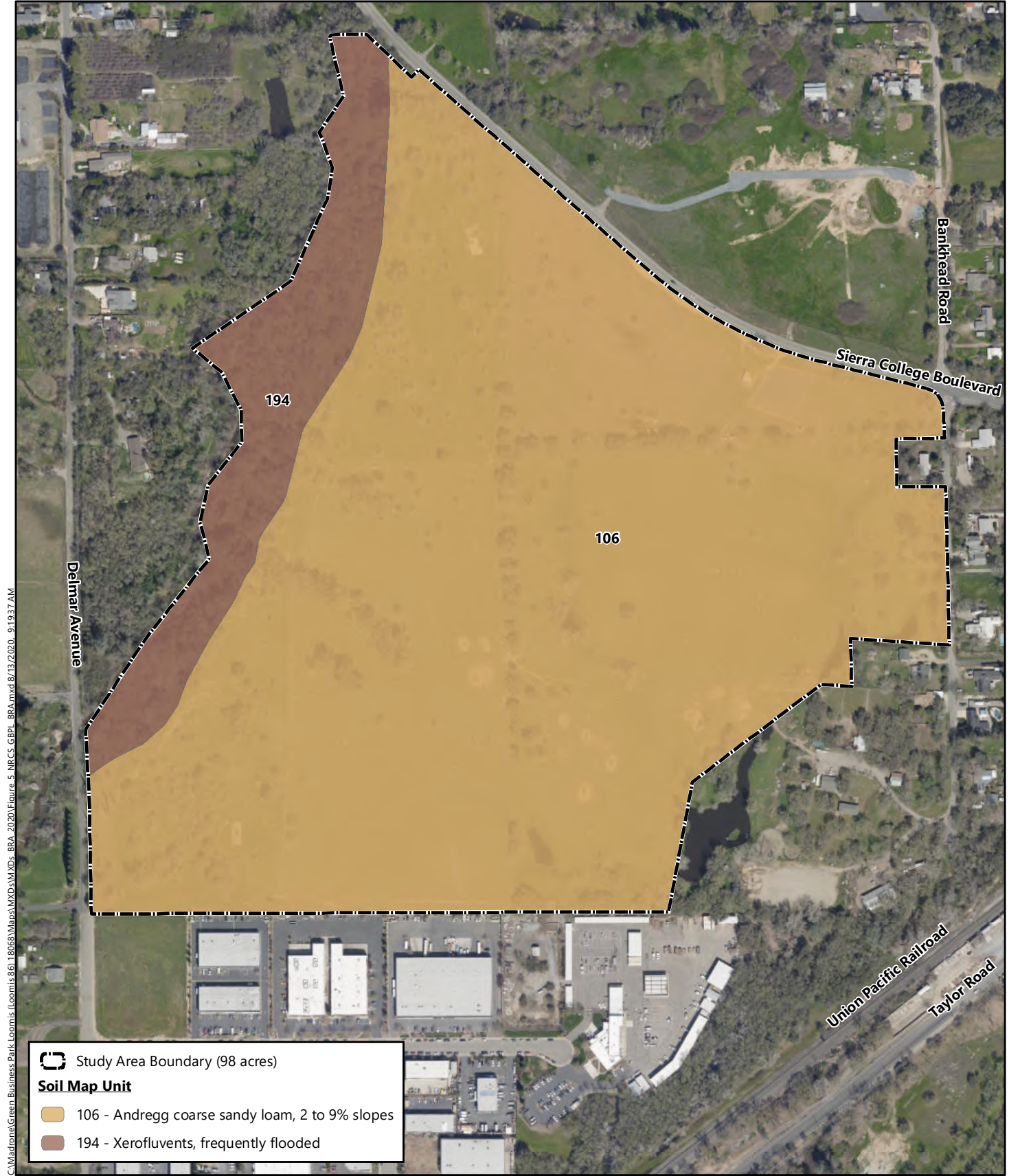


Figure 4
Aquatic Resources

Green Business Park
Loomis, Placer County, California



Aerial Source: City of Rocklin, 19 April 2018.



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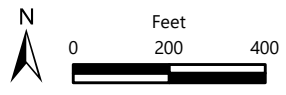
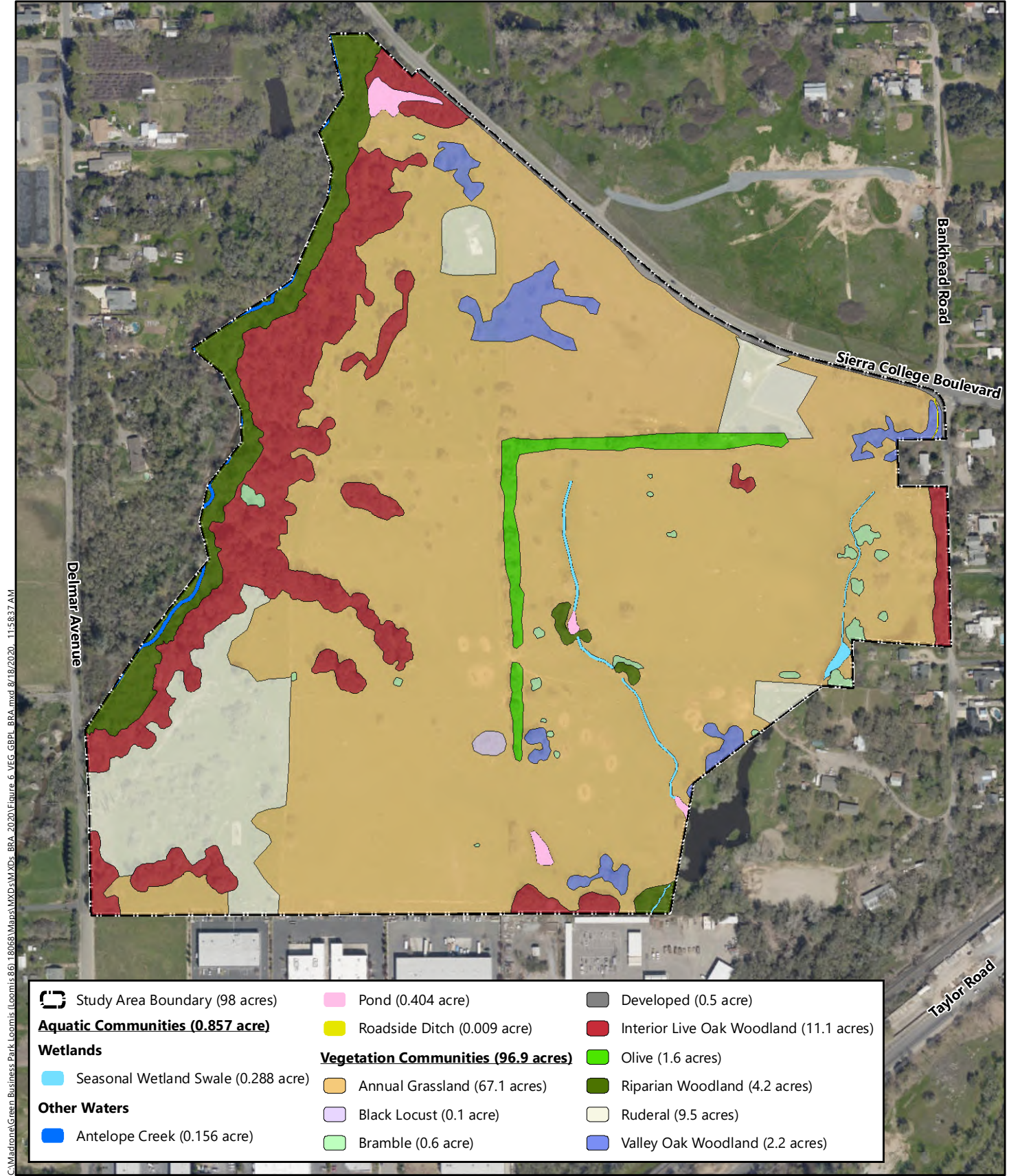


Figure 5
Natural Resources Conservation
Service Soils

Green Business Park
 Loomis, Placer County, California



Soil Survey Source: *USDA, Soil Conservation Service.*
 Soil Survey Geographic (SSURGO) database for Placer County, California, Western Part
 Aerial Source: Aerial Source: City of Rocklin, 19 April 2018.



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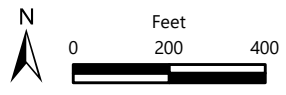


Figure 6
Land Cover Types

Aerial Source: City of Rocklin, 19 April 2018.

Green Business Park
Loomis, Placer County, California



C:\Madrone\Green Business Park\Loomis (Loomis.86) 18068\Maps\MXD\SIM\XD.F. BRA. 2020\Figure 7. Elderberry.GBP.L. BRA.mxd 8/13/2020 9:33:54 AM

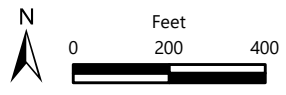
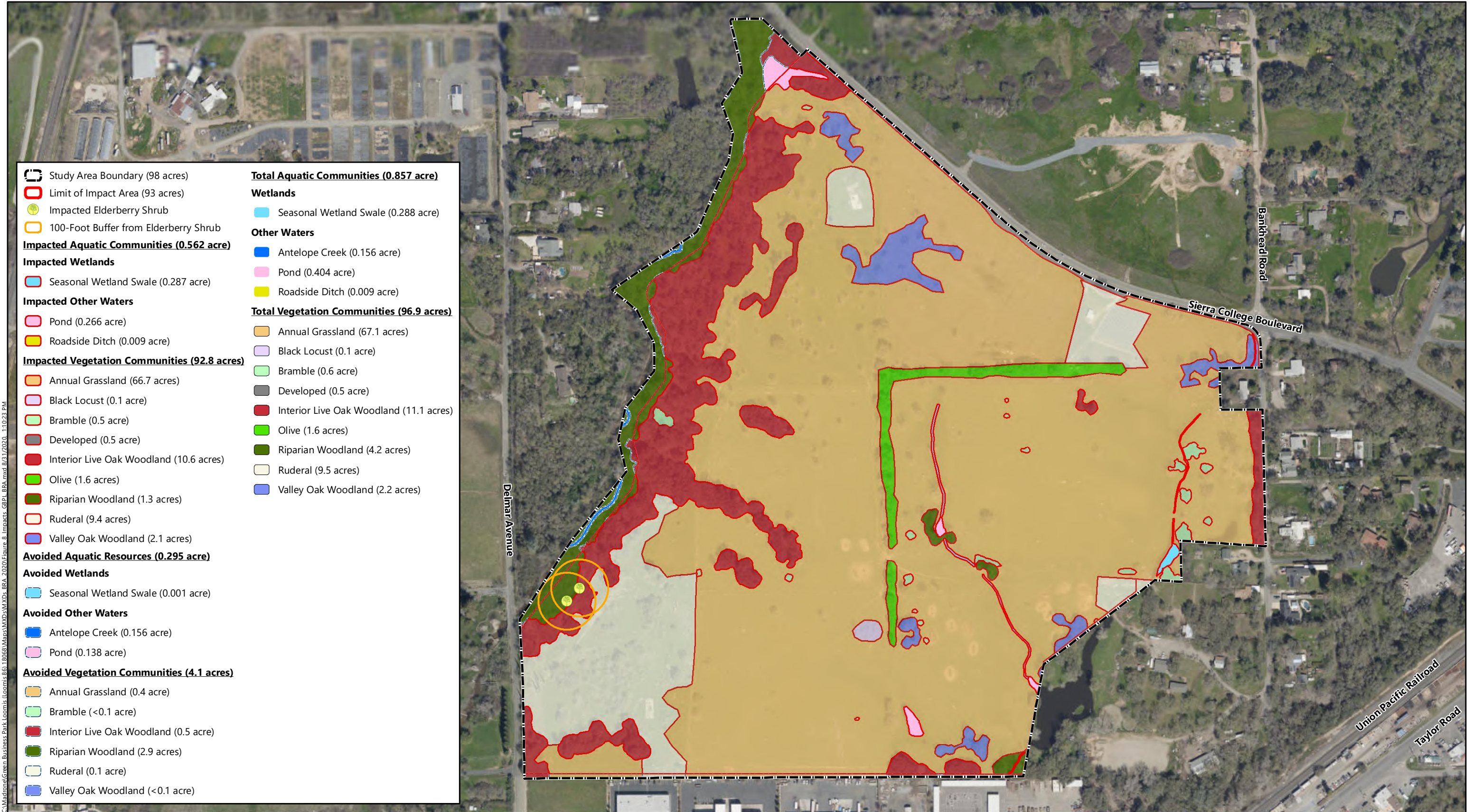


Figure 7
Elderberry Shrub Locations

Green Business Park
Loomis, Placer County, California



Aerial Source: City of Rocklin, 19 April 2018.



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Notes: Rounding may result in small summation errors.
 Aerial Source: City of Rocklin, 19 April 2018.

Figure 8
Impact to Land Cover Types

Green Business Park
 Loomis, Placer County, California



Attachments

Attachment A. Site Plan

Attachment B. IPaC Trust Resource Report for the Study Area

Attachment C. CNPS Inventory of Rare and Endangered Plants Query for the "Loomis, California"
USGS Quadrangle and Eight Surrounding Quadrangles

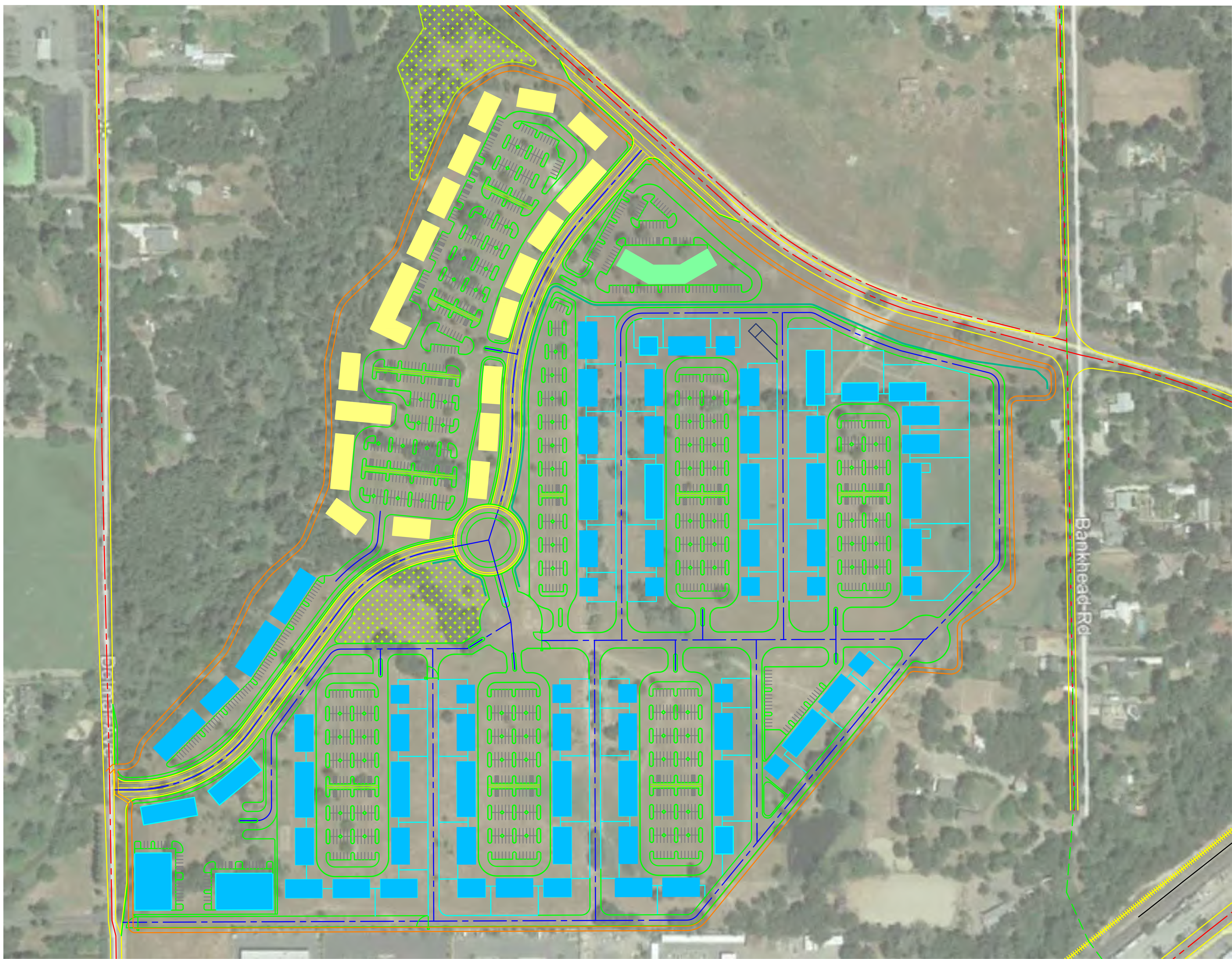
Attachment D. Wildlife List

Attachment E. Tree Inventory Data

Attachment A

Site Plan

PROPRIETARY - DO NOT DISTRIBUTE



BEM Inc.
 4780 Rocklin Rd
 Rocklin, CA 95677

TEL: (916) 315-8877

REVISIONS		
REV	DATE	DESCRIPTION

PROJECT:

GREEN BUSINESS PARK
 "LOOMIS"

PROJECT ADDRESS:

SIERRA COLLEGE BLVD /
 BANKHEAD RD /
 DELMAR AVE

DRAWING TITLE:

CONCEPTUAL SITE PLAN

PROJECT #:

-

SCALE:

1" = 120'

DATE:

08/28/18

DESIGNED BY:

-

DRAWN BY:

-

CHECKED BY:

-

SHEET TITLE:

PRELIMINARY

SHEET NUMBER:

S-01

Attachment B

IPaC Trust Resource Report for the Study Area



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2019-SLI-0403
Event Code: 08ESMF00-2020-E-08087
Project Name: Green Business Park

August 13, 2020

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

To Whom It May Concern:

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

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

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

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-0403

Event Code: 08ESMF00-2020-E-08087

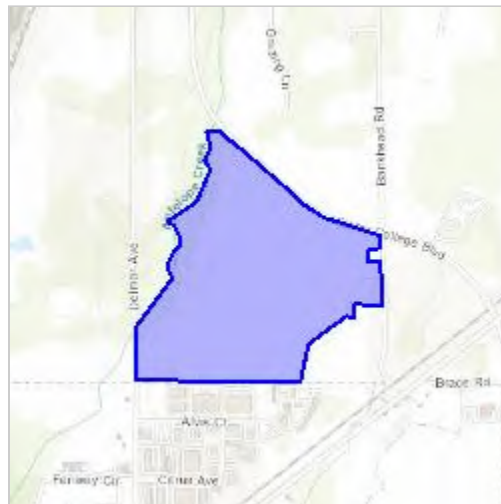
Project Name: Green Business Park

Project Type: DEVELOPMENT

Project Description: Commercial Development

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.81393070428297N121.21433481154426W>



Counties: Placer, CA

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

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

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

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

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

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

Attachment C

CNPS Inventory of Rare and Endangered Plants Query for the "Loomis, California" USGS Quadrangle and Eight Surrounding Quadrangles

*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

23 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3], Found in Quads 3812183, 3812182, 3812181, 3812173, 3812172, 3812171, 3812163 3812162 and 3812161;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	1B.1	S1	G1
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2	S2	G2
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	1B.1	S1	G1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	1B.2	S3	G3
Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	1B.1	S1	G2T1
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	3.2	S2?	G2?Q
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	1B.2	S1	G1
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	1B.2	S1	G5T1
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	1B.2	S1	G2T1
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2
	dubious pea	Fabaceae	perennial herb	Apr-May	3	S1S2	G5T1T2Q

[Lathyrus sulphureus var. argillaceus](#)

<u>Legenere limosa</u>	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
<u>Navarretia myersii ssp. myersii</u>	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	1B.1	S2	G2T2
<u>Orcuttia viscida</u>	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	1B.1	S1	G1
<u>Packera layneae</u>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2
<u>Sagittaria sanfordii</u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
<u>Viburnum ellipticum</u>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5
<u>Wyethia reticulata</u>	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2

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Questions and Comments

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Attachment D

Wildlife List

Wildlife Species Observed within the
Green Business Park Study Area
16-18 October 2018, 11 August 2020

Species Name	Common name
Birds	
<i>Agelaius phoeniceus</i>	Red-winged blackbird
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma californica</i>	California scrub jay
<i>Ardea alba</i>	Great egret
<i>Ardea herodias</i>	Great blue heron
<i>Branta canadensis</i>	Canada goose
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Buteo lineatus</i>	Red-shouldered hawk
<i>Callipepla californica</i>	California quail
<i>Calypte anna</i>	Anna's hummingbird
<i>Cathartes aura</i>	Turkey vulture
<i>Charadrius vociferus</i>	Killdeer
<i>Chondestes grammacus</i>	Lark sparrow
<i>Colaptes auratus</i>	Northern flicker
<i>Columba livia</i>	Rock pigeon
<i>Corvus brachyrhynchos</i>	American crow
<i>Dryobates nuttallii</i>	Nuttall's woodpecker
<i>Egretta thula</i>	Snowy egret
<i>Elanus leucurus</i>	White-tailed kite
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Falco sparverius</i>	American kestrel
<i>Haemorhous mexicanus</i>	House finch
<i>Icterus bullockii</i>	Bullock's oriole
<i>Megaceryle alcyon</i>	Belted kingfisher
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Meleagris gallopavo</i>	Wild turkey
<i>Melospiza melodia</i>	Song sparrow
<i>Melospiza crissalis</i>	California towhee
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Passer domesticus</i>	House sparrow
<i>Passerculus sandwichensis</i>	Savannah sparrow
<i>Pipilo maculatus</i>	Spotted towhee
<i>Psaltriparus minimus</i>	Bushtit
<i>Regulus calendula</i>	Ruby-crowned kinglet
<i>Sayornis nigricans</i>	Black phoebe
<i>Sayornis saya</i>	Say's phoebe

Wildlife Species Observed within the
Green Business Park Study Area
16-18 October 2018, 11 August 2020

Species Name	Common name
<i>Setophaga coronata</i>	Yellow-rumped warbler
<i>Sialia mexicana</i>	Western bluebird
<i>Sitta carolinensis</i>	White-breasted nuthatch
<i>Spinus psaltria</i>	Lesser goldfinch
<i>Sturnus vulgaris</i>	European starling
<i>Tyrannus verticalis</i>	Western kingbird
<i>Zenaida macroura</i>	Mourning dove
<i>Zonotrichia atricapilla</i>	Golden-crowned sparrow
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
Mammals	
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Otospermophilus beecheyi</i>	California ground squirrel
<i>Sciurus griseus</i>	Western gray squirrel
<i>Canis latrans</i>	Coyote
<i>Odocoileus hemionus columbianus</i>	Columbian black-tailed deer
<i>Procyon lotor</i>	Raccoon
Reptiles	
<i>Sceloporus occidentalis</i>	Western fence lizard
Amphibians	
<i>Lithobates catesbeianus</i>	American bullfrog
<i>Pseucacris sierra</i>	Sierran treefrog
Fish	
<i>Gambusia affinis</i>	Mosquitofish

Attachment E

Tree Inventory Data

Tree #	Species	# of Trunks	DBH (inches)												DLR (feet)	Height (feet)	Health	Structure	Vigor	Notes	MITIGATE / REMOVE	5 Gal Pots to Plant	15 Gal Pots to Plant	In-Lieu Fee Amount
			19	14	21	12	12	14	20															
1203	Interior Live Oak	7	19	14	21	12	12	14	20					25	40	Fair	Fair	Fair	fallen tree on trunk, rock outcrop, broken limbs, included bark, minor limb	MITIGATE	28	14	\$10,080	
1254	Interior Live Oak	6	12	14	11	10	11	10						25	35	Fair	Fair	Fair	multiple trunks at the base, included bark, minor limb rot, lean	MITIGATE	24	12	\$6,120	
596	Interior Live Oak	5	16	25	18	6	5							27	42	Fair	Fair	Fair	weightlimbs, included bark, lean, asymmetrical canopy	MITIGATE	16	8	\$6,040	
523	Interior Live Oak	3	19	16	24									35	32	Fair	Fair	Fair	embedded fence, severe dieback, included bark	MITIGATE	12	6	\$5,310	
1250	Valley Oak	3	23	11	18									25	52	Fair-Good	Fair	Fair	poison oak, slight lean, included bark	MITIGATE	12	6	\$5,200	
1273	Interior Live Oak	5	7	11	12	15	11							20	35	Fair	Fair	Fair	multiple trunks at the base, lean, rock outcrop, limb rot	MITIGATE	19	9	\$4,970	
545	Valley Oak	1	38											25	55	Fair	Fair	Fair	poison oak, rock outcrop, included bark, asymmetrical canopy	MITIGATE	8	5	\$4,940	
267	Interior Live Oak	3	16	21	15									22	32	Fair	Fair	Fair	rock outcrop, included bark, lean, weightlimbs	MITIGATE	12	6	\$4,680	
1369	Interior Live Oak	3	16	17	19									20	40	Fair	Fair	Fair	trunk rot, rock outcrop, included bark, minor dieback	MITIGATE	12	6	\$4,680	
410	Valley Oak	2	26	17										35	60	Fair	Fair	Fair	dieback, codominant	MITIGATE	9	5	\$4,560	
1700	Valley Oak	1	35											40	57	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	8	5	\$4,550	
283	Interior Live Oak	4	12	13	10	13								20	30	Fair	Fair	Fair	included bark, bark damage, minor limb rot, minor dieback	MITIGATE	16	8	\$4,320	
1279	Interior Live Oak	4	11	12	13	11								15	25	Fair	Fair	Fair	included bark, multiple trunks at the base, minor limb rot, minor dieback	MITIGATE	16	8	\$4,230	
1213	Interior Live Oak	4	10	12	10	14								17	25	Fair	Fair	Fair	minor trunk rot, rock outcrop, included bark, multiple trunks at 1 foot, trunk	MITIGATE	16	8	\$4,140	
1637	Blue Oak	1	31											32	52	Fair	Fair	Fair	buris, included bark, moderate dieback, minor limb rot, bark damage	MITIGATE	10	5	\$4,030	
1737	Interior Live Oak	3	20	10	14									20	45	Fair	Fair	Fair	asymmetrical canopy, included bark, lean, moderate dieback	MITIGATE	12	6	\$3,960	
1709	Interior Live Oak	5	7	6	9	10	12							20	27	Fair	Fair	Fair	included bark, lean, minor dieback	MITIGATE	17	7	\$3,740	
408	Interior Live Oak	5	13	13	9	8	5							24	36	Fair	Fair	Fair	codominant, included bark, dieback	MITIGATE	14	6	\$3,700	
515	Interior Live Oak	3	12	13	16									15	25	Fair	Fair	Fair	included bark, embedded fence, moderate dieback	MITIGATE	12	6	\$3,690	
562	Interior Live Oak	1	33											20	25	Fair	Fair	Fair	included bark, slight lean, moderate dieback, bark damage	MITIGATE	6	4	\$3,630	
284	Interior Live Oak	3	11	13	13									20	35	Fair	Fair	Fair	moderate dieback, weightlimbs, exposed roots, rock outcrop, slight lean	MITIGATE	12	6	\$3,330	
1769	Blue Oak	1	27											35	55	Fair	Fair	Fair	bark damage, trunk scar, included bark, minor dieback	MITIGATE	8	4	\$3,240	
1762	Valley Oak	1	29											31	45	Fair	Fair	Fair	included bark, chicken coop abutting tree, minor limb rot	MITIGATE	5	3	\$3,190	
285	Interior Live Oak	3	12	10	13									20	32	Fair	Fair	Fair	included bark, lean, sapsucker damage, minor dieback	MITIGATE	12	6	\$3,150	
468	Interior Live Oak	2	21	14										25	40	Fair	Fair	Fair	codominant, dieback	MITIGATE	8	4	\$3,150	
242	Interior Live Oak	3	17	11	7									17	32	Fair	Fair	Fair	included bark, multiple trunks at the base, slight lean, minor dieback	MITIGATE	11	5	\$3,080	
1308	Interior Live Oak	3	13	12	9									12	27	Fair	Fair	Fair	trunk cavity, bark wound, included bark, minor dieback	MITIGATE	11	5	\$2,970	
1684	Valley Oak	3	13	11	6									17	42	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	11	5	\$2,940	
1281	Interior Live Oak	1	29											25	45	Fair	Fair	Fair	limb rot, included bark, minor dieback, trunk cavity at base	MITIGATE	5	3	\$2,900	
1698	Valley Oak	3	13	15	4									17	47	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	8	4	\$2,800	
1764	Interior Live Oak	2	28											35	45	Fair	Fair	Fair	included bark, embedded fence, minor dieback	MITIGATE	5	3	\$2,800	
1217	Interior Live Oak	3	12	11	9									15	22	Fair	Fair	Fair	poison oak, lean, moderate dieback	MITIGATE	11	5	\$2,790	
1657	Valley Oak	1	25											20	55	Fair	Fair	Fair	rock outcrop, included bark, minor limb rot, moderate dieback	MITIGATE	5	3	\$2,750	
624	Blue Oak	1	24											22	35	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	6	3	\$2,640	
1219	Interior Live Oak	3	13	11	6									15	22	Fair	Fair	Fair	included bark, multiple trunks at the base, moderate dieback	MITIGATE	11	5	\$2,640	
1216	Interior Live Oak	1	26											25	37	Fair	Fair	Fair	lean, included bark, asymmetrical canopy, rock outcrop, poison oak	MITIGATE	5	3	\$2,600	
526	Valley Oak	3	9	7	11									17	17	Fair	Fair	Fair	included bark, minor limb rot, minor dieback	MITIGATE	10	4	\$2,540	
299	Interior Live Oak	1	25											17	32	Fair	Fair	Fair	sapsucker damage, rock outcrop, included bark, moderate dieback	MITIGATE	5	3	\$2,500	
1403	Interior Live Oak	4	11	9	9	2								15	30	Fair	Fair	Fair	multiple trunks at 2 feet, included bark, minor dieback	MITIGATE	10	4	\$2,430	
1710	Interior Live Oak	3	13	14	5									25	32	Fair	Fair	Fair	asymmetrical canopy, included bark, lean, minor dieback, fused trunks	MITIGATE	8	4	\$2,430	
599	Valley Oak	1	24											25	45	Fair	Fair	Fair	included bark, minor dieback, minor limb rot	MITIGATE	4	2	\$2,400	
1276	Interior Live Oak	8	10	4	6	2	2	1	1	10				12	25	Fair	Fair	Fair	multiple trunks at the base, included bark, moderate dieback, lean	MITIGATE	11	5	\$2,280	
1434	Interior Live Oak	3	8	9	10									17	32	Fair	Fair	Fair	multiple trunks at 1 foot, minor dieback, included bark	MITIGATE	10	4	\$2,260	
257	Valley Oak	1	22											25	45	Fair	Fair	Fair	slight lean, included bark, minor limb rot	MITIGATE	4	2	\$2,200	
627	Valley Oak	1	22											25	40	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$2,200	
1307	Interior Live Oak	3	6	11	9									12	27	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	10	4	\$2,190	
1687	Valley Oak	1	21											22	45	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$2,100	
1688	Valley Oak	1	21											17	42	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$2,100	
1361	Blue Oak	1	19											15	30	Fair	Fair	Fair	included bark, limb rot, rock outcrop, moderate dieback	MITIGATE	6	3	\$2,090	
1608	Blue Oak	1	19											25	55	Fair	Fair	Fair	exposed roots, included bark, epicormic growth, moderate dieback	MITIGATE	6	3	\$2,090	
516	Interior Live Oak	3	15	9	5									20	27	Fair	Fair	Fair	lean, asymmetrical canopy, moderate dieback, included bark	MITIGATE	7	3	\$2,070	
536	Interior Live Oak	3	9	3	15									15	27	Fair	Fair	Fair	included bark, minor dieback, rock outcrop	MITIGATE	7	3	\$2,070	
517	Valley Oak	1	20											12	25	Fair	Fair	Fair	included bark, moderate dieback, minor limb rot	MITIGATE	4	2	\$2,000	
1601	Valley Oak	1	20											25	50	Fair	Fair	Fair	blackberry, included bark, minor dieback, slight lean	MITIGATE	4	2	\$2,000	
1794	Valley Oak	1	20											25	47	Fair	Fair	Fair	slight lean, included bark, minor limb rot, minor dieback	MITIGATE	4	2	\$2,000	
1230	Interior Live Oak	1	22											25	36	Fair	Fair	Fair	lean, limb rot, fused trunks, included bark, asymmetrical canopy, pruning cuts	MITIGATE	4	2	\$1,980	
1300	Interior Live Oak	1	22											20	37	Fair	Fair	Fair	lean, asymmetrical canopy, exposed roots	MITIGATE	4	2	\$1,980	
557	Valley Oak	1	19											12	27	Fair	Fair	Fair	minor limb rot, rock outcrop, included bark, moderate dieback	MITIGATE	4	2	\$1,900	
576	Valley Oak	1	19											15	40	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,900	
1256	Valley Oak	1	19											25	50	Fair-Good	Fair-Good	Fair-Good	essure, included bark	MITIGATE	4	2	\$1,900	
1695	Valley Oak	1	19											22	42	Fair	Fair	Fair	included bark, minor limb rot, minor dieback	MITIGATE	4	2	\$1,900	
1919	Valley Oak	1	19											22	47	Fair-Good	Fair	Fair-Good	dieback, included bark	MITIGATE	4	2	\$1,900	
226	Interior Live Oak	1	21											22	30	Fair	Fair	Fair	minor trunk, lean, included bark, asymmetrical canopy, minor dieback	MITIGATE	4	2	\$1,890	
1201	Interior Live Oak	4	8	5	7	8								12	25	Fair	Fair	Fair	included bark, fresh pruning cuts, minor dieback, multiple trunks at 2 feet	MITIGATE	9	3	\$1,840	
230	Interior Live Oak	1	20											22	30	Fair	Fair	Fair	included bark, rock outcrop, exposed roots, minor dieback	MITIGATE	4	2	\$1,800	
271	Interior Live Oak	2	20											20	32	Fair	Fair	Fair	embedded fence, lean, included bark, asymmetrical canopy, minor limb rot	MITIGATE	4	2	\$1,800	
409	Interior Live Oak	1	20											27	40	Fair	Fair	Fair	lean, dieback	MITIGATE	4	2	\$1,800	

558	Valley Oak	1	18															12	27	Fair	Fair	Fair	included bark, moderate dieback, minor limb rot	MITIGATE	4	2	\$1,800
1669	Valley Oak	1	18															22	32	Fair	Fair	Fair	included bark, moderate dieback, minor limb rot	MITIGATE	4	2	\$1,800
1738	Interior Live Oak	1	20															20	37	Fair	Fair	Fair	included bark, bark wound, asymmetrical canopy, slight lean, moderate	MITIGATE	4	2	\$1,800
1934	Valley Oak	2	18															15	37	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,800
1988	Valley Oak	1	18															15	32	Fair	Fair	Fair	included bark, minor limb rot, minor dieback	MITIGATE	4	2	\$1,800
1354	Interior Live Oak	6	12	8	5	5	4	2										12	27	Fair	Fair	Fair	included bark, multiple trunks at the base, minor dieback	MITIGATE	7	3	\$1,720
1632	Valley Oak	1	17															17	30	Fair	Fair	Fair	included bark, minor dieback, minor limb rot	MITIGATE	4	2	\$1,700
1648	Valley Oak	1	17															20	42	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	4	2	\$1,700
1668	Valley Oak	1	17															17	47	Fair	Fair	Fair	minor dieback, slight lean, included bark	MITIGATE	4	2	\$1,700
1708	Valley Oak	1	17															15	42	Fair	Fair	Fair	moderate dieback, included bark, exposed roots	MITIGATE	4	2	\$1,700
1712	Valley Oak	1	17															15	37	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	4	2	\$1,700
1761	Valley Oak	1	17															15	32	Fair	Fair	Fair	included bark, severe dieback	MITIGATE	4	2	\$1,700
1786	Valley Oak	2	17															25	50	Fair	Fair	Fair	moderate dieback, epicormic growth, included bark	MITIGATE	4	2	\$1,700
1796	Valley Oak	2	17															25	55	Fair	Fair	Fair	included bark, codominant trunk at 1 foot, minor limb rot, minor dieback	MITIGATE	4	2	\$1,700
1797	Valley Oak	1	17															25	47	Fair-Good	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,700
1985	Valley Oak	1	17															15	35	Fair	Fair	Fair	moderate dieback, included bark	MITIGATE	4	2	\$1,700
233	Blue Oak	1	15															15	27	Fair	Fair	Fair	minor limb rot, included bark, bark damage, rock outcrop	MITIGATE	6	3	\$1,650
1633	Blue Oak	2	15															20	45	Fair	Fair	Fair	included bark, asymmetrical canopy, embedded fence, minor limb rot	MITIGATE	6	3	\$1,650
269	Interior Live Oak	4	18	2	2	3												15	32	Fair	Fair	Fair	multiple trunks at the base, minor trunk, included bark, minor dieback, minor	MITIGATE	4	2	\$1,620
100	Valley Oak	1	16															20	35	Fair-Good	Fair-Good	Fair-Good	no tag	MITIGATE	4	2	\$1,600
559	Valley Oak	1	16															12	27	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	4	2	\$1,600
573	Valley Oak	1	16															20	35	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	4	2	\$1,600
1212	Valley Oak	1	16															17	40	Fair-Good	Fair	Fair	included bark, minor dieback, blackberry	MITIGATE	4	2	\$1,600
1224	Valley Oak	1	16															15	47	Fair-Good	Fair-Good	Fair-Good	burrs, minor dieback, rock outcrop	MITIGATE	4	2	\$1,600
1399	Valley Oak	1	16															15	30	Fair	Fair	Fair	included bark, asymmetrical canopy, slight lean	MITIGATE	4	2	\$1,600
1696	Valley Oak	1	16															15	37	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,600
1993	Valley Oak	1	16															15	45	Fair	Fair	Fair	asymmetrical canopy, included bark, moderate dieback	MITIGATE	4	2	\$1,600
586	Interior Live Oak	2	17															17	37	Fair	Fair	Fair	exposed roots, moderate dieback, included bark, lean	MITIGATE	4	2	\$1,530
589	Interior Live Oak	1	17															15	42	Fair	Fair	Fair	fused trunks, lean, asymmetrical canopy, minor trunk rot, minor limb rot	MITIGATE	4	2	\$1,530
597	Interior Live Oak	1	17															22	42	Fair	Fair	Fair	lean, included bark, minor dieback	MITIGATE	4	2	\$1,530
108	Valley Oak	1	15															25	45	Fair	Fair	Fair	no tag, lean, dieback	MITIGATE	4	2	\$1,500
239	Valley Oak	1	15															17	27	Fair	Fair	Fair	asymmetrical canopy, included bark, slight lean, minor limb rot	MITIGATE	4	2	\$1,500
245	Valley Oak	1	15															20	35	Fair	Fair	Fair	minor limb rot, minor dieback, slight lean	MITIGATE	4	2	\$1,500
291	Valley Oak	1	15															17	42	Fair	Fair	Fair	moderate dieback, included bark, slight lean	MITIGATE	4	2	\$1,500
1218	Valley Oak	1	15															30	35	Fair	Fair	Fair	minor dieback, lean	MITIGATE	4	2	\$1,500
1227	Valley Oak	1	15															15	52	Fair-Good	Fair	Fair	slight lean, minor dieback	MITIGATE	4	2	\$1,500
1357	Valley Oak	1	15															15	37	Fair-Good	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,500
1358	Valley Oak	2	15															15	30	Fair	Fair	Fair	pruning cuts, codominant trunk at the base, minor dieback	MITIGATE	4	2	\$1,500
1398	Valley Oak	1	15															12	30	Fair	Fair-Good	Fair	included bark, epicormic growth	MITIGATE	4	2	\$1,500
1404	Valley Oak	1	15															12	35	Fair	Fair	Fair	minor dieback, slight lean, included bark	MITIGATE	4	2	\$1,500
1763	Valley Oak	1	15															17	45	Fair	Fair	Fair	asymmetrical canopy, included bark, minor dieback, minor limb rot	MITIGATE	4	2	\$1,500
1933	Valley Oak	2	15															20	37	Fair	Fair	Fair	included bark, minor limb rot, moderate dieback	MITIGATE	4	2	\$1,500
1946	Valley Oak	1	15															15	32	Fair-Good	Fair	Fair	minor dieback, included bark	MITIGATE	4	2	\$1,500
1981	Valley Oak	1	15															17	32	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	4	2	\$1,500
574	Interior Live Oak	2	16	3														20	35	Fair	Fair	Fair	nest, exposed roots, included bark, minor limb rot, moderate dieback	MITIGATE	4	2	\$1,440
591	Interior Live Oak	2	16															27	37	Fair	Fair	Fair	lean, asymmetrical canopy, bark damage, minor limb rot, moderate dieback	MITIGATE	4	2	\$1,440
1289	Interior Live Oak	1	16															22	45	Fair	Fair	Fair	rock outcrop, included bark, minor dieback	MITIGATE	4	2	\$1,440
1663	Interior Live Oak	1	16															20	47	Fair	Fair	Fair	included bark, slight lean, minor dieback	MITIGATE	4	2	\$1,440
1733	Interior Live Oak	1	16															22	42	Fair	Fair	Fair	included bark, lean, asymmetrical canopy, moderate dieback	MITIGATE	4	2	\$1,440
1365	Blue Oak	1	13															12	25	Fair	Fair	Fair	dead trunks, bark damage, included bark, asymmetrical canopy, moderate dieback	MITIGATE	6	3	\$1,430
300	Valley Oak	2	14															15	40	Fair	Fair	Fair	moderate dieback, included bark	MITIGATE	4	2	\$1,400
368	Valley Oak	2	14															15	45	Fair-Good	Fair	Fair	codominant trunk at 1 foot, minor dieback	MITIGATE	4	2	\$1,400
1302	Valley Oak	2	14															20	42	Fair	Fair	Fair	included bark, codominant trunk at 4 feet, asymmetrical canopy, minor dieback, limb rot	MITIGATE	4	2	\$1,400
1394	Valley Oak	1	14															15	32	Fair-Good	Fair	Fair	included bark, epicormic growth, minor dieback	MITIGATE	4	2	\$1,400
1427	Valley Oak	1	14															20	42	Fair-Good	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,400
1676	Valley Oak	1	14															15	32	Fair	Fair	Fair	included bark, moderate dieback	MITIGATE	4	2	\$1,400
1705	Valley Oak	1	14															15	40	Fair	Fair	Fair	included bark, epicormic growth, severe dieback	MITIGATE	4	2	\$1,400
1770	Valley Oak	1	14															15	30	Fair	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,400
1792	Valley Oak	1	14															17	30	Fair	Fair	Fair	minor dieback, slight lean, minor limb rot	MITIGATE	4	2	\$1,400
1793	Valley Oak	1	14															20	32	Fair	Fair	Fair	epicormic growth, minor limb rot, minor dieback	MITIGATE	4	2	\$1,400
1907	Valley Oak	1	14															15	42	Fair	Fair	Fair	moderate dieback, included bark	MITIGATE	4	2	\$1,400
1945	Valley Oak	1	14															12	30	Fair	Fair	Fair	minor dieback, included bark	MITIGATE	4	2	\$1,400
1949	Valley Oak	1	14															15	27	Fair	Fair	Fair	included bark, fissure, moderate dieback	MITIGATE	4	2	\$1,400
1409	Interior Live Oak	4	9	8	5	3												20	37	Fair	Fair	Fair	included bark, multiple trunks at the base, severe dieback	MITIGATE	6	2	\$1,360
290	Interior Live Oak	2	15															15	30	Fair-Good	Fair	Fair	included bark, minor dieback	MITIGATE	4	2	\$1,350
1243	Interior Live Oak	2	15															17	42	Fair-Good	Fair	Fair	included bark, nest, minor dieback, trunk wound	MITIGATE	4	2	\$1,350
1263	Interior Live Oak	1	15															15	37	Fair	Fair	Fair	small trunk death, minor dieback	MITIGATE	4	2	\$1,350

438	Interior Live Oak	3	9	8	7												20	35	Fair-Good	Fair	Fair	codominant, included bark, dieback	KEEP	0	0	\$0
440	Valley Oak	1	31														35	60	Fair	Fair-Good	Fair	dieback, asymmetrical canopy	KEEP	0	0	\$0
441	Valley Oak	1	27														30	55	Fair	Fair	Fair	dieback, limb wound	KEEP	0	0	\$0
446	Valley Oak	3	9	5	5												20	40	Fair	Fair	Fair	codominant, dieback	KEEP	0	0	\$0
447	Valley Oak	2	8	7													20	38	Fair	Fair	Fair	codominant, included bark, dieback	KEEP	0	0	\$0
451	Valley Oak	2	12	11													25	50	Fair	Fair	Fair	codominant, included bark, dieback	KEEP	0	0	\$0
471	Valley Oak	1	7														20	36	Fair	Fair	Fair	dieback, lean	KEEP	0	0	\$0
477	Valley Oak	2	25	11													33	50	Fair	Fair	Fair	codominant, dieback	KEEP	0	0	\$0
478	Valley Oak	1	15														25	38	Fair	Fair	Fair	lean, dieback	KEEP	0	0	\$0
483	Valley Oak	1	8														16	30	Fair	Fair	Fair	dieback, lean	KEEP	0	0	\$0
484	Valley Oak	1	6														14	30	Fair	Fair	Fair	dieback, lean	KEEP	0	0	\$0
485	Interior Live Oak	1	8														17	35	Fair	Fair	Poor-Fair	lean, dieback	KEEP	0	0	\$0
487	Valley Oak	1	15														25	50	Fair	Fair	Fair	dieback, lean	KEEP	0	0	\$0
490	Valley Oak	1	29														35	55	Fair	Fair-Good	Fair	dieback	KEEP	0	0	\$0
492	Valley Oak	1	13														22	36	Fair	Fair	Fair	lean, dieback	KEEP	0	0	\$0
495	Interior Live Oak	1	8														12	23	Fair	Fair	Fair	lean, dieback	KEEP	0	0	\$0
496	Valley Oak	1	8														16	35	Fair	Fair	Fair	dieback	KEEP	0	0	\$0
519	Interior Live Oak	5	9	9	18	10	14										22	25	Fair	Fair	Fair	multiple trunks at 1 foot, included bark, moderate dieback, minor limb rot	KEEP	0	0	\$0
525	Valley Oak	3	11	10	12												17	30	Fair	Fair	Fair	included bark, moderate dieback	KEEP	0	0	\$0
537	Interior Live Oak	9	7	15	5	20	13	4	13	11	24						32	27	Fair	Fair	Fair	exposed roots, included bark, multiple trunks at 1 foot, minor trunk, rock outcrop	KEEP	0	0	\$0
539	Valley Oak	1	7														6	17	Fair	Fair	Fair	burls, minor dieback	KEEP	0	0	\$0
547	Valley Oak	1	9														8	22	Fair	Fair	Fair	moderate dieback, included bark	KEEP	0	0	\$0
548	Valley Oak	1	6														6	17	Fair	Fair	Fair	moderate dieback	KEEP	0	0	\$0
549	Valley Oak	1	9														8	20	Fair	Fair	Fair	included bark, bark wound, moderate dieback, included bark	KEEP	0	0	\$0
552	Valley Oak	1	6														6	22	Fair	Fair	Fair	minor dieback	KEEP	0	0	\$0
563	Valley Oak	1	19														12	32	Fair	Fair	Fair	included bark, moderate dieback, asymmetrical canopy	KEEP	0	0	\$0
568	Valley Oak	1	14														12	25	Fair	Fair	Fair	included bark, moderate dieback	KEEP	0	0	\$0
569	Valley Oak	1	12														15	27	Fair	Fair	Fair	included bark, moderate dieback	KEEP	0	0	\$0
800	Interior Live Oak	2	18														25	30	Fair	Fair	Fair	slight lean, included bark, moderate dieback, minor limb rot	KEEP	0	0	\$0
1209	Interior Live Oak	5	24	20	15	12	11										27	37	Fair	Fair	Fair	poison oak, rock outcrop, multiple trunks at the base, included bark, minor dieback	KEEP	0	0	\$0
1225	Interior Live Oak	2	12														17	32	Fair	Fair	Fair	rock outcrop, included bark, codominant trunk at 4 feet, ivy, moderate dieback	KEEP	0	0	\$0
1258	Interior Live Oak	3	12	11	15												20	25	Fair	Fair	Fair	multiple trunks at the base, lean, embedded fence, included bark, bark wound limb rot	KEEP	0	0	\$0
1260	Interior Live Oak	1	15														17	30	Fair	Fair	Fair	lean, limb rot, minor dieback	KEEP	0	0	\$0
1261	Valley Oak	2	22														22	42	Fair	Fair	Fair	slight lean, included bark, codominant trunk at 4 feet, minor dieback	KEEP	0	0	\$0
1267	Interior Live Oak	3	14	3	2												15	17	Fair	Fair	Fair	asymmetrical canopy, lean, included bark, multiple trunks at the base, minor dieback	KEEP	0	0	\$0
1282	Interior Live Oak	1	24														22	55	Fair	Fair	Fair	included bark, codominant trunk at 3 feet, blackberry, lean, limb falls, limb rot	KEEP	0	0	\$0
1283	Interior Live Oak	1	21														17	27	Fair	Fair	Fair	asymmetrical canopy, minor limb rot	KEEP	0	0	\$0
1290	Interior Live Oak	1	23														12	25	Fair	Fair	Fair	epicormic growth, included bark, lean, minor dieback	KEEP	0	0	\$0
1294	Valley Oak	1	19														20	30	Fair	Fair	Fair	lean, asymmetrical canopy, included bark	KEEP	0	0	\$0
1309	Valley Oak	2	6														8	20	Fair	Fair	Fair	included bark, minor dieback	KEEP	0	0	\$0
1312	Valley Oak	1	12														10	27	Fair	Fair	Fair	included bark	KEEP	0	0	\$0
1313	Interior Live Oak	1	10														12	22	Fair	Fair	Fair	moderate dieback, included bark, dense poison, slight lean	KEEP	0	0	\$0
1321	Interior Live Oak	1	10														12	25	Fair	Fair	Fair	trunk rot, slight lean, minor dieback	KEEP	0	0	\$0
1324	Valley Oak	1	9														10	25	Fair	Fair	Fair	minor dieback	KEEP	0	0	\$0
1326	Blue Oak	1	19														17	45	Fair	Fair-Good	Fair	moderate dieback, included bark	KEEP	0	0	\$0
1344	Interior Live Oak	1	13														12	27	Fair	Fair	Fair	included bark, minor dieback	KEEP	0	0	\$0
1355	Valley Oak	1	9														10	27	Fair	Fair	Fair	moderate dieback, slight lean, trunk wound	KEEP	0	0	\$0
1371	Interior Live Oak	1	10														12	37	Fair	Fair	Fair	moderate dieback, limb rot	KEEP	0	0	\$0
1372	Valley Oak	1	10														10	37	Fair	Fair	Fair	lean, minor dieback	KEEP	0	0	\$0
1375	Valley Oak	2	9														15	27	Fair	Fair	Fair	included bark, codominant trunk at 3 feet, lean, asymmetrical canopy	KEEP	0	0	\$0
1376	Valley Oak	1	9														10	27	Fair	Fair	Fair	limb rot, minor dieback	KEEP	0	0	\$0
1377	Valley Oak	1	10														15	37	Fair	Fair	Fair	lean, minor dieback	KEEP	0	0	\$0
1378	Interior Live Oak	1	10														17	22	Fair	Fair	Fair	lean, moderate dieback, trunk wound	KEEP	0	0	\$0
1381	Interior Live Oak	2	8														10	17	Fair	Fair	Fair	included bark, lean, minor dieback	KEEP	0	0	\$0
1385	Valley Oak	1	11														12	37	Fair	Fair	Fair	slight lean, epicormic growth	KEEP	0	0	\$0
1386	Valley Oak	1	9														10	32	Fair	Fair	Fair	slight lean, epicormic growth	KEEP	0	0	\$0
1387	Valley Oak	1	12														12	32	Fair	Fair	Fair	slight lean, included bark, asymmetrical canopy, epicormic growth	KEEP	0	0	\$0
1395	Valley Oak	2	11														10	25	Fair	Fair	Fair	trunk rot, included bark, minor dieback	KEEP	0	0	\$0
1397	Valley Oak	1	14														12	30	Fair	Fair	Fair	slight lean, included bark, moderate dieback	KEEP	0	0	\$0
1413	Valley Oak	1	10														15	27	Fair	Fair	Fair	minor dieback, asymmetrical canopy	KEEP	0	0	\$0
1415	Interior Live Oak	3	10	5	6												17	30	Fair	Fair	Fair	multiple trunks at the base, moderate dieback, slight lean, minor limb rot	KEEP	0	0	\$0
1416	Interior Live Oak	1	10														15	30	Fair	Fair	Fair	lean, minor dieback	KEEP	0	0	\$0
1417	Interior Live Oak	1	9														17	27	Fair	Fair	Fair	trunk rot, lean, minor dieback	KEEP	0	0	\$0
1418	Interior Live Oak	2	7														15	25	Fair	Fair	Fair	lean, minor dieback, limb rot	KEEP	0	0	\$0
1419	Interior Live Oak	1	12														17	30	Fair	Fair	Fair	trunk wound, limb rot, lean, included bark, minor dieback	KEEP	0	0	\$0
1422	Interior Live Oak	2	9														17	30	Fair	Fair	Fair	asymmetrical canopy, slight lean	KEEP	0	0	\$0
1424	Valley Oak	1	14														22	47	Fair	Fair	Fair	minor dieback, included bark	KEEP	0	0	\$0
1426	Valley Oak	1	9														15	37	Fair	Fair	Fair	slight lean, minor dieback, epicormic growth	KEEP	0	0	\$0

1436	Interior Live Oak	1	12															15	30	Fair	Fair	Fair	lean, exfoliating bark, minor limb rot, asymmetrical canopy	KEEP	0	0	\$0
1440	Valley Oak	1	7															10	30	Fair	Fair	Fair	moderate dieback	KEEP	0	0	\$0
1441	Valley Oak	1	13															20	47	Fair	Fair	Fair	minor dieback, slight lean	KEEP	0	0	\$0
1443	Valley Oak	1	9															12	42	Fair	Fair	Fair	sparse canopy, moderate dieback	KEEP	0	0	\$0
1448	Valley Oak	1	9															12	25	Fair	Fair	Fair	asymmetrical canopy, lean, minor dieback	KEEP	0	0	\$0
1449	Valley Oak	1	10															12	45	Fair	Fair	Fair	fused trunk to another trunk, minor dieback	KEEP	0	0	\$0
1452	Valley Oak	1	8															12	47	Fair	Fair	Fair	moderate dieback, epicormic growth	KEEP	0	0	\$0
1453	Interior Live Oak	2	13															20	47	Fair	Fair	Fair	trunk wound, epicormic growth, included bark, minor dieback, lean	KEEP	0	0	\$0
1455	Interior Live Oak	1	12															25	32	Fair	Fair	Fair	fallen limb on trunk, lean, asymmetrical canopy, minor dieback	KEEP	0	0	\$0
1457	Interior Live Oak	2	11															22	37	Fair	Fair	Fair	minor limb rot, poison rot, lean, asymmetrical canopy, minor dieback	KEEP	0	0	\$0
1463	Interior Live Oak	1	11															17	35	Fair	Fair	Fair	included bark, lean, moderate dieback, asymmetrical canopy	KEEP	0	0	\$0
1464	Interior Live Oak	1	9															22	35	Fair	Fair	Fair	asymmetrical canopy, lean, limb rot	KEEP	0	0	\$0
1465	Interior Live Oak	1	10															12	45	Fair	Fair	Fair	slight lean, exfoliating bark, minor dieback	KEEP	0	0	\$0
1476	Interior Live Oak	1	9															12	32	Fair	Fair	Fair	trunk cavity, minor limb rot, included bark, minor dieback	KEEP	0	0	\$0
1477	Valley Oak	1	7															10	35	Fair	Fair	Fair	epicormic growth, minor dieback	KEEP	0	0	\$0
1478	Interior Live Oak	1	12															20	47	Fair	Fair	Fair	slight lean, trunk wound, limb rot, minor dieback	KEEP	0	0	\$0
1479	Interior Live Oak	1	8															12	45	Fair	Fair	Fair	minor dieback, included bark	KEEP	0	0	\$0
1481	Interior Live Oak	1	10															17	40	Fair	Fair	Fair	lean, limb rot, minor dieback	KEEP	0	0	\$0
1482	Valley Oak	2	9															12	35	Fair	Fair	Fair	included bark, codominant trunk at base, minor dieback	KEEP	0	0	\$0
1483	Valley Oak	1	7															12	47	Fair	Fair	Fair	minor dieback	KEEP	0	0	\$0
1484	Interior Live Oak	2	6															20	47	Fair	Fair	Fair	included bark, minor dieback, minor trunk rot	KEEP	0	0	\$0
1485	Interior Live Oak	1	9															20	32	Fair	Fair	Fair	lean, asymmetrical canopy, included bark	KEEP	0	0	\$0
1486	Valley Oak	1	9															12	37	Fair	Fair	Fair	moderate dieback, epicormic growth	KEEP	0	0	\$0
1488	Interior Live Oak	1	10															12	45	Fair	Fair	Fair	slight lean, minor dieback	KEEP	0	0	\$0
1489	Interior Live Oak	1	8															12	45	Fair	Fair	Fair	slight lean, minor dieback	KEEP	0	0	\$0
1611	Valley Oak	1	23															37	57	Fair-Good	Fair-Good	Fair-Good	included bark, minor dieback	KEEP	0	0	\$0
1615	Valley Oak	1	12															17	42	Fair	Fair	Fair	minor limb rot, asymmetrical canopy	KEEP	0	0	\$0
1619	Valley Oak	1	19															25	47	Fair	Fair	Fair	included bark, severe dieback, asymmetrical canopy	KEEP	0	0	\$0
1620	Valley Oak	2	8															15	37	Fair-Good	Fair	Fair	included bark, fused trunk, blackberry, minor dieback	KEEP	0	0	\$0
1621	Interior Live Oak	1	8															10	15	Fair	Fair	Fair	dieback, included bark	KEEP	0	0	\$0
1622	Valley Oak	1	14															17	30	Fair-Good	Fair	Fair	included bark, minor dieback	KEEP	0	0	\$0
1623	Valley Oak	1	20															25	42	Fair	Fair	Fair	exposed roots, included bark, moderate dieback, minor limb rot	KEEP	0	0	\$0
1624	Interior Live Oak	1	18															15	32	Fair	Fair	Fair	included bark, exposed roots, moderate dieback	KEEP	0	0	\$0
1626	Valley Oak	1	9															12	42	Fair-Good	Fair	Fair	minor dieback	KEEP	0	0	\$0
1627	Valley Oak	1	15															25	57	Fair	Fair	Fair	minor limb rot, lean, included bark, minor dieback	KEEP	0	0	\$0
1629	Valley Oak	1	13															17	32	Fair	Fair	Fair	slight lean, asymmetrical canopy, minor dieback	KEEP	0	0	\$0
1630	Valley Oak	1	17															22	52	Fair-Good	Fair	Fair	asymmetrical canopy, minor dieback, included bark	KEEP	0	0	\$0
1631	Interior Live Oak	1	22															25	30	Fair	Fair	Fair	lean, included bark, bark damage, minor limb rot	KEEP	0	0	\$0
1634	Blue Oak	1	18															25	55	Fair	Fair	Fair	asymmetrical canopy, moderate dieback, embedded fence, included bark	KEEP	0	0	\$0
1679	Valley Oak	1	25															17	45	Fair	Fair	Fair	included bark, moderate dieback	KEEP	0	0	\$0
1686	Valley Oak	1	18															17	32	Fair	Fair	Fair	included bark, minor dieback	KEEP	0	0	\$0
1689	Valley Oak	1	13															20	30	Fair	Fair	Fair	included bark, minor limb rot, moderate dieback	KEEP	0	0	\$0
1697	Blue Oak	1	16															20	27	Fair	Fair	Fair	minor dieback, included bark	KEEP	0	0	\$0
1703	Valley Oak	1	8															8	22	Fair	Fair	Fair	moderate dieback	KEEP	0	0	\$0
1704	Valley Oak	2	19															20	42	Fair	Fair	Fair	included bark, epicormic growth, moderate dieback, minor limb rot	KEEP	0	0	\$0
1711	Valley Oak	2	13															20	27	Fair	Fair	Fair	included bark, moderate dieback, slight lean	KEEP	0	0	\$0
1713	Valley Oak	2	7															12	40	Fair	Fair	Fair	included bark, moderate dieback, minor limb rot	KEEP	0	0	\$0
1714	Valley Oak	2	9															15	32	Fair	Fair	Fair	included bark, minor limb rot, moderate dieback, epicormic growth	KEEP	0	0	\$0
1715	Valley Oak	1	9															12	32	Fair	Fair	Fair	rock outcrop, lean, moderate dieback	KEEP	0	0	\$0
1717	Valley Oak	1	10															12	42	Fair	Fair	Fair	moderate dieback, minor limb rot	KEEP	0	0	\$0
1718	Valley Oak	1	15															15	50	Fair	Fair	Fair	slight lean, asymmetrical canopy, moderate dieback, minor limb rot	KEEP	0	0	\$0
1719	Interior Live Oak	2	7															17	37	Fair	Fair	Fair	included bark, rock outcrop, moderate dieback	KEEP	0	0	\$0
1721	Valley Oak	1	9															20	47	Fair	Fair	Fair	included bark, lean, minor dieback	KEEP	0	0	\$0
1723	Interior Live Oak	3	12	12	2													20	52	Fair	Fair	Fair	rock outcrop, included bark, slight lean, minor dieback	KEEP	0	0	\$0
1725	Interior Live Oak	4	20	8	4	2												17	42	Fair	Fair	Fair	asymmetrical canopy, severe dieback, included bark	KEEP	0	0	\$0
1727	Valley Oak	1	8															17	40	Fair	Fair	Fair	asymmetrical canopy, moderate dieback	KEEP	0	0	\$0
1742	Valley Oak	1	16															27	47	Fair	Fair	Fair	moderate dieback, trunk wound, included bark	KEEP	0	0	\$0
1748	Valley Oak	1	25															25	52	Fair	Fair	Fair	slight lean, included bark, moderate dieback	KEEP	0	0	\$0
1756	Valley Oak	1	15															22	25	Fair	Fair	Fair	rock outcrop, lean, moderate dieback	KEEP	0	0	\$0
1767	Valley Oak	1	17															17	35	Fair	Fair	Fair	included bark, moderate dieback, embedded fence, minor limb rot	KEEP	0	0	\$0
1768	Valley Oak	1	10															10	27	Fair	Fair	Fair	slight lean, included bark, trunk wound, minor limb rot	KEEP	0	0	\$0
1775	Valley Oak	3	14	10	4													20	47	Fair	Fair	Fair	included bark, asymmetrical canopy, minor dieback	KEEP	0	0	\$0
1776	Valley Oak	2	8															22	37	Fair	Fair	Fair	codominant trunk at base, asymmetrical canopy, minor dieback, lean	KEEP	0	0	\$0
1777	Valley Oak	1	23															32	47	Fair	Fair	Fair	included bark, moderate dieback, minor limb rot	KEEP	0	0	\$0
1778	Valley Oak	1	19															25	47	Fair-Good	Fair-Good	Fair-Good	included bark, minor dieback	KEEP	0	0	\$0
1780	Valley Oak	2	10															22	32	Fair	Fair	Fair	included bark, moderate dieback	KEEP	0	0	\$0
1781	Valley Oak	3	6	7	6													12	35	Fair	Fair	Fair	included bark, multiple trunks at 2 feet, minor limb rot, minor dieback	KEEP	0	0	\$0
1782	Valley Oak	2	11															10	27	Fair	Fair	Fair	codominant trunk at 1 foot, minor dieback, included bark	KEEP	0	0	\$0
1783	Valley Oak	1	9															10	27	Fair	Fair	Fair	slight lean, minor dieback	KEEP	0	0	\$0
1785	Valley Oak	1	13															15	30	Fair	Fair	Fair	included bark, minor dieback	KEEP	0	0	\$0

287	Interior Live Oak	2	5																10	20	Fair-Good	Fair	Fair	asymmetrical canopy, slight lean, included bark	REMOVE	0	0	50
292	Interior Live Oak	4	5	11	8	29													25	40	Poor-Fair	Poor-Fair	Poor-Fair	trunk rot, barbed wire, rock outcrop, exposed roots, split trunk, moderate	REMOVE	0	0	50
293	Interior Live Oak	5	3	6	10	5	13												25	22	Poor-Fair	Poor	Poor	rock outcrop, lean, included bark, exposed roots, moderate dieback	REMOVE	0	0	50
294	Interior Live Oak	1	19																17	30	Poor-Fair	Poor	Poor	fused with another tree, lean, included bark, trunk rot, trunk cavity, severe	REMOVE	0	0	50
295	Interior Live Oak	12	4	2	5	5	7	6	1	4	5	3	3	5				15	28	Fair	Poor-Fair	Poor-Fair	rock outcrop, multiple trunks at the base, lean, severe dieback, included bark	REMOVE	0	0	50	
296	Interior Live Oak	3	27	29	38													40	17	Poor	Poor	Poor	split trunk, uprooted, trunk horizontal to the ground, trunk rot, trunk cavity,	REMOVE	0	0	50	
297	Interior Live Oak	1	13															12	22	Poor-Fair	Poor	Poor	basal cavity, split trunk, severe dieback, epicormic growth, trunk rot, trunk	REMOVE	0	0	50	
301	Interior Live Oak	1	11															25	37	Poor-Fair	Poor-Fair	Poor-Fair	lean, dieback	REMOVE	0	0	50	
302	Valley Oak	1	19															30	50	Poor-Fair	Fair	Fair	dieback	REMOVE	0	0	50	
303	Valley Oak	1	6															20	30	Fair-Good	Poor-Fair	Fair	lean, dieback	REMOVE	0	0	50	
304	Valley Oak	1	9															20	38	Poor	Fair	Poor-Fair	major dieback	REMOVE	0	0	50	
305	Valley Oak	1	14															25	40	Fair	Poor-Fair	Fair	dieback, lean	REMOVE	0	0	50	
306	Valley Oak	1	9															20	35	Poor-Fair	Poor-Fair	Poor-Fair	lean, dieback	REMOVE	0	0	50	
307	Interior Live Oak	1	9															18	28	Poor-Fair	Poor-Fair	Poor-Fair	dieback, lean	REMOVE	0	0	50	
308	Interior Live Oak	1	10															16	25	Poor	Poor	Poor	trunk wound, trunk rot, dieback, lean	REMOVE	0	0	50	
309	Interior Live Oak	2	12	7														20	25	Poor-Fair	Poor	Poor-Fair	lean, codominant, included bark, dieback	REMOVE	0	0	50	
310	Valley Oak	1	8															25	36	Poor-Fair	Poor-Fair	Poor-Fair	poor taper, lean, dieback	REMOVE	0	0	50	
311	Interior Live Oak	1	8															17	25	Poor-Fair	Poor-Fair	Poor-Fair	lean, dieback, limb wound	REMOVE	0	0	50	
312	Interior Live Oak	1	7															18	28	Poor-Fair	Poor-Fair	Poor-Fair	dieback, lean	REMOVE	0	0	50	
313	Interior Live Oak	1	6															18	18	Poor	Poor	Poor	severe lean, dieback	REMOVE	0	0	50	
314	Valley Oak	1	6															15	25	Poor	Poor-Fair	Poor	dieback, lean	REMOVE	0	0	50	
315	Blue Oak	1	12															15	30	Poor	Poor-Fair	Poor	lean, dying	REMOVE	0	0	50	
316	Interior Live Oak	1	11															23	36	Poor-Fair	Fair	Poor-Fair	sparse canopy, dieback, lean	REMOVE	0	0	50	
319	Valley Oak	1	7															15	36	Poor	Poor-Fair	Poor	dieback, lean	REMOVE	0	0	50	
321	Interior Live Oak	1	6															13	25	Poor-Fair	Fair	Poor-Fair	lean, dieback, sparse canopy	REMOVE	0	0	50	
322	Interior Live Oak	2	14	11														20	38	Poor	Poor	Poor	dying, codominant, rock outcrop	REMOVE	0	0	50	
323	Interior Live Oak	2	6	8														15	25	Poor-Fair	Poor-Fair	Poor-Fair	lean, asymmetrical canopy, codominant at the base, blackberry, trunk rot, trunk wound, severe dieback	REMOVE	0	0	50	
325	Interior Live Oak	1	11															10	35	Poor	Poor	Poor	leader death, fungus, trunk rot, trunk cavity, epicormic growth, limb rot	REMOVE	0	0	50	
328	Interior Live Oak	1	12															17	27	Fair	Poor-Fair	Fair	lean, minor dieback, tree limbs fallen on trunk	REMOVE	0	0	50	
328	Valley Oak	1	7															10	37	Fair	Poor-Fair	Fair	moderate dieback, slight lean	REMOVE	0	0	50	
330	Interior Live Oak	1	16															15	27	Fair	Poor-Fair	Fair	lean, asymmetrical canopy, limb rot, included bark, moderate dieback	REMOVE	0	0	50	
332	Interior Live Oak	1	16															20	27	Fair	Poor-Fair	Fair	lean, asymmetrical canopy, included bark, limb rot, severe dieback, exposed	REMOVE	0	0	50	
333	Interior Live Oak	2	8															12	30	Poor-Fair	Poor-Fair	Poor-Fair	rock outcrop, trunk damage, poison oak, blackberry, severe dieback, trunk	REMOVE	0	0	50	
334	Interior Live Oak	1	14															25	25	Poor-Fair	Poor-Fair	Poor-Fair	lean, severe dieback, trunk rot, trunk damage, fallen tree on the trunk,	REMOVE	0	0	50	
339	Interior Live Oak	1	15															25	32	Poor-Fair	Poor-Fair	Poor-Fair	severe lean, poison oak, berry, limb rot, limb fall, minor dieback	REMOVE	0	0	50	
340	Interior Live Oak	1	9															25	30	Fair	Poor-Fair	Fair	limb rot, lean, minor dieback, poison oak	REMOVE	0	0	50	
345	Blue Oak	1	12															15	32	Poor-Fair	Poor-Fair	Poor-Fair	bark damage, trunk rot, lean, severe dieback, asymmetrical canopy	REMOVE	0	0	50	
347	Interior Live Oak	2	14															50	10	Poor-Fair	Poor	Poor	uprooted, trunk horizontal on the ground, limb rot, dense blackberry,	REMOVE	0	0	50	
349	Interior Live Oak	1	14															25	30	Fair	Poor-Fair	Poor-Fair	lean, exposed roots, limb rot, poison oak, moderate dieback, included bark	REMOVE	0	0	50	
353	Interior Live Oak	1	6															8	37	Poor-Fair	Poor	Poor	trunk sparse canopy, bark damage, sparse canopy	REMOVE	0	0	50	
356	Interior Live Oak	1	7															30	32	Fair	Poor-Fair	Fair	lean, asymmetrical canopy, minor limb rot	REMOVE	0	0	50	
357	Interior Live Oak	2	3															15	27	Fair	Fair	Fair	slight lean, included bark, moderate dieback, minor limb rot	REMOVE	0	0	50	
359	Interior Live Oak	2	2															15	30	Fair	Fair	Fair	lean, included bark, minor limb rot	REMOVE	0	0	50	
361	Interior Live Oak	1	10															27	25	Poor-Fair	Poor-Fair	Poor-Fair	lean, rock outcrop, limb rot, woodpecker damage, limb rot, moderate	REMOVE	0	0	50	
362	Interior Live Oak	1	11															27	20	Poor-Fair	Poor	Poor-Fair	severe lean, rock outcrop, trunk rot, included bark	REMOVE	0	0	50	
363	Interior Live Oak	2	11															25	32	Poor-Fair	Poor-Fair	Poor-Fair	trunk rot, trunk cavity, rock outcrop, included bark, limb rot, limb fall,	REMOVE	0	0	50	
365	Interior Live Oak	1	8															12	30	Fair	Poor-Fair	Fair	lean, bark damage, limb rot, trunk sparse canopy, minor dieback	REMOVE	0	0	50	
366	Interior Live Oak	2	2															15	20	Fair	Fair	Fair	pruning cuts, included bark, lean, minor dieback	REMOVE	0	0	50	
370	Interior Live Oak	1	10															10	30	Fair	Poor-Fair	Fair	fallen dead tree on trunk, slight lean, limb fall, rock outcrop, limb rot	REMOVE	0	0	50	
373	Interior Live Oak	1	10															20	22	Fair	Poor-Fair	Poor-Fair	bark damage, trunk sparse canopy, limb rot, moderate dieback, included	REMOVE	0	0	50	
374	Valley Oak	1	6															12	25	Poor-Fair	Fair	Fair	trunk wound, trunk sparse canopy, limb rot, lean	REMOVE	0	0	50	
375	Interior Live Oak	1	11															22	25	Fair	Poor-Fair	Fair	asymmetrical canopy, limb rot, trunk wound, trunk sparse canopy	REMOVE	0	0	50	
380	Interior Live Oak	2	2															12	27	Fair	Fair	Fair	codominant trunk at 1 foot, included bark, minor dieback, lean, asymmetrical	REMOVE	0	0	50	
382	Valley Oak	1	19															12	42	Poor-Fair	Poor	Poor	dense poison oak, trunk sparse canopy, trunk rot, woodpecker damage,	REMOVE	0	0	50	
383	Interior Live Oak	2	7															10	27	Fair	Poor-Fair	Poor-Fair	bark damage, trunk rot, limb rot, lean, included bark, severe dieback,	REMOVE	0	0	50	
385	Interior Live Oak	2	10															17	30	Poor-Fair	Poor-Fair	Poor-Fair	trunk rot, lean, asymmetrical canopy, included bark, exposed roots	REMOVE	0	0	50	
386	Interior Live Oak	1	13															12	30	Fair	Poor-Fair	Fair	trunk sparse canopy, lean, minor dieback, minor limb rot, fissure	REMOVE	0	0	50	
391	Interior Live Oak	2	6															15	25	Fair	Poor-Fair	Poor-Fair	poison oak, included bark, trunk rot, trunk wound, woodpecker damage,	REMOVE	0	0	50	
394	Interior Live Oak	1	14															17	30	Fair	Poor-Fair	Poor-Fair	lean, trunk rot, minor limb rot, included bark	REMOVE	0	0	50	
395	Interior Live Oak	1	13															20	27	Fair	Poor-Fair	Fair	severe lean, asymmetrical canopy, poison oak, included bark, moderate	REMOVE	0	0	50	
396	Interior Live Oak	1	37															30	47	Poor-Fair	Poor-Fair	Poor-Fair	large trunk cavity, trunk rot, rock outcrop, included bark, limb rot, minor	REMOVE	0	0	50	
397	Interior Live Oak	1	18															27	22	Poor-Fair	Poor	Poor-Fair	trunk rot, trunk cavity, asymmetrical canopy, limb fall, trunk fall	REMOVE	0	0	50	
398	Interior Live Oak	4	7	6	19	14												50	20	Poor-Fair	Poor	Poor	uprooted, trunk on the ground, exposed roots, trunk rot, limb rot, severe	REMOVE	0	0	50	
399	Interior Live Oak	3	11	12	11													30	22	Poor	Poor	Poor	almost dead	REMOVE	0	0	50	
400	Interior Live Oak	2	12															17	25	Fair	Poor-Fair	Fair	trunk rot, woodpecker damage, lean, trunk sparse canopy, included bark,	REMOVE	0	0	50	
401	Valley Oak	2	10	7														18	37	Fair	Poor-Fair	Fair	codominant, included bark, dieback	REMOVE	0	0	50	
402	Valley Oak	1	11															16	30	Poor	Poor-Fair	Poor	sparse canopy, dieback, curved trunk	REMOVE	0	0	50	
403	Valley Oak	1	6															13	30	Poor	Poor-Fair	Poor	sparse canopy, dieback, lean	REMOVE	0	0	50	
404	Valley Oak	4	7	4	4	3												14	26	Poor-Fair	Poor-Fair	Poor-Fair	codominant, included bark, dieback	REMOVE	0	0	50	
405	Interior Live Oak	3	8	7	7													13	28	Poor-Fair	Poor-Fair	Poor-Fair	codominant, included bark, sparse canopy, dieback	REMOVE	0	0	50	
407	Valley Oak	2	12	9														20	38	Fair	Poor-Fair	Fair	codominant, included bark, dieback	REMOVE	0	0	50	

1753	Interior Live Oak	2	13																	35	50	Poor-Fair	Poor	Poor-Fair	trunk fail, trunk rot, moderate dieback, blackberry, lean	REMOVE	0	0	\$0	
1754	Interior Live Oak	1	17																		15	27	Poor	Poor	Poor	trunk fail, leader fail, rock outcrop, lean	REMOVE	0	0	\$0
1755	Interior Live Oak	1	18																		35	37	Poor-Fair	Poor	Poor-Fair	lean, trunk rot, trunk cavity, rock outcrop, moderate dieback	REMOVE	0	0	\$0
1757	Interior Live Oak	8	9	3	10	9	9	8	5	7											25	37	Fair	Poor-Fair	Poor-Fair	trunk rot, lean, multiple trunks at the base, included bark, epicormic growth,	REMOVE	0	0	\$0
1758	Valley Oak	1	21																		32	55	Fair	Poor-Fair	Fair	asymmetrical canopy, lean, limb rot, blackberry, included bark, minor dieback	REMOVE	0	0	\$0
1759	Interior Live Oak	1	7																		15	27	Fair	Poor-Fair	Fair	moderate dieback, trunk rot, included bark, lean, asymmetrical canopy	REMOVE	0	0	\$0
1760	Interior Live Oak	1	6																		15	27	Poor-Fair	Poor-Fair	Poor-Fair	trunk rot, trunk cavity, lean, asymmetrical canopy, moderate dieback	REMOVE	0	0	\$0
1765	Interior Live Oak	3	5	5	2																10	17	Fair	Poor-Fair	Fair	embedded fence, included bark, moderate dieback, slight lean	REMOVE	0	0	\$0
1766	Interior Live Oak	4	3	5	9	8															15	15	Fair	Poor-Fair	Fair	included bark, lean, moderate dieback	REMOVE	0	0	\$0
1771	Interior Live Oak	1	47																		40	60	Fair	Poor-Fair	Poor-Fair	embedded fence, included bark, lean, exposed roots, trunk rot, limb rot,	REMOVE	0	0	\$0
1772	Interior Live Oak	2	7																		17	20	Fair	Poor-Fair	Poor-Fair	included bark, lean, emb fen, minor dieback, split limb	REMOVE	0	0	\$0
1773	Valley Oak	6	9	7	6	7	3	8													17	27	Fair	Poor-Fair	Poor-Fair	minor dieback, included bark, multiple trunks at the base, basal cavity	REMOVE	0	0	\$0
1774	Valley Oak	1	16																		17	47	Poor-Fair	Fair	Fair	moderate dieback, included bark, limb rot	REMOVE	0	0	\$0
1779	Valley Oak	1	21																		25	42	Fair	Poor-Fair	Poor-Fair	included bark, split trunk, trunk rot, minor dieback	REMOVE	0	0	\$0
1784	Interior Live Oak	3	6	6	3																15	20	Fair	Poor-Fair	Poor-Fair	fused trunk, embedded fence, lean, moderate dieback, included bark	REMOVE	0	0	\$0
1787	Valley Oak	1	23																		35	50	Poor-Fair	Fair	Fair	embedded fence, burl, included bark, asymmetrical canopy, limb rot	REMOVE	0	0	\$0
1788	Interior Live Oak	5	12	17	18	13	16														40	50	Poor-Fair	Poor-Fair	Poor-Fair	included bark, weight limbs, trunk rot, lean, minor dieback, bark damage,	REMOVE	0	0	\$0
1789	Interior Live Oak	2	30																		40	55	Poor-Fair	Poor	Poor-Fair	trunk fail, trunk damage, included bark, trunk scar, trunk rot, lean, minor	REMOVE	0	0	\$0
1790	Blue Oak	1	26																		30	45	Fair	Poor-Fair	Fair	embedded fence, burl, limb failure, limb rot, included bark, minor dieback	REMOVE	0	0	\$0
1791	Valley Oak	1	23																		15	45	Poor-Fair	Poor	Poor	included bark, trunk cavity, trunk rot, limb rot, lean, asymmetrical canopy,	REMOVE	0	0	\$0
1798	Interior Live Oak	1	22																		30	42	Poor-Fair	Fair	Fair	limb rot, lean, asymmetrical canopy, moderate dieback	REMOVE	0	0	\$0
1799	Interior Live Oak	10	4	2	2	2	2	7	6	10	11	11									20	22	Poor-Fair	Poor	Poor-Fair	exposed roots, multiple at base, rock outcrop, trunk rot, included bark, fused	REMOVE	0	0	\$0
1904	Interior Live Oak	3	6	4	3																12	15	Fair	Poor-Fair	Fair	lean, leaning fence post on the trunk, included bark, severe dieback	REMOVE	0	0	\$0
1906	Interior Live Oak	1	10																		22	17	Fair	Poor-Fair	Fair	lean, weighted limbs, moderate dieback, included bark	REMOVE	0	0	\$0
1910	Interior Live Oak	11	2	4	3	4	4	4	3	4	1	1	1								15	17	Fair	Poor-Fair	Fair	multiple trunks at the base, included bark, bark damage, minor dieback	REMOVE	0	0	\$0
1911	Interior Live Oak	5	15	11	11	4	6														20	30	Fair	Poor-Fair	Poor-Fair	limb fail, included bark, lean, asymmetrical canopy, moderate dieback	REMOVE	0	0	\$0
1912	Interior Live Oak	1	22																		20	42	Fair	Poor-Fair	Poor-Fair	split trunk, trunk fail, included bark, limb rot, exposed roots, fused trunks	REMOVE	0	0	\$0
1913	Valley Oak	2	10	10																	15	47	Fair	Poor-Fair	Poor-Fair	lean, included bark, codominant trunk at 1 foot, asymmetrical canopy	REMOVE	0	0	\$0
1920	Interior Live Oak	6	5	9	5	4	5	1													20	20	Fair	Poor-Fair	Poor-Fair	horizontal trunk, multiple trunks at the base, included bark, minor trunk rot,	REMOVE	0	0	\$0
1922	Interior Live Oak	1	15																		15	30	Fair	Poor-Fair	Fair	severe lean, included bark, trunk scar	REMOVE	0	0	\$0
1927	Valley Oak	1	12																		15	45	Poor-Fair	Fair	Poor-Fair	included bark, limb rot, severe dieback, epicormic growth	REMOVE	0	0	\$0
1941	Valley Oak	1	14																		12	30	Poor-Fair	Fair	Fair	limb rot, epicormic growth, included bark, moderate dieback	REMOVE	0	0	\$0
1948	Valley Oak	1	15																		17	25	Poor-Fair	Fair	Fair	limb rot, moderate dieback, included bark, minor trunk rot	REMOVE	0	0	\$0
1950	Valley Oak	2	4																		8	17	Fair	Fair	Fair	included bark, moderate dieback, minor limb rot	REMOVE	0	0	\$0
1955	Interior Live Oak	6	19	29	10	19	18	20													30	45	Poor-Fair	Poor-Fair	Poor-Fair	weighted limbs, rock outcrop, lean, asymmetrical canopy, limb rot, exp rts,	REMOVE	0	0	\$0
1958	Interior Live Oak	2	1																		15	20	Fair	Fair	Fair	lean, minor dieback, minor limb rot, asymmetrical canopy, included bark	REMOVE	0	0	\$0
1959	Interior Live Oak	2	4																		12	27	Fair	Fair	Fair	moderate dieback, included bark	REMOVE	0	0	\$0
1961	Interior Live Oak	14	17	13	17	20	6	6	16	13	18										47	55	Poor-Fair	Poor-Fair	Poor-Fair	rock outcrop, limb rot, trunk rot, exposed roots, trunk cavity, lean, weight	REMOVE	0	0	\$0
1964	Valley Oak	1	11																		15	25	Fair	Poor-Fair	Fair	asymmetrical canopy, lean, limb rot, moderate dieback	REMOVE	0	0	\$0
1968	Valley Oak	1	25																		17	45	Poor-Fair	Poor-Fair	Poor-Fair	limb rot, included bark, severe dieback, slight lean, rope on limb	REMOVE	0	0	\$0
1969	Valley Oak	1	15																		17	45	Poor-Fair	Poor-Fair	Poor-Fair	severe dieback, limb rot, included bark, slight lean	REMOVE	0	0	\$0
1970	Valley Oak	2	5																		15	30	Poor-Fair	Poor-Fair	Poor-Fair	codominant trunk at base, lean, moderate dieback, asymmetrical canopy	REMOVE	0	0	\$0
1971	Valley Oak	1	6																		12	30	Poor-Fair	Poor-Fair	Poor-Fair	lean, asymmetrical canopy, moderate dieback, included bark, limb rot	REMOVE	0	0	\$0
1977	Valley Oak	1	13																		15	27	Poor-Fair	Poor-Fair	Poor-Fair	slight lean, limb rot, included bark, epicormic growth, moderate dieback	REMOVE	0	0	\$0
1978	Valley Oak	1	15																		15	27	Fair	Poor-Fair	Fair	included bark, moderate dieback, asymmetrical canopy, slight lean, minor	REMOVE	0	0	\$0
1984	Valley Oak	8	6	2	2	1	1	9	5	6											12	25	Fair	Poor-Fair	Poor-Fair	multiple trunks at the base, included bark, minor dieback	REMOVE	0	0	\$0
1986	Valley Oak	1	9																		12	27	Poor-Fair	Poor-Fair	Poor-Fair	slight lean, trunk rot, limb rot, bark damage, included bark, asymmetrical	REMOVE	0	0	\$0
1987	Valley Oak	1	14																		12	35	Poor-Fair	Fair	Fair	severe dieback, epicormic growth, included bark	REMOVE	0	0	\$0
1991	Valley Oak	1	15																		15	40	Poor-Fair	Fair	Fair	nest, included bark, severe dieback	REMOVE	0	0	\$0
1995	Valley Oak	1	12																		15	42	Poor-Fair	Fair	Poor-Fair	severe dieback, included bark, epicormic growth, slight lean	REMOVE	0	0	\$0
1996	Valley Oak	1	10																		15	30	Poor-Fair	Poor-Fair	Poor-Fair	slight lean, severe dieback, included bark, minor limb rot	REMOVE	0	0	\$0
1997	Valley Oak	2	9																		15	32	Poor-Fair	Fair	Poor-Fair	included bark, asymmetrical canopy, severe dieback, limb rot, epicormic growth	REMOVE	0	0	\$0
1999	Valley Oak	1	9																		10	37	Poor-Fair	Poor-Fair	Poor-Fair	included bark, severe dieback, asymmetrical canopy	REMOVE	0	0	\$0
2000	Valley Oak	1	6																		12	30	Poor-Fair	Poor-Fair	Poor-Fair	epicormic growth, severe dieback, lean, asymmetrical canopy	REMOVE	0	0	\$0

TOTAL 1681 774 \$512,490