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EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

Biological Resources Assessment

Generations at Green Valley

El Dorado County
November 2022



GPA22-0001,Z22-0001,TM22-0001

Prepared for:

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1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) for the approximately 281-acre Generations at Green Valley Project (Project). The 301-acre Generations at Green Valley study area (Study Area), which includes the Project site and adjacent areas that may be impacted as a result of Project construction, is generally located along and south of Green Valley Road in unincorporated El Dorado County, California. The Study Area is located at 3200 Verde Valle Road (APN 126-020-001) within portions of Section 19, Township 10 North, Range 9 East (MDB&M) and Section 24, Township 10 North, Range 8 East of the "Clarksville, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (**Figure 1**).

1.1 Project Description

The Project is a residential subdivision with supporting infrastructure (**Attachment A**). The preliminary tentative subdivision map shows 379 single-family lots, landscape lots, open space lots, a park lot, a clubhouse lot, and on-site detention basins. As proposed, the subdivision will have two main entrances off of Green Valley Road and three emergency vehicle accesses (EVAs) to the south, east, and north. Construction of the EVAs will result in minor impacts where EVAs connect to existing roadways.

To the extent feasible, existing aquatic resources will be avoided. In some areas, drainage may be discharged to existing seasonal wetland swales, ephemeral drainages, and/or intermittent drainages. Where roads cross intermittent and ephemeral drainages and seasonal wetland swales, direct impacts to these features will be avoided by using a type of crossing that does not require the discharge of fill in these areas (e.g., open bottom arch culverts, clear span bridges). Construction of the northernmost subdivision access road from Green Valley Road would remove and reconstruct an existing embankment and access road that currently ponds water upstream. An adjacent downstream pond would be reconstructed to pass Green Spring Creek flows. The downstream pond also currently supports an embankment that would be removed as part of the channel reconstruction. Both embankments are proposed for modification due to concerns of overtopping during an existing 100-year storm event, a potential public safety issue. As proposed, the Project would pass Green Spring Creek flows through the property in a way that enhances public safety and reestablishes access to the site across the upper embankment.

This document evaluates the Study Area as a whole and makes recommendations for potential biological resource impacts based on the preliminary grading and drainage plan (**Attachment A**).

2.0 REGULATORY SETTING

This section describes federal, state and local laws and policies that are relevant to this BRA.

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 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.”

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.

2.2 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 and Game Code Section 2081).

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA), enacted in 1977, allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants 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.

2.2.4 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.

2.2.5 California Water Code, Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne), 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.

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

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).

2.2.7 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.

2.3 Local Regulations

2.3.1 El Dorado County Zoning Ordinance, Protection of Wetlands and Sensitive Riparian Habitat

The EL Dorado County Zoning Ordinance Site Planning and Project Design Standards for setback requirements (Section 130.30.050) establishes standards for avoidance and minimization of impacts to wetlands and sensitive riparian habitat. This section of the Ordinance applies to discretionary projects adjacent to perennial streams, intermittent streams, wetlands, or any sensitive riparian habitat within the County. The Ordinance requires new development to avoid or minimize impacts to these habitat types. If the habitats cannot be avoided, the County requires an assessment that establishes appropriate buffers to reduce impacts to a less than significant level and mitigation consistent with state or federal permit requirements. Storm drain and irrigation outflow structures are permitted as long as they are approved by the County as part of the development process.

2.3.2 El Dorado County Zoning Ordinance, Oak Resources Conservation

Chapter 130.39 of the El Dorado County Zoning Ordinance requires mitigation for impacts to native oak trees in all portions of unincorporated El Dorado County below 4,000 feet in elevation. This Chapter requires documentation of all oak woodlands, individual native oak trees, and heritage native oak trees (collectively, Oak Resources) on a site if any oak impacts are proposed on that site. Furthermore, an *Oak Resources Technical Report* must be prepared as stipulated in the Chapter. Mitigation for impacts to Oak Resources is typically accomplished through payment of an in-lieu fee to the Oak Woodland Conservation Fund.

2.3.3 El Dorado County Ecological Preserves Ordinance

Chapter 130.71 of the El Dorado County Code requires mitigation or payment of a fee in-lieu of mitigation for development of any property within Mitigation Areas 0, 1, or 2. This fee is commonly referred to as the Rare Plant Mitigation fee and is to be paid in full upon issuance of a building permit for all new developments within the County. "Mitigation Area 0" means lands within the Gabbro Soils Rare Plant Ecological Preserve, as shown on maps on file in the Department, adopted by Ordinance 4500. "Mitigation Area 1" means lands outside of Mitigation Area 0 but within the area described as the "rare soils study area" on the same map, and "Mitigation Area 2" means lands outside of Mitigation Areas 0 and 1 but within the El Dorado Irrigation District service area, excluding those lots served by wells. The Study Area is located at least partially within Mitigation Area 1, which assigns a current mitigation fee of \$885 per dwelling unit equivalent (El Dorado County 2022).

3.0 METHODOLOGY

3.1 Literature Review

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 2022) query of the Study Area and a 5-mile radius around the Study Area (**Figure 2**);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2022) query for the Study Area (**Attachment B**);
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2022) query of the “Clarksville, California” USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment C**);
- Western Bat Working Group (WBWG) Species Matrix (WBWG 2022); and
- Cornell Laboratory of Ornithology’s eBird database (Cornell Laboratory of Ornithology 2022).

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; 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 Daria Snider and Matt Shaffer assessed the suitability of habitats on-site to support special-status species on 26 April, 7 and 24 May, and 9 June 2021. The Study Area was comprehensively surveyed on foot by walking through all accessible areas. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), and plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2022). A list of all wildlife species observed during these field surveys is included as **Attachment D**. Additionally, Madrone biologists completed the following focused field surveys of the Study Area:

- Aquatic resources survey to review and update aquatic resources delineation previously verified by the USACE (**Attachment E**);
- California red-legged frog (*Rana draytonii*; CRLF) habitat assessment (**Attachment F**);
- Oak woodland assessment (**Attachment G**); and

- Special-status plant survey (**Attachment H**).

Previous surveys of the site include a CRLF habitat assessment in 2013 and a protocol-level survey in 2016 and a California tiger salamander (*Ambystoma californiense*; CTS) habitat assessment in 2013. These surveys were all completed by Eric C. Hansen, Consulting Environmental Biologist. Copies of Mr. Hansen's survey reports, which were prepared for a different project proposal, are included in **Attachment F**.

Aquatic resources on the Generations at Green Valley site were originally delineated by Gibson & Skordal, LLC (G&S) under the project name of Dixon Ranch. The USACE issued a Preliminary Jurisdictional Determination (PJD) for the G&S wetland delineation for Dixon Ranch on 26 August 2011. Since the time of the 2011 PJD, the proposed Project boundaries have changed, and the Project has been renamed. To review previously mapped areas and identify aquatic resources that may be present in areas not surveyed in 2011, Ms. Snider and Mr. Shaffer completed surveys of the current Study Area on 26 April, 7 and 24 May, and 9 June 2021. Results of these surveys indicated that the previously mapped aquatic resource conditions were very consistent with current conditions. The revised aquatic resources delineation map is included in **Attachment E**. A request for a jurisdictional determination for the revised map was submitted to the USACE on 8 August 2022.

Eric C. Hansen completed an evaluation of potential CTS habitat in the Study Area in April 2013 (Hansen 2013a). The evaluation was completed according to the October 2003 *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or Negative Findings for the California Tiger Salamander* (USFWS and CDFG 2003). Mr. Hansen also completed an evaluation of potential CRLF habitat in the Study Area in April 2013 (Hansen 2013b) and a protocol-level survey for CRLF in 2016 (Hansen 2016). The CRLF surveys followed guidance provided in USFWS' *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005). The results of all of these surveys were negative.

Madrone biologist Dustin Brown completed a follow-up CRLF habitat assessment for on 5 November 2021. The site assessment also followed the USFWS guidance. On-site aquatic habitats and adjacent uplands were evaluated for their potential to support breeding, foraging, dispersal and refugia or aestivation habitat. During the site visit, all wetlands located within the Study Area were visited and assessed for the potential to provide suitable aquatic habitat for California red-legged frog. Habitat assessments were completed for aquatic features that could potentially pond water through the spring and early summer, as well as adjacent uplands surrounding such aquatic features. Copies of Mr. Hansen's reports and Madrone's habitat assessment are included in **Attachment F**.

An Oak Woodlands Technical Report as required by the El Dorado County Zoning Ordinance and arborist report are being completed by California Tree and Landscape Consulting, Inc., and will be submitted to El Dorado County under separate cover. To inform this BRA, Ms. Snider mapped and assessed the extent of oak woodlands in the Study Area on 19 February 2021. Oak woodlands were mapped as defined in El Dorado County Oak Resources Management Plan (ORMP), dated September 2017. A copy of Ms. Snider's assessment report is included as **Attachment G**.

Finally, Ms. Snider conducted protocol-level rare plant surveys of the Study Area on 26 April, 7 May, and 9 June 2021 in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). A report detailing the methods and results of this survey is included as **Attachment G**.

4.0 EXISTING CONDITIONS

The Study Area is located on rolling terrain and consists primarily of annual brome grassland and blue oak woodlands. A narrow band of willow riparian scrub occurs along a seasonal wetland swale in the central portion of the Study Area, and two large ponds (referred to as the upper and lower ponds in this document) occur in the northern portion along the intermittent Green Spring Creek. The ponds are currently separated by an embankment that acts as a dam for the upper pond; the lower pond is the result of another informal embankment downstream.

An historic homestead and associated outbuildings are located just south of the upper pond, and an active strawberry farm is located just north of the lower pond. A small patch of Valley needlegrass grassland is located on the embankment for the lower pond. The heavily trafficked Green Valley Road runs through the northern portion of the Study Area; it is bordered by annual grasslands and oak woodland to the west, and serpentine chaparral to the east. An extensively manipulated terrace that has historically been used for the growing, harvesting, and sale of strawberries (and perhaps other crops) is located in the northeastern portion of the Study Area, south and west of Green Valley Road. However, this area is currently fallow, and the terrace area is primarily comprised of non-native annual grassland species and an unvegetated sandy/gravelly parking area. To the west and south of this terrace, a relatively steep slope drops down to a poorly maintained dirt road. A very disturbed/open chaparral community occupies much of this slope, and a number of rock outcrops are located just above the dirt road. In addition to the ponds and intermittent Green Spring Creek, a number of seasonal wetland swales, seeps, small depressional wetlands, and ephemeral drainages are scattered throughout the Study Area. Elevations within the Study Area range from 820 feet to 1,240 feet above mean sea level.

4.1 Soils

The Natural Resources Conservation Service has mapped four soil mapping units within the Study Area: (AwD) Auburn silt loam, 2 to 30% slopes; (AxD) Auburn very rocky silt loam, 2 to 30% slopes; (PrD) Placer diggings; and (SaF) Serpentine rock land (**Figure 3**) (NRCS 2022). Unit SaF is comprised of serpentine rocks, and units AwD and AxD are comprised of material weathered from metabasic or metasedimentary rock such as amphibolite schist, greenstone schist, or diabase.

4.2 Aquatic Resources

The Study Area supports seven types of aquatic features: seeps, seasonal wetland swales, seasonal wetlands, ponds, intermittent drainage (Green Spring Creek), ephemeral drainage, and roadside ditch (Figure 4 and Table 1). A description of aquatic resources mapped within the Study Area follows.

Table 1. Aquatic Resources in the Study Area

Resource Type	Amount in Study Area (acres)
<i>Wetlands</i>	
Seep	0.394
Seasonal Wetland Swale	2.141
Seasonal Wetland	0.025
Wetlands Total	2.560
<i>Other Waters</i>	
Ephemeral Drainage	0.246
Intermittent Drainage	0.812
Pond	3.803
Roadside Ditch	0.027
Other Waters Total	4.888
GRAND TOTAL	7.448

4.2.1 Seeps

Four seeps totaling approximately 0.39 acre occur within the Study Area. Plant species found in these areas include Baltic rush (*Juncus balticus*), Mediterranean barley, perennial rye (*Festuca perennis*), and spiny-fruited buttercup (*Ranunculus muricatus*).

4.2.2 Seasonal Wetland Swales

About 2.14 acres of seasonal wetland swales are present in the Study Area. These features are dominated by perennial ryegrass, Mediterranean barley, curly dock (*Rumex crispus*), tall flat sedge (*Cyperus eragrostis*), and spiny-fruited buttercup.

4.2.3 Seasonal Wetlands

Two depressional seasonal wetlands totaling 0.03 acre are present within the Study Area. At the time these features were mapped, vegetation within was sparse and consisted of slender popcorn flower (*Plagiobothrys stipitatus* ssp. *micranthus*), curly dock, Mediterranean barley, and perennial rye.

4.2.4 Ponds

Two ponds totaling about 3.80 acre occur within the Study Area, behind historic impoundments of Green Spring Creek. The lower (downstream) pond appears to be perennial, and the upper (upstream) pond is intermittent in many years. In most years, both appear to fill during the winter. The western pond is unvegetated in the center due to the depth of the water. The fringes of the western pond and much of the eastern pond support common tule (*Schoenoplectus acutus* var. *occidentalis*), cattails (*Typha* species), creeping spike rush (*Eleocharis macrostachya*), water pepper (*Persicaria hydropiper*), and seep spring monkey flower (*Erythranthe guttata*), among many others.

4.2.5 Green Spring Creek (Intermittent Creek)

Green Spring Creek, an intermittent feature, flows through the northeastern portion of the Study Area. The creek is primarily unvegetated due to the scouring effects of water. Vegetation that occurs along the fringes of Green Spring Creek is similar to that in the ponds. The area of Green Spring Creek within the Study Area is about 0.81 acre.

4.2.6 Ephemeral Drainages and Roadside Ditches

A number of features within the Study Area experience ephemeral flow. These include seven ephemeral drainages (totaling about 0.25 acre) and 16 roadside ditches (totaling about 0.03 acre). These features only convey stormwater flow during and immediately following storm events. As such, they are primarily unvegetated due to the scouring effects of water. Any vegetation that does occur is typically comprised of ruderal upland plant species or species consistent with the surrounding upland vegetation community.

4.3 Terrestrial Vegetation Communities

The 301-acre Study Area supports nine vegetation communities. **Figure 6** and **Table 2** summarize the acreages of each community within the Study Area, and a description of each follows.

Table 2. Vegetation Communities in the Study Area

Community Type	Acreage in Study Area
Annual Brome Grassland	167.3
Armenian Blackberry Bramble	0.6
Eucalyptus Woodland	0.1
Oak Woodland	109.2
Valley Needlegrass Grassland	<0.1
Serpentine Chaparral	1.0
Strawberry Field (agriculture)	1.0
Ruderal	6.8
Urban	7.2

4.3.1 Annual Brome Grassland

The annual brome grasslands are dominated by rip-gut brome, medusahead, and soft chess. Other common species include yellow star-thistle (*Centaurea solstitialis*), Mediterranean barley (*Hordeum marinum*), and split-leaf geranium (*Geranium dissectum*). Some patches of the annual brome grassland support a diverse suite of native forbs, including hyacinth brodiaea (*Triteleia hyacinthina*), Valley sky lupine (*Lupinus nanus*), blue dicks (*Dichelostemma capitatum*), and field popcorn flower (*Plagiobothrys fulvus*).

4.3.2 Armenian Blackberry Bramble

The Armenian blackberry (*Rubus armeniacus*) brambles are monocultures of Armenian blackberry, as this species forms dense patches that shade out all other vegetation. These brambles occur in the general vicinity of the ponds.

4.3.3 Eucalyptus Woodland

A Eucalyptus woodland occurs along the south side of Green Valley Road in the northwestern portion of the Study Area. This woodland is a monoculture of blue gum (*Eucalyptus globulus*), as these trees produce chemicals that have allelopathic effects on other plant species.

4.3.4 Oak Woodland

Oak woodlands are prevalent throughout the Study Area. These are comprised primarily of valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), and blue oak (*Quercus douglasii*). The understory is dominated by dogtail grass (*Cynosurus echinatus*) as well as plant species typical of the surrounding annual brome grasslands. A small component of the oak woodland along a seasonal wetland swale just south of Verde Valle Lane is riparian in nature, and supports arroyo willow (*Salix lasiolepis*), blue elderberry (*Sambucus nigra* ssp. *cerulea*) and Armenian blackberry in addition to the oaks.

4.3.5 Serpentine Chaparral

The serpentine (or deer brush) chaparral is dominated by deer brush (*Ceanothus integerrimus* var. *integerrimus*), buck brush (*Ceanothus cuneatus* var. *cuneatus*), and grey pine (*Pinus sabiniana*). Other shrubs occurring frequently in this community include toyon (*Heteromeles arbutifolia*), hoary coffeeberry (*Frangula californica* subsp. *tomentella*), and hollyleaf redberry (*Rhamnus ilicifolia*). Species occurring frequently in the understory include soft chess, false brome (*Branchypodium distachyon*), woolly sunflower (*Eriophyllum lanatum* var. *grandiflorum*), Ramm's madia (*Jensia rammii*), Q-tips (*Micropus californicus*), silverpuffs (*Uropappus lindleyi*), small-flower catchfly (*Silene gallica*), strigose lotus (*Acmispon strigosus*), and chaparral clarkia (*Clarkia affinis*).

4.3.6 Strawberry Field

A field in the northern portion of the Study Area is annually planted with commercial strawberry plants (*Fragaria × ananassa*) that produce strawberries sold at a stand on the north side of Green Valley Road. During the growing and harvest season, this field is heavily maintained, and almost entirely comprised of cultivated strawberry plants. During the fall and winter, the field is allowed to go fallow and various weedy non-native forbs colonize the area.

4.3.7 Ruderal

An area of ruderal vegetation is located in the northeast portion of the Study Area, along Green Valley Road. This area has been extensively manipulated by several uses within the past decade, including growing, harvesting, and sale of strawberries, blackberries, and potentially other crops; stockpiling of soil; and grading/redistribution of the soil piles. As a result, the area is primarily comprised of non-native annual grassland species with a few scattered shallow depressions that support mesic vegetation.

4.3.8 Urban

Urban areas are comprised predominantly of impermeable surfaces (pavement, buildings, etc.), regularly maintained dirt roadways, or areas of maintained landscaping adjacent to residences. These areas generally do not support special-status species habitat, apart from foraging perches for raptors or possibly but unlikely, nesting in landscape trees.

4.3.9 Valley Needlegrass Grassland

A small patch (0.031 acre) of Valley needlegrass (*Nasella pulchra*) (also known as purple needlegrass) grassland is present on the dam of the western-most pond. In this area, Valley needlegrass comprises approximately 80% cover, and is interspersed with teasel (*Diplacus fullonium*), Klamath weed (*Hypericum perforatum*), slender milkweed (*Asclepias fascicularis*), elegant brodiaea (*Brodiaea elegans*), and Baltic rush. Valley needlegrass grassland is considered by CDFW to be a "Sensitive Natural Community" (CDFW 2022).

5.0 RESULTS

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 criteria were 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 protocol-level floristic surveys conducted on-site, or the site is outside the known range of the species.

Figure 2 and Figure 3 show CNDDDB plant and wildlife occurrences respectively 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.

5.1 Plants

5.1.1 *Jepson's Onion*

Jepson's onion (*Allium jepsonii*) is not listed under the federal or California Endangered Species Acts; however, it is designated as a CRPR List 1B.2 plant. Jepson's onion is found in chaparral, cismontane woodland, and lower montane coniferous forests on serpentine or volcanic soils. It is a bulbiferous perennial, and it blooms from April through August at elevations from 980 feet to 4,330 feet (CNPS 2021).

The chaparral on serpentine soils in the northeastern portion of the Study Area provides suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in May and June when this species would have been in bloom. There is a low likelihood that this species is present within the Study Area.

5.1.2 *Big-Scale Balsamroot*

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) is not federally or state-listed, but it is classified as a CRPR List 1B.2 plant. It is a perennial herbaceous species that occurs in chaparral, cismontane woodland and valley and foothill grasslands between 295 and 4,600 feet. Big-scale balsamroot blooms from March through June and may be found on serpentine soils, though it is known to grow on other soil types as well (CNPS 2021).

Upland communities throughout the Study Area provide suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in April, May, and June when this species would have been in bloom. There is a low likelihood that this species is present within the Study Area.

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley 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	Prefers cismontane woodland or lower montane coniferous forests associated with serpentine soils or volcanic slopes from 985 and 4,330 ft.	Low. Suitable habitat is present within the serpentine chaparral; however, this species was not found on-site during protocol-level surveys.
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	--	CRPR 1B.2	Occurs in chaparral, cismontane woodland, and valley and foothill grasslands between 150 and 5,100 ft. Often associated with serpentine soils.	Low. Suitable habitat is present throughout the Study Area; however, this species was not found on-site during protocol-level surveys.
<i>Calystegia stebbinsii</i> Stebbins' morning glory	FE	CE, CRPR 1B.1	Openings in chaparral and cismontane woodland, often on Gabbro soils between 605 and 3,575 feet.	Low. Marginally suitable habitat is present due to the lack of gabbro soils; however, this species was not found on-site during protocol-level surveys.
<i>Carex xerophila</i> Chaparral sedge	--	CRPR 1B.2	Chaparral, cismontane woodland, and lower coniferous forests on Gabbro and serpentine soils between 1,445 and 2,525 feet.	No Habitat Present. The Study Area is outside of the elevational range of the species.
<i>Ceanothus roderickii</i> Pine Hill ceanothus	FE	CR, CRPR 1B.1	Foothill chaparral and cismontane woodland associated with Gabbro soils of the Pine Hill formation between 805 and 3,575 feet.	No Habitat Present. Gabbro soils do not occur within the Study Area.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	--	CRPR 1B.2	Chaparral, cismontane woodland, and lower montane coniferous forests associated with Gabbro or serpentine soils at elevations between 800 feet and 5,500 feet.	Low. Suitable habitat is present within the serpentine chaparral; however, this species was not found on-site during protocol-level surveys.
<i>Crocanthemum suffrutescens</i> Bisbee Peak rush rose	--	CRPR 3.2	Burned or disturbed areas in chaparral, often on Gabbro or lone soils at elevations between 245 and 2,200 feet.	Low. Suitable habitat is present in the serpentine chaparral; however, this species was not found on-site during protocol-level surveys.
<i>Downingia pusilla</i> Dwarf downingia	--	CRPR 2B.2	Valley and foothill grassland (mesic) and vernal pools.	Low. Marginally Suitable habitat is present within the seasonal wetlands; however, this species was not found on-site during protocol-level surveys.

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	--	CRPR 1B.2	Found in vernal pools and other mesic areas in cismontane woodland and lower montane coniferous forests between 230 and 3,000 ft.	Low. Suitable habitat is present within the seasonal wetlands, seeps, and seasonal wetland swales; however, this species was not found on-site during protocol-level surveys.
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	FE	CR, CRPR 1B.2	Foothill chaparral and cismontane woodland associated with rocky serpentine and Gabbro soils from 1,395 to 2,495 feet.	No Habitat Present. The Study Area is outside of the elevational range of the species.
<i>Galium californicum</i> ssp. <i>sierrae</i> El Dorado bedstraw	FE	CR, CRPR 1B.2	Foothill chaparral, cismontane woodland, and lower montane coniferous forest. Found on Gabbro soils between 330 and 1,920 feet.	No Habitat Present. Gabbro soils do not occur within the Study Area.
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	--	CE, CRPR 1B.2	Vernal pools and margins of lakes/ponds on clay soils (35' - 7,790').	No Habitat Present. The seasonal wetlands within the Study Area do not have sufficient hydrology for this species.
<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	--	CRPR 1B.2	Edges of vernal pools and other seasonally ponded features from 100 to 750 ft.	No Habitat Present. The Study Area is outside of the elevational range of the species.
<i>Legenere limosa</i> Legenere	--	CRPR 1B.1	Vernal pools and other seasonally ponded features between 5 and 2,885 ft.	No Habitat Present. The seasonal wetlands within the Study Area do not have sufficient hydrology for this species.
<i>Navarretia myersii</i> ssp. <i>myersii</i> Pincushion navarretia	--	CRPR 1B.1	Vernal pools and other mesic areas between 65 and 1,085 ft.	Low. Marginally Suitable habitat is present; however, this species was not found on-site during protocol-level surveys.
<i>Orcuttia tenuis</i> Slender Orcutt grass	FT	CE, CRPR 1B.1	Vernal pools and other seasonally ponded features between 115 and 5,775 ft.	No Habitat Present. The seasonal wetlands within the Study Area do not have sufficient hydrology for this species.
<i>Orcuttia viscida</i> Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Vernal pools between 100 and 330 ft.	No Habitat Present. The seasonal wetlands within the Study Area do not have sufficient hydrology for this species.

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley Study Area

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	Foothill chaparral and cismontane woodland on serpentine or Gabbro soils between 655 and 3,560 ft.	Low. Suitable habitat is present within the serpentine chaparral; however, this species was not found on-site during protocol-level surveys.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--	CRPR 1B.2	Emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches from sea level to 2,135 feet.	Low. Suitable habitat is present around the edges of the ponds and Green Spring Creek; however, this species was not found on-site during protocol-level surveys.
<i>Wyethia reticulata</i> El Dorado County mule ears	--	CRPR 1B.2	Foothill chaparral, cismontane woodland, and lower montane coniferous forest. Found on Gabbro soils of the Pine Hill Formation from 605 to 2,065 feet.	No Habitat Present. Gabbro soils do not occur within the Study Area.
Invertebrates				
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	--	Vernal pools.	No Habitat Present. Seasonal wetlands do not have sufficient duration of inundation to support this species.
<i>Danaus plexippus</i> Monarch butterfly	FC	--	Migratory species found throughout California spring through early fall, and along the immediate central and southern California coast year-round. Nectars on numerous floral resources but is dependent upon milkweed (<i>Asclepias</i> species) plants as their exclusive larval host. Requires diverse floral resources with interspersed milkweed plants during the dispersal and breeding season (spring through fall).	No Habitat Present. Milkweed plants are not present within the Study Area.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT	--	Dependent upon elderberry plant as primary host species.	No Habitat Present. The Study Area is outside of the range of the species.
<i>Lepidurus packardi</i> Vernal pool tadpole shrimp	FE	--	Vernal pools.	No Habitat Present. Seasonal wetlands do not have sufficient duration of inundation to support this species.

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
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.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT	CT, CSC	Breeds in deep seasonal wetlands, vernal pools, and ponds or other deeply ponded wetlands and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging habitat.	No Habitat Present. The Study Area is outside of the range of this species. California tiger salamander does not occur north of the Cosumnes River on the eastern side of the Sacramento Valley.
<i>Rana boylei</i> Foothill yellow-legged frog	--	ST, CSC	Requires partially shaded, rocky streams at low to moderate elevations in areas of chaparral, open woodland, and forest.	No Habitat Present. No recent documented populations within the vicinity of and no suitable aquatic habitat within the Study Area. Green Spring Creek within the Study Area is too heavily grazed and ephemeral to provide suitable habitat.
<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.	Low. Study Area contains potential habitat, but presence of bullfrogs and predatory game fish and the distance from the Study Area to verified populations of this species results in a low likelihood in the Study Area.
<i>Spea hammondi</i> Western spadefoot	--	CSC	Breeds in vernal pools, seasonal wetlands and associated swales. Forages and hibernates in adjacent grasslands.	No Habitat Present. Seasonal wetlands do not have sufficient duration of inundation to support this species.

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Reptiles				
<i>Actinemys marmorata</i> Western pond turtle	--	CSC	Ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	High. Ponds and Green Spring Creek within the Study Area provide suitable habitat.
<i>Phrynosoma blainvillii</i> Blainville's (Coast) horned lizard	--	CSC	Diverse habitat associations, but normally a low land species associated with sandy scrub habitat.	Low. Roadsides, openings in the deer brush chaparral, and the ruderal habitat in the northeastern portion of the Study Area provide marginal habitat for this species.
<i>Thamnophis gigas</i> Giant garter snake	FT	CT	Occurs in freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range.	No Habitat Present. The Study Area is outside of the range of the species.
Birds				
<i>Agelaius tricolor</i> Tricolored blackbird	--	CT, CSC	Colonial nester in dense vegetation, such as cattails, bulrush, or blackberries associated with marsh habitats.	High. The cattails and tules in the ponds and Armenian blackberry brambles represent potential nesting habitat, and surrounding grasslands provide potential foraging habitat for this species.
<i>Ammodramus savannarum</i> Grasshopper sparrow	--	CSC	Typically found in expansive short to middle-height, moderately open grasslands with scattered shrubs or other song perches.	Low. The annual brome grassland is marginally suitable habitat for this species due to the absence of scattered shrubs.
<i>Aquila chrysaetos</i> Golden eagle	--	CFP	Forages in open areas including grasslands, savannahs, deserts, and early successional stages of shrub and forest communities. Nests in large trees and cliffs.	High. Large trees on-site provide suitable nesting habitat, and the annual brome grassland is suitable foraging habitat.
<i>Athene cunicularia</i> Burrowing owl	--	CSC	Nests in abandoned ground squirrel burrows associated with open grassland habitats.	No Habitat Present. The Study Area is outside of the range of the species.
<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 Study Area is outside of the species' generally accepted range. Although it could fly through the area,

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
				the species is not expected to nest or forage on-site with much frequency.
<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.	High. Trees on-site provide suitable nesting habitat, and the annual brome grassland is suitable foraging habitat.
<i>Haliaeetus leucocephalus</i> Bald eagle	FD	CE	Nest in large trees within 1 mile of lakes, rivers, or larger streams.	High. The ponds provide suitable foraging habitat; however, the species is unlikely to nest on-site due to small size of available foraging habitat.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--	CT, CFP	Nests and forages in salt, brackish, and fresh marshes with abundant vegetative cover.	Moderate. Marsh vegetation around the edges of the ponds provide marginally suitable habitat for the species due to the small patch sizes.
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--	CSC, WBWG H	Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings.	High. Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees 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.	Moderate. The abandoned buildings just south of the pond represent marginally suitable roosting habitat for this species.
<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. Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees throughout the site.

Table 3. Special-Status Species Potential for Occurrence within the Generations at Green Valley Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Lasiurus blossevillii</i> Western red bat	--	CSC, WBWG H	Require large leaf trees such as cottonwoods, willows, and fruit/nut trees for daytime roosts. Often associated with wooded habitats that are protected from above and open below. Often found in association with riparian corridors. Require open space for foraging.	High. Trees scattered throughout the site are suitable roosting habitat for this species.
<i>Lasiurus cinereus</i> Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings (WBWG 2015).	High. Trees scattered throughout the site are suitable roosting habitat for this species.
<i>Taxidea taxus</i> American badger	--	CSC	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Low. The annual brome grasslands and oak woodlands provide marginally suitable habitat for American badger due to the surrounding residential development and limited occurrences in the vicinity.

Status Codes:

CE - CDFW Endangered
 CFP - CDFW Fully Protected
 CRPR - California Rare Plant Rank
 CSC - CDFW Species of Concern
 CT - CDFW Threatened

FC - Federal Candidate
 FD - Federally Delisted
 FT - Federally Threatened
 WBWG M - Western Bat Working Group Medium Threat Rank
 WBWG H - Western Bat Working Group High Threat Rank

5.1.3 Stebbins' Morning Glory

Stebbins' morning glory (*Calystegia stebbinsi*) is a federal and state-listed endangered species and is classified as a CRPR 1B.1 plant. It is a perennial rhizomatous herb that is found in openings in chaparral and cismontane woodland on serpentine or gabbroic soils. Stebbins' morning glory blooms from April to July at elevations from 600 feet to 3,600 feet (CNPS 2021).

The chaparral on serpentine soils in the northeastern portion of the Study Area provides suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in May and June when this species would have been in bloom. There is a low likelihood that this species is present within the Study Area.

5.1.4 Chaparral Sedge

Chaparral sedge (*Carex xerophila*) is not federally or state-listed, but it is classified as a CRPR List 1B.2 plant. It is a perennial herb that is found in chaparral, cismontane woodland, and lower coniferous forests on serpentine or gabbroic soils. Chaparral sedge blooms from March through June at elevations from 1,500 feet to 2,500 feet (CNPS 2021).

The chaparral on serpentine soils in the northeastern portion of the Study Area provides suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in May and June when this species would have been identifiable. There is a low likelihood that this species is present within the Study Area.

5.1.5 Pine Hill Ceanothus

Pine Hill ceanothus (*Ceanothus roderickii*) is listed as endangered under the federal Endangered Species Act, as a California rare species, and is classified as a CRPR List 1B.1 plant. Pine Hill ceanothus is a prostrate, low-growing shrub that is known primarily from Pine Hill in El Dorado County. The species occurs in chaparral and cismontane woodland with Gabbro or serpentine soils between 805 and 3,575 feet. It blooms from April to June.

The chaparral on serpentine soils in the northeastern portion of the Study Area provides marginally suitable habitat for this species, as it is largely tightly restricted to the Pine Hill Formation. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in May when this species was observed in bloom at another site in the vicinity. There is a low likelihood that this species is present within the Study Area.

5.1.6 Red Hills Soaproot

Red Hills soaproot (*Chlorogalum grandiflorum*) is not federally or state-listed, but it is classified as a CRPR List 1B.2 plant. Red Hills soaproot occurs in chaparral, cismontane woodland, and lower montane coniferous

forest on gabbro, serpentine, and other soils. This perennial blooms from May to June and is found from approximately 800 feet to 3,300 feet (CNPS 2021).

Upland communities throughout the Study Area provides suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in June when this species was observed in bloom on other nearby sites. There is a low likelihood that this species is present within the Study Area.

5.1.7 Bisbee Peak Rush Rose

Bisbee Peak rush-rose (*Crocانthemum suffrutescens*) is not federally or state-listed, but it is classified as a CRPR List 3.2 plant. Bisbee Peak rush-rose occurs in burned or otherwise disturbed areas in chaparral often on lone Formation or Gabbro soils, but also on other soils. This perennial blooms from April through August and is found from approximately 245 feet to 2,200 feet (CNPS 2021).

The chaparral on serpentine soils in the northeastern portion of the Study Area provides suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in June when this species was observed in bloom on other nearby sites. There is a low likelihood that this species is present within the Study Area.

5.1.8 Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or state-listed, but it is classified as a CRPR List 1B.2 plant. It is a diminutive annual herb that is strongly associated with vernal pools and other seasonally inundated features at elevations ranging from sea level to approximately 1,500 feet. Dwarf downingia is typically associated with areas that experience a moderate degree of disturbance, and it blooms from March to May (CNPS 2021).

The seasonal wetlands and seasonal wetland swales within the Study Area represent marginal habitat for this species. This species was not observed during the 2021 special-status plant survey of the Study Area, which was conducted in April, when this species was observed in bloom at other nearby sites. There is a low likelihood that this species is present within the Study Area.

5.1.9 Tuolumne Button-Celery

Tuolumne button-celery (*Eryngium pinnatisectum*) is not federally- or state-listed, but it is classified as a CRPR List 1B.2 plant. This species occurs in mesic areas in cismontane woodlands and coniferous forests, as well as vernal pools. Tuolumne button-celery blooms from May through August and is found from approximately 300 feet to 3,000 feet (CNPS 2021).

Seasonal wetlands, seasonal wetland swales, seeps, and intermittent drainages throughout the Study Area provide suitable habitat for this species. This species was not observed during the 2021 protocol-level

special status plant survey, which was conducted when the species would have been identifiable at least to genus. There is a low likelihood that this species is present within the Study Area.

5.1.10 Pine Hill Flannelbush

Pine Hill flannelbush (*Fremontodendron decumbens*) is listed as endangered under the federal Endangered Species Act, as a California rare species, and is classified as a CRPR List 1B.2 plant. Pine Hill flannelbush is a sprawling, low-growing shrub that is known from Pine Hill in El Dorado County and potentially from an isolated population in Nevada County. The species favors foothill chaparral and cismontane woodland with rocky Gabbro or serpentine soils between 1,395 and 2,495 feet. It blooms from April to June.

The chaparral on serpentine soils in the northeastern portion of the Study Area provides marginally-suitable habitat for this species, as it is largely tightly restricted to the Pine Hill Formation. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in late May when this species would have been in bloom. There is a low likelihood that this species is present within the Study Area.

5.1.11 Pincushion Navarretia

Pincushion navarretia (*Navarretia myersii* ssp. *myersii*) is not federally or state-listed, but it is classified as a CRPR List 1B.1 plant. This annual herb is found in vernal pools and other mesic areas in annual grasslands on clay soils. Pincushion navarretia is found at elevations between approximately 65 feet and 1,100 feet and blooms from April through May (CNPS 2021).

The seasonal wetlands within the Study Area represent marginally suitable habitat for this species. This species was not observed during the 2021 special-status plant survey of the Study Area, which was conducted in April and May, when this species would have been in bloom. There is a low likelihood that this species is present within the Study Area.

5.1.12 Layne's Ragwort

Layne's ragwort (*Packera layneae*) is a federally threatened species, a state rare species, and is classified as a CRPR List 1B.2 plant. It is a perennial herb found in rocky areas in chaparral and cismontane woodlands with serpentine or Gabbroic soils. Layne's ragwort blooms from April through August at elevations from 650 feet to 3,560 feet (CNPS 2021).

The chaparral on serpentine soils in the northeastern portion of the Study Area provides suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in late May when this species was in bloom at other sites in the vicinity. There is a low likelihood that this species is present within the Study Area.

5.1.13 Sanford's Arrowhead

Sanford's arrowhead is not federally or state-listed, but it is classified as a CRPR List 1B.2 plant. It generally occurs in shallow freshwater habitats associated with drainages, canals, and larger ditches that sustain inundation and/or slow-moving water into early summer. It is a perennial rhizomatous emergent species that blooms from May to October at elevations from sea level to 2,130 feet (CNPS 2021).

The ponds and Green Spring Creek within the Study Area provide suitable habitat for this species. This species was not observed during the 2021 protocol-level special status plant survey, which was conducted in June when this species was in bloom at other sites in the region. There is a low likelihood that this species is present within the Study Area.

5.2 Sensitive Natural Communities

5.2.1 Valley Needlegrass Grassland

A 0.031-acre patch of Valley needlegrass (*Nasella pulchra*) grassland is present on the dam of the western-most (lower) pond. In this area, Valley needlegrass comprises approximately 80% cover, and is interspersed with teasel (*Diplacus fullonium*), Klamath weed (*Hypericum perforatum*), slender milkweed (*Asclepias fascicularis*), elegant brodiaea (*Brodiaea elegans*), and Baltic rush. CDFW considers Valley needlegrass grassland a "Sensitive Natural Community" (CDFW 2021).

5.3 Amphibians

5.3.1 California Red-Legged Frog

California red-legged frog (*Rana draytonii*) is listed as threatened under the federal Endangered Species Act and is a CDFW Species of Special Concern. California red-legged frog habitat is characterized by riparian vegetation associated with slow-moving water that is relatively deep (>0.7 meters). Emergent and edge vegetation requirements are highly variable and include willow (*Salix* sp.), cattails, and bulrushes (*Schoenoplectus* spp.) providing appropriate habitat (Jennings and Hayes 1994). Adults can be found in both ephemeral and perennial streams and ponds, though stable populations require permanent freshwater (salinity $\leq 4.5\%$) water sources for the larval life stage (Jennings and Hayes 1994). Riparian vegetation and mammal burrows near water sources also provide refuge to estivating adults (USFWS 1996). Adults may utilize mammal burrows, desiccation cracks on pond bottoms, or dense vegetation and debris piles when aquatic breeding habitat dries (Alvarez 2004). The Study Area is not within federally identified critical habitat for the species and there are no documented occurrences within three miles of the Study Area.

California red-legged frog was not observed during previous 2013 and 2016 surveys completed by Eric Hansen or during 2021 surveys completed by Madrone. However, Madrone observed suitable aquatic breeding habitat within the two onsite ponds and within a seep. Green Spring Creek within the Study Area represents suitable dispersal habitat for this species. Past biological surveys of these ponds recorded

predatory species such as Centrarchids (*Lepomis* sp.) and American bullfrog (*Lithobates catesbeianus*); this may reduce the potential for California red-legged frog to be present (Hansen 2013). Mosquitofish (*Gambusia affinis*), which may feed on California red-legged frog tadpoles, and American bullfrog were both recorded during the 26 April 2021 site assessment by Ms. Snider and Mr. Shaffer; American bullfrog was also recorded during their 7 May 2021 site assessment. While the Study Area contains potential habitat, the results of habitat assessments and the previous 2016 protocol-level survey as well as the presence of bullfrogs and predatory game fish and the distance from the Study Area to verified populations of California red-legged frog result in a low likelihood of this species being present within the Study Area.

5.3.2 Foothill Yellow-Legged Frog

The foothill yellow-legged frog (*Rana boylei*) is state listed as endangered. This species is a small- to medium-sized stream-dwelling frog with fully webbed feet and rough pebbly skin. Coloring of the species is highly variable but is usually gray, brown, olive, or reddish with brown-black flecking and mottling, which often matches the local substrate (CFGF 2020). The foothill yellow-legged frog is a stream obligate species.

The historical range of the foothill yellow-legged frog extended from the Willamette River drainage in Oregon south through the Sierra Nevada Mountains to the Transverse Range, and down along the California Coast Range to at least the Upper San Gabriel River in Los Angeles County, California. The current distribution of the foothill yellow-legged frog generally follows the historical distribution of the species (FR Vol 86, No 246, pages 73914-73945). In its recent status determination for this species, the California Fish and Game Commission classified the foothill yellow-legged frog as having six unique, genetic clades (CFGF 2020). The six separate genetic clades are identified as the North Coast, North Feather, North Sierra, South Sierra, Central Coast, and South Coast. The Study Area is within the North Sierra clade, also known as the North Sierra distinct population segment (DPS). In 2021, the USFWS noted that the North Sierra DPS was not warranted for listing at that time.

The creek within the Study Area is too heavily grazed and ephemeral to provide suitable habitat for foothill yellow-legged frog. The CNDDDB lists one record for this species within five miles of the Study Area (Occurrence #1913). This record is from 1972, and the record notes that the occurrence is extirpated (CNDDDB 2022). There is no suitable habitat for foothill yellow-legged frog in the Study Area.

5.4 Reptiles

5.4.1 Western Pond Turtle

The western pond turtle (*Emys marmorata*) is a CDFW Species of Special Concern. Favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites. Although this species must live near water, it 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.

The ponds in the Study Area and Green Spring Creek (which flows through the ponds) provide suitable habitat for western pond turtle. The site has not been surveyed for this species; at the time of the CRLF habitat assessment, western pond turtle would not have been active (cold winter day). The CNDDDB lists two occurrences within five miles of the Study Area, the closest (Occurrence #1359, from 2016) being about 3.5 miles to the west, in an area associated with Blue Ravine. There is a high likelihood that this species may occur in the Study Area.

5.4.2 Coast (Blainville's) Horned Lizard

Coast (Blainville's) horned lizard (*Phrynosoma blainvillii*) is not federally or state-listed but is a CDFW Species of Special Concern. This species is a relatively large (to 105 mm in snout-vent length), dorsoventrally flattened, rounded lizard found historically from Redding, California, to Baja, Mexico (Jennings and Hayes 1994). This diurnal species can occur within a variety of habitats including scrubland, annual brome grassland, valley-foothill woodlands and coniferous forests, though it is most common along lowland desert sandy washes and chaparral (Stebbins and McGinnis 2012). In the Coast Ranges, it occurs from Sonoma County south into Baja California (CDFG 1988). It occurs from sea level to 8,000 feet above MSL and an isolated population occurs in Siskiyou County (Stebbins and McGinnis 2012).

Blainville's horned lizard is found in open microhabitats such as sandy washes with scattered shrubs or firebreaks in chaparral, where they forage for ants, small beetles and other insects (Jennings and Hayes 1994). Horned lizards (*Phrynosoma*) are native ant specialists and daily activities are centered on above-ground activity patterns of ants, with lizards active generally in mornings and later in the afternoon in the summer.

Roadsides and openings in the deer brush chaparral and ruderal habitat in the northeastern portion of the Study Area provide marginal habitat for this species due to the level of disturbance. Three occurrences of Blainville's horned lizard have been documented within five miles of the Study Area in the CNDDDB, the nearest of which (CNDDDB Occurrence #685) is located approximately 2.7 miles east of the Study Area in Cameron Park (CNDDDB 2022). There is a low likelihood that this species may occur in the Study Area.

5.5 Birds

5.5.1 Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*), which is currently in decline throughout the state, is listed as threatened under the CESA. Historically, colonies were established in freshwater marshes dominated by cattails (*Typha* spp.) and bulrushes (*Scirpus* or *Schoenoplectus* spp.). More recently, this species has utilized non-native mustards (*Brassica* spp.), blackberries (*Rubus* spp.), thistles (*Cirsium* spp.), and mallows (*Malva* spp.) as nesting substrate. Since the 1980s, the largest colonies have been observed in the San Joaquin

Valley in cultivated fields of triticale, which is a hybrid of wheat and rye often grown as livestock fodder. This current trend of nesting in active agricultural fields has further imperiled the species as nestlings typically have not fledged by the time the triticale is harvested.

The CNDDDB lists four occurrences of tricolored blackbird within five miles of the Study Area, the closest being about 3.5 miles to the west (CNDDDB 2022). The cattails and tules in the ponds and Armenian blackberry brambles represent potential nesting habitat for tricolored blackbird and surrounding grasslands provide potential foraging habitat. There is a high likelihood that this species may occur in the Study Area.

5.5.2 Grasshopper Sparrow

The grasshopper sparrow (*Ammodramus savannarum*) is not listed pursuant to either the California or federal Endangered Species Acts, but it is designated as a species of special concern by CDFW. The grasshopper sparrow is an uncommon and local summer resident and breeder along the western edge of the Sierra Nevada and most coastal counties south to Baja California (Small 1994, Vickery 1996). This species generally inhabits moderately open grasslands and prairies with patchy bare ground and scattered shrubs (Vickery 1996). Grasshopper sparrows are more likely to occupy large tracts of habitat than small fragments (Vickery 1996). Breeding generally occurs from early May through August.

Neither the CNDDDB nor Cornell Lab of Ornithology's (Cornell Lab's) eBird list any occurrences of this species within five miles of the Study Area (CNDDDB 2022, Cornell Lab 2022). The annual brome grassland is marginally suitable habitat for this species due to the absence of scattered shrubs. The probability that this species could occur in the Study Area is low.

5.5.3 Golden Eagle

The golden eagle (*Aquila chrysaetos*) is not federally or state listed but is a CDFW fully protected species and is protected under the federal Bald and Golden Eagle Protection Act. It is a very large solitary raptor that forages in large, expansive open grasslands and savannahs, and nests on cliff ledges or in large, lone trees in rolling to mountainous terrain (Shuford and Gardali 2008). Though its natural densities are generally believed to be low, it once was relatively common to the open areas of California.

The CNDDDB lists two occurrences of golden eagle within five miles of the Study Area, both south of U.S. Highway 50 near the El Dorado-Sacramento County line (CNDDDB 2022). Cornell Lab's eBird lists several recent occurrences in the El Dorado Hills and Folsom area, with the closest being about two miles to the east (Cornell Lab 2022). Large trees in the Study Area provide suitable nesting habitat, and the annual brome grassland is suitable foraging habitat. There is a high likelihood that this species may occur in the Study Area.

5.5.4 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).

The CNDDDB does not list any occurrences of Swainson's hawk within five miles of the Study Area. Cornell Lab's eBird shows records near Bass Lake in El Dorado Hills (Cornell Lab 2022). The Study Area is outside of the species' generally accepted range. Although it could fly through the area, the species is not expected to nest or forage in the Study Area with much frequency. The probability that this species could occur in the Study Area is low.

5.5.5 White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not federally or state listed but 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, savannahs, and emergent wetlands (Shuford and Gardali 2008). White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range (Shuford and Gardali 2008).

The CNDDDB lists two occurrences of this species within five miles of the Study Area, both south of U.S. Highway 50 (CNDDDB 2022). Cornell Lab's eBird lists recent occurrences within five miles, including one in a residential area about 0.5 mile west of the Study Area (Cornell Lab 2022). Trees within the Study Area provide suitable nesting habitat, and the annual brome grassland is suitable foraging habitat. There is a high likelihood that this species may occur in the Study Area.

5.5.6 Bald Eagle

Bald eagle (*Haliaeetus leucocephalus*) is listed as endangered under the CESA and is fully protected under state law and the federal Bald and Golden Eagle Protection Act. This species is not found in the high Sierra Nevada Mountains and breeds in northern California north of the Study Area. It requires large bodies of water or free flowing rivers with abundant fish and adjacent snags or other perches. It nests in large, live trees with open branchwork, most frequently in stands with less than 40% canopy and near a permanent water source (Zeiner et al. 1998 as updated).

The CNDDDB lists three occurrences of this species within five miles of the Study Area, including near Bass Lake south of U.S. Highway 50 and near Folsom Lake to the west. Cornell Lab's eBird also shows records in the vicinity of Bass Lake and Cameron Park Lake (Cornell Lab 2022). Ponds within the Study Area provide suitable foraging habitat, but the species is unlikely to nest on-site due to small size of available foraging habitat. There is a high likelihood that this species may occur in the Study Area.

5.5.7 California Black Rail

California black rail (*Laterallus jamaicensis* ssp. *coturniculus*) is listed as threatened under the CESA. This secretive bird is a yearlong resident of saline, brackish, and fresh emergent wetlands including those in the Sacramento-San Joaquin Delta (Zeiner et al. 1988 as updated). California black rails nest close to the ground in or along marsh edges, in areas with saturated or shallowly flooded soils and dense vegetation, and usually hidden in marsh grass. They may also nest on damp ground, on mats of previous year's dead grasses (Terres 1980), or over very shallow water (Nature Serve 2022).

The CNDDDB lists one occurrence of this species within five miles of the Study Area (Occurrence #304; CNDDDB 2022). This recent record (2017) occurred in pond in a residential development south of US Highway 50. Marsh vegetation around the edges of the ponds provide marginally suitable habitat for the species due to the small patch sizes. This species has a moderate probability to occur within the Study Area.

5.6 Mammals

5.6.1 Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally- or state-listed but is 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 2022). Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. It 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 2022).

Pallid bat has not been documented in the CNDDDB within five miles of the Study Area (CNDDDB 2022). However, suitable roosting habitat for pallid bat is present in tree hollows and under exfoliating bark on trees throughout the site. There is a high likelihood that this species may occur in the Study Area.

5.6.2 Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii townsendii*) is not federally or state listed, but it is a California species of concern, and is classified by the WBWG as a High priority species. This species roosts primarily in caves and cave-like roosting habitat, including abandoned mines (WBWG 2018). Its habit of roosting pendant-like on open surfaces makes it readily detectable, and it can be the species most readily observed, when present (commonly in low numbers) in caves and abandoned mines throughout its range. It has also been reported to utilize buildings, bridges, rock crevices and hollow trees as roost sites. Forages in edge habitats along streams, and adjacent to and within a variety of wooded habitats (WBWG 2022).

The CNDDDB does not list any occurrences of Townsend's big-eared bat within five miles of the Study Area. The abandoned buildings just south of the pond represent marginally suitable roosting habitat for this species. There is a moderate probability for Townsend's big-eared bat to occur within the Study Area.

5.6.3 Silver-Haired Bat

Silver-haired bat (*Lasionycteris noctivagans*) is not federally or state listed but 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 2022). 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 2022).

The CNDDDB does not list any occurrences of this species within five miles of the Study Area. However, suitable roosting habitat for silver-haired bat is present in tree hollows and under exfoliating bark on trees throughout the site. There is a high likelihood that this species may occur in the Study Area.

5.6.4 Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not federally or state listed but 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 2022). 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 2022).

There are no CNDDDB occurrences of this species in the Study Area. However, trees scattered throughout the site provide suitable roosting habitat for western red bat. There is a high likelihood that this species may occur in the Study Area.

5.6.5 Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or state listed but 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 2022). Hoary bats prefer older large leaf trees, such as cottonwoods, willows, and fruit or nut trees for daytime roosts. This species is primarily crepuscular or nocturnal and requires open areas to hunt its main prey item, moths. The hoary bat is considered a forest/woodland species, and in California they are often associated with undisturbed riparian or stream corridors (WBWG 2022).

The CNDDDB does not list any occurrences of this species within five miles of the Study Area. However, trees scattered throughout the site provide suitable roosting habitat for hoary bat. There is a high likelihood that this species may occur in the Study Area.

5.6.6 American Badger

The American badger (*Taxidea taxus*) is not federally or state listed but 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 CNDDDB lists one recent occurrence of American badger in the Study Area, in an oak savannah and oak woodland habitat along East Natoma Street near the Folsom Lake Crossing intersection in Folsom (Occurrence #489; CNDDDB 2022). The annual brome grasslands and oak woodlands in the Study Area provide marginally suitable habitat for American badger due to the surrounding residential development. The probability that this species could occur in the Study Area is low.

6.0 POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AND RECOMMENDED MITIGATION

As proposed, the Project would directly impact 164.1 acres of the 301-acre Study Area (Figure 7). The following discussions summarize potential impacts to sensitive biological resources and make recommendations to minimize and mitigate for those impacts.

6.1 Aquatic Resources

As of the time of this report, a jurisdictional determination request for aquatic resources in the Study Area is pending with the USACE. As proposed, the Project could impact 2.306 acres of aquatic resources, including the entirety of the lower pond, a portion of the upper pond, and a portion of intermittent stream (Green Spring Creek) (Figure 7). Lower pond impacts would occur as a result of channel reconstruction. The post-construction condition for the lower pond would support an engineered channel for Green Spring Creek (see Attachment A). Upper pond impacts would occur as a result of reconstructing the embankment and installing a flow control structure; the reconstruction would slightly change the ordinary high water mark for the upper pond area and the post-construction condition would carry Green Spring Creek flow through the Project area. Ponding upstream of the flow control structure may occur during storm events, but under normal conditions, low flows would simply pass through the former upper pond area. Finally, impacts to intermittent stream would occur with the construction of road crossings and/or upper embankment reconstruction. Table 4 summarizes the expected aquatic resource impacts in the Study Area.

Table 4. Potential Aquatic Resource Impacts in the Study Area

Resource Type	Amount in Study Area (acres)	Potential Impacts (acres)	Avoided (acres)
<i>Wetlands</i>			
Seep	0.394	0.000	0.394
Seasonal Wetland Swale	2.141	0.000	2.141
Seasonal Wetland	0.025	0.000	0.025
Total Wetlands	2.560	0.000	2.560
<i>Other Waters</i>			
Ephemeral Drainage	0.246	0.000	0.246
Intermittent Drainage	0.812	0.053	0.759
Pond	3.803	2.252	1.551
Roadside Ditch	0.027	0.001	0.026
Total Other Waters	4.888	2.306	2.582
GRAND TOTAL	7.448	2.306	5.142

Summation errors may occur due to rounding.

To mitigate for expected impacts to aquatic resources, we recommend the following measures:

1. The Project proponent shall apply for a Section 404 permit from the U.S. Army Corps of Engineers. Waters of the U.S. that will be impacted shall be replaced or rehabilitated on a “no-net-loss” basis. Compensatory mitigation in the form of habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE.
2. The Project proponent shall apply for a Section 401 water quality certification from the RWQCB and adhere to the certification conditions.

Additionally, because the Project requires the crossing of Green Spring Creek in two locations and would result in impacts to the in-stream ponds, the Project proponent shall notify the CDFW consistent with the requirements of Fish and Game Code Section 1600 (Lake or Streambed Alteration) and abide by the conditions of any LSAA issued by CDFW.

Finally, the El Dorado County Zoning Ordinance requires adequate setbacks from aquatic resources. With the exception of work proposed in the areas of the ponds and at road crossings of Green Spring Creek, the proposed Project will avoid direct impacts to aquatic resources (ephemeral drainages, seasonal wetlands, and seasonal wetland swales) within the subdivision development area and portions of Green Spring Creek. Setbacks from aquatic resources vary throughout the subdivision; see **Attachment A** for detail. No additional setbacks from avoided resources are recommended.

6.2 Terrestrial Vegetation Communities

As shown on **Figure 7**, the current proposal would permanently impact an area of about 164± acres within the Study Area. Of the impacted area, about 162+ acres are comprised of terrestrial vegetation communities

(the remaining 2.0+ acres in the impact area are aquatic resources as described in Section 6.1 above). Table 5 summarizes impacts to terrestrial vegetation communities within the Study Area.

Table 5. Potential Terrestrial Vegetation Community Impacts in the Study Area

Community Type	Amount in Study Area (acres)¹	Potential Impacts (acres)	Avoided (acres)
Annual Brome Grassland	167.3	106.0	61.3
Armenian Blackberry Bramble	0.6	0.3	0.3
Eucalyptus Woodland	0.1	0.0	0.1
Oak Woodland	109.2	54.6	54.6
Valley Needlegrass Grassland ²	<0.1	<0.1	0.0
Serpentine Chaparral	1.0	0.0	1.0
Strawberry Field (agriculture)	1.0	0.4	0.6
Ruderal	6.8	0.5	6.3
Urban	7.2	0.5	6.7
TOTAL²	293.2	162.3	130.9

Summation errors may occur due to rounding.

¹ Total amount in Study Area does not include aquatic resources listed in Table 4. The combined total for terrestrial vegetation communities and aquatic resources represents the entirety of the 301-acre study area.

² A CDFW-designated Sensitive Natural Community. Impacted area is 0.013 acre.

The Project would directly affect two sensitive vegetation community resources: oak woodland and Valley needlegrass grassland.

6.2.1 Oak Woodland

Preliminary estimates indicate that the Project would result in the loss of 54.6 acres of oak woodland. To compensate for the loss, we expect the County to require compliance with the following measures, which are derived from the County's Oak Resources Conservation Ordinance:

1. The Project proponent shall complete an Oak Resources Technical Report as required by Chapter 130.39 of the El Dorado County Code. The report shall summarize the oak woodlands within the Study Area, and document the number, size, species, and condition of all native oak trees outside of mapped oak woodlands with a single main trunk measuring greater than six inches in diameter at breast height (DBH) or with a multiple trunk having an aggregate trunk diameter measuring greater than ten inches DBH. The report shall identify all individual native oak trees greater than DBH 24 inches and less than DBH 36 inches occurring within the oak woodlands and all heritage native oak trees (DBH 36 inches and greater) present, including any occurring within the oak woodlands. The report shall identify mitigation at a 1:1 ratio (the ratio used for oak woodland impacts up to 50% per the El Dorado County Oak Resources Management Plan [El Dorado County 2017]) by one of the following methods:
 - a) In-lieu fee payment based on the percent of on-site Oak Woodland impacted by the development as shown in Table 5 (Oak Woodland In-Lieu Fee) in the ORMP to be either used by the County to

- acquire off-site deed restrictions and/or conservation easements or to be given by the County to a land conservation organization to acquire off-site deed restrictions and/or conservation easements;
- b) Off-site deed restriction or conservation easement acquisition for purposes of off-site oak woodland conservation consistent with Chapter 4.0 (Priority Conservation Areas) of the ORMP;
 - c) Replacement planting within an area on-site for up to 50 percent of the total oak woodland mitigation requirement consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement
 - d) Replacement planting within an area off-site for up to 50 percent of the total oak woodland mitigation requirement. Off-site replacement planting areas shall be consistent with Section 2.4 (Replacement Planting Guidelines) and Chapter 4.0 (Priority Conservation Areas) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement; or
 - e) A combination of options a through d above.
2. The Project proponent shall submit an Oak Woodland Removal Permit application consistent with Chapter 130.39 of the El Dorado County Code and El Dorado County Oak Resources Management Plan (El Dorado County 2017).
 3. The Project proponent shall implement all requirements of the Oak Woodland Removal Permit issued by El Dorado County and provide documentation showing fulfillment of the 1:1 mitigation requirement.
 4. Because the Project would retain areas of oak woodland in the Study Area, a bond or other security instrument as described in El Dorado County Code Section 130.39.070 would be required. The bond or other security instrument shall be required as a condition of issuance of the discretionary permit and/or authorization to protect oak woodlands identified for preservation during the construction period. The form and amount of the security instrument shall be specified by the permit issuing body and approved by County Counsel. No grading or other on-site work shall be permitted until the security is posted.
 5. If oak tree replacement planting is proposed for the Project, the Project proponent shall post a bond or other security instrument in an amount equal to the current value of required replacement tree(s) and/or acorns, plus the cost of maintenance and monitoring, as determined by a Qualified Professional (as described in El Dorado County Code Section 130.39.070). No grading or other on-site work shall be permitted until the security is posted.

No additional mitigation is proposed.

6.2.2 Valley Needlegrass Grassland

Valley needlegrass grassland is a CDFW Sensitive Natural Community. Under the current design, the area supporting the Valley needlegrass grassland at the base of an existing embankment would be removed and 0.013 acre of Valley needlegrass grassland community would be directly and permanently impacted. To compensate for this impact, we recommend the following:

To achieve no net loss of Valley needlegrass grassland acreage, mitigation shall include one or more of the following components:

- Establish Valley needlegrass grassland within project's open space areas currently characterized by annual grassland;
- Establish Valley needlegrass grassland off-site; or
- Preserve and enhance existing Valley needlegrass grassland within five (5) miles of the Project site.

The Project proponent shall compensate for any loss of Valley needlegrass grassland resulting from project implementation at a minimum 1:1 replacement ratio. The proposed mitigation plan shall be provided to and approved by the County prior to removal of the Valley needlegrass grassland on site. If the mitigation plan calls for establishing a new area of Valley needlegrass grassland either on- or off-site, it shall include a provision to monitor the compensation area for a period of at least two (2) years following planting.

Additionally, because this work is in the vicinity of Green Spring Creek, it is likely to require a LSAA under Section 1602 of the Fish and Game Code (see **Section 6.1** above). CDFW will review the Project's potential impacts on resources under its jurisdiction and may apply a different and/or additional measure to mitigate for the loss of the community.

6.3 Special-Status Plants

6.3.1 Special-Status Plant Surveys

Special-status plant surveys conducted throughout the Study Area in 2021 were negative, but given enough time or a significant disturbance event, plants may become established in areas where suitable habitat exists. Therefore, if Project construction does not commence prior to the spring of 2023 or if a significant disturbance event (such as a fire) occurs, another round of special-status plant surveys is recommended in areas proposed for impact prior to commencement of construction. If no special-status plant species are found, no relocation would be required. If special-status plants are found and will be impacted, mitigation for those impacts will be determined during consultation with the County. If the plant found is a perennial, then mitigation could consist of digging up the plant and transplanting into a suitable avoided area on-site prior to construction. If the plant found is an annual, then mitigation could consist of collecting seed-bearing soil and spreading into a suitable avoided area on-site prior to construction.

6.3.2 Rare Plant Mitigation Fee

At least a portion of the Study Area is located within Rare Plant "Mitigation Area 1", and as such, Chapter 130.71 of the El Dorado County Code requires the Project proponent to pay the current "Rare Plant Mitigation Fee" prior to issuance of a building permit. That fee is currently \$885 per dwelling unit equivalent, but if that fee changes prior to building permit application, the Project proponent would need to pay the applicable fee at that time. No additional mitigation is proposed.

6.4 California Red-Legged Frog

The CRLF habitat assessment found that suitable aquatic breeding habitat is present within the two onsite ponds and within a seep. As proposed, the project will directly and permanently impact both ponds. To ensure that Project construction avoids impacts to CRLF, we recommend the following:

- The Project proponent shall hire a qualified biologist to conduct USFWS protocol California red-legged frog (CRLF) surveys in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005) within the two onsite ponds and Seep S-4 as shown on the aquatic resources delineation map for the Generations at Green Valley Project. If no CLRF are observed within these features during the surveys, no additional mitigation is required. Protocol-level surveys are valid for five (5) years, so if construction is delayed and the survey date passes five years, the surveys shall be repeated.
- If CLRF is identified during the surveys, or if the Project proponent assumes presence of CRLF, the following measures are recommended.
 - Prior to issuance of any grading permits for the Project, the Project proponent shall consult with the USFWS regarding Project impacts to CRLF. The Project proponent shall obtain the appropriate take authorization from the USFWS (Section 7 or 10 of the FESA). The Project proponent shall comply with all required compensatory mitigation determined during consultation with the USFWS and provide proof of compliance to the El Dorado County. Should consultation with the USFWS result in required mitigation measures in conflict with the measures included here, USFWS measures shall take precedence.
 - Prior to the start of construction, a qualified biologist shall conduct a training program for all construction personnel including contractors and subcontractors. The training shall include, at a minimum, a description of CRLF and their habitats within the Project area; an explanation of the species status and protection under state and federal laws; the avoidance and minimization measures to be implemented to reduce take of this species; communication and work stoppage procedures in case a listed species is observed within the Project Area; and an explanation of the importance of the Environmentally Sensitive Areas (ESAs) and Wildlife Exclusion Fencing (WEF). A fact sheet conveying this information shall be prepared and distributed to all construction personnel. The training shall provide interpretation for non-English speaking workers. The same instruction shall be provided to any new workers before they are authorized to perform project work.
 - Prior to the start of each phase of construction, ESAs (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) shall be clearly delineated using high visibility orange fencing. The ESA fencing shall

- remain in place while construction activities are ongoing and shall be regularly inspected and fully maintained at all times.
- A qualified biologist shall be onsite during all activities that may result in take of CRLF. The qualifications of the biologist(s) shall be submitted to the USFWS for review and approval at least thirty (30) calendar days prior to the date earthmoving is initiated at the Project site.
 - Prior to the start of each phase of construction, WEF shall be installed at the edge of the Project footprint in all areas where sensitive species could enter the construction area. The location of the fencing shall be determined by the contractor and the qualified biologist prior to the start of staging or ground disturbing activities. The WEF shall remain in place throughout the duration of the Project and shall be regularly inspected and fully maintained. Repairs to the WEF shall be made within 24 hours of discovery. Upon Project completion, the WEF shall be completely removed, the area cleaned of debris and trash, and returned to natural conditions. An exception to the foregoing fencing measures is that for work sites where the duration of work activities is very short (e.g., 3 days or fewer) and that occur during the dry season, and the installation of exclusion fencing will result in more ground disturbance than from Project activities, then the boundaries and access areas and sensitive habitats may be staked and flagged (as opposed to fenced) by the qualified biologist prior to disturbance and species monitoring would occur during all Project activities at that site.
 - No more than 24 hours prior to the date of initial ground disturbance, a preconstruction survey for the CRLF shall be conducted by the qualified biologist at the Project site. The survey shall consist of walking the Project limits and the interior of the Project site to ascertain the possible presence of the species. The biologist shall investigate all potential areas that could be used by the CRLF for feeding, breeding, sheltering, movement, and other essential behaviors. This includes an adequate examination of mammal burrows, such as California ground squirrels or gophers. If any adults, subadults, juveniles, tadpoles, or eggs are found, the biologist shall contact the USFWS to determine if moving any of the individuals is appropriate. In making this determination the USFWS will consider if an appropriate relocation site exists. Only USFWS-approved biologists may capture, handle, and monitor the CRLF.
 - To the extent practicable, initial ground-disturbing activities shall be avoided between November 1 and March 31 because that is the time period when CRLF are most likely to be moving through upland areas. When ground-disturbing activities must take place between November 1 and March 31, the applicant shall ensure that daily monitoring by the USFWS-approved biologist is completed.

6.5 Western Pond Turtle

As proposed, the project will directly and permanently impact both ponds. Because there is a high likelihood that western pond turtles are present within the ponds, we recommend the following measures to mitigate

for potential impacts to this species. If the CDFW LSAA for the Project requires mitigation measures in conflict with the measures included here, the CDFW LSAA measures shall take precedence.

- **Seasonal work restriction:** Work within the ponds shall be confined to the active season from 1 May through 15 September.
- **Dewatering:** Dewatering of the ponds will encourage turtles to leave the work area on their own. Prior to any work occurring within the ponds or within 100-feet of the ponds, the ponds must be dewatered (dry and absent of aquatic invertebrates and crustaceans) for at least 15 days. Dewatering will occur with the use of mechanical pumps that contain screened intakes that will prevent the entrapment of any young turtles. Mesh on the screen shall be 0.5 inches or less.
- **Exclusion Fencing:** After the ponds have been dewatered for 15 days, exclusion fencing will be placed around all work areas within the ponds or within 100 feet of the ponds. The fencing shall be erected 36 inches above the ground and buried at least 6 inches below the ground to prevent turtles from attempting to burrow under the fence and into the work area.
- **Biological Monitoring:** If the contractor is unable to completely dewater the work area due to nuisance flow, daily inspections of the work area and fencing shall be conducted by a qualified biologist, or a contractor trained by the qualified biologist, to ensure that no turtles are present within the work area. These inspections shall be conducted in the morning prior to the start of work.
- **Turtle Entrapment:** In order to prevent any turtles from becoming entrapped all excavated steep-walled holes or trenches that are more than 6 inches in depth will be covered with plywood or similar material or provided with one or more escape ramps of earthen fill or wooden planks. The trenches and holes shall be inspected by a biologist or a trained contractor each morning to ensure that there are no entrapped turtles. Erosion control materials within the vicinity of the ponds shall consist of tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that turtles are not trapped (no monofilament).
- **Western Pond Turtle Encounter Protocol:** If a western pond turtle is encountered, work will be suspended in a 100-foot radius of the animal until the animal leaves the Project site on its own volition. If necessary, the Project biologist will notify CDFW to determine the appropriate procedures related to relocation. Any worker who inadvertently injures or kills a western pond turtle or who finds one dead, injured, or entrapped must immediately report the incident to the Project biologist.

6.6 Coast (Blainville's) Horned Lizard

There is a low potential for Blainville's horned lizard to occur within the Study Area. However, if the species were present at the time of construction, activity could result in direct harm to individual coast horned lizards. In order to avoid direct mortality to this species, the following measure is recommended:

- Within 14 days prior to the initiation of any construction activity, a qualified biologist shall conduct preconstruction surveys for coast (Blainville's) horned lizard in appropriate habitats. If Blainville's horned lizard is found during the survey, a qualified biologist shall relocate the individuals to suitable habitat outside of the Project area, subject to review and approval by CDFW and/or El Dorado County.

6.7 Nesting Birds

Project construction will require the removal of vegetation that provides nesting habitat for migratory bird species. If birds are nesting in the Project impact area at the time of construction, activity could disturb nesting birds, resulting in the loss of eggs or young or nest abandonment. In order to prevent potential disturbance and/or direct effects to active nests, we recommend the following measure:

- If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 – August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within 14 days prior to the beginning of construction activities in order to identify active nests. This survey shall be conducted within the proposed construction area and all accessible areas within 500 feet of the construction area. If active raptor nests 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 based on consultation and approval by the County. The perimeter of the protected area shall be indicated by bright orange temporary fencing. No construction activities or personnel shall enter the protected area, except with approval of the biologist. If trees containing nests or burrows must be removed as a result of Project implementation, removal shall be completed during the nonbreeding season (late September to March) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season). If no active nests are found during the focused survey, no further mitigation will be required.

6.8 Roosting Bats

Because the Project requires tree removal in oak woodland areas, construction could disturb tree-roosting bat species if they are present at the time of tree removal. In order to prevent potential disturbance and/or direct effects to occupied roosts, we recommend the following measure:

- Pre-construction roosting bat surveys shall be conducted by a qualified biologist within 14 days prior to any tree removal. If no tree removal is proposed, no mitigation measures are necessary. If pre-construction surveys indicate that no roosts of special-status bats are present, or that roosts are inactive or potential habitat is unoccupied, no further mitigation is required. If roosting bats are found, exclusion shall be conducted as recommended by the qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by the qualified biologist. Two-step tree removal involves removal of all

branches that do not provide roosting habitat on the first day, and the next day cutting down the remaining portion of the tree. Once the bats have been excluded, tree removal may occur.

6.9 Worker Environmental Awareness Training

Construction crews must be aware of regulations and conditions that apply to the Project and specific resources in the Study Area. We recommend that the Project proponent implement the following measure to inform construction personnel of the regulations and conditions that apply to the Project:

- Prior to any dewatering, 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 training, 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 training; 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.

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Figures

Figure 1. Vicinity Map

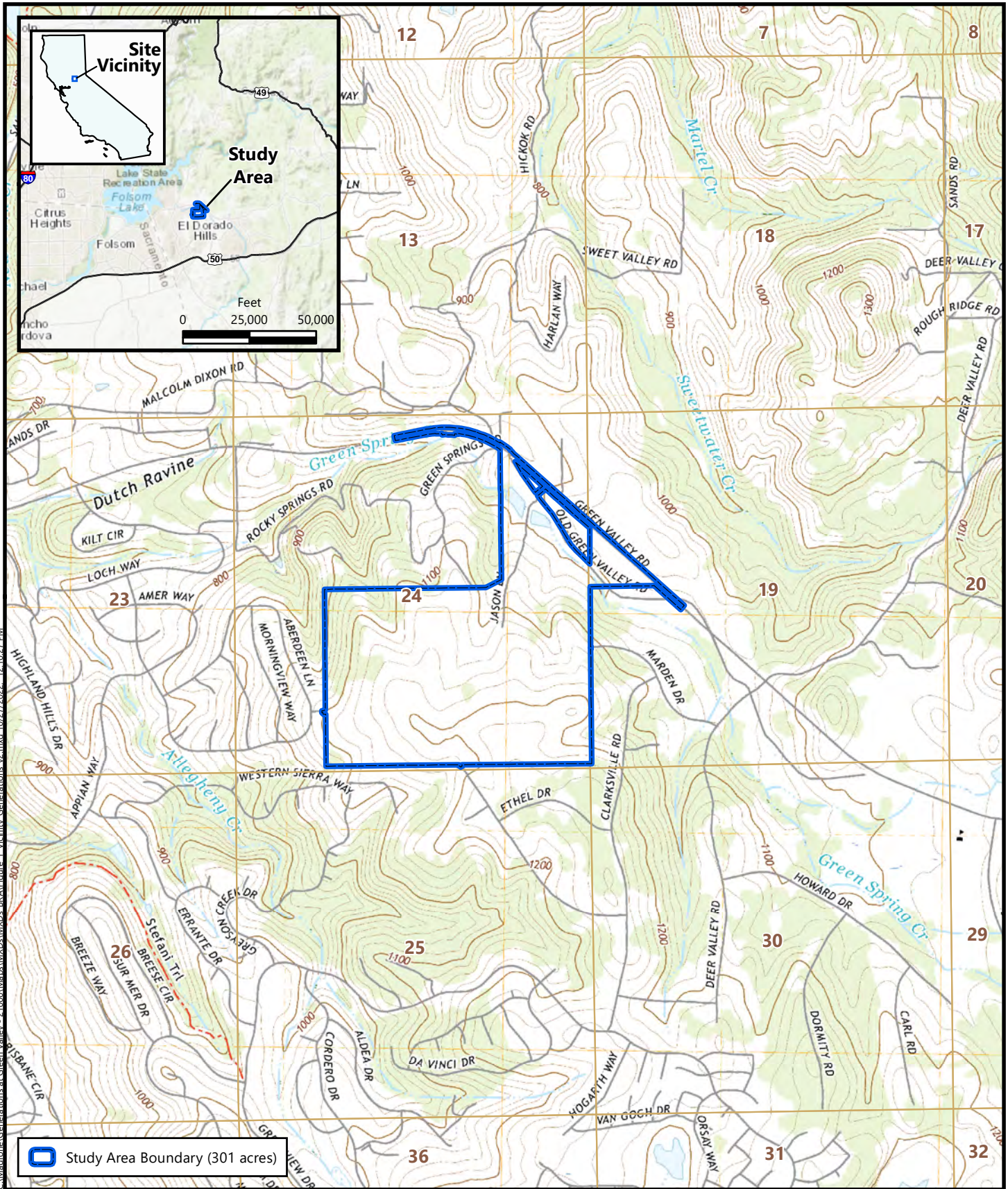
Figure 2. California Natural Diversity Database Occurrences of Special-Status Species – Plants

Figure 3. California Natural Diversity Database Occurrences of Special-Status Species – Wildlife

Figure 4. NRCS Soils

Figure 5. Aquatic Resources

Figure 6. Terrestrial Vegetation Communities in the Study Area



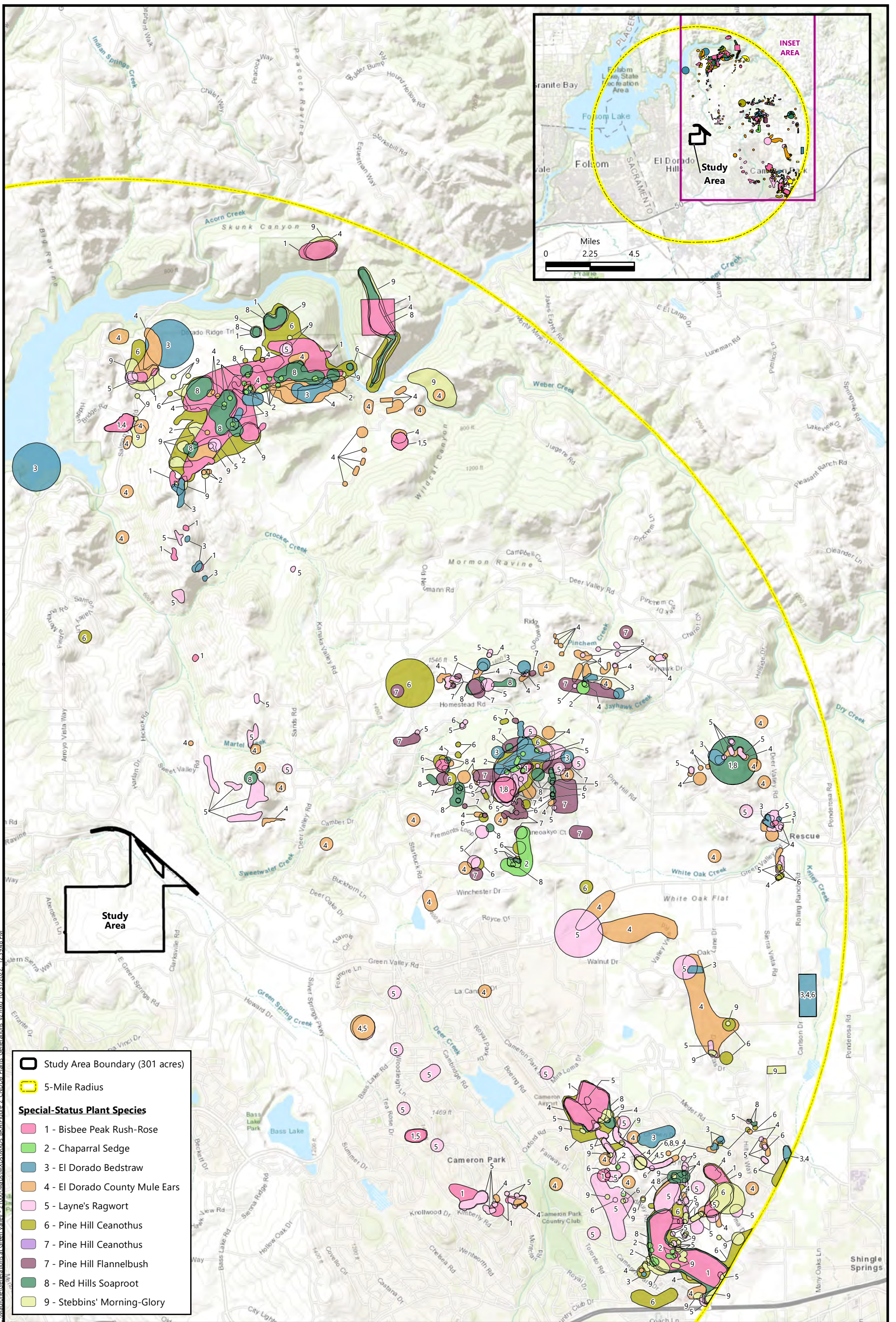
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Source: United States Geologic Survey, 2021.
 "Clarksville, California" 7.5-Minute Topographic Quadrangle
 Section 24, Township 10 North, Range 8 East, and
 Section 19, Township 10 North, Range 9 East, MDB&M
 Longitude -121.045879, Latitude 38.705875

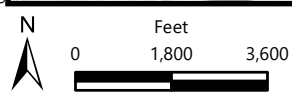
Figure 1
Vicinity Map

Generations at Green Valley
 El Dorado County, California





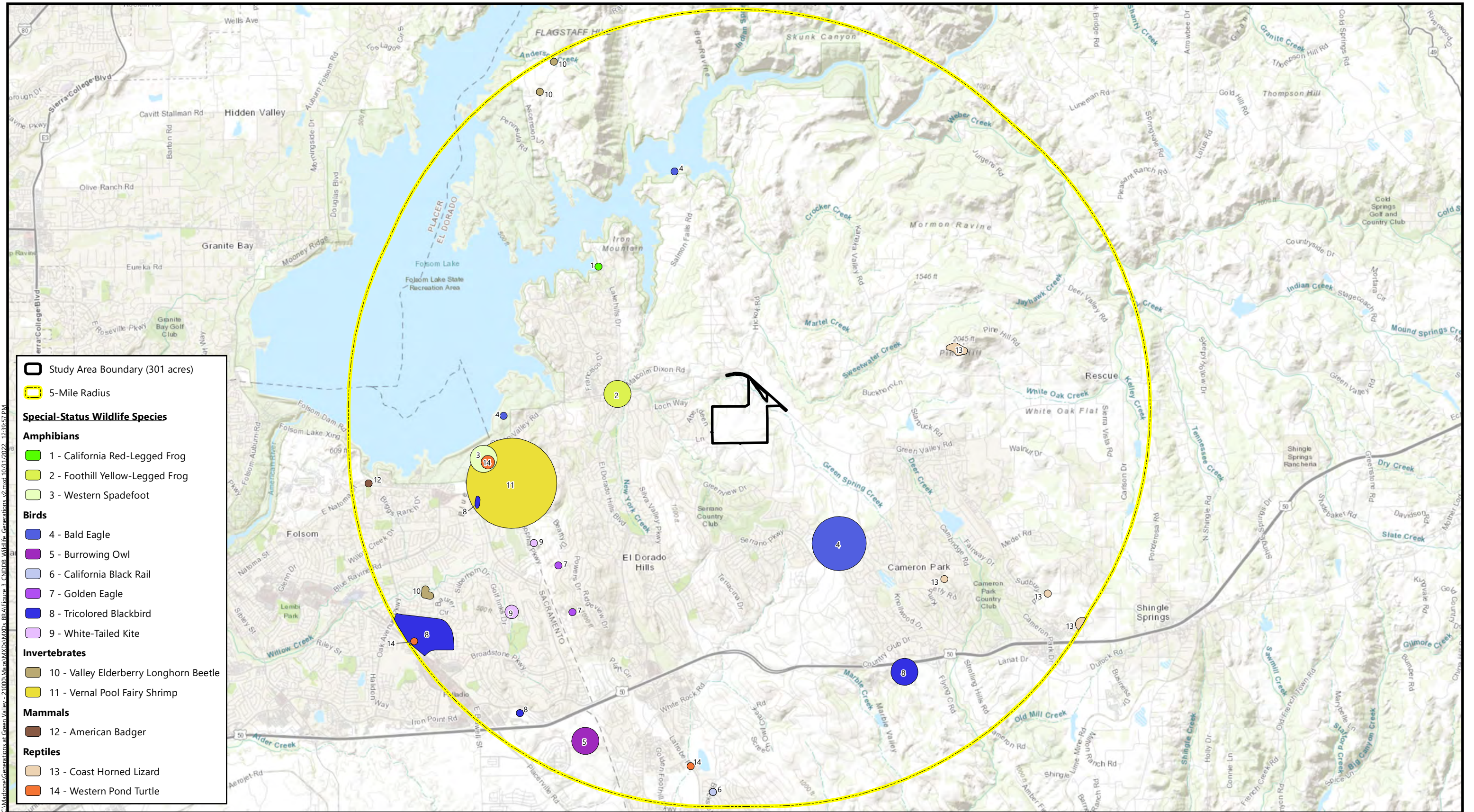
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Source: California Department of Fish and Wildlife, March 2022.
Basemap Source: National Geographic and ESRI

Figure 2
California Natural Diversity Database Occurrences of Special-Status Plant Species
 Generations at Green Valley
 El Dorado County, California





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Study Area Boundary (301 acres)
5-Mile Radius

Special-Status Wildlife Species

Amphibians

- 1 - California Red-Legged Frog
- 2 - Foothill Yellow-Legged Frog
- 3 - Western Spadefoot

Birds

- 4 - Bald Eagle
- 5 - Burrowing Owl
- 6 - California Black Rail
- 7 - Golden Eagle
- 8 - Tricolored Blackbird
- 9 - White-Tailed Kite

Invertebrates

- 10 - Valley Elderberry Longhorn Beetle
- 11 - Vernal Pool Fairy Shrimp

Mammals

- 12 - American Badger

Reptiles

- 13 - Coast Horned Lizard
- 14 - Western Pond Turtle

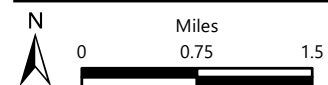
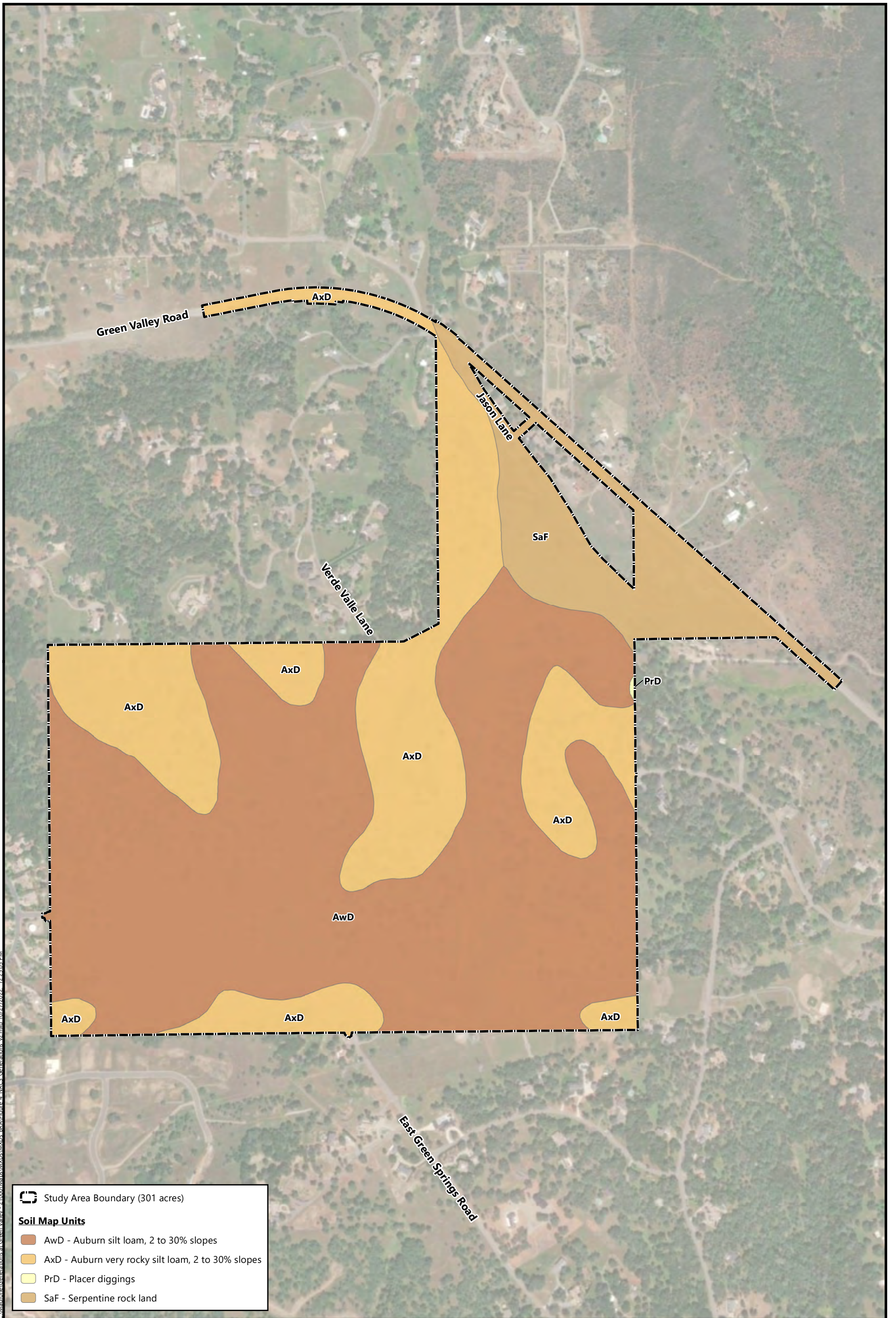


Figure 3
California Natural Diversity
Database Occurrences of
Special-Status Wildlife Species
Generations at Green Valley
El Dorado County, California



Source: California Department of Fish and Wildlife, March 2022.
 Basemap Source: National Geographic and ESRI



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Study Area Boundary (301 acres)

Soil Map Units

- AwD - Auburn silt loam, 2 to 30% slopes
- AxD - Auburn very rocky silt loam, 2 to 30% slopes
- PrD - Placer diggings
- SaF - Serpentine rock land

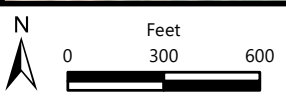
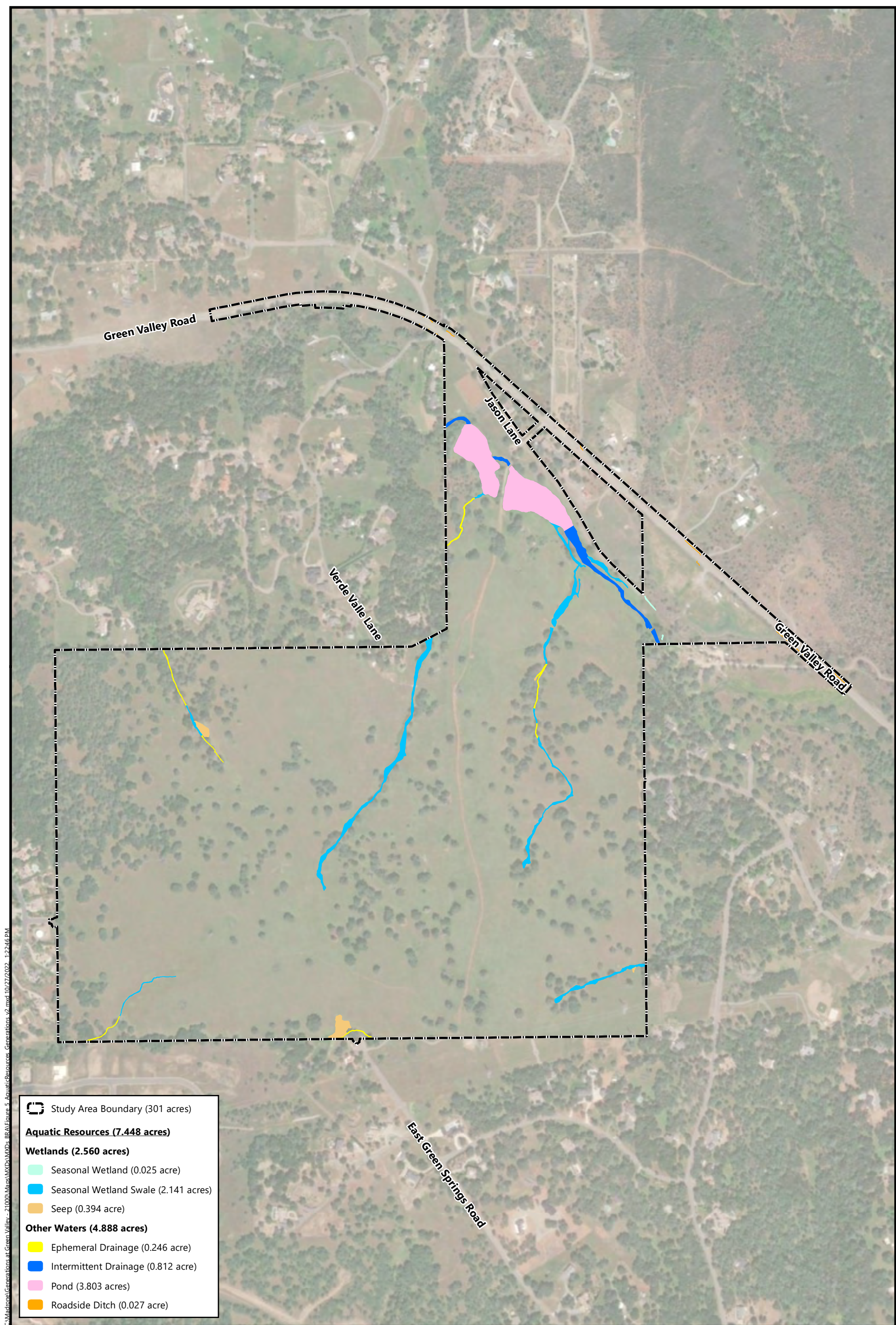


Figure 4
Natural Resources Conservation Service Soils

Soil Survey Source: USDA, Soil Conservation Service.
 Soil Survey Geographic (SSURGO) database for El Dorado Area, California
Aerial Source: Maxar, 1 May 2022.

Generations at Green Valley
 El Dorado County, California





C:\Madrone\Generations at Green Valley - 21000\Maps\MXD\BRAIN\Figure 5 - Aquatic Resources - Generations v9.mxd, 10/27/2022, 1:29:45 PM

- Study Area Boundary (301 acres)
- Aquatic Resources (7.448 acres)**
- Wetlands (2.560 acres)**
- Seasonal Wetland (0.025 acre)
- Seasonal Wetland Swale (2.141 acres)
- Seep (0.394 acre)
- Other Waters (4.888 acres)**
- Ephemeral Drainage (0.246 acre)
- Intermittent Drainage (0.812 acre)
- Pond (3.803 acres)
- Roadside Ditch (0.027 acre)

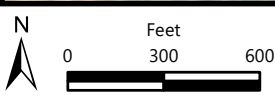
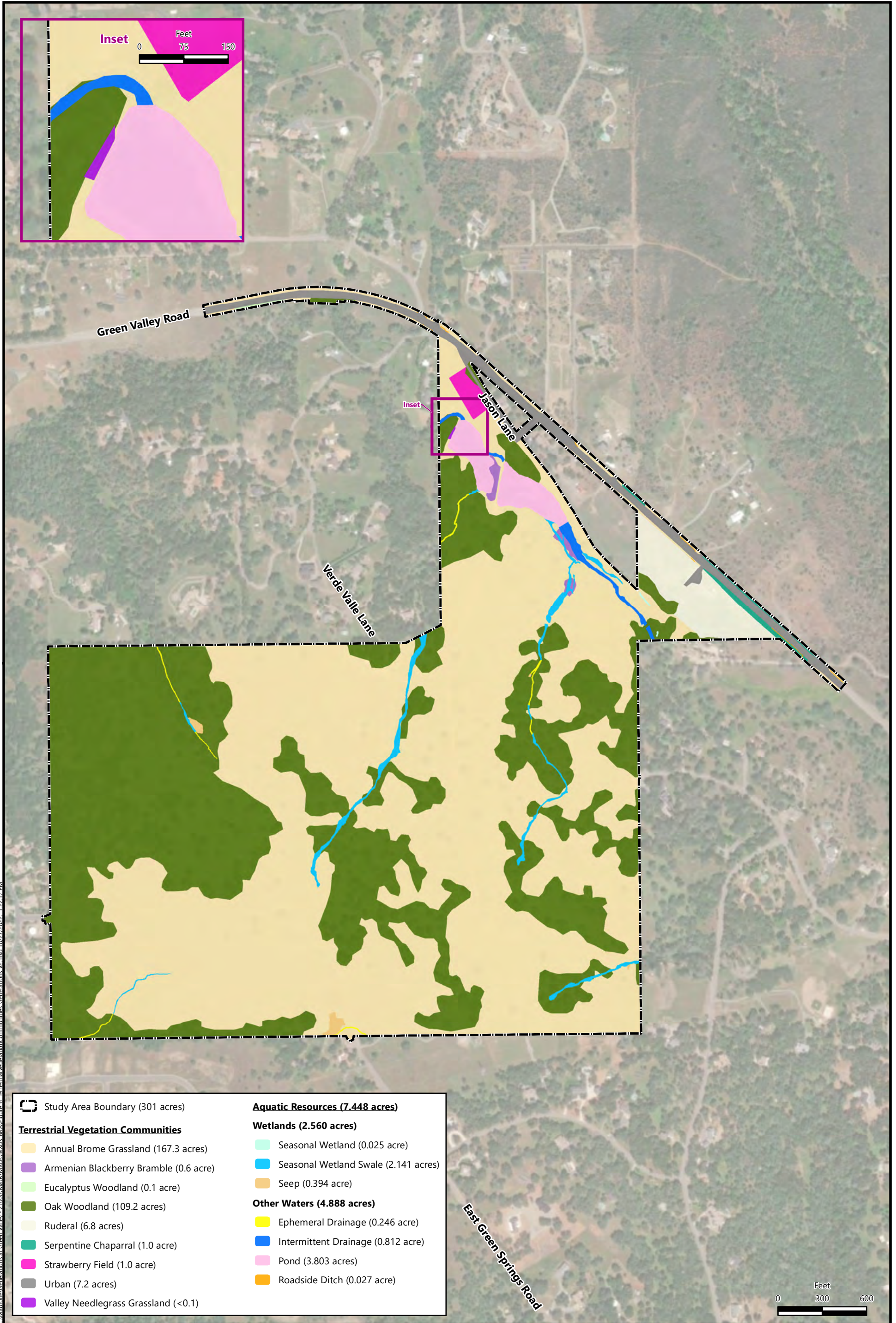


Figure 5
Aquatic Resources in the Study Area

Generations at Green Valley
El Dorado County, California





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Study Area Boundary (301 acres)	Aquatic Resources (7.448 acres)
Terrestrial Vegetation Communities	Wetlands (2.560 acres)
Annual Brome Grassland (167.3 acres)	Seasonal Wetland (0.025 acre)
Armenian Blackberry Bramble (0.6 acre)	Seasonal Wetland Swale (2.141 acres)
Eucalyptus Woodland (0.1 acre)	Seep (0.394 acre)
Oak Woodland (109.2 acres)	Other Waters (4.888 acres)
Ruderal (6.8 acres)	Ephemeral Drainage (0.246 acre)
Serpentine Chaparral (1.0 acre)	Intermittent Drainage (0.812 acre)
Strawberry Field (1.0 acre)	Pond (3.803 acres)
Urban (7.2 acres)	Roadside Ditch (0.027 acre)
Valley Needlegrass Grassland (<0.1)	



Note: Small summation errors may occur due to rounding.
Aerial Source: Maxar, 1 May 2022.

Figure 6
Terrestrial Vegetation Communities
in the Study Area

Generations at Green Valley
 El Dorado County, California



Potential Project Impacts			
Aquatic Resources Type	Permanent Impact	Avoided	Total Acreage
	(acres)	(acres)	
Seasonal Wetland	0.000	0.025	0.025
Seasonal Wetland Swale	0.000	2.141	2.141
Seep	0.000	0.394	0.394
Ephemeral Drainage	0.000	0.246	0.246
Intermittent Drainage	0.053	0.759	0.812
Pond	2.252	1.551	3.803
Roadside Ditch	0.001	0.026	0.027
Total Aquatic Resources:	2.306	5.142	7.448
Terrestrial Vegetation Communities	Permanent Impact	Avoided	Total Acreage
	(acres)	(acres)	
Annual Brome Grassland	106.0	61.3	167.3
Armenian Blackberry Bramble	0.3	0.3	0.6
Eucalyptus Woodland	0.0	0.1	0.1
Oak Woodland	54.6	54.6	109.2
Ruderal	0.5	6.3	6.8
Serpentine Chaparral	0.0	1.0	1.0
Strawberry Field	0.4	0.6	1.0
Urban	0.5	6.7	7.2
Valley Needlegrass Grassland	<0.1	0.0	<0.1
Total:	162.3	130.9	293.2

Note: Small summation errors may occur due to rounding.

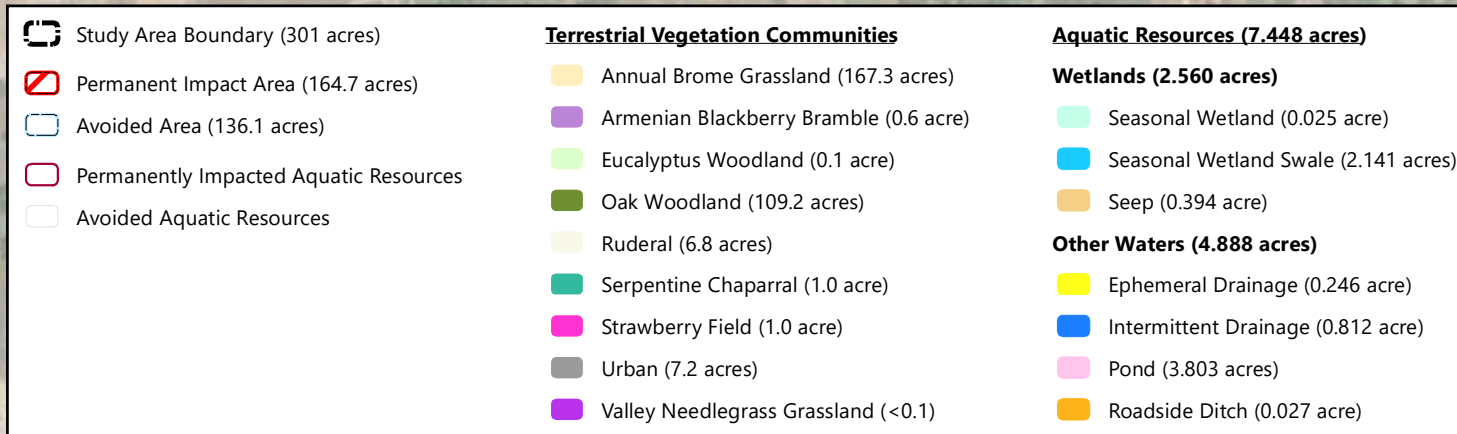
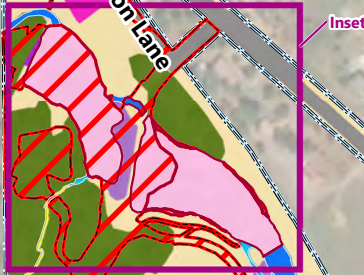
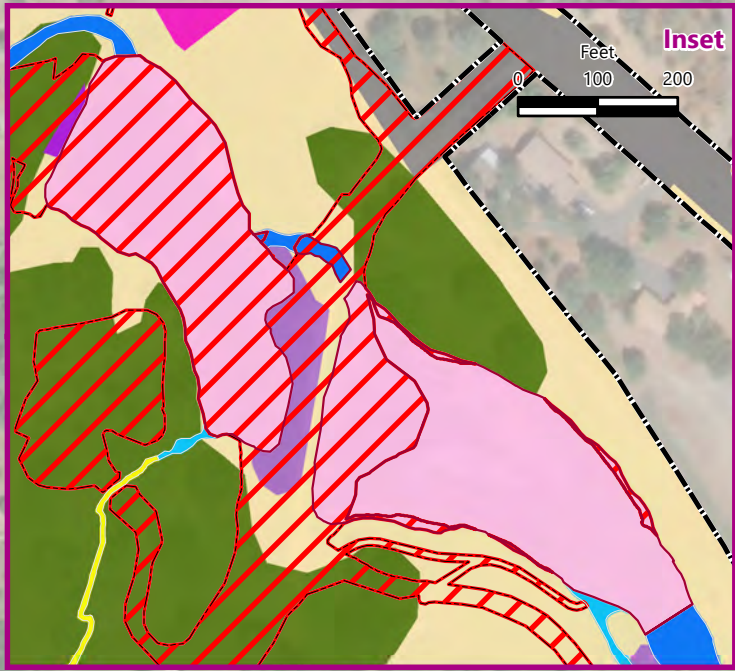


Figure 7
Potential Project Impacts

Note: Small summation errors may occur due to rounding.
Aerial Source: Maxar, 1 May 2022.

Generations at Green Valley
El Dorado County, California



Attachments

See portfolio files for individual attachments.

- Attachment A: Preliminary Grading and Drainage Plan
- Attachment B: IPaC Trust Resource Report for the Study Area
- Attachment C: CNPS Inventory of Rare and Endangered Plants Query for the "Clarksville, California" Quadrangle and Eight Surrounding Quadrangles
- Attachment D: Wildlife Species Observed within the Study Area
- Attachment E: Aquatic Resources Delineation Documentation
- Attachment F: Survey Results: California Red-Legged Frog and California Tiger Salamander
- Attachment G: Oak Woodland Assessment
- Attachment H: Special-Status Plant Survey Report