Appendix C
Biological Resources Reports

Biological Resources Constraints Report (November 2023)

DRAFT

CREEKSIDE VILLAGE

Biological Resources Constraints Report

Prepared for
Winn Communities

November 2023

ESA

DRAFT

CREEKSIDE VILLAGE

Biological Resources Constraints Report

Prepared for
Winn Communities

November 2023

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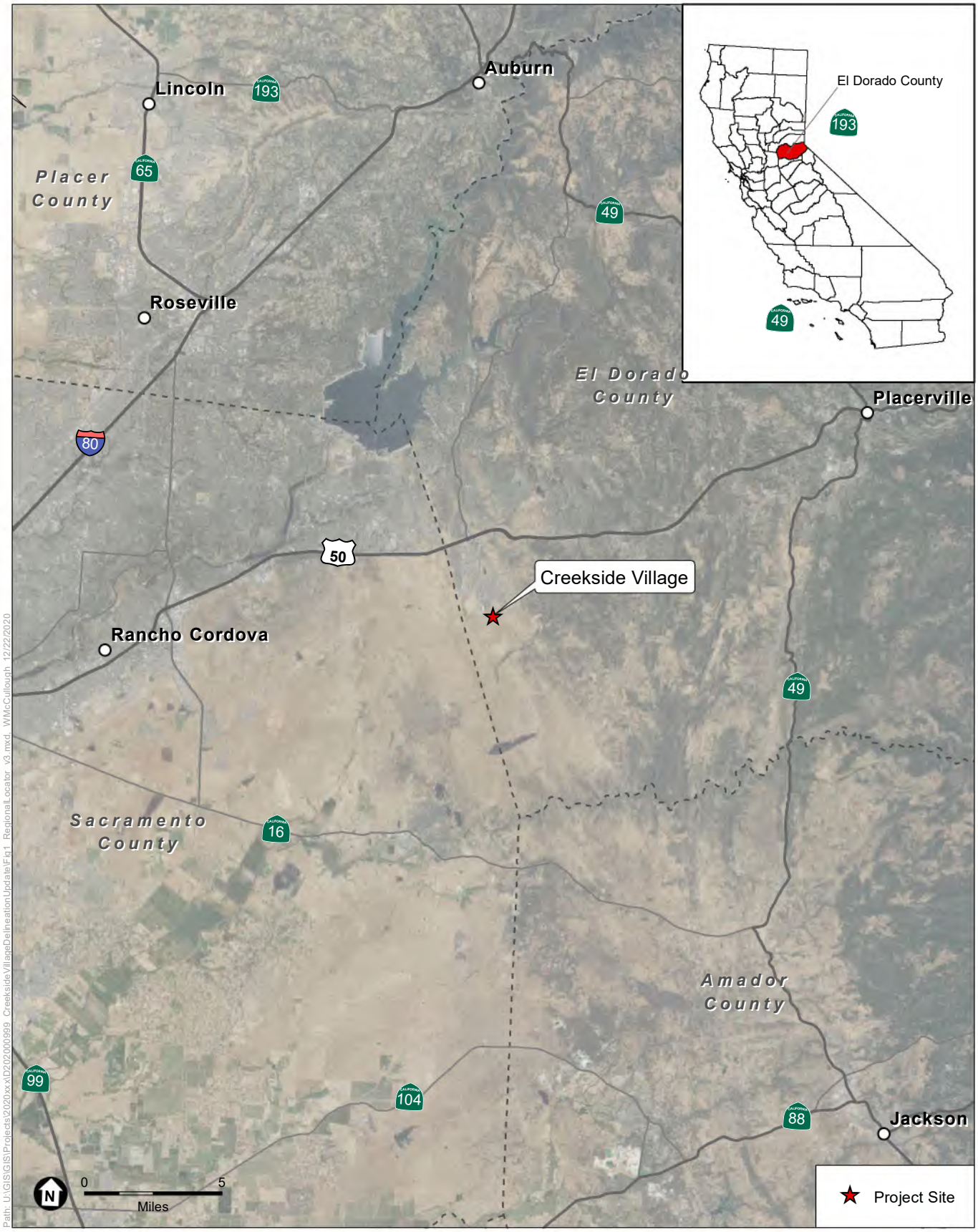
CREEKSIDE VILLAGE
Biological Resources Constraints Report

Introduction

This report analyzes biological resource constraints associated with the Creekside Village Project (project). The study area for this report comprises the main residential development project site and offsite locations including a sewer force main alignment along Latrobe Road and intersection improvements located in the unincorporated community of El Dorado Hills in western El Dorado County, California (**Figures 1** and **2**). The purpose is to document existing special-status biological resources on the project site as well as provide information on potential regulatory constraints associated with implementation of the proposed project. This report is intended to support the preparation of a California Environmental Quality Act (CEQA) environmental document and other regulatory compliance documents that may be needed.

This report identifies the existing biological resources at the project site; identifies the federal, state, and local regulations pertaining to biological resources within the region; and describes potential project impacts on those biological resources as well as mitigation measures to reduce project-related impacts. The information and analysis presented in this report is focused on special-status species,[1] wildlife habitats, vegetation communities, and aquatic resources that may qualify as waters of the U.S. or State. The results of the assessment presented in this report are based upon literature review and queries of the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDB), the U.S. Fish and Wildlife Service's (USFWS) list of federal endangered and threatened species, and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, as well as surveys conducted at the project site. Biological resources within the project site were identified through field reconnaissance surveys conducted in August 2019, December 2020, January 2021, and April 2022.

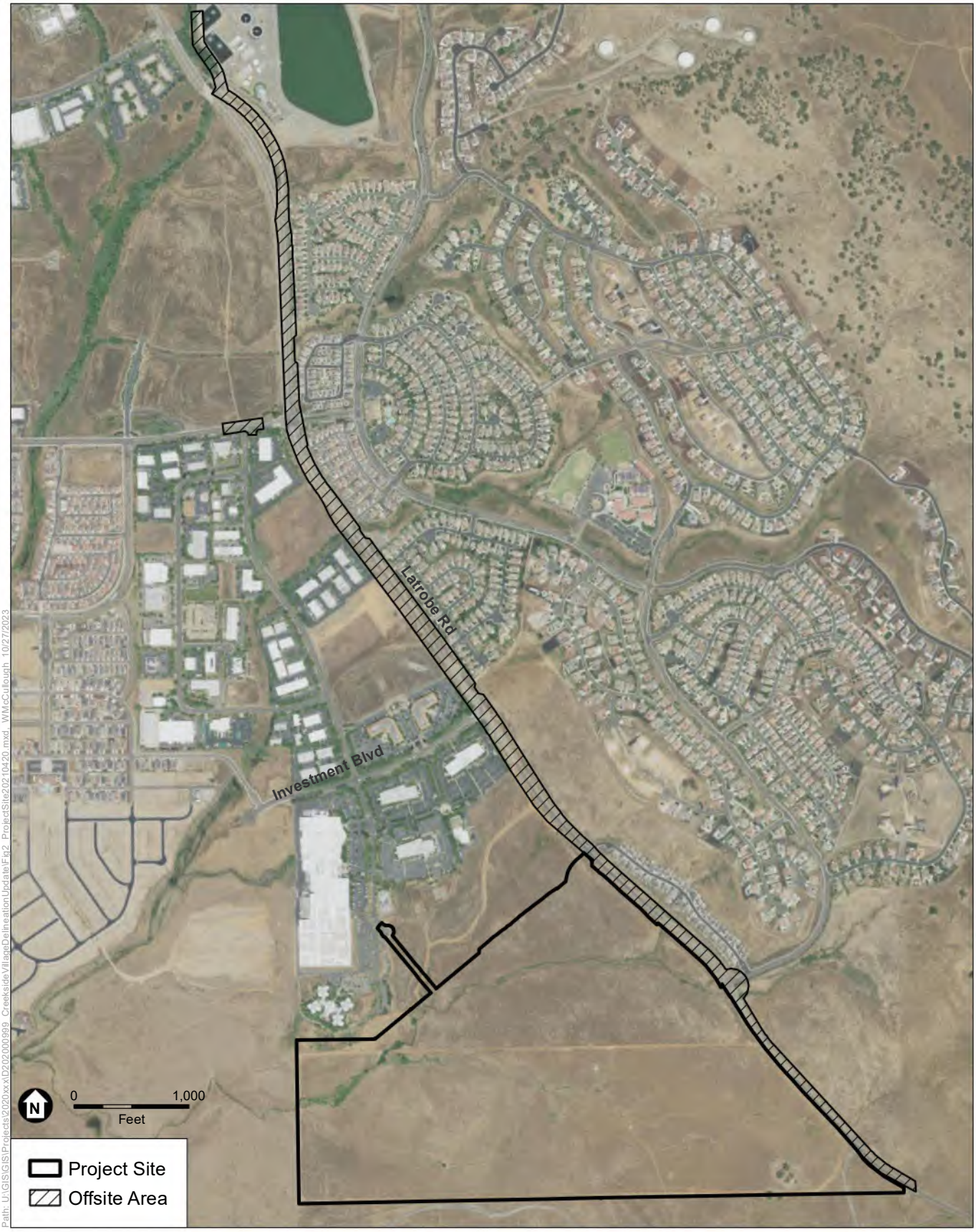
[1] Species that are regulated pursuant to federal or state endangered species laws, or have been designated as Species of Special Concern by the CDFW, or species that are not included on any agency listing but meet the definition of rare, endangered or threatened species of the CEQA Guidelines section 15380(b), are collectively referred to as "special-status species".



SOURCE: NAIP, 2018; ESRI, 2012; ESA, 2020

Creekside Village

Figure 1
Regional Location



SOURCE: NAIP, 2020; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 2
Project Site

Project Location

The project site is located in southwestern El Dorado Hills in western El Dorado County, just east of the City of Folsom, California. The main project area is located south of the intersection of Latrobe Road and Investment Boulevard and is on the Folsom SE, California U.S. Geological Survey (USGS) 7.5-minute series quadrangle. The project includes the installation of a sewer force main within the alignment of Latrobe Road extending approximately 1.8 miles north of the main project site to the El Dorado Hills Wastewater Treatment Plant.

Data Sources/Methodology

Biological resources within the project site were identified by ESA biologists Erich Fischer, Joshua Boldt, and Chuck Hughes through field reconnaissance surveys conducted on August 20, 2019, December 10, 2020, January 13, 2021, and April 19, 2022. Prior to the surveys, a review of pertinent literature and database queries was conducted for the project site. Database queries were updated to identify any changes. The primary sources of data referenced for this report include the following:

- Folsom SE and Clarksville, California USGS 7.5-minute topographic quadrangle maps;
- Google Earth color aerial photography for vegetative, topographic, and hydrographic signatures (Google Inc., 2021);
- USFWS list of federal endangered and threatened species that may occur in the proposed project location, and/or may be affected by the project (USFWS, 2023a) (see **Appendix A**);
- CNDDB (v 5.3.0) list of special-status species occurrences within the Folsom SE, California and eight surrounding USGS 7.5-minute topographic quadrangles (Folsom, Clarksville, Shingle Springs, Buffalo Creek, Latrobe, Sloughhouse, Carbondale, and Irish Hill) (CDFW, 2023a) (see Appendix A);
- CNPS Inventory of Rare and Endangered Plants (v9.5) known to occur within the Folsom SE, California and eight surrounding USGS 7.5-minute topographic quadrangles (CNPS, 2023) (see Appendix A);
- USFWS Critical Habitat for Threatened and Endangered Species (online mapping program) (USFWS, 2023b);
- National Wetlands Inventory (USFWS, 2021c);
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2023b); and
- CDFW Special Animals List (CDFW, 2023c).

During the biological surveys, ESA biologists walked meandering transects through the entire project site, spaced closely to obtain maximum visual coverage of the habitats present. Existing habitat types, plants, and wildlife species within and adjacent to the project site were recorded. Vegetation communities and wildlife habitats were identified and mapped using aerial photo interpretation and field reconnaissance. Prior to the field surveys, special-status species characteristics and habitat requirements were reviewed to aid in field recognition of suitable habitats. During the surveys, habitats were evaluated for their potential to support regionally

occurring special-status species and the presence of any other biologically sensitive resources such as wetlands, riparian habitat, or drainages. Based on the information collected, ESA identified specific biological constraints that could potentially be encountered by implementation of the proposed project.

Environmental Setting

Regional Setting

The project site is in western El Dorado County south of the community of El Dorado Hills. Regionally, the site is located in the Sierra Nevada foothills, just west of the Sierra Nevada Range, within the northern Sierra Nevada Foothills District of the California Floristic Province (Baldwin et al., 2012). Regional natural vegetation communities in the vicinity of the project site include those that are prevalent to the Sierra Nevada foothills, such as annual grasslands, blue oak woodlands, chamise chaparral, and mixed oak/foothill pine woodlands.

The overall climate in the region is Mediterranean in nature, which is characterized by hot, dry summers and cool, wet winters, with the bulk of precipitation occurring as rain in the winter months. The climate in the El Dorado Hills area is temperate with mean annual precipitation of 25.80 inches and mean annual temperatures ranging from a high of 74 to a low of 50 degrees Fahrenheit (Western Regional Climate Center, 2021). Topography throughout the project site drains generally from east to west and is characterized by rolling hills and slopes. The elevation within the project site ranges from approximately 476 feet in the west to 642 feet on a hill in the south.

Plant Communities and Wildlife Habitats

Wildlife habitats are generally described in terms of vegetation types along with landform, disturbance regime, and other unique environmental characteristics. Vegetation communities are assemblages of plant species that occur together in the same area, are repeated across landscapes, and are defined by species composition and relative abundance. Wildlife habitats generally correspond to vegetation communities. The wildlife habitat types described in this document were classified using the CDFW's *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988), a habitat classification scheme that was developed to support the CDFW's California Wildlife Habitat Relationship (CWHR) System. The CWHR System is a wildlife information system and predictive model for California's regularly-occurring wildlife species. The vegetation types described in this report were classified according to *A Manual of California Vegetation, 2nd Edition* (Sawyer et al., 2009). Within CDFW's current vegetation classification system, vegetation alliances are the scientifically derived hierarchical class that corresponds best with plant communities and are designed to be the unit for conservation of rare or threatened plant communities. Vegetation alliances typically represent a much finer scale of vegetation description than wildlife habitats, but correspond approximately with one or several wildlife habitat types. CDFW provides crosswalks to help correlate vegetation alliances with wildlife habitats and the descriptions below make use of the crosswalk. A description of each wildlife habitat type is presented below. Related vegetation alliances are listed following the wildlife habitat description and are based on the alliance descriptions presented by Sawyer, et al. (2009). Vegetation alliances considered a Sensitive Natural Community by CDFW are marked below by

an asterisk (*) and should therefore be considered a sensitive natural community under CEQA regulations. Plant nomenclature follows *The Jepson Manual: Vascular Plants of California (Second Edition)* (Baldwin et al., 2012) as revised by the Jepson eFlora (Jepson Flora Project, 2023). Common names of plant species are derived from the Jepson Manual or Calflora (2023). **Table 1** and **Figure 3** summarize the extent of wildlife habitats that occur within the project site.

TABLE 1
HABITAT TYPES

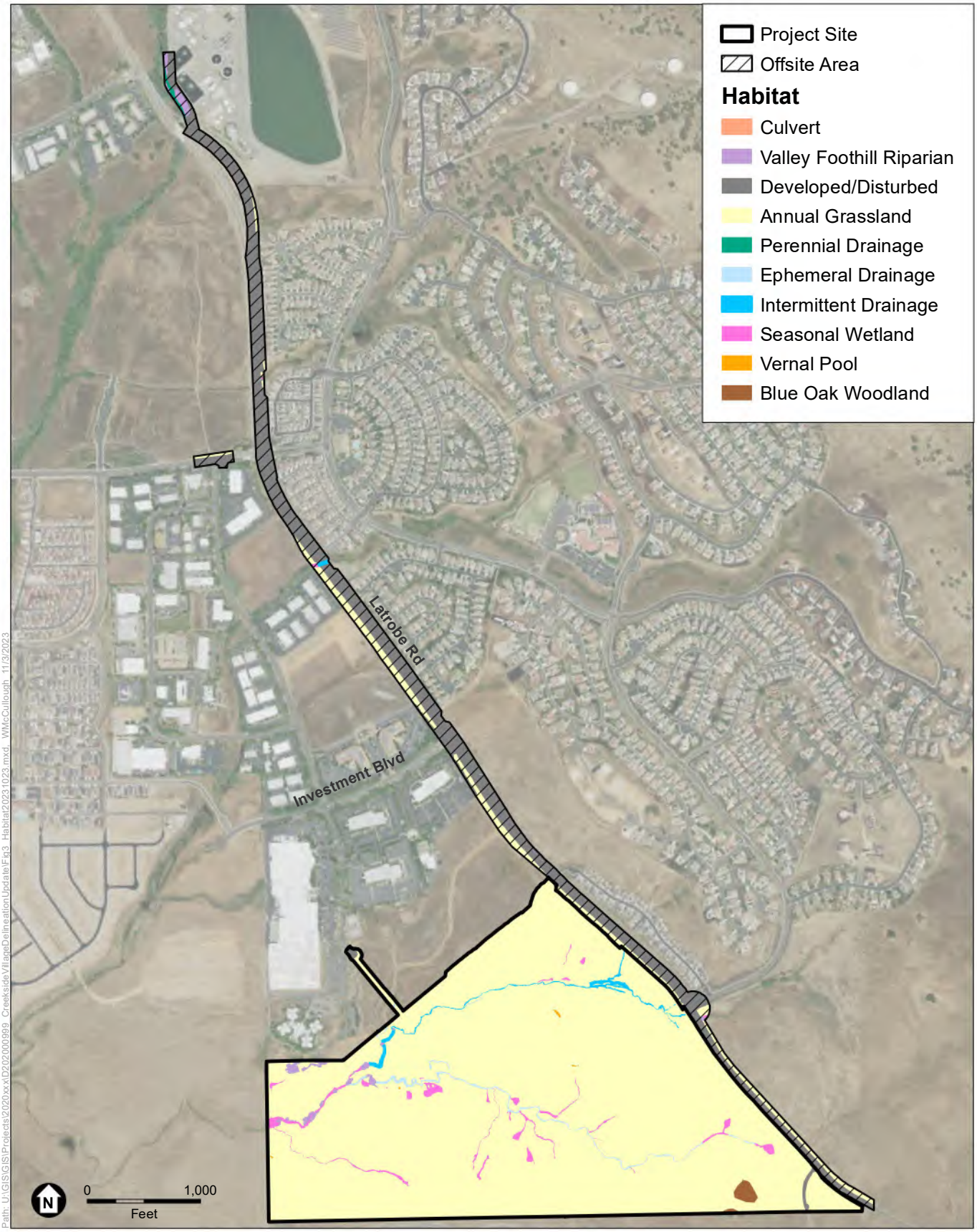
Habitat Type	Total Area (acres)	Offsite Area (acres	Project Site (acres)
Annual Grassland	208.85	7.26	201.59
Blue Oak Woodland	0.75	-	0.75
Culvert (Riverine)	0.04	0.04	<0.01
Developed/Disturbed	29.49	28.95	0.54
Ephemeral Drainage (Riverine)	1.32	<0.01	1.31
Intermittent Drainage (Riverine)	1.20	0.09	1.12
Perennial Drainage (Riverine)	0.30	0.30	-
Seasonal Wetland (including Seep, Wetland Swale, Riverine Seasonal Wetland, and Seasonal Wetland)	2.82	0.09	2.73
Valley Foothill Riparian	1.52	0.50	1.02
Vernal Pool	0.07	-	0.07
Total	**246.35**	**37.23**	**209.12**

NOTE: Total may not sum due to rounding.
SOURCE: ESA, 2023

Terrestrial Habitats

Annual Grassland

Annual grassland, the most abundant habitat type in the project site, is an annual herbaceous plant community characterized mostly by naturalized annual grasses. In the project site, annual grassland is dominated by naturalized herbaceous annual grasses and forbs, with smaller patches with relatively high proportions of native grasses and forbs. The most abundant species in this community include non-native grasses such as wild oats (*Avena barbata, A. fatua, A. sativa*), bromes (*Bromus diandrus, B. hordeaceus*), barleys (*Hordeum marinum* subsp. *gussoneanum, H. murinum*), and fescues (*Festuca myuros, F. perennis*); non-native weedy herbaceous species including yellow star-thistle (*Centaurea solstitialis*), tall sock-destroyer (*Torilis arvensis*), Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), vetch (*Vicia villosa*, *V. sativa* subsp. *sativa*), California burclover (*Medicago polymorpha*), broad-leaf filaree (*Erodium botrys*), black mustard (*Brassica nigra*), and shortpod mustard (*Hirschfeldia incana*); and native herbaceous species such as narrow tarplant (*Holocarpha virgata* subsp. *virgata*), yarrow (*Achillea millefolium*), and spikeweed (*Centromadia fitchii*). The native perennial purple needle grass (*Stipa pulchra*) was observed in the project site, but was not present in sufficient density to be considered a separate habitat.



SOURCE: NAIP, 2020; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 3
Habitat

Annual grassland contains a mosaic of important wildlife habitat features that may provide cover, foraging, and breeding habitat for a variety of wildlife species. Common wildlife species that use annual grassland include western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus californicus*), western meadowlark (*Sturnella neglecta*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), and a variety of raptors such as northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*).

Vegetation Alliances

- *Avena* (*barbata, fatua*) (44.150.00) Wild oats grassland
- *Bromus* (*diandrus, hordeaceus*) (42.026.00) Annual brome grassland
- *Festuca perennis* (41.321.00) Perennial ryegrass fields

Blue Oak Woodland

There is small grove of blue oaks (*Quercus douglasii*) in the southeast corner of the site. Annual grassland is found in the understory of this grove and surrounds the grove on all sides. The grove is located on the top of a steep rise, approximately 100 feet above the rest of the site. The trees were generally in fair to good condition and ranged in size from 18 to 24 inches in diameter at breast height (DBH). Oak trees provide nesting and foraging habitat for many species, including acorn woodpecker (*Melanerpes formicivorus*), yellow-billed magpie (*Pica nuttalli*), and gray squirrel (*Sciurus griseus*).

Vegetation Alliances

- *Quercus douglasii* (71.020.00) Blue oak woodland

Developed/Disturbed

Developed portions of the project site include paved roads, sidewalks, parking lots, and associated infrastructure. These areas are paved or otherwise developed and generally lack natural vegetation. Vegetation associated with developed areas may consist of ornamental shrubs and trees or ruderal roadside vegetation. Disturbed areas include roadsides and other areas with continuous disturbance which limits the establishment of vegetation. Plant species adapted to frequent disturbance observed in the disturbed areas include: stinkwort (*Dittrichia graveolens*), Russian thistle (*Salsola tragus*), short-pod mustard (*Hirschfeldia incana*), and yellow starthistle (*Centaurea solstitialis*). Plant cover is extremely sparse; few individuals are established within the disturbed area. As such, no vegetation alliances correlate with the disturbed type.

Ornamental vegetation associated with developed areas provides marginal habitat for wildlife species. Species expected to occur in these areas include Brewer's blackbird (*Euphagus cyanocephalus*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), rock dove (*Columba livia*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Vegetation Alliances

- None

Wetland and Aquatic Habitats

Riverine

Riverine habitats are distinguished by ephemeral, intermittent, or continually running water, and occur in association with a variety of terrestrial habitats. Carson Creek, a perennial channel, is the largest riverine habitat feature within the study area. This feature flows year-round under typical climatic conditions. All features in the study area eventually drain to Carson Creek. The remaining drainage features in the study area are intermittent or ephemeral in nature and do not support flowing water year-round. Drainage features in the project site consist of perennial, intermittent, and ephemeral channels as well as man-made ditches and culverts. A perennial channel is a stream, or stream portion, that flows continuously during the calendar year. An intermittent channel has flowing water during certain times of the year, when precipitation or groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. In the project site, intermittent channels generally flow throughout the winter season and into the late spring or early summer. An ephemeral channel has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow. This habitat type also includes a man-made drainage ditch in the northwestern corner of the site. The shallow, graded ditch drains the adjacent parking lots to the north. Culverted portions of natural stream channels are also included in this habitat type. Irrigation runoff from developed areas may contribute flows to otherwise natural channels.

Vegetation Alliances

- None

Seasonal Wetlands

Seasonal Wetland/Seep/Wetland Swale/Riverine Seasonal Wetland

These habitat types are discussed collectively due to the similarities in their vegetation composition, substrate, and hydrologic conditions. These communities exhibit variable hydrologic conditions but annually pond surface water or maintain saturated soils at the ground surface for long enough each year to support facultative or obligate wetland plant species. These wetlands support ponded or saturated soil conditions during winter and spring and are typically dry through the summer and fall. Vegetation is characterized by both annual and perennial species including native and non-native grasses and forbs. Plant species found within these wetlands are adapted to withstand intermittent periods of inundation, and typically initiate growth as aquatic or semi-aquatic plants and transition to a dry-land environment as the wetlands dries. Upland grasses and forbs often establish after wetland species desiccate and features become dry. Within the project site, these wetlands occur in depressions, swales, drainages, seeps, or low areas within annual grassland habitat. These communities are dominated by Mediterranean barley (*Hordeum marinum* subsp. *gussoneanum*), rye grass (*Festuca perennis*), rabbitsfoot grass (*Polypogon monspeliensis*), curly dock (*Rumex crispus*), and common toad rush.

Wildlife species use seasonal wetlands for temporary water sources and cover. Species expected to occur in this habitat type are similar to those expected to occur in the annual grassland habitat

discussed above. Seasonal wetlands may also support invertebrate communities that thrive in inundated conditions as discussed below under venal pool.

Vegetation Alliances

- *Festuca perennis* (41.321.00) Perennial ryegrass fields

Valley Foothill Riparian

The vegetation of riparian habitats is quite variable and often structurally diverse. Usually, riparian habitat occurs along streambanks and lakeshores as a narrow, often dense grove of broad-leaved, winter deciduous trees with a subcanopy tree layer and an understory shrub layer. In the project site, characteristic species include Goodding's black willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), and red willow (*Salix laevigata*) trees in the overstory. The understory consists of sandbar willow (*Salix exigua*) and Himalayan blackberry (*Rubus armeniacus*), and a variety of grasses and forbs, including miner's lettuce (*Claytonia perfoliata*) and rye grass.

All riparian habitats have an exceptionally high value for many wildlife species. Such areas provide water, thermal cover, migration corridors, and diverse nesting and feeding opportunities. The shape of many riparian zones, particularly the linear nature of streams, maximizes the development of the ecotone (a region of transition between two biological communities), which is highly productive for wildlife. A wide range of amphibians, reptiles, birds, and mammals utilize montane riparian habitat for food, cover, and reproduction.

Vegetation Alliances

- *Salix exigua* (61.209.00) Sandbar willow thickets (S4)
- *Salix gooddingii* (61.211.01) Goodding's willow thickets (S3)*

Vernal Pool

Vernal pools are seasonal wetlands that occur in grasslands. These wetlands are typically found in slight depressions that form over bedrock or hardpan soils that allow water to pool during winter and spring rains. Vernal pools typically have an impervious layer of silicate-based hardpan underlying them that prevents water from percolating into the soil. Vernal pools are considered unique habitat and often support species that are endemic to vernal pools or other shallow pools in that particular geographic region. Vernal pool communities have been greatly reduced due to conversion of grasslands to agriculture or urban development. In the project site, vernal pools are dominated by species common to vernal pools including coyote-thistle (*Eryngium castrense*), common toad rush (*Juncus bufonius*), and popcornflower (*Plagiobothrys* sp.).

Vernal pools support invertebrate communities that thrive in inundated conditions. Invertebrate species that potentially occur in vernal pools within the project site include common and special-status species such as clam shrimp (*Cyzicus californicus*), seed shrimp (*Cypria* sp.), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and several aquatic insects.

Vegetation Alliances

- *Eryngium castrense* (42.007.06) Coyote-thistle vernal pools (S2)*

Aquatic Resources

Wetlands are ecologically complex habitats that support a variety of plant and animal life. In a jurisdictional sense, the federal government defines wetlands in Section 404 of the Clean Water Act (CWA) as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b] and 40 CFR 230.3). Under normal circumstances, the federal definition of wetlands requires three wetland identification parameters be present: wetland hydrology, hydric soils, and hydrophytic vegetation. The U.S. Army Corps of Engineers (USACE) is the agency responsible for regulating wetlands under Section 404 of the CWA, while the U.S Environmental Protection Agency (USEPA) has overall responsibility for the CWA. "Other waters of the U.S." refers to those hydric features that are regulated by the CWA but are not wetlands (33 CFR 328.4). Examples of other waters of the U.S. include rivers, creeks, intermittent channels, ponds, and lakes.

These features may also be regulated at the state level, including the Porter-Cologne Water Quality Control Act, the State Wetland Procedures, and California Fish and Game Code Section 1600 et seq.

An aquatic resources delineation was conducted for the project site by ESA in August 2019 and January 2021 (ESA, 2023). The aquatic resources delineation identified 7.585 acres of aquatic resources within the study area. Nearly all of the area is expected to be subject to regulation under either the CWA (2.828 acres) or state of California regulations (7.567 acres), or both. Aquatic resources within the project site are summarized in **Table 2.** All aquatic resources and extent of potentially jurisdictional boundaries identified in this report are considered preliminary pending verification from the appropriate regulatory agencies. It should be noted that the delineation study area is larger than the combination of offsite and project site areas.

TABLE 2
AQUATIC RESOURCES

Habitat Type	Area (acres)
Seasonal Wetland (includes seep, seasonal wetland, riverine seasonal wetland, and wetland swale)	3.126
Riparian Wetland	1.251
Ephemeral Drainage (Riverine)	1.579
Intermittent Drainage (Riverine)	1.201
Perennial Drainage (Riverine)	0.297
Vernal Pool	0.071
Culvert (Riverine)	0.14
Ditch	0.014
Total	**7.585**

TABLE 2
AQUATIC RESOURCES

Habitat Type	Area (acres)

NOTE: Total may not sum due to rounding.

SOURCE: ESA, 2023

Sensitive Natural Community

A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, state, or federal agencies. Most sensitive natural communities are given special consideration because they perform important ecological functions, such as maintaining water quality and providing essential habitat for plants and wildlife. Some plant communities support a unique or diverse assemblage of plant species and therefore are considered sensitive from a botanical standpoint. CEQA may identify the elimination of such communities as a significant impact.

Sensitive natural communities include: (a) areas of special concern to federal, state, or local resource agencies; (b) areas regulated under Section 404 of the CWA; and (c) areas regulated under the Porter-Cologne Water Quality Control Act.

The CDFW's *California Natural Community List* (CDFW, 2023d) ranks vegetation alliances in California according to their degree of rarity imperilment (as measured by rarity, trends, and threats). All alliances are listed with a G (global) and S (state) rank. Alliances with state ranks of S1-S3 are considered of special concern by the CDFW, and all associations within them are also considered to be highly imperiled. CDFW guidance recommends all alliances with state ranks of S1-S3 be considered and analyzed under CEQA. The following alliances found on the project site are considered sensitive natural communities:

- *Eryngium castrense* (42.007.06) Coyote-thistle vernal pools (S2)*
- *Salix gooddingii* (61.211.01) Goodding's willow thickets (S3)*

Wildlife Movement Corridors

Wildlife movement corridors are considered an important ecological resource by various agencies (CDFW and USFWS) and under CEQA. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Topography and other natural factors, in combination with urbanization, can fragment or separate large open-space areas. Areas of human disturbance or urban development can fragment wildlife habitats and impede wildlife movement between areas of suitable habitat. This fragmentation creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely affect genetic and species diversity. Movement corridors mitigate the effects of this fragmentation by allowing animals to move between remaining habitats, which

in turn allows depleted populations to be replenished and promotes genetic exchange between separate populations.

The project site and surrounding area could potentially be used by a variety of wildlife species for dispersal and seasonal migration. However, there are no known wildlife movement corridors on the project site. The project site is not located in an "Important Biological Corridor" designated by the El Dorado County (2004) General Plan nor is it in important habitat for migratory deer herds (El Dorado County 2010).

Special-Status Species

Special-status species are regulated under the state and federal Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status species include:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations [CCR] 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- Animal species of special concern to CDFW;
- Animals fully protected under Fish and Game Code (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (State CEQA Guidelines, Section 15380); and
- Plants considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B, and 2 in CNPS, 2023) or that are included in El Dorado County Code §130.71.030.

A list of special-status species that have the potential to occur within the vicinity of the project site was compiled based on data contained in the CNDDB (CDFW, 2023), the USFWS list of federal endangered and threatened species that occur in or may be affected by the proposed project (USFWS, 2023a), and the CNPS Inventory of Rare and Endangered Plants (CNPS, 2023). A list of special-status species, their general habitat requirements, and an assessment of their potential to occur within and adjacent to the project site is provided below in **Table 3**.

The "Potential to Occur" categories are defined as follows:

- **Unlikely**: The project site and surrounding area does not support suitable habitat for a particular species and/or the project site is outside of the species known range;
- **Low Potential**: The project site and/or adjacent area provides only limited amounts and low quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate project vicinity;
- **Medium Potential**: The project site and/or adjacent area provides suitable habitat for a particular species; and
- **High Potential**: The project site and/or adjacent area provide ideal habitat conditions for a particular species and/or known populations occur in the within the project site and adjacent area.

Conclusions regarding habitat suitability and species occurrence are based on the analysis of existing literature and databases described previously and known habitats occurring within the project site and regionally. Database queries identified 56 special-status plant and wildlife species records. Of these, 43 species were eliminated from further consideration based upon a lack of suitable habitat in the project site and/or the project site being outside the known range of the species. Twelve special-status species have medium or high potential to occur in the project site. Only species classified as having a medium or high potential for occurrence were considered in the impact analysis.

Critical Habitat

Critical habitat is defined in Section 3(5)A of the federal Endangered Species Act as the specific portions of the geographic area occupied by the species in which physical or biological features essential to the conservation of the species are found and that may require special management considerations or protection. Specific areas outside of the geographic area occupied by the species may also be included in critical habitat designations upon a determination that such areas are essential for the conservation of the species.

There is no critical habitat designated within or adjacent to the project site.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Amphibians			
California tiger salamander pop. 1 *Ambystoma californiense*	FT/ST	Grassland, oak savanna, and edges of mixed woodland and lower elevation coniferous forest. Requires temporary breeding ponds to breed. Spends most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. Requires both suitable upland terrestrial habitat with mammal burrows for refuge and temporary breeding ponds in order to survive and reproduce. Found in the Central Valley and adjacent Sierra Nevada foothills up to 1,500 feet. The Cosumnes River marks the northern boundary of the species' range, with the exception of an isolated in the Dunnigan Hills in northern Yolo County.	**Unlikely.** Suitable habitat (seasonal wetlands, vernal pools, annual grassland) is present within the project site. However, the site is outside known species range; the project area is north of the Cosumnes River. There are no recorded observations of this species in the CNDDB within five miles.
Foothill yellow-legged frog pop. 5 *Rana boylii*	FE/SE	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg laying. Need at least 15 weeks to attain metamorphosis.	**Unlikely.** No suitable habitat is present for this species within the project site. There are no recorded observations of this species in the CNDDB within five miles.
California red-legged frog *Rana draytonii*	FT/SSC	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources: lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County.	**Low**. The drainages within the project site provide marginal habitat for this species. There are no recorded observations of this species in the CNDDB within five miles.
Western spadefoot *Spea hammondii*	--/SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools (typically in large complexes) are essential for breeding and egg-laying. Found in the Sierra Nevada foothills, Central Valley, Coast Ranges, and coastal counties in southern California.	**Low.** Isolated marginal aquatic habitat (discontinuous seasonal wetlands, vernal pools) is sparse and broadly distributed across the project site. Suitable upland habitat (annual grasslands) is present within project site, but the low density of aquatic habitat reduces the likelihood for the species to occur. There are no recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Birds			
Cooper's hawk *Accipiter cooperii*	MBTA/--	Typically found in woodlands, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains and live oaks.	**Low**. Some suitable foraging habitat, but only marginal nesting habitat as there are no densely wooded areas or large open water habitats present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Tri-colored blackbird *Agelaius tricolor*	--/ST	Highly colonial, most numerous in Central Valley and vicinity. Nests in cattails, tules, and blackberries large enough for at least 50 nesting pairs, usually over water. Requires foraging area with insect prey within a few kilometers of the colony. Forages in grassland and cropland.	**High.** There is a nesting colony at the project site in riparian wetland blackberry patches associated with an intermittent channel. There are numerous occurrences documented in the CNDDB to the south and west within five miles.
Grasshopper sparrow *Ammodramus savannarum*	--/SSC	Occurs in dry, dense grasslands, especially with scattered shrubs for sitting perches. A thick cover of grasses and tall forbs is essential for concealment. Nests are built of grasses and forbs in slight depressions in ground hidden by a clump of grasses or forbs. Loosely colonial when nesting.	**Medium.** Grassland in the project site is kept grazed and relatively low in stature. There are relatively few shrubs present in the grassland. There are no recorded observations of this species in the CNDDB within five miles.
Golden eagle *Aquila chrysaetos*	--/FP	Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals for prey. Foothills and mountains throughout California; uncommon nonbreeding visitor to lowlands such as the Central Valley.	**Low.** No nesting habitat is present within the project site. Could utilize annual grasslands for foraging. There are two recorded observations of this species in the CNDDB within five miles.
Great egret *Ardea alba* (nesting colony)	MBTA/--	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	**Unlikely.** No suitable rookery habitat is present for this species within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Great blue heron *Ardea herodias* (nesting colony)	MBTA/--	Colonial nester in tall trees, cliff sides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	**Unlikely.** No suitable nesting habitat is present for this species within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Burrowing owl *Athene cunicularia*	--/SSC	Nests and forages in open, dry, annual or perennial grasslands and scrublands characterized by low-growing vegetation. Subterranean nester dependent upon burrowing mammals, especially California ground squirrel (*Otospermophilus beecheyi*) for burrows. May also be found around golf courses, and disturbed/ruderal habitat in urban areas. Forages in open plains, grasslands, and prairies.	**High.** Suitable nesting and foraging habitat occurs in annual grasslands in the project site. There are four recorded observations of this species in the CNDDB within five miles, and there is an additional recent observation immediately west in the Carson Creek Specific Plan Area.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Ferruginous hawk *Buteo regalis*	MBTA/--	Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon and juniper habitats. Breeding habitat includes features such as cliffs, outcrops, and tree groves for nesting. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	**Low.** Suitable foraging habitat is present but there is no nesting habitat for this species on the project site. There is one recorded observation of this species in the CNDDB within five miles.
Swainson's hawk *Buteo swainsoni*	--/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Nests in oaks or cottonwoods in or near riparian habitats. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations. Northern habitat summer range in California begins in central Tehama south to Kern County. Predominant breeding habitat is located in the Central Valley.	**Low.** No suitable nesting habitat is present on site; suitable foraging habitat is present within the annual grasslands. However, there are no recorded active nests within five miles of the project site. There are two recorded observations of this species in the CNDDB within five miles; however, both of these records are from 1992.
White-tailed kite *Elanus leucurus*	--/FP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Medium**. Suitable nest trees are present within the blue oak grove on site. Annual grassland in the project area provides foraging habitat for this species. There are three recorded observations of this species in the CNDDB within five miles.
Merlin *Falco columbarius*	MBTA/--	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands, deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country. Species does not breed in California; breeds in Alaska and Canada. Uncommon winter migrant from September to May.	**Low**. Open areas of the project site provide marginal foraging habitat for this species. There are no recorded observations of this species in the CNDDB within five miles.
Bald eagle *Haliaeetus leucocephalus*	--/SE,FP	Prefers oceans shores, lake margins, and rivers for both nesting and wintering. Most nests are within one mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**Unlikely**. Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
California black rail *Laterallus jamaicensis*	--/ST,FP	Found in salt, brackish, and freshwater marsh with dense vegetation for nesting habitat. Majority of population found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays; also found in freshwater marshes in the foothills of the Sierra Nevada.	**Unlikely**. Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Double-crested cormorant *Nannopterum auritum*	MBTA/--	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	**Unlikely**. Suitable nesting habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.

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Common Name *Scientific Name*	Listing Status USFWS/ CDFW/CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Bank swallow *Riparia riparia*	--/ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, and ocean to dig nesting hole.	**Unlikely**. Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Fish			
Delta smelt *Hypomesus transpacificus*	FT/SE	Open surface waters in the Sacramento/San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Found in Delta estuaries with dense aquatic vegetation and low occurrence of predators. May be affected by downstream sedimentation.	**Unlikely**. Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT/--	This evolutionary significant unit (ESU) enters the Sacramento and San Joaquin Rivers and their tributaries from July to May; spawning occurs from December to April. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays. Needs cool water with moderate size gravel for spawning and cover for rearing.	**Unlikely**. Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Invertebrates			
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Medium.** The seasonal wetlands and vernal pools within the project site provide suitable habitat for this species. There are three recorded observations of this species in the CNDDB within five miles.
Crotch bumble bee *Bombus crotchii*	--/SCE	Inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species and nests underground, often in abandoned rodent dens. The historic range includes much of southern California, the San Joaquin Valley, central coast range, Bay Area, and more limited areas elsewhere in northern California (The Xerces Society 2018).	**Unlikely**. The grassland may provide suitable habitat, but the site is outside the current range and there are no records in El Dorado County despite a relatively high sampling effort (The Xerces Society 2018). There are no recorded observations of this species in the CNDDB within five miles
Monarch butterfly *Danaus plexippus*	FC/--	Overwintering trees occur near the coast. Larvae feed on milkweed plants (*Asclepias* sp.) elsewhere.	**Low.** Narrow leaf milkweed plants were observed on the project site, but in low abundance. The project site provides limited habitat but is outside of known winter aggregation sites.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/--	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* subsp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**Unlikely.** No suitable habitat is present for this species within the project area. No elderberry shrubs were noted within the site during biological surveys conducted for the project. There are no recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	**Listing Status USFWS/ CDFW/CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Vernal pool tadpole shrimp *Lepidurus packardi*	FE/--	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**Medium.** The seasonal wetlands and vernal pools within the project site suitable marginal habitat for this species. There are five recorded observations of this species in the CNDDB within five miles.
Mammals			
Pallid bat *Antrozous pallidus*	--/SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky outcroppings for roosting, particularly near water. Roosts in rock crevices, buildings, and under bridges. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low.** No suitable roosting habitat is present in the project site; however, suitable foraging habitat is present in the annual grasslands. There are no recorded observations of this species in the CNDDB within five miles.
Fisher – West Coast DPS *Pekania pennanti*	--/SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning. Needs large areas of mature, dense forest.	**Unlikely**. Suitable habitat is not present within the project site.
American badger *Taxidea taxus*	--/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Low.** Suitable burrowing and foraging habitat occurs in annual grasslands in the project site; however, no burrows that could be utilized by this species were present. There are no recorded observations of this species in the CNDDB within five miles.
Reptiles			
Western pond turtle *Emys marmorata*	FPT/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg-laying. Populations extend throughout the coast and Central Valley of CA.	**Medium**. Suitable habitat is present in the intermittent stream and nesting habitat is present in adjacent uplands within the project site. There are four recorded observations of this species in the CNDDB within five miles.
Coast horned lizard *Phrynosoma blainvillii*	--/SSC	Frequents a wide variety of habitats; however, most common in lowlands along sandy washes with scattered low bushes. Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Needs open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of native ants.	**Unlikely**. Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Giant gartersnake *Thamnophis gigas*	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to sloughs, canals, and other small water-ways where there is a prey base of small fish and amphibians. Requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter. Utilizes upland habitats within 200 feet from aquatic habitats. This is the most aquatic of the garter snakes in California. Occurs in the Central Valley from Fresno County north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno.	**Unlikely**. Suitable habitat is not present within the project site. The project site is outside the range. There are no recorded observations of this species in the CNDDB within five miles.
Plants			
Jepson's onion *Allium jepsonii*	--/--/1B.2	Open, serpentine or volcanic slopes, flats. Blooms April- August. Elevation 300-600m.	**Unlikely.** Suitable habitat is not present within the project site. Site is outside elevation range of species. There are no recorded observations of this species in the CNDDB within five miles.
Ione manzanita *Arctostaphylos myrtifolia*	FT/--/1B.2	Acidic sandy or clay soils, chaparral, woodland. Blooms January – February. Elevation 70-770m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Stebbin's morning-glory *Calystegia stebbinsii*	FE/SE/1B.1	Chaparral. Blooms April – June. Elevation 185-1,090m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Chaparral sedge *Carex xerophila*	--/--/1B.2	Dry gabbro or serpentine soils in open forest, scrub, thicket edges, chaparral. Fruits March – June. Elevation 450-770m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Pine Hill ceanothus *Ceanothus roderickii*	FE/SR/1B.1	Rocky, gabbro-derived substrates, chaparral, oak/pine woodland. Blooms March – June. Elevation 260-630m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Red Hills soaproot *Chlorogalum grandiflorum*	--/--/1B.2	Serpentine or gabbro outcrops, open shrubby or wooded hills. Blooms May – June. Elevation 300-500m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Bisbee Peak rush rose *Crocanthemum suffrutescens*	--/--/3.2	Shallow soils on Ione formations within in chaparral. Blooms April – June. Elevation 100-700m.	**Unlikely.** Suitable habitat is not present within the project site. There are three recorded observations of this species in the CNDDB within five miles.

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REGIONAL SPECIAL-STATUS SPECIES

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Dwarf downingia *Downingia pusilla*	--/--/2B.2	Vernal pools, roadside ditches. Blooms March – May. Elevation up to 150m.	**Medium.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Starved daisy *Erigeron miser*	--/--/1B.3	Rocky sites. Blooms July – October. Elevation 1,900-2,300m.	**Unlikely.** Suitable habitat is not present within the project site. Site is outside elevation range of species. There is one recorded observation of this species in the CNDDB within five miles.
Ione buckwheat *Eriogonum apricum* var. *apricum*	FE/SE/1B.1	Clay soils on Ione formations. Blooms June – October. Elevation 80-200m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Irish Hill buckwheat *Eriogonum apricum* var. *prostratum*	FE/SE/1B.1	Clay soils on Ione formations. Blooms June – July. Elevation 90-120m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Tuolumne button-celery *Eryngium pinnatisectum*	--/--/1B.2	Vernal pools, swales, intermittent streams. Blooms May – August. Elevation 70-950m.	**Medium.** Suitable habitat present in the vernal pools, seasonal wetlands, swales and intermittent streams present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Pine Hill flannelbush *Fremontodendron decumbens*	FE/SR/1B.2	Gabbro outcrops in chaparral or pine woodland. Blooms April – July. Elevation 425-7 60m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
El Dorado bedstraw *Galium californicum* subsp. *sierrae*	FE/SR/1B.2	Oak pine, oak forests, chaparral. Blooms March – July. Elevation 100-500m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--/SE/1B.2	Shallow water, margins of vernal pools. Blooms April – September. Elevation up to 1,600m.	**Medium.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There is one recorded observation of this species in the CNDDB within five miles.
Parry's horkelia *Horkelia parryi*	--/--/1B.2	Chaparral or woodland. Blooms April – September. Elevation 80-1,070m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--/--/1B.2	Vernal pool margins, grassland swales, and gopher mounds. Fruits March – May. Elevation 30-90m.	**Medium.** Suitable habitat present in the vernal pools, seasonal wetlands, and swales present in the project site. There are no recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Legenere *Legenere limosa*	--/--/1B.1	Wet areas, vernal pools, ponds. Blooms March – June. Elevation up to 950m.	**Medium.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There is one recorded observation of this species in the CNDDB within five miles.
Pincushion navarretia *Navarretia myersii* subsp. *myersii*	--/--/1B.1	Vernal pools. Blooms April – May. Elevation 20-90m.	**Medium.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Slender Orcutt grass *Orcuttia tenuis*	FT/SE/1B.1	Vernal pools, often gravelly soils. Species requires prolonged inundation period. Species known from larger pools (>0.2 acre). Blooms May – October. Elevation 36-1,760m.	**Unlikely**. Although the project site supports vernal pool habitat, the vernal pools in the site are not large enough nor do they remain inundated long enough to support this species. There are no recorded observations of this species in the CNDDB within five miles.
Sacramento Orcutt grass *Orcuttia viscida*	FE/SE/1B.1	Vernal pools. Species requires prolonged inundation period. Species known from larger pools (>0.1 acre). Blooms April – July. Elevation up to 100m.	**Unlikely**. Although the project site supports vernal pool habitat, the vernal pools in the site are not large enough nor do they remain inundated long enough to support this species. There are no recorded observations of this species in the CNDDB within five miles.
Layne's ragwort *Packera layneae*	FT/SR/1B.2	Serpentine or gabbroic soils within openings in chaparral or woodlands. Blooms April – August. Elevation 200-1,085m.	**Unlikely.** Suitable habitat is not present within the project site. There are three recorded observations of this species in the CNDDB within five miles.
Sanford's arrowhead *Sagittaria sanfordii*	--/--/1B.2	Ponds, ditches. Blooms May – November. Elevation up to 300m.	**Low**. Most of the aquatic habitats do not inundate long enough to support this species. There is limited habitat in some of the aquatic habitats that receive warm-season irrigation runoff from nearby development. There is one recorded observation of this species in the CNDDB within five miles, but most records are in the Central Valley and not the foothills.
El Dorado County mule ears *Wyethia reticulata*	--/--/1B.2	Wooded slopes, chaparral, coniferous forest, clay or gabbroic soils. Blooms April – August. Elevation 150-630m.	**Unlikely.** Suitable habitat is not present within the project site. There are two recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site

STATUS CODES:

FEDERAL (U.S. Fish and Wildlife Service):

FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FPT = Federally proposed as Threatened
FC = Candidate for Federal Listing
MBTA = Migratory Bird Treaty Act (used when other designations absent)

STATE (California Department of Fish and Wildlife):

SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SCE = Candidate for state Listing
SSC = California species of special concern
CFP = California fully protected bird species

California Native Plant Society (CNPS):

Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
Rank 2A = Plants presumed extirpated in California but common elsewhere
Rank 2B = Plants rare, threatened, or endangered in California but more common elsewhere
Rank 3 = Plants about which more information is needed
Rank 4 = Plants of limited distribution

CNPS Code Extensions

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly threatened in California (20-80% occurrences threatened)
.3 = Not very threatened in California (less than 20% of occurrences threatened or no current threats known)

SOURCE: CDFW, 2023a; USFWS, 2023a; CNPS, 2023

Regulatory Framework

This subsection briefly describes federal, state, and local regulations, permits, and policies pertaining to biological resources as they apply to the proposed project. The project proponent would be required to abide by all applicable regulations and permit requirements in effect at the time of construction.

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) protects candidate, threatened, and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process. Procedures for addressing impacts to federally listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the FESA for all terrestrial species. The first pathway, Section 10(a) incidental take permit, applies to situations where a non-federal government entity must resolve potential adverse impacts to species protected under the FESA. The second pathway, Section 7 consultation, applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) enacts the provisions of treaties between the U.S., Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. Most actions that result in take or in permanent or temporary possession of a protected species constitute violations of the MBTA. Examples of permitted actions that do not violate the MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird banding, and other similar activities. USFWS is responsible for overseeing compliance with the MBTA.

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the U.S. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

Section 404

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the U.S. Waters of the U.S. refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands. Applicants must obtain a permit from the U.S. Army Corps of Engineers (USACE) for all discharges of dredged or fill material into waters of the U.S., including wetlands, before proceeding with a proposed activity. Waters of the U.S. are under the jurisdiction of the USACE and the USEPA.

Compliance with CWA Section 404 requires compliance with several other environmental laws and regulations. The USACE cannot issue an individual permit or verify the use of a general nationwide permit until the requirements of FESA and the National Historic Preservation Act have been met. In addition, the USACE cannot issue or verify any permit until a water quality certification or a waiver of certification has been issued pursuant to CWA Section 401.

Section 401

Under CWA Section 401, applicants for a federal license or permit to conduct activities which may result in the discharge of a pollutant into waters of the U.S. must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401.

State

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board and the Regional Water Quality Control Boards (RWQCBs) (together "Boards") are the principal state agencies with primary responsibility for the coordination and control of water quality. In the Porter-Cologne Water Quality Control Act

(Porter-Cologne), the Legislature declared that the "state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation..." (California Water Code section 13000).

Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the state. Waters of the state determined to be jurisdictional would require, if impacted, waste discharge permitting and/or a CWA Section 401 certification (in the case of a required USACE permit under Section 404). The enforcement of the state's water quality requirements is not solely the purview of the Boards and their staff. Other agencies (e.g., the CDFW under Section 5650 of the California Fish and Game Code) have the authority to enforce certain water quality provisions in state law.

State Wetland Dredge and Fill Policy

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (procedures), as prepared by the State Water Resources Control Board, was implemented on May 28, 2020. The procedures include a definition for wetland waters of the state that include (1) all wetland waters of the United States; and (2) aquatic resources that meet both the soils and hydrology criteria for wetland waters of the United States but lack vegetation.[2]

California Endangered Species Act

Under the California Endangered Species Act (CESA), CDFW has the responsibility for maintaining a list of endangered and threatened species.[3] Sections 2050 through 2098 of the California Fish and Game Code outline the protection provided to California's rare, endangered, and threatened species. Section 2080 of the California Fish and Game Code prohibits the taking of plants and animals listed under the CESA. Section 2081 established an incidental take permit program for state-listed species. CDFW maintains a list of "candidate species" which are species that CDFW formally notices as being under review for addition to the list of endangered or threatened species.

Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project site and determine whether the proposed project would have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. Under Section 86 of the California Fish and Game Code "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". "Take" of protected species incidental to otherwise lawful management activities may be authorized under California Fish and Game Code Section 206.591. Authorization from CDFW would be in the form of an Incidental Take Permit.

2 Less than 5 percent areal coverage at the peak of the growing season.

3 Section 2070 of the California Fish and Game Code.

California Fish and Game Code

Fully Protected Species

Certain species are considered *fully protected*, meaning that the code explicitly prohibits all take of individuals of these species except for take permitted for scientific research. Section 5050 lists fully protected amphibians and reptiles, Section 5515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.

It is possible for a species to be protected under California Fish and Game Code, but not fully protected. For instance, mountain lion (*Puma concolor*) is protected under Section 4800, et seq., but is not a fully protected species.

Protection of Birds and Their Nests

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any regulation made pursuant thereto. Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory non-game birds are protected under Section 3800, while other specified birds are protected under California Fish and Game Code Section 3505.

Stream and Lake Protection

CDFW has regulatory authority over streams and lakes and the wetland resources associated with these aquatic systems under California Fish and Game Code Sections 1600, et seq. through administration of lake or streambed alteration agreements. Under Sections 1600, et seq., of the California Fish and Game Code, CDFW has the authority to regulate work that will "substantially divert or obstruct the natural flow of, or 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 lake or stream." CDFW enters into a lake or streambed alteration agreement with the project proponent and can impose conditions in the agreement to minimize and mitigate impacts to fish and wildlife resources. Because CDFW includes under its regulatory authority streamside habitats that may not qualify as wetlands under the federal CWA definition, CDFW regulatory authority may be broader than USACE or water board jurisdiction.

Pursuant to the California Fish and Game Code, a project proponent must submit a notification of lake or streambed alteration to CDFW before construction. The notification requires an application fee for a lake or streambed alteration agreement, with a specific fee schedule to be determined by CDFW. CDFW can enter into programmatic agreements that cover recurring operation and maintenance activities and regional plans. These agreements are sometimes referred to as Master Streambed Alteration Agreements (MSAAs).

Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to

require permits for collecting, transporting, or selling such plants. CESA expanded on the original NPPA and enhanced legal protection for plants. CESA established threatened and endangered species categories, and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

California Rare Plant Ranking System

CDFW works in collaboration with the CNPS to maintain a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. These species are categorized by rarity in the California Rare Plant Ranking (CRPR) system. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CRPR species may receive consideration under CEQA review. The following identifies the definitions of the CRPR:

Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.

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

Rank 2A: Plants presumed extirpated in California, but more common elsewhere.

Rank 2B: Plants Rare, Threatened, or Endangered in California, but more common elsewhere.

Rank 3: Plants about which more information is needed - A Review List.

Rank 4: Plants of limited distribution - A Watch List.

Local

El Dorado County General Plan

Biological resources are addressed in the El Dorado County General Plan Conservation and Open Space Element. Applicable policies from the El Dorado County General Plan are listed below.

Conservation and Open Space Element

Policy 7.3.3.1: For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.

Policy 7.3.3.5: Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.

Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Policy 7.3.4.2: Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

Policy 7.4.2.1: The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.

Policy 7.4.2.2: The County shall continue to support the Noxious Weed Management Group in its efforts to reduce and eliminate noxious weed infestations to protect native habitats and to reduce fire hazards.

Policy 7.4.2.4: Protect and preserve wildlife habitat corridors within public parks and natural resource protection areas to allow for wildlife use. Recreational uses within these areas shall be limited to those activities that do not require grading or vegetation removal.

Policy 7.4.2.5: Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.

Policy 7.4.2.8: Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program (Program).

Policy 7.4.4.2: Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the conservation protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.4: For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.

Impacts and Mitigation Measures

Significance Criteria

The project would result in a significant impact on the environment if it would:

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

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

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

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

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

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

Impact Assessment Methodology

This section assesses the potential for the project to adversely change biological resources within the project site or in the adjacent area. The impact analysis focuses on foreseeable changes to the baseline condition and compares those changes to the significance criteria. Potential impacts are analyzed using information presented above regarding habitats present in the project site or adjacent area, and the potential occurrence of special-status species.

In the impact analysis, three principal factors were considered: (1) magnitude of the impact (e.g., substantial/not substantial); (2) uniqueness of the affected resource (i.e., rarity of the resource); and (3) susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource). The evaluation of the significance considered the interrelationship of these three factors. For example, a relatively small magnitude impact to a state or federally listed species would be considered significant if the species is exceptionally rare or believed to be highly susceptible to disturbance. Conversely, a plant community such as annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be necessary to result in a significant impact.

Impact Analysis

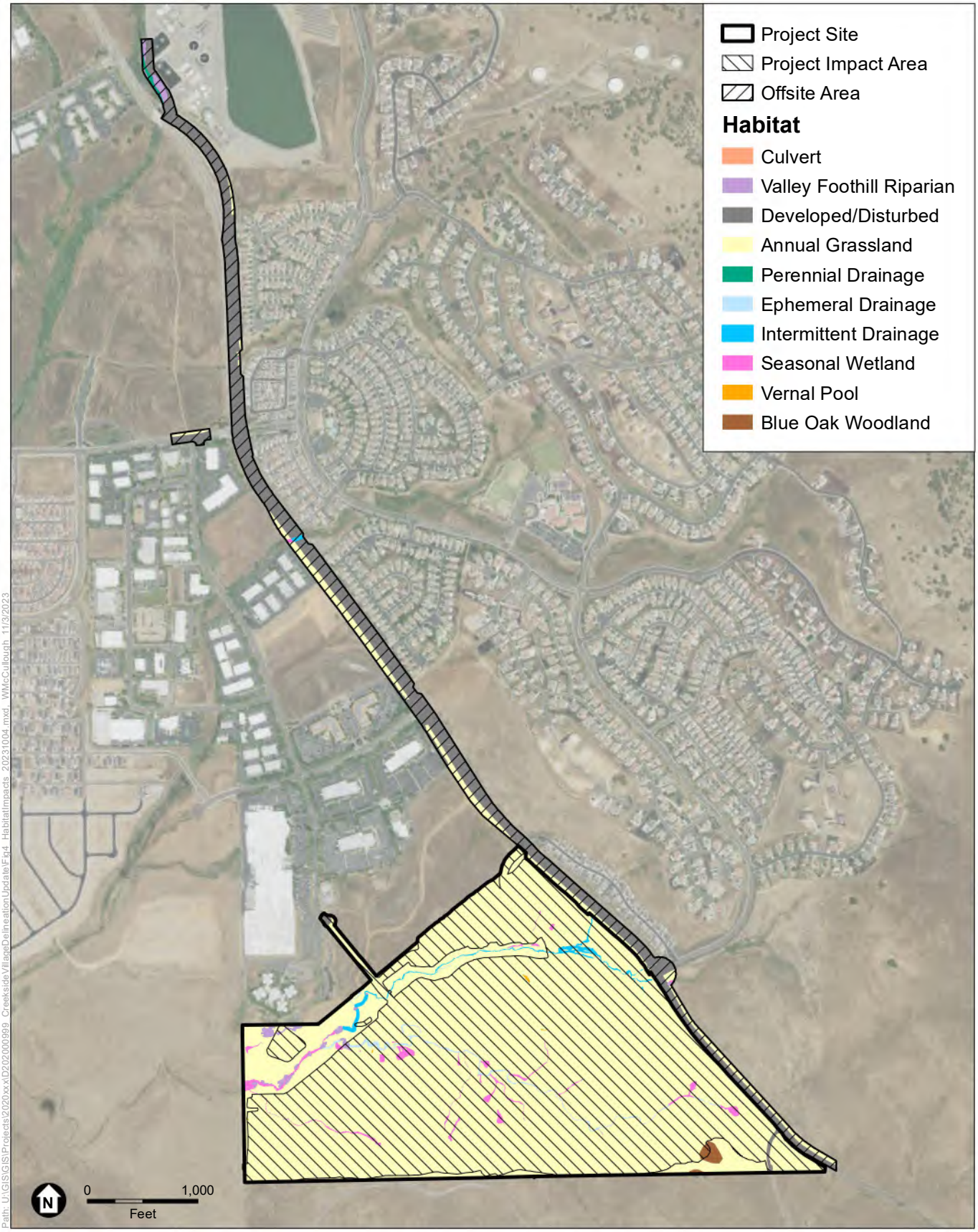
Habitat impacts are identified in **Table 4** and **Figure 4**. All of the offsite impacts will be in Latrobe Road or adjacent developed/disturbed areas, and those acreage impacts are not included.

TABLE 4
HABITAT IMPACTS

Habitat Type	Area (acres)
Annual Grassland	180.83
Blue Oak Woodland	0.20
Culvert	<0.01
Developed/Disturbed	0.54
Ephemeral Drainage (Riverine)	1.19
Intermittent Drainage (Riverine)	0.64
Seasonal Wetland*	2.01
Valley Foothill Riparian	0.11
Vernal Pool	0.07
Total Impacts	**188.59**

* Seasonal wetland includes seeps, riverine seasonal wetland, seasonal wetland, and wetland swale features.
Totals may not sum due to rounding.

SOURCE: ESA, 2023



SOURCE: NAIP, 2020; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 4
Habitat with Project Impact Areas

ESA

Impact Discussion

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

Less than Significant with Mitigation Incorporated. Special-status species and their habitats that may be affected either directly or indirectly through implementation of the proposed project are vernal pool fairy and tadpole shrimp, special-status birds, nesting raptors and migratory birds, western pond turtle, and special-status plant species. Each of these potentially affected species is described below.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Vernal pools and some seasonal wetlands in the project site provide suitable habitat for the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. Most of the waters and wetlands on the project site are not habitat for listed branchiopods because they are either riverine, flow-through channels, or they are sloped wetlands that do not pond water. Based on a field visit on December 10, 2020 the following features on the project site provide potential habitat for listed branchiopods:

- Vernal Pools (VP) 3 (0.012 acre) and 4 (0.038 acre) are naturally occurring vernal pools. VP 3 has been slightly altered by an adjacent bladed firebreak, but retains natural hydrology. There has been no disturbance to VP 4 or its small watershed. Both of these features were dry during the field visit.
- Vernal pool 5 (0.006 acre) may be naturally occurring, but its hydrology has been substantially altered. VP 5 is next to a drainage that receives runoff from a subdivision on the east side of Latrobe Road. Most of the homes in the subdivision have been built in the last six years. The drainage was flowing during the field visit, when other drainages at the site without developed watersheds were dry. VP 5 was full as a result of runoff from the adjacent drainage. VP 5 still appears to dry in the summertime based on vegetation and aerial photography and could still provide habitat for listed branchiopods.
- Vernal pool 1 (0.007 acre) and seasonal wetland (SW) 2 (0.062 acre) are deeper areas of naturally occurring swales. They are both along the western boundary of the site. A bladed firebreak has pushed soil across the swales, causing water to inundate during the wet season. VP 1 does not receive artificial runoff. SW 2 may receive some artificial runoff from nearby developed areas. Both features were dry during the field visit.

Together these five features comprise approximately 0.125 acre. USFWS would likely concur that these features are potential habitat for listed branchiopods. Other small seasonal wetlands, and one vernal pool (VP-2), were determined based on topography and vegetation to be too infrequently, if ever, inundated to support listed branchiopods. However, USFWS could also determine that some or all of these other wetlands are also potential habitat.

The project will result in impacts to habitat potentially occupied by vernal pool fairy and tadpole shrimp. Project grading will result in the loss of three features (VP 1-4), comprising 0.065 acre, that provide potential habitat.

USFWS considers potential impacts that may occur to vernal pool fairy and tadpole shrimp as a result of work within 250 feet of potential occupied habitat (USFWS, 1996). There is no potential occupied habitat within 250 feet of project grading based on field visits and a review of aerial photography.

The loss of 0.065 acre of potentially occupied habitat would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-1** and **BIO-4** through **BIO-7,** the project's impact to vernal pool fairy shrimp and vernal pool tadpole shrimp would be considered **less than significant**.

Special-Status Birds and Common Nesting Migratory Birds and Raptors

The project site and adjacent areas provide suitable habitats for nesting birds, including, but not limited to, special-status species such as tri-colored blackbird, grasshopper sparrow, burrowing owl, and white-tailed kite, as well as more common migratory birds and raptors.

Tri-colored Blackbird

Tri-colored blackbirds nest in colonies of hundreds to tens of thousands of individuals. Nesting colonies will often occur in the same location over many years, but colonies may also shift locations if nest failure occurs. There is a CNDDB record of a tri-colored blackbird nesting colony at the project site (CNDDB Occurrence #1012). This occurrence is associated with an intermittent channel and supports dense thickets of Himalayan blackberry and a few willows, which provide suitable habitat to support this colony. This colony was first documented in 2005 and totaled approximately 200 individuals. Approximately 1,200 to 5,000 individuals were noted in 2014, and approximately 1,900 individuals were observed in 2015, the last year for which information appears in CNDDB (CDFW, 2023a).

ESA conducted a site visit on April 19, 2022 to determine the current status of the tri-colored blackbird nesting colony. The results memo is in **Appendix B**. The nesting colony reported in CNDDB was observed in clusters of Himalayan blackberry in riparian wetlands during the survey. The blackberry shrubs are in the northwest corner of the project site. The colony is located approximately 400 feet from existing development. Tri-colored blackbirds were heard vocalizing and the distinct white band under the red shoulder was observed on several individuals of male blackbirds (this characteristic is only evident on males) in the colony. Several grass cup nests were observed in the blackberry shrubs and, combined with the presence of males vocalizing, confirmed tri-colored blackbird nesting activity. Tri-colored blackbirds exhibiting potential breeding behavior were watched for approximately 45 minutes. While individual nests were observed, the presence of eggs or young could not be confirmed. Due to the concurrent presence of numerous red-winged blackbirds (*Agelaius phoeniceus*), the similarity of

both species' nests, and the tangled nature of the blackberry nesting substrate, the approximate number of tri-colored blackbird nests could not accurately be estimated.

Project grading will result in the removal of approximately 0.06 acre of tri-colored blackbird nesting habitat (Riparian Wetland [RW] 11). In other portions of the colony the limits of grading will be approximately 15 to 100 feet away. Human disturbances and noise from construction activities have the potential to cause colony abandonment and death of young or loss of reproductive success during nesting season. Nesting birds could be adversely affected if the colony is exposed to a substantial increase in noise or human presence during project construction. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-2a**, **BIO-4**, and **BIO-6,** the project's impact to tricolored blackbird would be considered **less than significant**.

Tri-colored blackbird is threatened under the California Endangered Species Act (CESA). In the event that an incidental take permit is required under CESA, CDFW may require additional mitigation. CESA requires impacts to be "fully mitigated" (CA Fish and Game Code §2081(b)(2)), a threshold higher than CEQA requirements.

Burrowing Owl and Grasshopper Sparrow

Suitable annual grassland habitat for these species is present within the project site; however, no burrowing owls or grasshopper sparrows or active nests were observed during the biological surveys. Some soils within the project site are sandy and friable, which could provide suitable burrowing sites. While no soil mounds were visible during the field survey, surrounding fence posts would provide suitable perches above potential nests within the annual grassland habitat. The annual grassland habitat also provides suitable foraging habitat for these species.

Accordingly, the proposed project could potentially impact individual burrowing owls or grasshopper sparrows if they occupied the project site prior to construction. Indirect impacts to nesting birds during construction could extend up to 500 feet from the limits of construction. Potential impacts could include abandonment of nest sites and the mortality of young. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-2a**, **BIO-2b**, **BIO-5**, and **BIO-6,** the project's impact to burrowing owl and grasshopper sparrow would be considered **less than significant**.

The proposed project could also result in a permanent loss of foraging opportunities for these species in the project site. The loss of foraging habitat in the project site is not expected to significantly impact these species because these habitats are abundant in the vicinity.

Other Nesting Migratory Birds and Raptors

Suitable nest trees for white-tailed kite are located within and adjacent to the project site, and the annual grasslands provide suitable foraging habitat for this species. Habitat features

within the project site and adjacent areas, such as trees, shrubs, and herbaceous plants, could serve as nesting habitats or foraging areas for common migratory birds and raptors.

Construction of the project would result in the removal of vegetation which may serve as perching or nesting sites for special-status species and more common migratory birds and raptors. Direct impacts on special-status birds, nesting raptors, or migratory birds or their habitat could result in substantial lowered reproductive success or habitat loss, thereby potentially adversely affecting local population levels. Additionally, human disturbances and noise from construction activities have the potential to cause nest abandonment and death of young or loss of reproductive success at active nests located near project activities. Birds could be adversely affected if active nesting, roosting, or foraging sites are either removed or exposed to a substantial increase in noise or human presence during Project activities. Nesting birds and raptors are protected under California Fish and Game Code Section 2080 (i.e., killing of a listed species), Sections 3503, 3503.5, and 3800 (i.e., take, possession, or destruction of birds, their nests or eggs), and Section 3513 of the MBTA (16 USC, Section 703 Supp. I 1989).

The impact to nesting birds would be less than significant if construction activities occur during the non-breeding season (i.e., from September 16 through January 31). However, construction activities conducted during the breeding season between February 1 and September 15 could affect these species adversely and result in a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-2a**, **BIO-5**, and **BIO-6,** the project's impact to nesting birds would be considered **less than significant**.

Western Pond Turtle

Four CNDDB occurrences occur within five miles of the project site, with the nearest two occurrences (#1316 and 468) respectively from observations in 2016 in Carson Creek 0.5 mile west of the project and 1988 from Deer Creek where it crosses Latrobe Road 0.9 mile southeast of the project site. Suitable aquatic habitat for western pond turtle was determined to occur on the project site within the intermittent drainage when inundated and the annual grasslands near the drainage provide suitable upland nesting habitat. The proposed project has the potential to directly impact western pond turtle by causing physical harm to individuals or eggs if they are present in the project site during construction. Western pond turtle individuals could be harmed during construction fill and grading, which could crush individuals or occupied nests. Reductions in habitat quantity and quality could result from hydrological alterations related to culvert or bridge installation, grading, or through construction of impervious surfaces, which could prevent adults from utilizing the affected habitats for nesting. Reduction in water quality could also occur from the creation of exposed areas of bare soil. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-3** and **BIO-4** through **BIO-7,** the project's impact to western pond turtle would be considered **less than significant**.

Special-Status Plants

Suitable habitat for six special-status plant species was determined to occur on the project site (see Table 3) based on reconnaissance-level surveys conducted from 2019 through 2021. All of the six species may occur in vernal pools or seasonal wetlands with similar hydrology. A botanical survey was conducted according to agency protocol in April 2022 (**Appendix C**). The survey was conducted during the evident and identifiable period of special-status plants with potential to occur. The entire project site was included but extra effort was expended in vernal pools and wetlands where special-status plants were more likely to occur. No special-status plants were observed. The project will have **no impact** to special-status plants.

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

Less than Significant with Mitigation Incorporated. CDFW's *California Natural Communities List* (CDFW, 2023d) ranks vegetation alliances in California according to their degree of rarity imperilment (as measured by rarity, trends, and threats). All alliances are listed with a G (global) and S (state) rank. Alliances with state ranks of S1-S3 are considered of special concern by CDFW, and all associations within them are also considered to be highly imperiled. The following vegetation alliances found within the Project site are considered of special concern by CDFW and should therefore be considered a sensitive natural community under CEQA regulations:

- *Eryngium vaseyi* (42.007.06) Coyote-thistle vernal pools (state rank of S2)
- *Salix gooddingii* (61.211.01) Goodding's willow thickets (state rank of S3)

The project grading will remove approximately 0.11 acre of Goodding's willow thickets and 0.065 acre of coyote-thistle vernal pools. The removal of this habitat would result in a potentially significant impact on habitat types identified as sensitive natural communities by the California Department of Fish and Wildlife. Because these habitats are considered sensitive biological communities by CDFW and have substantial value to wildlife, loss would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-4** through **BIO-7,** the project's impact to sensitive habitats would be considered **less than significant**.

c) **Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less than Significant with Mitigation Incorporated. The project site supports wetlands and other waters that may be subject to USACE jurisdiction under Section 404 of the CWA and/or regulation under the Porter-Cologne Act, California Fish and Game Code Section 1600 et seq. and the State Wetland Dredge and Fill Policy. Section 404 of the

CWA requires that a permit be obtained from USACE prior to the discharge of dredged or fill materials into any "waters of the United States," which includes wetlands. Section 404 permits generally require mitigation to offset losses of these habitat types, in accordance with Executive Order 11990, which is intended to result in no net loss of wetland values or acres. These features may also be protected under state regulations, including the Porter-Cologne Act, California Fish and Game Code, and the State Wetland Dredge and Fill Policy.

Development of the proposed project would result in the loss of potentially jurisdictional wetlands and other waters of the U.S. or State protected waters/wetlands as summarized in **Table 5**.

These features would be directly affected through grading. The loss of wetlands and other waters of the U.S. or State protected waters/wetlands is considered **potentially significant** impacts. With the implementation of **Mitigation Measures BIO-4** through **BIO-7,** the project's impact to state or federally protect wetlands would be considered **less than significant**.

TABLE 5
SUMMARY OF IMPACTS TO AQUATIC RESOURCES

Aquatic Resource	Acres
Culvert	0.003
Ephemeral Drainage	1.190
Intermittent Drainage	0.641
Riparian Wetland	0.113
Riverine Seasonal Wetland	0.165
Seasonal Wetland	0.069
Seep	1.053
Vernal Pool	0.065
Wetland Swale	0.789
Total:	**4.088**

d) **Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Less than Significant with Mitigation Incorporated. The project site and surrounding area could potentially be used by a variety of wildlife species for dispersal and seasonal migration. However, there are no known wildlife movement corridors on or in the vicinity of the project site. The project site is not located in an "Important Biological Corridor" designated by the El Dorado County (2004) General Plan nor is it in important habitat for migratory deer herds (El Dorado County 2010). Because there are no known wildlife corridors or migration routes through or in the vicinity of the project site, the

project's impacts to wildlife corridors and migration routes would be **less than significant**.

As discussed above under Topic a), there is a nesting colony of tri-colored blackbird in a riparian wetland feature in the western section of the project site. Disturbance of active nest sites which results in nest abandonment, loss of young, or reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), or the direct removal of vegetation that supports nesting birds which result in killing of nestlings or fledgling bird species would be considered a **potentially significant** impact. In addition, this colony is considered a native wildlife nursery site. Therefore, construction activities that result in the removal of, or disturbance to, the colony, even outside of the nesting season, would be considered a **potentially significant** impact.

Project grading will result in the removal of approximately 0.06 acre of tri-colored blackbird nesting habitat (Riparian Wetland [RW] 11). In other portions of the nesting habitat the limits of grading will be approximately 15 to over 100 feet away. Human disturbances and noise from construction activities have the potential to cause colony abandonment and death of young or loss of reproductive success during nesting season. Nesting birds could be adversely affected if the colony is exposed to a substantial increase in noise or human presence during project construction. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-2a**, **BIO-5**, and **BIO-6,** the project's impact to native nursery sites would be considered **less than significant**.

e) **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Less than Significant. The project site supports 0.75 acre of blue oak woodland regulated under the El Dorado County Oak Resources Conservation Ordinance (County Code §130.39). Project grading will remove approximately 0.20 acre of the blue oak woodland. The County ordinance requires mitigation at a 1:1 ratio for projects that remove less than 50% of on-site oak woodland. Mitigation may be in the form of an in-lieu fee to the County (used to conserve oak woodland in high priority areas of the County pursuant to the El Dorado County [2017] Oak Resources Management Plan), offsite conservation, replacement planting, or a combination of those methods. The mitigation is included as part of a development application and approved by the County as part of the review process. The project will remove oak woodland, but will not conflict with the local ordinance because mitigation will be required as part of the local approval process. The project will not conflict with any other local policies or ordinances protecting biological resources.

f) **Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No impact. The proposed project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, Oak Woodland Priority Conservation Area (El Dorado County 2017), or Ecological Preserves Overlay (El Dorado County 2004). Therefore, there would be **no impact**.

Mitigation Measures

Mitigation Measure BIO-1: Compensate for the Loss of Habitat for Vernal Pool Species.

The Project shall purchase at least 0.12 vernal pool preservation credits (2:1 ratio for 0.065 acre of impacts) and 0.065 acre of vernal pool creation credits (1:1 ratio) at a conservation bank approved by USFWS for vernal pool fairy and tadpole shrimp with a service area including the Project, or at a conservation bank with a service area not including the Project upon further approval of USFWS. Proof of purchase shall be provided to USFWS and El Dorado County prior to the initiation of any Project construction within 250 feet of vernal pools 1, 3, or 4.

Mitigation Measure BIO-2a: Perform Pre-Construction Surveys for Nesting Special-Status and Common Migratory Birds.

If construction activities begin during the nesting season (February 1 to September 15), a qualified biologist (as approved by CDFW) shall conduct a preconstruction survey for active nests in suitable nesting habitat within 500 feet of the construction area for nesting raptors and migratory birds. Areas adjacent to the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. The survey shall be conducted by a qualified biologist no more than seven days prior to the onset of construction. If no active nests are identified during the pre-construction survey, no further mitigation is necessary. If construction activities begin prior to February 1, it is assumed that no birds would nest in the project site during active construction activities and no pre-construction surveys are required. If at any time during the nesting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.

If active nests are found during the survey, the project proponent shall implement mitigation measures to ensure that the nests would not be adversely affected, which would include establishing a no-work buffer zone, as approved by CDFW, around the active nest.

Measures shall include, but not be limited to:

a. If active nests are found on or within 500 feet of the project site, then the project proponent shall establish no disturbance buffers for active nests of 250 feet for migratory bird species and 500 feet for special-status species and raptor species, until the breeding season has ended, or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

b. Depending on conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined on a case-by-case basis), the nest(s) shall be monitored by a qualified biologist during any

construction activities within the buffer. If, in the professional opinion of the monitor, the project would impact the nesting birds or young, the biologist shall immediately inform the construction manager and the project proponent shall notify CDFW. The construction manager shall stop construction activities within the buffer until the nest is no longer active or a new buffer distance is agreed upon with CDFW. Completion of nesting and fledging activities shall be determined by a qualified biologist.

c. If construction begins outside of the breeding season (February 1 through September 15), then the project proponent is permitted to continue construction activities throughout the breeding season.

Mitigation Measure BIO-2b: Perform Pre-Construction Surveys for Burrowing Owl

1. Pre-construction surveys for burrowing owls shall be conducted by a qualified biologist (as approved by CDFW) prior to where construction is planned in known or suitable habitat and within 500 feet of the project site. Areas adjacent to the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. Surveys shall be conducted no more than 30 days and no less than 14 days prior to the commencement of construction activities. If construction activities are delayed for more than 30 days after the initial preconstruction surveys, then a new preconstruction survey shall be required. All surveys shall be conducted in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012). This mitigation shall be implemented by the project proponent.

2. If burrowing owls are discovered in project site during construction, the CDFW-approved project biologist shall be notified immediately. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: (1) the owls have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

3. If active burrows are observed within 500 feet of the project site, an impact assessment shall be prepared and submitted to the CDFW, in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012). If it is determined that project activities may result in impacts to nesting, occupied, and satellite burrows and/or burrowing owl habitat, the project proponent shall delay commencement of construction activities until the biologist determines that the burrowing owls have fledged and the burrow is no longer occupied. If this is infeasible, the project applicant shall consult with CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The mitigation plan shall be based on the requirements set forth in Appendix F of the *Staff Report on Burrowing Owl Mitigation* (CDFW, 2012). No construction can commence until CDFW has approved the mitigation plan.

Mitigation Measure BIO-3: Perform Pre-Construction Surveys for Western Pond Turtle and Monitoring of In-water Work

To minimize adverse impacts on western pond turtles and their habitat from project construction activities occurring within suitable habitat (intermittent stream and adjacent uplands), the project proponent and/or its contractor(s) shall implement the following

measure during construction activities that require in-water work or ground disturbance within 300 feet of aquatic habitat in uninterrupted upland habitat (or within suitable upland habitat [e.g., annual grassland or valley foothill riparian]) or suitable aquatic habitat to minimize adverse impacts on western pond turtles and their habitat:

- A qualified biologist shall be retained to conduct a pre-construction survey for western pond turtle in suitable upland and aquatic habitat within 300 feet of aquatic habitat (unless the qualified biologist reduces the distance) in or adjacent to the work area before the installation of dewatering and diversion devices. To prevent entrapment within the active work area, the biologist shall monitor any potential dewatering and/or diversion work to rescue and relocate western pond turtles and other native aquatic wildlife species from to suitable habitat outside the work area, consistent with USFWS and CDFW authorization.

- All equipment (e.g., buckets, boots, waders) that will contact water shall be sterilized in accordance with the CDFW Aquatic Invasive Species Disinfection/Decontamination Protocols (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92821) or current guidance.

Mitigation Measure BIO-4: No Net Loss of Aquatic Habitats

The project proponent shall demonstrate that there is no net loss of wetlands and other waters of the United States or State. To ensure this, wetland mitigation shall be developed as a part of the permitting process. Mitigation shall be provided prior to construction-related impacts to the existing waters/wetlands. The exact mitigation ratio would be determined in consultation with the applicable permitting agencies, which may include USACE, CDFW, and/or RWQCB. The amount of mitigation will be based on the type and value of the waters/wetlands affected by the project, and will be determined in consultation with the USACE, RWQCB, and/or CDFW during the regulatory permitting process. Compensation shall take the form of preservation or creation in accordance with USACE, RWQCB and/or CDFW mitigation requirements, as required under project permits. Preservation and creation may occur offsite through purchasing credits at a USACE, CDFW, and/or RWQCB-approved mitigation bank.

Mitigation Measure BIO-5: Conduct Environmental Awareness Training

Before any work occurs in the project site, including grading and equipment staging, all construction personnel shall participate in an environmental awareness training regarding special-status species and sensitive habitats present in the project site. If new construction personnel are added to the project, they must receive the mandatory training before starting work. As part of the training, an environmental awareness handout shall be provided to all personnel that describe and illustrates sensitive resources to be avoided during project construction.

Mitigation Measure BIO-6: Install Temporary Barrier Fencing, and/or Flagging to Protect Environmentally Sensitive Habitat Areas

Before any ground-disturbing activity occurs within the project site, the project proponent shall ensure that temporary orange barrier fencing is installed around the project site adjacent to sensitive habitat areas to be avoided, as appropriate. Construction personnel and construction activities shall avoid areas outside the fencing. The exact location of the

fencing shall be determined by the resident engineer coordinating with a qualified biologist, with the goal of protecting sensitive biological habitat and water quality.

The fencing material shall consist of temporary plastic mesh-type construction fence (Tensor Polygrid or equivalent) installed between the work area and environmentally sensitive habitat areas (i.e., waters of the U.S., special-status wildlife habitat, active bird nests), as appropriate. To minimize potential ground disturbance, the base of the fencing shall not be buried or keyed-in.

Installation of the barrier fence shall occur under the supervision of a qualified biologist. The temporary orange barrier fencing shall also be installed in a manner that is consistent with applicable water quality requirements contained within the project's Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). The fencing shall be shown on the final construction documents. The fencing shall be checked regularly and maintained until all construction is complete. No construction activity shall be allowed until this condition is satisfied.

Mitigation Measure BIO-7: Implement Best Management Practices to Protect Water Quality

Subject to requirements of Section 402 of the federal Clean Water Act, and the National Pollutant Discharge Elimination System (NPDES) permitting process, all construction projects that disturb more than one acre of land are required to prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP is incorporated into all project plans and specifications. The restoration construction contractor(s) will be required to post a copy of the SWPPP at the project location, file a notice of intent to discharge stormwater with the RWQCB, and implement all measures required by the SWPPP. A Qualified SWPPP Practitioner (QSP) will be responsible for construction monitoring to ensure that the provisions of the SWPPP are effectively enforced. In the event of noncompliance, the QSP will have the authority to shut down the construction site or fine the responsible party or parties.

The SWPPP will include the following information and Best Management Practices (BMPs).

- A description of site characteristics, including runoff and drainage characteristics and soil erosion hazard.
- A description of proposed construction procedures and construction-site housekeeping BMPs, including prohibitions on discharging or washing potentially harmful materials into roads or drainages.
- A description of BMPs that will be implemented for erosion and sediment control, including requirements to:
  - Conduct major construction activities involving excavation and spoils haulage during the dry season, to the extent possible.
  - Conduct all construction work in accordance with site-specific construction plans that minimize the potential for increased sediment inputs to surface waters.

  - Grade and stabilize spoils sites to minimize erosion and sediment input to surface waters and generation of airborne particulate matter.
  - Implement erosion control measures as appropriate to prevent sediment from entering surface waters to the extent feasible, including the use of silt fencing or fiber rolls to trap sediments.
  - Install fiber rolls, or other equivalent erosion and sediment control measures between the project site and aquatic resources, as necessary, to ensure that construction debris and sediment does not inadvertently enter these features. All areas of exposed soil shall be covered or otherwise stabilized 48 hours prior to potential precipitation events of greater than 0.5 inch. In addition, in order to minimize ground disturbance, fiber rolls or other equivalent control measures shall not be keyed-in or buried.
  - Immediately after project construction is complete, all exposed soil shall be stabilized. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix and planting native plants.
  - Fiber rolls, or other equivalent erosion and sediment control measures shall not be removed from the project site until vegetation has reestablished within all temporarily-impacted areas to at least 70 percent of pre-project vegetation cover conditions or better.
  - No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of aquatic resources.
  - All machinery used during construction of the project shall be properly maintained and cleaned to prevent spills and leaks that could contaminate soil or water.
  - Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.
  - Implement construction vehicle track-out controls. Restrict vehicle use to properly designated exit points and wherever construction vehicle entry/exit points intersect paved roads, provisions must be made to minimize the transport of sediment (mud) onto the paved road prior to the use of these access points.

- A Spill Prevention and Response Plan that identifies any hazardous materials to be used during construction; describes measures to prevent, control, and minimize spillage of hazardous substances; describes transport, storage and disposal procedures for these substances; and outlines procedures to be followed in case of a spill of a hazardous material. The Spill Prevention and Response Plan will require that hazardous and potentially hazardous substances stored onsite be kept in securely closed containers located away from drainage courses and areas where stormwater is allowed to infiltrate. Spill prevention kits will be required to be kept in close proximity to construction areas and workers will be trained in their use. It will also stipulate procedures, such as the use of spill containment pans, to minimize

hazard during onsite fueling and servicing of construction equipment. Finally, the Spill Prevention and Response Plan will require that all agencies listed in the Spill Prevention and Response Plan be notified immediately of any substantial spill or release.

- A stipulation that construction will be monitored by a QSP to ensure that contractors are adhering to all provisions relevant to state and federal stormwater discharge requirements, and that the QSP will shut down the construction site in the event of noncompliance.

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Appendix A
Database Searches

United States Department of the Interior

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

In Reply Refer To:
Project Code: 2024-0004896
Project Name: Creekside Village

October 13, 2023

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

To Whom It May Concern:

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0004896
Project Name: Creekside Village
Project Type: New Constr - Above Ground
Project Description: To inform a biological assessment
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.6201229,-121.05382599836545,14z



Counties: El Dorado and Sacramento counties, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Foothill Yellow-legged Frog *Rana boylii* Population: South Sierra Distinct Population Segment (South Sierra DPS) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5133	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

FLOWERING PLANTS

NAME	STATUS
El Dorado Bedstraw *Galium californicum ssp. sierrae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5209	Endangered
Pine Hill Ceanothus *Ceanothus roderickii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3293	Endangered
Pine Hill Flannelbush *Fremontodendron californicum ssp. decumbens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4818	Endangered
Stebbins' Morning-glory *Calystegia stebbinsii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3991	Endangered

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Seth Kirby
Address:	180 Grand Avenue
Address Line 2:	Suite 1050
City:	Oakland
State:	CA
Zip:	94612
Email	skirby@esassoc.com
Phone:	5105010651

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Folsom SE (3812151) OR Folsom (3812162) OR Clarksville (3812161) OR Shingle Springs (3812068) OR Buffalo Creek (3812152) OR Sloughhouse (3812142) OR Latrobe (3812058) OR Carbondale (3812141) OR Irish Hill (3812048))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	2	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	957	40	None	Threatened	G1G2	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Allium jepsonii	Jepson's onion	Monocots	PMLIL022V0	26	2	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_UCSC-UC Santa Cruz, USFS_S-Sensitive	Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic
Ambystoma californiense pop. 1	California tiger salamander - central California DPS	Amphibians	AAAAA01181	1273	11	Threatened	Threatened	G2G3T3	S3	null	CDFW_WL-Watch List, IUCN_VU-Vulnerable	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Valley & foothill grassland
Andrena blennospermatis	Blennosperma vernal pool andrenid bee	Insects	IIHYM35030	15	2	None	None	G2	S1	null	null	Vernal pool
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	2	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	325	2	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland
Arctostaphylos myrtifolia	Ione manzanita	Dicots	PDERI04240	11	4	Threatened	None	G1	S1	1B.2	SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Cismontane woodland, Ione formation
Ardea alba	great egret	Birds	ABNGA04040	43	3	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland

Ardea herodias	great blue heron	Birds	ABNGA04010	156	6	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	11	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	437	1	None	Candidate Endangered	G2	S2	null	IUCN_EN-Endangered	null
Bombus pensylvanicus	American bumble bee	Insects	IIHYM24260	225	6	None	None	G3G4	S2	null	IUCN_VU-Vulnerable	Coastal prairie, Great Basin grassland, Valley & foothill grassland
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	796	46	Threatened	None	G3	S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland, Vernal pool, Wetland
Branchinecta mesovallensis	midvalley fairy shrimp	Crustaceans	ICBRA03150	144	12	None	None	G2	S2S3	null	null	Vernal pool, Wetland
Buteo regalis	ferruginous hawk	Birds	ABNKC19120	107	1	None	None	G4	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2561	24	None	Threatened	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Calystegia stebbinsii	Stebbins' morning-glory	Dicots	PDCON040H0	15	7	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Ultramafic
Carex xerophila	chaparral sedge	Monocots	PMCYP03M60	15	6	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_UCSC-UC Santa Cruz	Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic
Ceanothus roderickii	Pine Hill ceanothus	Dicots	PDRHA04190	9	8	Endangered	Rare	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Cismontane woodland, Ultramafic
Central Valley Drainage Hardhead/Squawfish Stream	Central Valley Drainage Hardhead/Squawfish Stream	Inland Waters	CARA2443CA	11	1	None	None	GNR	SNR	null	null	null
Chlorogalum grandiflorum	Red Hills soaproot	Monocots	PMLIL0G020	137	9	None	None	G3	S3	1B.2	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Dicots	PDONA05053	89	4	None	None	G4G5T4	S4	4.2	SB_UCSC-UC Santa Cruz	Chaparral, Cismontane woodland, Lower montane coniferous forest
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Dicots	PDCIS020F0	31	17	None	None	G2?Q	S2?	3.2	null	Chaparral, Ione formation, Ultramafic
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	15	Threatened	None	G3T3	S3	null	null	Riparian scrub
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	132	1	None	None	GU	S2	2B.2	null	Valley & foothill grassland, Vernal pool, Wetland
Dumontia oregonensis	hairy water flea	Crustaceans	ICBRA23010	2	1	None	None	G1G3	S1	null	null	Vernal pool

Elanus leucurus	white-tailed kite	Birds	ABNKC06010	184	10	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1518	13	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Erethizon dorsatum	North American porcupine	Mammals	AMAFJ01010	523	3	None	None	G5	S3	null	IUCN_LC-Least Concern	Broadleaved upland forest, Cismontane woodland, Closed-cone coniferous forest, Lower montane coniferous forest, North coast coniferous forest, Upper montane coniferous forest
Eriogonum apricum var. apricum	Ione buckwheat	Dicots	PDPGN080F1	6	1	Endangered	Endangered	G2T1	S1	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Ione formation
Eriogonum apricum var. prostratum	Irish Hill buckwheat	Dicots	PDPGN080F2	2	2	Endangered	Endangered	G2T1	S1	1B.1	null	Chaparral, Ione formation
Eryngium pinnatisectum	Tuolumne button-celery	Dicots	PDAPI0Z0P0	30	5	None	None	G2	S2	1B.2	SB_UCSC-UC Santa Cruz	Cismontane woodland, Lower montane coniferous forest, Vernal pool, Wetland
Falco columbarius	merlin	Birds	ABNKD06030	37	1	None	None	G5	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Estuary, Great Basin grassland, Valley & foothill grassland
Fremontodendron decumbens	Pine Hill flannelbush	Dicots	PDSTE03030	12	7	Endangered	Rare	G1	S1	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Cismontane woodland, Ultramafic
Galium californicum ssp. sierrae	El Dorado bedstraw	Dicots	PDRUB0N0E7	17	14	Endangered	Rare	G5T1	S1	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic
Gratiola heterosepala	Boggs Lake hedge-hyssop	Dicots	PDSCR0R060	99	5	None	Endangered	G2	S2	1B.2	BLM_S-Sensitive	Freshwater marsh, Marsh & swamp, Vernal pool, Wetland
Haliaeetus leucocephalus	bald eagle	Birds	ABNKC10010	332	2	Delisted	Endangered	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern, USFS_S-Sensitive	Lower montane coniferous forest, Oldgrowth
Horkelia parryi	Parry's horkelia	Dicots	PDROS0W0C0	44	2	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Cismontane woodland, Ione formation
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	2	None	None	G2?	S2?	null	null	Aquatic, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters
Ione Chaparral	Ione Chaparral	Scrub	CTT37D00CA	12	4	None	None	G1	S1.1	null	null	Chaparral
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Monocots	PMJUN011L1	13	1	None	None	G2T1	S1	1B.2	null	Valley & foothill grassland
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	139	2	None	None	G3G4	S3S4	null	IUCN_LC-Least Concern	Lower montane coniferous forest, Oldgrowth, Riparian forest

Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3T1	S2	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Legenere limosa	legenere	Dicots	PDCAM0C010	83	12	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley	Vernal pool, Wetland
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	330	41	Endangered	None	G3	S3	null	IUCN_EN-Endangered	Valley & foothill grassland, Vernal pool, Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	508	17	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Nannopterum auritum	double-crested cormorant	Birds	ABNFD01020	39	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Navarretia myersii ssp. myersii	pincushion navarretia	Dicots	PDPLM0C0X1	16	5	None	None	G2T2	S2	1B.1	null	Vernal pool, Wetland
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Herbaceous	CTT44110CA	126	30	None	None	G3	S3.1	null	null	Vernal pool, Wetland
Northern Volcanic Mud Flow Vernal Pool	Northern Volcanic Mud Flow Vernal Pool	Herbaceous	CTT44132CA	7	1	None	None	G1	S1.1	null	null	Vernal pool, Wetland
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	3	Threatened	None	G5T2Q	S2	null	AFS_TH-Threatened	Aquatic, Sacramento/San Joaquin flowing waters
Orcuttia tenuis	slender Orcutt grass	Monocots	PMPOA4G050	100	1	Threatened	Endangered	G2	S2	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Vernal pool, Wetland
Orcuttia viscida	Sacramento Orcutt grass	Monocots	PMPOA4G070	12	10	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Vernal pool, Wetland
Packera layneae	Layne's ragwort	Dicots	PDAST8H1V0	48	25	Threatened	Rare	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley, SB_UCSC-UC Santa Cruz	Chaparral, Cismontane woodland, Ultramafic
Pekania pennanti	Fisher	Mammals	AMAJF01020	555	1	None	None	G5	S2S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	North coast coniferous forest, Oldgrowth, Riparian forest
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	784	4	None	None	G4	S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Rana boylii pop. 5	foothill yellow-legged frog - south Sierra DPS	Amphibians	AAABH01055	272	2	Endangered	Endangered	G3T2	S2	null	BLM_S-Sensitive, USFS_S-Sensitive	Aquatic, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1692	1	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing

												waters, South coast flowing waters, South coast standing waters, Wetland
Riparia riparia	bank swallow	Birds	ABPAU08010	299	3	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Riparian scrub, Riparian woodland
Sagittaria sanfordii	Sanford's arrowhead	Monocots	PMALI040Q0	143	10	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp, Wetland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1444	12	None	None	G2G3	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Taxidea taxus	American badger	Mammals	AMAJF04010	594	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland
Thamnophis gigas	giant gartersnake	Reptiles	ARADB36150	373	1	Threatened	Threatened	G2	S2	null	IUCN_VU-Vulnerable	Marsh & swamp, Riparian scrub, Wetland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	CTT42110CA	45	1	None	None	G3	S3.1	null	null	Valley & foothill grassland
Wyethia reticulata	El Dorado County mule ears	Dicots	PDAST9X0D0	25	21	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic

CNPS Rare Plant Inventory

Search Results

36 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3812048:3812058:3812068:3812141:3812151:3812162:3812161:3812142:3812152]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2019 Steven Perry
Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2	Yes	1974-01-01	 © 2006 Steve Matson
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
Bryum chryseum	brassy bryum	Bryaceae	moss		None	None	G5	S3	4.3		2014-05-05	No Photo Available
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE	G1	S1	1B.1	Yes	1980-01-01	No Photo Available
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	2016-06-06	 © 2023 Steven Perry
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr)May-Jul	None	None	G4	S4	4.3	Yes	1980-01-01	No Photo Available
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	(Apr)May-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	No Photo Available

Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	Yes	1974-01-01	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
Eriogonum apricum var. *apricum*	Ione buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	Yes	1974-01-01	 ©2008 Steven Perry
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2007 Robert E. Preston, Ph.D.
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	Yes	1974-01-01	No Photo Available
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
Galium californicum ssp. *sierrae*	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	Yes	1974-01-01	 © 2019 John Doyen

Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	4.3	Yes	2001-01-01	 © 2019 Barry Breckling
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2009 Barry Breckling
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	Yes	2006-10-12	 © 2014 Aaron Schusteff
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	Yes	1984-01-01	 © 2004 Carol W. Witham
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3		1974-01-01	 ©2021 Scot Loring
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994-01-01	 © 2020 Leigh Johnson

Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © Rick York and CNPS
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Trichostema rubisepalum	Hernandez bluecurls	Lamiaceae	annual herb	Jun-Aug	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available

Showing 1 to 36 of 36 entries

Suggested Citation:
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Appendix B

Tri-colored Blackbird Survey Memo

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memorandum

date	June 6, 2022
to	George Carpenter, Winn Communities
cc	Erich Fischer and Eric Christensen, Environmental Science Associates (ESA)
from	Jacky Daley, ESA
subject	Results of a Tri-colored Blackbird Survey for Creekside Village, El Dorado County, CA

The purpose of this memorandum is to summarize the results of a survey for tri-colored blackbird (*Agelaius tricolor*, TRBL), a California threatened species and a State species of special concern, that took place in western El Dorado County, California, on April 19, 2022, as part of the Creekside Village (**Figure 1**) Environmental Evaluation. The survey covered the entirety of the Creekside Village Project site, focusing on areas of suitable TRBL nesting habitat, based on past records of nesting colonies near the Project.

Methods

Occurrences of past California Natural Diversity Database (CNDDB) records were reviewed the prior to conducting the survey. ESA biologists conducted the TRBL survey on Tuesday, April 19, 2022 from 8:00a.m. to 8:45a.m. and focused on suitable nesting habitat near Carson Creek. Conditions ranged from light rains, to overcast, to mostly sunny conditions throughout the day, winds of 4 to 8mph, and temperatures ranging from 49-69°Fahrenheit. Biologists, Natalie Lamas and Amanda Seguro-Moon, conducted the survey of the blackberry shrubs, and some nearby willows, for TRBL using Nikon Monarch 8x42 binoculars.

Results

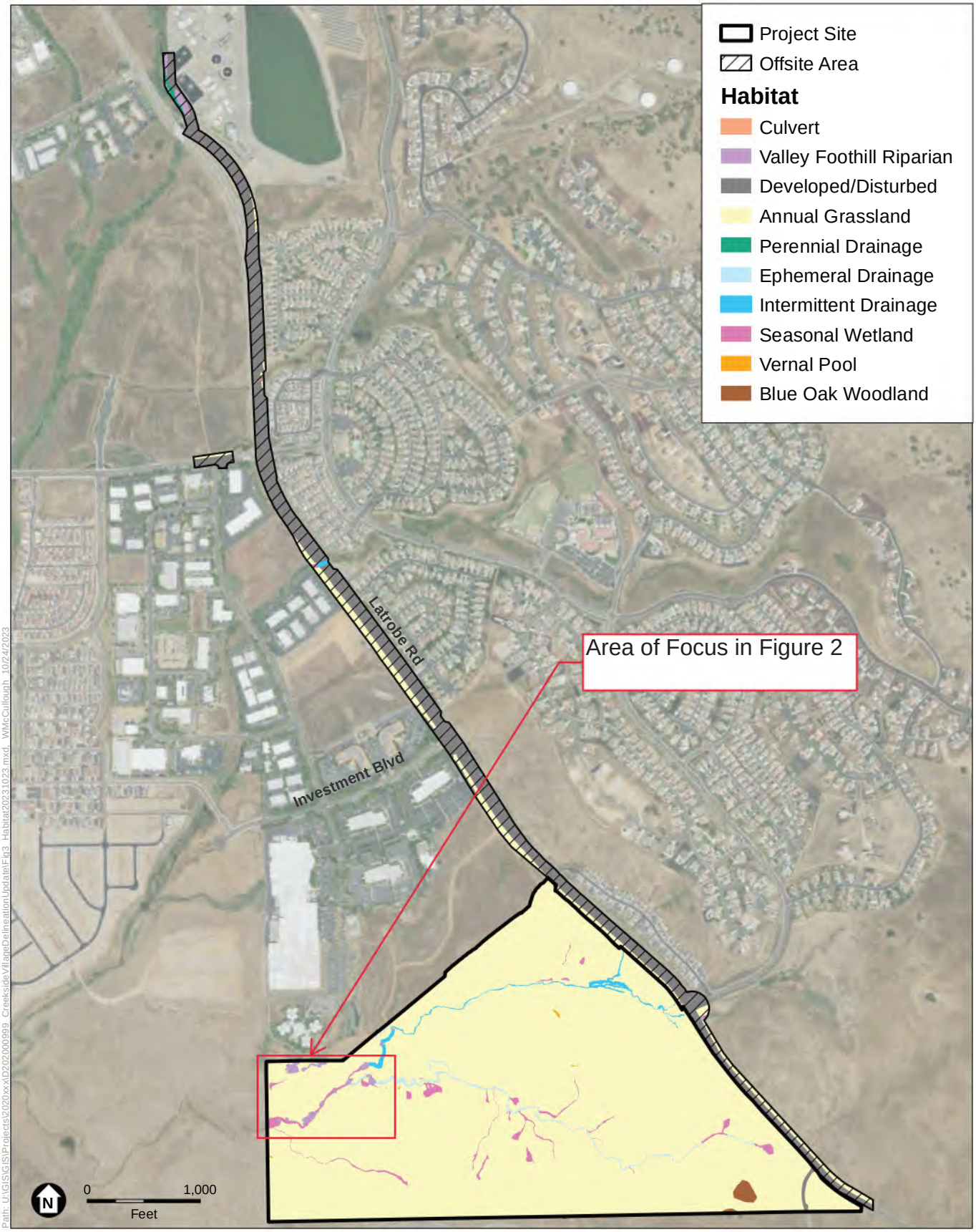
Background CNDDB data reviewed show that three occurrence records (occurrence numbers 512, 513, and 514) are located within a one-mile radius, and one of these records is located within the Project site (occurrence number 1012)[1]. TRBL was observed at the on-site occurrence in 2005, 2014, and 2015. No other observation records of nesting activity by the species are recorded within CNDDB during subsequent years. Three additional occurrence records are recorded within a broader 15-mile radius of the project, also northeast of the Project site[1].

[1] California Department of Fish and Wildlife. California Natural Diversity Database (CNDDB) RareFind 5. Retrieved May 13, 2022, from https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx.

One TRBL nesting colony was observed within two large clusters of Himalayan blackberry in two riparian wetlands during the survey. These blackberry shrubs are located within the northwest corner of the Project site south of Carson Creek in riparian wetlands along a tributary to Carson Creek and along an associated tributary that runs from the southeast to the northwest extent of the Project site parallel to the northern boundary (**Figure 2**). TRBL were heard vocalizing and the distinct white band under the red shoulder was observed on several individuals of male blackbirds (this characteristic is only evident on males) in the colony. Several grass cup nests were observed within the blackberry shrubs and, combined with the presence of males vocalizing, confirmed TRBL nesting activity. Tri-colored blackbirds observed exhibiting potential breeding behavior were watched for approximately 45 minutes. While individual nests were observed, the presence of eggs or young could not be confirmed. Due to the concurrent presence of numerous red-winged blackbirds (*Agelaius phoeniceus*), identical nests of TRBL and red-winged blackbirds, and the tangled nature of the nesting substrate, the approximate number of TRBL nests could not accurately be estimated.

Attachments

Attachment 1: Photo Appendix of Tri-colored Blackbird Nesting Colony and Habitat



SOURCE: NAIP, 2020; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 1
Habitat



SOURCE: ESA, 2021, MAXAR 2019

Creekside Village

Figure 1
Tri-colored Blackbird Nesting Colony Location

ESA

Attachment 1: Photo Appendix Of Tri-Colored Blackbird Nesting Colony And Habitat



Photograph 1: Southeastern view of the northernmost shrub with tri-colored blackbird nesting colony.



Photograph 2: Southwestern view of the southernmost portion of Riparian Wetland with tri-colored blackbird nesting colony. Carson Creek evident in background.



Photograph 3: Representative photo of a male tri-colored blackbird on Himalayan blackberry brambles within Riparian Wetland.

Appendix C
Botanical Survey Letter

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esassoc.com

June 10, 2022

Mr. George Carpenter
Winn Communities
555 University Avenue
Sacramento, CA 95825

Subject: Botanical Survey Results for Creekside Village, El Dorado County, CA

Dear Mr. Carpenter:

Environmental Science Associates (ESA) conducted a botanical survey at the Creekside Village (Project) study area on April 19, 2022, in western El Dorado County, California. The purpose of the survey was to determine if special-status plants occur in the study area in order to support environmental review by the County and regulatory agencies. The purpose of this letter is to document the methods and results of the survey. No special-status plants were found in the study area.

Location

The study area is an approximately 241.38-acre undeveloped area located in El Dorado Hills, an unincorporated community. The study area is located west of Latrobe Road, between Investment Boulevard and Wetsel-Oviatt Road (**Figure 1**). The study area is in Sections 24 and 25 of Township 9 North Range 8 East on the Folsom SE, California U.S. Geological Survey (USGS) 7.5 series quadrangle (USGS 2022). The study area is in the Upper Consumes River Watershed (hydrologic unit code 18040013). Elevation ranges from approximately 476 feet to 642 feet.

The study area is not located in an Important Biological Corridor or Ecological Preserves overlay in the El Dorado County (2004) General Plan. The study area is not in critical habitat for any federally listed species (USFWS 2022). The study area is in County Rare Plant Mitigation Area 2 (County Code §130.71), which is defined as the El Dorado Irrigation District (EID) Service Area. The County charges a standard fee for development in Mitigation Area 2 to mitigate for EID impacts to special-status plants elsewhere in the County.

Database Queries

A list of federal listed, candidate, or proposed plants that potentially occur in or could be affected by projects within the boundary of the study area was obtained from the USFWS Sacramento Field Office. The California Natural Diversity Database (CNDDB) and California Native Plant Society online inventory were queried for known occurrences of special-status species on the Folsom SE and eight surrounding quads. The results of the database queries (**Attachment A**) were used to assemble a table of special-status plants evaluated (**Table 1**).

Review of Background Information

Publicly available and subscription-based biological resource data were reviewed prior to fieldwork. Data sources reviewed include:

- Current and historical topographic maps (USGS 2022);
- Current and historical aerial imagery (Google, Inc. 2022);
- Soil maps and information from the National Resources Conservation Service (NRCS 2022); and
- California Natural Diversity Database (CNDDB; CDFW 2022)

Environmental Setting

Regionally, the study area is in the low Sierra Nevada foothills of the California Floristic Province (Baldwin *et al.*, 2012), where the Sierra Nevada Mountains transition to the Central Valley. Topography in the study area drains generally from east to west and is characterized by low hills with gentle slopes. Vegetation communities in the study area are mostly California annual grassland, dominated by naturalized annual grasses although some native grasses and forbs are present. There is a small stand of blue oak woodland near the southeastern corner of the study area. Several creeks and swales flow across the study area, fed in part by seeps but also urban irrigation runoff. There are some small patches of riparian wetlands with willows along the creeks. There are some small, natural vernal pools in the study area, and some seasonal wetlands that have been altered by ranching activity but have similar hydrology. These features have characteristic vernal pool vegetation, and are the areas most likely to support special-status plants. None of the soils mapped in the Action Area have serpentinite or gabbro rock as a parent material (NRCS 2022).

The overall climate in the region is Mediterranean, which is characterized by hot, dry summers and cool, wet winters, with the bulk of precipitation occurring as rain in the winter months. The climate in the El Dorado Hills area is temperate with mean annual temperatures ranging from a high of 74 to a low of 50 degrees Fahrenheit (Western Regional Climate Center, 2021). Historic average annual precipitation at the Folsom Dam gauge is 23.89 inches. Historic average precipitation from July 1 through April 19 is 21.49 inches. From July 1, 2022 through April 19, 2022 (the date of the field survey), the Folsom Dam gauge recorded 14.85 inches of precipitation, or 69% of normal for that date (CDEC 2022).

Field Survey

ESA botanists Chuck Hughes, Amanda Segura-Moon, Jacky Daley, and Natalie Lamas conducted the field survey on April 19, 2022. The field survey followed the botanical survey guidelines of USFWS (1996) and CDFW (2018). The April 2022 fieldwork was conducted during the evident and identifiable period of special-status plants with potential to occur in the study area. Transects were walked approximately 50 feet apart. Frequent deviations were made from the transects to search areas of different microhabitat more suitable for special-status plants or for detecting additional plant species, especially the vernal pools and other wetlands.

Approximately 34 person hours were spent surveying the study area. An additional 2 person-hours were spent keying plants collected in the field. All vascular plants found in the study area were identified to the taxonomic level necessary to determine legal status. Scientific nomenclature follows the Jepson Flora Project (Jepson 2022), based on Baldwin *et al.* (2012).

Special-Status Species

Several species known to occur regionally are regulated pursuant to the federal or State endangered species acts. In addition, Section 15380(b) of the *CEQA Guidelines* provides a definition of rare, endangered, or threatened species that are not included in any listing.[1] Species recognized under these terms are collectively referred to as "special-status species." Special-status species or natural communities evaluated here are defined as:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) (50 Code of Federal regulations [CFR] 17.12 [listed plants], and various notices in the Federal Register [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under FESA (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (NPPA) (California Fish and Game Code, Section 1900 *et seq.*);
- Species that meet the definitions of rare and endangered under CEQA. CEQA provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (14 CCR 15380);
- Plants ranked by CNPS as "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B, and 2) meet CEQA significance criteria and State Fish and Game Code sections 1901, 2062 and 2067 criteria as rare, threatened, or endangered species;
- Bisbee Peak rush-rose (*Crocanthemum* [=*Helianthemum*] *suffrutescens*), a CRPR 3 plant, is also included because it is regulated by El Dorado County code (§130.71).

Each of the special-status species from the queries in Attachment A is evaluated in Table 1. The table provides a summary of the special-status species, their general habitat requirements, and an assessment of their potential to occur in the study area. The "Potential for Occurrence" categories are defined as follows:

- **Unlikely:** The study area does not support suitable habitat for a particular species, does not provide soils required for the species to inhabit, or is outside of the species known elevation or geographic range;

[1] For example, vascular plants listed as rare or endangered or as Rank 1 or 2 by the California Native Plant Society (CNPS) are considered to meet Section 15380(b) requirements.

- **Low:** The study area only provides limited amounts and low quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate study area;
- **Moderate:** The study area provides suitable habitat for a particular species;
- **High:** The study area provides ideal habitat conditions for a particular species and/or known populations occur in immediate area and/or within the study area; or
- **Present:** The species was observed during the biological surveys within the study area.

TABLE 1
REGIONAL SPECIAL-STATUS PLANTS

Common Name ***Scientific Name***	**Listing Status USFWS/CDFW/ CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Plants			
Jepson's onion *Allium jepsonii*	--/--/1B.2	Open, serpentine or volcanic chaparral, cismontane woodland, or lower montane coniferous forest. Blooms April – August. Elevation 985 – 4,330 feet.	**Unlikely.** Suitable soils are not present.
Ione manzanita *Arctostaphylos myrtifolia*	FT/--/1B.2	Acidic sandy or clay soils (Ione soils) in chaparral or cismontane woodland. Blooms November – March. Elevation 195 – 1,905 feet.	**Unlikely.** Suitable soils are not present. The site is outside the very limited geographic range.
Stebbin's morning-glory *Calystegia stebbinsii*	FE/SE/1B.1	Gabbroic or serpentine soils in chaparral or cismontane woodland. Blooms April – July. Elevation 605 – 3,575 feet.	**Unlikely.** Suitable soils are not present.
Chaparral sedge *Carex xerophila*	--/--/1B.2	Gabbro or serpentine soils in chaparral, cismontane woodland, or lower montane coniferous forest. Blooms March – June. Elevation 1,445 – 2,525 feet.	**Unlikely.** Suitable soils are not present. The site is below the elevation range.
Pine Hill ceanothus *Ceanothus roderickii*	FE/SR/1B.1	Gabbroic or serpentine soils in chaparral or cismontane woodland. Blooms April – June. Elevation 805 – 3,575 feet.	**Unlikely.** Suitable soils are not present.
Red Hills soaproot *Chlorogalum grandiflorum*	--/--/1B.2	Gabbro or serpentine soils in chaparral, cismontane woodland, or lower montane coniferous forest. Blooms May – June. Elevation 805 – 5,545.	**Unlikely.** Suitable soils are not present.
Bisbee Peak rush rose *Crocanthemum suffrutescens*	--/--/3.2	Gabbroic or Ione soils that are disturbed or burned in or near chaparral. Blooms April – August. Elevation 245 – 2,200 feet.	**Unlikely.** Suitable soils and habitat are not present.
Dwarf downingia *Downingia pusilla*	--/--/2B.2	Vernal pools and mesic valley/foothill grassland. Blooms March – May. Elevation up to 1,460 feet.	**Moderate.** Suitable habitat is present in the vernal pools and some seasonal wetlands.
Ione buckwheat *Eriogonum apricum* var. *apricum*	FE/SE/1B.1	Ione soils in openings of chaparral. Blooms July – October. Elevation 195 – 475 feet.	**Unlikely.** Suitable soils and habitat are not present. The site is outside the very limited geographic range.

TABLE 1
REGIONAL SPECIAL-STATUS PLANTS

Common Name ***Scientific Name***	**Listing Status USFWS/CDFW/ CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Irish Hill buckwheat *Eriogonum apricum* var. *prostratum*	FE/SE/1B.1	Ione soils in openings of chaparral. Blooms June – July. Elevation 295 – 395 feet.	**Unlikely.** Suitable soils and habitat are not present. The site is outside the very limited geographic range.
Tuolumne button-celery *Eryngium pinnatisectum*	--/--/1B.2	Vernal pools and mesic areas of cismontane woodland and lower montane coniferous forest. Blooms May – August. Elevation 230 – 3,000 feet.	**Moderate.** Suitable habitat is present in the vernal pools and some seasonal wetlands.
Pine Hill flannelbush *Fremontodendron decumbens*	FE/SR/1B.2	Rocky gabbroic or serpentine chaparral or cismontane woodland. Blooms April – July. Elevation 1,395 – 2,495 feet.	**Unlikely.** Suitable soils are not present. The site is below the elevation range.
El Dorado bedstraw *Galium californicum* subsp. *sierrae*	FE/SR/1B.2	Gabbroic soil in chaparral, cismontane woodland, or lower montane coniferous forest. Blooms May – June. Elevation 330 – 1,920 feet.	**Unlikely.** Suitable soils are not present.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--/SE/1B.2	Clay soils in shallow water of vernal pools or lake margins. Blooms April – August. Elevation up to 7,790 feet.	**Moderate.** Suitable habitat is present in the vernal pools and some seasonal wetlands.
Parry's horkelia *Horkelia parryi*	--/--/1B.2	Chaparral or cismontane woodland. Sometimes on Ione soils. Blooms April – September. Elevation 260 – 3,510 feet.	**Low.** Preferred soils are not present, and cismontane woodland is very limited in the study area.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--/--/1B.2	Mesic valley and foothill grassland or vernal poos. Blooms March – May. Elevation 100 – 750 feet.	**Moderate.** Suitable habitat is present in the vernal pools and some seasonal wetlands.
Legenere *Legenere limosa*	--/--/1B.1	Vernal pools. Blooms April – June. Elevation up to 2,885 feet.	**Moderate.** Suitable habitat is present in the vernal pools and some seasonal wetlands.
Pincushion navarretia *Navarretia myersii* subsp. *myersii*	--/--/1B.1	Vernal pools, often in acidic soils. Blooms April – May. Elevation 65 – 1,085 feet.	**Moderate.** Suitable habitat is present in the vernal pools and some seasonal wetlands.
Slender Orcutt grass *Orcuttia tenuis*	FT/SE/1B.1	Vernal pools, often gravelly soils. Requires prolonged inundation of larger pools (>0.2 acre). Blooms May – September (October). Elevation 115 – 5,775 feet.	**Unlikely**. Although the project site supports vernal pools, they are not large enough nor do they remain inundated long enough to support this species.
Sacramento Orcutt grass *Orcuttia viscida*	FE/SE/1B.1	Vernal pools. Requires prolonged inundation period of larger pools (>0.1 acre). Blooms April – July (September). Elevation 100 – 330 feet.	**Unlikely**. Although the project site supports vernal pools, they are not large enough nor do they remain inundated long enough to support this species.
Layne's ragwort *Packera layneae*	FT/SR/1B.2	Rocky serpentine or gabbroic soils in chaparral or cismontane woodland. Blooms April – August. Elevation 655 – 3,560 feet.	**Unlikely.** Suitable soils are not present.

TABLE 1
REGIONAL SPECIAL-STATUS PLANTS

Common Name *Scientific Name*	Listing Status USFWS/CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Sanford's arrowhead *Sagittaria sanfordii*	--/--/1B.2	Shallow freshwater marshes and swamps, ponds, ditches. Aquatic emergent perennial herb that may bloom from late spring into the autumn. Blooms May – October (November). Elevation up to 2,135 feet.	**Low**. Most of the aquatic habitats do not inundate long enough to support this species. There is limited habitat in some of the aquatic habitats that receive warm-season irrigation runoff from nearby development. Most regional records are in the Central Valley and not the foothills.
El Dorado County mule ears *Wyethia reticulata*	--/--/1B.2	Clay or gabbroic substrates in chaparral, cismontane woodland, or lower montane coniferous forest. Blooms April – August. Elevation 605 – 2,065.	**Unlikely.** Suitable soils are not present.

STATUS CODES:

FEDERAL (U.S. Fish and Wildlife Service):

FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FC = Candidate for Federal Listing

STATE (California Department of Fish and Wildlife):

SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SSC = California species of special concern
CFP = California fully protected bird species
WL = CDFW Watch List

California Native Plant Society (CNPS):

Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
Rank 2A = Plants presumed extirpated in California but common elsewhere
Rank 2B = Plants rare, threatened, or endangered in California but more common elsewhere
Rank 3 = Plants about which more information is needed
Rank 4 = Plants of limited distribution

CNPS Code Extensions

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly threatened in California (20-80% occurrences threatened)
.3 = Not very threatened in California (less than 20% of occurrences threatened or no current threats known)

Results

A list of all plants observed in the study area is in **Attachment B**. A map of the botanical survey area is in **Attachment C**. No special status species were observed.

Cordially,

Chuck Hughes, M.S.
Senior Biologist/Botanist

Attachment A. Database Queries
Attachment B. Plant Species Observed
Attachment C. Botanical Survey Area

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United States Department of the Interior

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

In Reply Refer To: October 30, 2021
Consultation Code: 08ESMF00-2022-SLI-0256
Event Code: 08ESMF00-2022-E-00742
Project Name: Creekside Village

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

To Whom It May Concern:

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

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

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

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2022-SLI-0256
Event Code: Some(08ESMF00-2022-E-00742)
Project Name: Creekside Village
Project Type: DEVELOPMENT
Project Description: Residential
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.623642000000004,-121.0553657202736,14z



Counties: El Dorado County, California

Endangered Species Act Species

There is a total of 13 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Reptiles

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

Amphibians

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

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
El Dorado Bedstraw *Galium californicum ssp. sierrae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5209	Endangered
Layne's Butterweed *Senecio layneae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4062	Threatened
Pine Hill Ceanothus *Ceanothus roderickii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3293	Endangered
Pine Hill Flannelbush *Fremontodendron californicum ssp. decumbens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4818	Endangered
Stebbins' Morning-glory *Calystegia stebbinsii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3991	Endangered

Critical habitats

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

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Folsom (3812162) OR Folsom SE (3812151) OR Clarksville (3812161) OR Shingle Springs (3812068) OR Buffalo Creek (3812152) OR Latrobe (3812058) OR Sloughhouse (3812142) OR Carbondale (3812141) OR Irish Hill (3812048))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Allium jepsonii Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos myrtifolia Ione manzanita	PDERI04240	Threatened	None	G1	S1	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex xerophila chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Dumontia oregonensis hairy water flea	ICBRA23010	None	None	G1G3	S1	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eriogonum apricum var. apricum Ione buckwheat	PDPGN080F1	Endangered	Endangered	G2T1	S1	1B.1
Eriogonum apricum var. prostratum Irish Hill buckwheat	PDPGN080F2	Endangered	Endangered	G2T1	S1	1B.1
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Ione Chaparral Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	
Juncus leiospermus var. ahartii Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Orcuttia tenuis slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
Orcuttia viscida Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 66

California Native Plant Society

Inventory of Rare and Endangered Plants of California

Search Results

37 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3812048:3812058:3812068:3812141:3812151:3812162:3812161:3812142:3812152]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	G2	S2	1B.2	No Photo Available
Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2	No Photo Available
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	No Photo Available
Bryum chryseum	brassy bryum	Bryaceae	moss		None	None	G5	S3	4.3	No Photo Available
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2	No Photo Available
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE	G1	S1	1B.1	No Photo Available
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	No Photo Available
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr)May-Jul	None	None	G4	S4	4.3	No Photo Available
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	No Photo Available
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	None	None	G3	S3	1B.2	No Photo Available
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	None	None	G4G5T4	S4	4.2	No Photo Available

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2	No Photo Available
Eriogonum apricum var. *apricum*	Ione buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1	No Photo Available
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1	No Photo Available
Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	 ©2008 Steven Perry
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	No Photo Available
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	No Photo Available
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	No Photo Available
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Galium californicum ssp. *sierrae*	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	No Photo Available
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	4.3	No Photo Available
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2	 ©2004 Carol W. Witham
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	No Photo Available

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	No Photo Available
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	No Photo Available
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	No Photo Available
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	 ©2021 Scot Loring
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	No Photo Available
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	No Photo Available
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	No Photo Available
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	No Photo Available
Primula pauciflora	beautiful shootingstar	Primulaceae	perennial herb	Apr-Jun	None	None	G5	S3	4.2	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	No Photo Available
Trichostema rubisepalum	Hernandez bluecurls	Lamiaceae	annual herb	Jun-Aug	None	None	G4	S4	4.3	No Photo Available
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 37 of 37 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website https://www.rareplants.cnps.org [accessed 17 December 2021].

PLANT SPECIES OBSERVED

Family	Scientific Name	Common Name	Native/ Introduced	Cal-IPC Rating
EUDICOTS				
Amaranthaceae	*Amaranthus albus*	Tumbleweed	I	
Anacardiaceae	*Toxicodendron diversilobum*	Western poison oak	N	
Apiaceae	*Daucus pusillus*	Daucus	N	
	Eryngium castrense	Great Valley coyote-thistle	N	
	Sanicula bipinnatifida	Purple sanicle, shoe buttons	N	
Asteraceae	*Baccharis pilularis* ssp. *consanguinea*	Coyote brush	N	
	Carduus pycnocephalus ssp. *pycnocephalus*	Italian thistle	I	Moderate
	Centaurea solstitialis	Yellow star-thistle	I	High
	Centromadia fitchii	Spikeweed	N	
	Chondrilla juncea	Skeleton weed	I	Moderate
	Cirsium vulgare	Bull thistle	I	Moderate
	Dittrichia graveolens	Stinkwort	I	Moderate
	Erigeron sp. (=*Conyza*)	Horseweed	--	
	Helminthotheca echioides	Bristly ox-tongue	I	Limited
	Holocarpha virgata ssp. *virgata*	Tarweed	N	
	Hypochaeris glabra	Smooth cat's-ear	I	Limited
	Lactuca serriola	Prickly lettuce	I	
	Lasthenia fremontii	Fremont's goldfields	N	
	Layia fremontii	Layia	N	
	Leontodon saxatilis	Hairy hawkbit	I	
	Logfia gallica	Daggerleaf cottonrose	I	
	Psilocarphus brevissimus var. *brevissimus*	Dwarf woollyheads	N	
	Senecio vulgaris	Common groundsel	I	
	Silybum marianum	Milk thistle	I	
	Sonchus asper ssp. *asper*	Prickly sow thistle	I	
Boraginaceae	*Amsinckia* sp.	Fiddleneck	N	
	Plagiobothrys greenei	Greene's spiny-nut popcornflower	N	
	Plagiobothrys nothofulvus	Rusty popcornflower	N	
	Plagiobothrys stipitatus	Great Valley popcornflower	N	
Brassicaceae	*Lepidium nitidum*	Peppercress	N	
	Nasturtium officinale	Water cress	N	
	Raphanus sativus	Radish	I	Limited
	Sisymbrium officinale	Hedge mustard	I	
	Thysanocarpus curvipes	Lacepod	N	
Campanulaceae	*Downingia ornatissima* var. *ornatissima*	Downingia	N	
Caryophyllaceae	*Cerastium glomeratum*	Sticky mouse-ear chickweed	I	

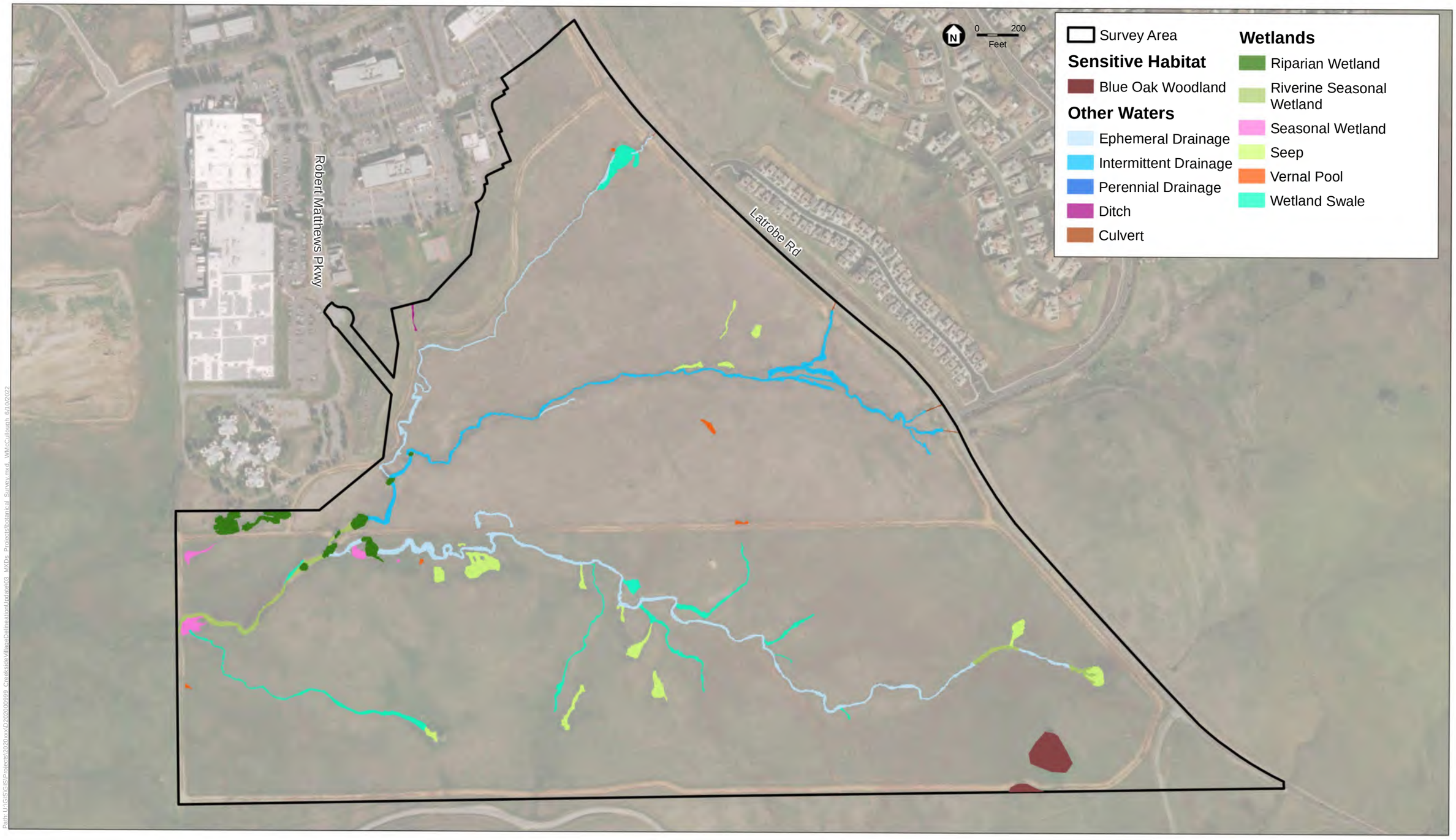
Family	Scientific Name	Common Name	Native/ Introduced	Cal-IPC Rating
	Silene gallica	Small-flower catchfly	I	
	Spergularia rubra	Red sand-spurrey	I	
Convolvulaceae	*Cuscuta* sp.	Dodder	--	
Crassulaceae	*Crassula* sp.	Pygmy-weed	--	
Euphorbiaceae	*Croton setigerus*	Turkey-mullein	N	
Fabaceae	*Acmispon americanus* var. *americanus*	Spanish clover	N	
	Acmispon parviflorus	Deervetch	N	
	Lupinus bicolor	Miniature lupine	N	
	Medicago polymorpha	California burclover	I	Limited
	Melilotus indicus	Sourclover	I	
	Trifolium dubium	Little hop clover	I	
	Trifolium hirtum	Rose clover	I	Moderate
	Trifolium variegatum var. *variegatum*	Variegated clover	N	
	Vicia sativa	Spring vetch	I	
	Vicia villosa	Hairy vetch	I	
Fagaceae	*Quercus douglasii*	Blue oak	N	
Gentianaceae	*Cicendia quadrangularis*	Timwort	N	
	Zeltnera sp.	Centaury	N	
Geraniaceae	*Erodium botrys*	Storksbill	I	
	Erodium cicutarium	Redstem filaree	I	Limited
	Geranium dissectum	Cranesbill	I	Limited
Hypericaceae	*Hypericum perforatum* ssp. *perforatum*	Klamathweed	I	Moderate
Lamiaceae	*Mentha pulegium*	Pennyroyal	I	
	Pogogyne zizyphoroides	Sacramento beardstyle	N	
	Stachys sp.	Hedge-nettle	N	
	Trichostema lanceolatum	Vinegar weed	N	
Linaceae	*Linum bienne*	Narrow-leaved flax	I	
Lythraceae	*Lythrum hyssopifolia*	Prostrate knotweed	I	Limited
Malvaceae	*Sidalcea* sp. (annual)	Checkerbloom	N	
Montiaceae	*Calandrinia menziesii*	Red maids	N	
	Montia fontana	Water chickweed	N	
Myrsinaceae	*Lysimachia arvensis*	Scarlet pimpernel	I	
	Lysimachia minima	Chaffweed	N	
Onagraceae	*Epilobium brachycarpum*	Fireweed	N	
	Epilobium canum	California fuchsia	N	
	Epilobium ciliatum	Willowherb	N	
	Epilobium densiflorum	Willowherb	N	
Orobanchaceae	*Castilleja attenuata*	Valley tassels	N	
	Parentucellia viscosa	Parentucellia	I	Limited

Family	Scientific Name	Common Name	Native/ Introduced	Cal-IPC Rating
	Triphysaria eriantha	Butter-and-eggs	N	
Oxalidaceae	*Oxalis micrantha*	Dwarf wood-sorrel	I	
Papaveraceae	*Eschscholzia lobbii*	Frying pans	N	
Phrymaceae	*Diplacus tricolor*	Monkeyflower	N	
	Erythranthe guttata	Seep monkeyflower	N	
Plantaginaceae	*Callitriche* sp.	Water-starwort	--	
	Gratiola ebracteata	Bractless hedge-hyssop	N	
	Veronica sp.	Speedwell	--	
	Veronica peregrina ssp. *xalapensis*	Purslane speedwell	N	
Polemoniaceae	*Navarretia intertexta*	Navarretia	N	
	Navarretia tagetina	Marigold navarretia	N	
Polygonaceae	*Eriogonum nudum*	Wild buckwheat	N	
	Persicaria sp.	Smartweed	--	
	Polygonum aviculare	Knotweed	I	
	Pterostegia drymarioides	Woodland threadstem	N	
	Rumex acetosella	Sheep sorrel	I	Moderate
	Rumex crispus	Curly dock	I	Limited
Ranunculaceae	*Ranunculus bonariensis* var. *trisepalus*	Buttercup	N	
	Ranunculus muricatus	Buttercup	I	
Rhamnaceae	*Frangula californica*	California coffee berry	N	
Rosaceae	*Prunus* sp.	Horticultural fruit (saplings)	I	
	Rubus armeniacus	Himalayan blackberry	I	High
Rubiaceae	*Galium parisiense*	Wall bedstraw	I	
Salicaceae	*Populus fremontii* ssp. *fremontii*	Fremont cottonwood	N	
	Salix gooddingii	Goodding's black willow	N	
	Salix lasiolepis	Arroyo willow	N	
Scrophulariaceae	*Verbascum blattaria*	Moth mullein	I	
MONOCOTS				
Agavaceae	*Chlorogalum pomeridianum* var. *pomeridianum*	Soaproot	N	
Alliaceae	*Allium hyalinum*	Onion	N	
Cyperaceae	*Carex praegracilis*	Black creeper sedge	N	
	Cyperus eragrostis	Nutsedge	N	
	Eleocharis acicularis	Needle spikerush	N	
	Eleocharis macrostachya	Spikerush	N	
	Isolepis cernua	Isolepis	N	
	Schoenoplectus sp.	Naked-stemmed bulrush	--	
Juncaceae	*Juncus balticus* ssp. *ater*	Baltic rush	N	
	Juncus bufonius	Toad rush	N	
	Juncus capitatus	Dwarf rush	I	

Family	Scientific Name	Common Name	Native/ Introduced	Cal-IPC Rating
	Juncus effusus ssp. *pacificus*	Pacific rush	N	
	Juncus tenuis	Slender rush	N	
	Juncus xiphioides	Iris-leaved rush	N	
Poaceae	*Aira caryophyllea*	Silver hair grass	I	
	Andropogon virginicus var. *virginicus*	Broomsedge bluestem	I	
	Avena barbata	Slender wild oat	I	Moderate
	Brachypodium distachyon	False brome	I	Moderate
	Briza maxima	Large quaking grass	I	Limited
	Briza minor	Small quaking grass	I	
	Bromus diandrus	Ripgut grass	I	Moderate
	Bromus hordeaceus	Soft chess	I	Moderate
	Bromus madritensis ssp. *madritensis*	Foxtail chess	I	
	Bromus rubens	Red brome	I	High
	Cynodon dactylon	Bermuda grass	I	Moderate
	Deschampsia danthonioides	Annual hair grass	N	
	Elymus caput-medusae	Medusa head	I	High
	Festuca myuros	Rattail sixweeks grass	I	
	Festuca perennis	Rye grass	I	
	Gastridium phleoides	Nit grass	I	
	Glyceria sp.	Manna grass	--	
	Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	I	Moderate
	Paspalum dilatatum	Dallis grass	I	
	Poa annua	Annual blue grass	I	
	Polypogon monspeliensis	Annual beard grass	I	Limited
	Stipa pulchra	Purple needle grass	N	
Themidaceae	*Dichelostemma multiflorum*	Wild hyacinth	N	
	Triteleia hyacinthina	White brodiaea	N	
Typhaceae	*Typha latifolia*	Broad-leaved cattail	N	

NOTES:
1. Horticultural/garden escape.

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Path: U:\GIS\GIS\Projects\2020\xxxD20200099 CreeksideVillage\Delineation\Update\03_MXDs_Projects\botanical_Survey.mxd, WMcCullough 6/10/2022

SOURCE: NAIP, 2020; Winn Communities, 2021; ESA, 2021

ESA

Creekside Village

Attachment C
Botanical Survey Area

Updated Biological Resources Constraints Memorandum (February 2025)

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memorandum

date	February 7, 2025
to	Tony Gon, Winn Communities
cc	George Carpenter, Winn Communities Erich Fischer, Environmental Science Associates
from	Joseph Huang, Environmental Science Associates Justin Whitfield, Environmental Science Associates
subject	Updated Biological Resources Constraints Memorandum Report for the Creekside Village Project

Introduction

This memorandum report provides an updated biological resource constraints analysis associated with the Creekside Village Project (project). Most of the biological resources constraints analyses were previously discussed in the November 2023 *Biological Resource Constraints Report* (2023 BRCR; ESA 2023). In addition to a handful of updates to the biological resource constraints, that reflect new information obtained from site surveys, this memorandum also provides an analysis and comparison of impacts between the Proposed Project alternative (which coincides with the alternative analysis in the 2023 BRCR), and a new project alternatives named the Reduced Impact Alternative. For each section in the 2023 BRCR, there will be a statement at the beginning identifying whether there was a change or update to the text in that section to reflect the most current data and discussions for their respective topics.

The study area for this report comprises the main residential development project site and offsite locations including a sewer force main alignment along Latrobe Road and intersection improvements located in the unincorporated community of El Dorado Hills in western El Dorado County, California (**Figure 1**). The purpose is to clarify the potential for special-status biological resources to occur on the project site as well as provide information on potential regulatory constraints associated with implementation of the proposed project and project alternatives to further avoid impacts to biological resources. This report is intended to supplement and update the 2023 BRCR.

This report identifies the existing biological resources at the project site; identifies the federal, state, and local regulations pertaining to biological resources within the region; and describes potential project impacts on those biological resources as well as mitigation measures to reduce project-related impacts. The information and

analysis presented in this report is focused on special-status species,[1] wildlife habitats, vegetation communities, and aquatic resources that may qualify as waters of the U.S. or state. The results of the assessment presented in this report are based upon literature review and queries of the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDB), the U.S. Fish and Wildlife Service's (USFWS) list of federal endangered and threatened species, and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, as well as surveys conducted at the project site.

Biological resources within the project site were identified through field reconnaissance surveys conducted in August 2019, December 2020, January 2021, April 2022, and during protocol brachiopod surveys from January to June 2024. Updated database queries were completed in November 2024 and are attached to this report (**Attachment 1**).

Project Location

The project site is in southwestern El Dorado Hills in western El Dorado County, just east of the City of Folsom, California (**Figure 2**). The main project area is located south of the intersection of Latrobe Road and Investment Boulevard and is on the Folsom SE, California U.S. Geological Survey (USGS) 7.5-minute series quadrangle. The project includes the installation of a sewer force main within the alignment of Latrobe Road extending approximately 1.8 miles north of the main project site to the El Dorado Hills Wastewater Treatment Plant.

Data Sources/Methodology

There was an update to the data methodology for the large listed branchiopod surveys conducted in 2024 from the 2023 BRCR.

The 2023 BRCR, identified biological resources within the project site by ESA biologists Erich Fischer, Joshua Boldt, and Chuck Hughes through field reconnaissance surveys conducted on August 20, 2019, December 10, 2020, January 13, 2021, and April 19, 2022. In addition, from January to June 2024, wet and dry season surveys were conducted to evaluate the potential presence of special-status vernal pool species. The protocol-level branchiopod survey was conducted using two methodologies: in the wet season dipnet surveys were conducted, and a dry season, soil sampling surveys for large, listed branchiopods were conducted (ESA, 2024b).

In addition to the data sources/methodology described in the 2023 BRCR, database queries were updated to identify any changes. The primary updated sources include the following:

- USFWS list of federal endangered and threatened species that may occur in the proposed project location, and/or may be affected by the project (USFWS, 2024a) (see **Appendix A**);
- CNDDB (v 5.3.0) list of special-status species occurrences within the Folsom SE, California and eight surrounding USGS 7.5-minute topographic quadrangles (Folsom, Clarksville, Shingle Springs, Buffalo Creek, Latrobe, Sloughhouse, Carbondale, and Irish Hill) (CDFW, 2024a) (see Appendix A);
- CNPS Inventory of Rare and Endangered Plants (v9.5) known to occur within the Folsom SE, California and eight surrounding USGS 7.5-minute topographic quadrangles (CNPS, 2024) (see Appendix A);

[1] Species that are regulated pursuant to federal or state endangered species laws, or have been designated as Species of Special Concern by the CDFW, or species that are not included on any agency listing but meet the definition of rare, endangered or threatened species of the CEQA Guidelines section 15380(b), are collectively referred to as "special-status species".

Most of the information presented under aquatic resources remains the same as reported in the 2023 BRCR and is based on an aquatic resources delineation that was conducted for the project site by ESA in August 2019 and January 2021 (ESA, 2023). However, on September 30, 2024 the U.S. Army Corps of Engineers (USACE) identified specific data needs and requested specific revisions and additional information about certain aquatic resources. ESA biologist Chuck Hughes conducted a focused site visit on October 16, 2024, to collect additional data and site-specific information to help inform revisions and updates to the aquatic resources delineation report (ESA, 2024a).

Environmental Setting

There are no changes or updates to the environmental setting discussions from the 2023 BRCR. However, there are changes to the acreages of habitat types presented in Table 1, due to project alternative design changes and an updated aquatic resources delineation conducted by ESA in October 2024. Some habitat types will have fewer impacts while others will have more. In addition, the offsite areas include the areas along and adjacent to Latrobe Road as well as the area north of the project site associated with the emergency vehicle access road.

Figure 3 depicts the extent of wildlife habitats that occur within the project site and offsite areas. **Table 1** shows the habitat type acreages for the project site and offsite areas.

There are updates for the habitat type acreages from the 2023 BRCR.

TABLE 1
HABITAT TYPES (UPDATED)

Habitat Type	Project Area (acres)	Offsite Area (acres)[1]	Total Project and Offside Area (acres)
Annual Grassland	202.88	6.18	209.05
Blue Oak Woodland	0.45	--	0.45
Culvert (Riverine)	0.01	0.07	0.08
Developed/Disturbed	0.43	20.72	21.15
Ditch	0.01		0.01
Ephemeral Drainage (Riverine)	2.05	0.08	2.13
Intermittent Drainage (Riverine)	1.76	0.04	1.80
Perennial Drainage (Riverine)	--	0.30	0.30
Seasonal Wetland (including Seep, Wetland Swale, Riverine Seasonal Wetland, and Seasonal Wetland)	1.65	0.03	1.68
Valley Foothill Riparian	0.75	0.47	1.22
Vernal Pool	0.07	--	0.07
Total	**210.05**	**27.88**	**239.93**

NOTE: Total may not sum due to rounding.
SOURCE: ESA, 2023

[1] Offsite Area includes the corridor along Latrobe Road necessary for transportation intersection and sewer improvements as well as the emergency vehicle access road.

Terrestrial Habitats

There are no changes or updates for the terrestrial habitat discussions from the 2023 BRCR.

Aquatic Resources

As a result of the supplement aquatic resource surveys, there were some changes to aquatic resource feature types, and new features were delineated. For example, wetland swale features were reviewed in the field: two features were recharacterized as seep or riverine seasonal wetland because they were not linear features, but most wetland swales were recharacterized as ephemeral channels due to the presence of an ordinary high-water mark (OHWM) consistent with the Western Mountains, Valleys, and Coast Region OHWM Guide (USACE, 2014). Based on input from the USACE, in several locations' wetlands below the OHWM were incorporated into the acreage of the intermittent channel (ESA, 2024). As a result, revised aquatic resources extent within the project are and offsite areas are summarized in **Table 2** and are depicted in **Figure 4.** All aquatic resources, and extent of potentially jurisdictional boundaries, identified in this report are considered preliminary and are still pending verification from the appropriate regulatory agencies. It should be noted that the numbers presented in the Table 2 represent the same study area provided in Table 1.

TABLE 2
AQUATIC RESOURCES (UPDATED)

Habitat Type	Project Area (acres)	Offsite Area (acres)[1]	Total Project and Offside Area (acres)
Culvert (Riverine)	0.01	0.07	0.08
Ditch	0.01	--	0.01
Ephemeral Drainage (Riverine)	2.05	0.08	2.13
Intermittent Drainage (Riverine)	1.76	0.04	1.80
Perennial Drainage (Riverine)	--	0.30	0.30
Riparian Wetland	0.48	0.47	0.95
Seasonal Wetland (includes seep, seasonal wetland, and riverine seasonal wetland, and wetland swale)	1.65	0.03	1.68
Vernal Pool	0.07	--	0.07
Total	**6.02**	**0.99**	**7.00**

NOTE: Total may not sum due to rounding.

SOURCE: ESA, 2024a

[1] Offsite Area includes the corridor along Latrobe Road necessary for transportation intersection and sewer improvements as well as the emergency vehicle access road.

Sensitive Natural Community

There are no changes or updates for the sensitive natural community discussions from the 2023 BRCR.

Wildlife Movement Corridors

There are no changes or updates for the wildlife movement corridors discussions from the 2023 BRCR.

Special-Status Species

***Table 3**, which lists the regional special-status species and their potential to occur at the project site, has been updated to reflect additional information and survey results for some species.*

Updates to **Table 3** were made based on additional information and survey results for the following special-status species:

- **California tiger salamander** – after conducting a full season of dipnet surveys, no tiger salamander larvae were observed in any of the aquatic features. These surveys further support the revision of it potential to occur at the project site from unlikely to absent.

- **California red-legged frog** – upon surveying and further inspecting the drainage features at the project site, they do not provide sufficient depth during the wet season and are either extremely shallow or completely dry by late spring and summer. This lack of suitable aquatic habitat for the species justified the revision of its potential to occur at the project site from low to unlikely.

- **Western spadefoot** – no western spadefoot were observed during dipnet surveys of all the aquatic features. Thus, the potential to occur status for the species was revised from low to absent.

- **Tricolored blackbird** – added that it is present within the project site.

- **Great egret, great blue heron, and ferruginous hawk** – deleted these three species from the special-status species table because they are common bird species with only protections from the Migratory Bird Treaty Act.

- **Western burrowing owl** – reduced its potential to occur from high to moderate because during multiple years of surveys at the project site, no burrowing owl has ever been observed. The habitat present on site is still suitable for the species and thus its potential to occur remains moderate.

- **Vernal pool fairy shrimp and vernal pool tadpole shrimp** – wet season dipnet surveys and dry season soil sample surveys were conducted for both species. The survey results for both survey methodologies were negative. It is unlikely these species have any potential to occur at the project site, and its status was revised appropriately in Table 3.

- **Northwestern pond turtle** – the aquatic habitat is only marginally suitable for the species because it does not retain water throughout its nesting season from May to July. Also, no northwestern pond turtles have ever been observed at the project site during surveys. There is no appropriate aquatic habitat in the nearby vicinity, and it is unlikely the turtles will venture away from more suitable habitat to the project site. The species' potential to occur was reduced from medium to low.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Amphibians			
California tiger salamander *Ambystoma californiense*	FT/ST	Grassland, oak savanna, and edges of mixed woodland and lower elevation coniferous forest. Requires temporary breeding ponds to breed. Spends most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. Requires both suitable upland terrestrial habitat with mammal burrows for refuge and temporary breeding ponds to survive and reproduce. Found in the Central Valley and adjacent Sierra Nevada foothills up to 1,500 feet. The Cosumnes River marks the northern boundary of the species' range, except for an isolated occurrence in the Dunnigan Hills in northern Yolo County.	**Absent.** Suitable habitat (seasonal wetlands, vernal pools, annual grassland) is present within the project site. However, the site is outside known species range; the project area is north of the Cosumnes River. Dipnet surveys were conducted in all the potential aquatic habitat features and none of them contained California tiger salamander larvae. There are no recorded observations of this species in the CNDDB within five miles.
Foothill yellow-legged frog *Rana boylii*	FE/SE	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg laying. Need at least 15 weeks to attain metamorphosis.	**Unlikely.** No suitable habitat is present for this species within the project site. There are no recorded observations of this species in the CNDDB within five miles.
California red-legged frog *Rana draytonii*	FT/SSC	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources: lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County.	**Unlikely**. The drainages within the project site do not provide suitable habitat for this species because they are too shallow and dry up in late spring and summer. There are no recorded observations of this species in the CNDDB within five miles.
Western spadefoot *Spea hammondii*	FPT/SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools (typically in large complexes) are essential for breeding and egg-laying. Found in the Sierra Nevada foothills, Central Valley, Coast Ranges, and coastal counties in southern California.	**Absent.** Isolated marginal aquatic habitat (discontinuous seasonal wetlands, vernal pools) is sparse and broadly distributed across the project site. Suitable upland habitat (annual grasslands) is present within project site, but the low density of aquatic habitat reduces the likelihood for the species to occur. Dipnet surveys were conducted in all the potential aquatic habitat features and none of them contained spadefoot larvae. There are no recorded observations of this species in the CNDDB within five miles.
Birds			
Tricolored blackbird *Agelaius tricolor*	--/ST	Highly colonial, most numerous in Central Valley and vicinity. Nests in cattails, tules, and blackberries large enough for at least 50 nesting pairs, usually over water. Requires foraging area with insect prey within a few kilometers of the colony. Forages in grassland and cropland.	**High/Present.** There is a nesting colony at the project site in riparian wetland blackberry patches associated with an intermittent channel. There are numerous occurrences documented in the CNDDB to the south and west within five miles.
Grasshopper sparrow *Ammodramus savannarum*	--/SSC	Occurs in dry, dense grasslands, especially with scattered shrubs for sitting perches. A thick cover of grasses and tall forbs is essential for concealment. Nests are built of grasses and forbs in slight depressions in ground hidden by a clump of grasses or forbs. Loosely colonial when nesting.	**Moderate.** Grassland in the project site is kept grazed and relatively low in stature. There are relatively few shrubs present in the grassland. There are no recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Golden eagle *Aquila chrysaetos*	--/FP	Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals for prey. Foothills and mountains throughout California; uncommon nonbreeding visitor to lowlands such as the Central Valley.	**Low.** No nesting habitat is present within the project site. Could utilize annual grasslands for foraging. There are two recorded observations of this species in the CNDDB within five miles.
Western burrowing owl *Athene cunicularia*	--/SCE	Nests and forages in open, dry, annual or perennial grasslands and scrublands characterized by low-growing vegetation. Subterranean nester dependent upon burrowing mammals, especially California ground squirrel (*Otospermophilus beecheyi*) for burrows. May also be found around golf courses, and disturbed/ruderal habitat in urban areas. Forages in open plains, grasslands, and prairies.	**Moderate.** Suitable nesting and foraging habitat occurs in annual grasslands in the project site. However, despite regular and ongoing reconnaissance surveys of the project area, no burrowing owls have been observed. There are four recorded observations of this species in the CNDDB within five miles, and there is an additional recent observation immediately west in the Carson Creek Specific Plan Area.
Swainson's hawk *Buteo swainsoni*	--/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Nests in oaks or cottonwoods in or near riparian habitats. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations. Northern habitat summer range in California begins in central Tehama south to Kern County. Predominant breeding habitat is located in the Central Valley.	**Low.** No suitable nesting habitat is present on site; suitable foraging habitat is present within the annual grasslands. However, there are no recorded active nests within five miles of the project site. There are two recorded observations of this species in the CNDDB within five miles; however, both records are from 1992.
White-tailed kite *Elanus leucurus*	--/FP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Moderate**. Suitable nest trees are present within the blue oak grove on site. Annual grassland in the project area provides foraging habitat for this species. There are three recorded observations of this species in the CNDDB within five miles.
Bald eagle *Haliaeetus leucocephalus*	--/SE,FP	Prefers oceans shores, lake margins, and rivers for both nesting and wintering. Most nests are within one mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**Unlikely**. Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
California black rail *Laterallus jamaicensis*	--/ST,FP	Found in salt, brackish, and freshwater marsh with dense vegetation for nesting habitat. Majority of population found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays; also found in freshwater marshes in the foothills of the Sierra Nevada.	**Unlikely**. Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Bank swallow *Riparia riparia*	--/ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, and ocean to dig nesting hole.	**Unlikely**. Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Fish			
Delta smelt *Hypomesus transpacificus*	FT/SE	Open surface waters in the Sacramento/San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Found in Delta estuaries with dense aquatic vegetation and low occurrence of predators. May be affected by downstream sedimentation.	**Unlikely**. Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT/--	This evolutionary significant unit (ESU) enters the Sacramento and San Joaquin Rivers and their tributaries from July to May; spawning occurs from December to April. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays. Needs cool water with moderate size gravel for spawning and cover for rearing.	**Unlikely**. Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Invertebrates			
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Absent.** Wet season dipnet surveys and dry season soil sampling surveys were conducted at potentially suitable aquatic habitat features. The survey results were negative. Although there are three recorded observations of this species in the CNDDB within five miles, it is unlikely this species occurs in the project site.
Crotch bumble bee *Bombus crotchii*	--/SCE	Inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species and nests underground, often in abandoned rodent dens. The historic range includes much of southern California, the San Joaquin Valley, central coast range, Bay Area, and more limited areas elsewhere in northern California (The Xerces Society 2018).	**Unlikely**. The grassland may provide suitable habitat, but the site is outside the current range and there are no records in El Dorado County despite a relatively high sampling effort (The Xerces Society 2018). There are no recorded observations of this species in the CNDDB within five miles
Monarch butterfly *Danaus plexippus*	FC/--	Overwintering trees occur near the coast. Larvae feed on milkweed plants (*Asclepias* sp.) elsewhere.	**Low.** Narrow leaf milkweed plants were observed on the project site, but in low abundance. The project site provides limited habitat but is outside of known winter aggregation sites.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/--	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* subsp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**Unlikely.** No suitable habitat is present for this species within the project area. No elderberry shrubs were noted within the site during biological surveys conducted for the project. There are no recorded observations of this species in the CNDDB within five miles.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE/--	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**Absent.** Wet season dipnet surveys and dry season soil sampling surveys were conducted at potentially suitable aquatic habitat features. The survey results were negative. Although there are five recorded observations of this species in the CNDDB within five miles, it is unlikely this species occurs in the project site.
Mammals			
Pallid bat *Antrozous pallidus*	--/SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky outcroppings for roosting, particularly near water. Roosts in rock crevices, buildings, and under bridges. Roosts must protect bats from elevated temperatures. Sensitive to disturbance of roosting sites.	**Low.** No suitable roosting habitat is present in the project site; however, suitable foraging habitat is present in the annual grasslands. There are no recorded observations of this species in the CNDDB within five miles.
Fisher – West Coast DPS *Pekania pennanti*	--/SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning. Needs large areas of mature, dense forest.	**Unlikely**. Suitable habitat is not present within the project site.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
American badger *Taxidea taxus*	--/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Low.** Suitable burrowing and foraging habitat occurs in annual grasslands in the project site; however, no burrows that could be utilized by this species were present. There are no recorded observations of this species in the CNDDB within five miles.
Reptiles			
Northwestern pond turtle *Actinemys marmorata*	FPT/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg-laying. Populations extend throughout the coast and Central Valley of CA.	**Low**. Marginally suitable aquatic habitat is present in the intermittent stream. The intermittent stream only has water in it during the winter and spring and substantial portions of it dries up in the hot summer months. Potential nesting habitat is present in adjacent uplands within the project site. However, with the lack of suitable aquatic habitat during the nesting window from May to July, nesting in the project site is unlikely. No turtles have been observed at the project site during surveys. There are four recorded observations of this species in the CNDDB within five miles.
Coast horned lizard *Phrynosoma blainvillii*	--/SSC	Frequents a wide variety of habitats; however, most common in lowlands along sandy washes with scattered low bushes. Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Needs open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of native ants.	**Unlikely**. Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Giant gartersnake *Thamnophis gigas*	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians. Requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter. Utilizes upland habitats within 200 feet from aquatic habitats. This is the most aquatic of the garter snakes in California. Occurs in the Central Valley from Fresno County north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno.	**Unlikely**. Suitable habitat is not present within the project site. The project site is outside the range. There are no recorded observations of this species in the CNDDB within five miles.
Plants			
Jepson's onion *Allium jepsonii*	--/--/1B.2	Open, serpentine or volcanic slopes, flats. Blooms April- August. Elevation 300-600m.	**Unlikely.** Suitable habitat is not present within the project site. Site is outside elevation range of species. There are no recorded observations of this species in the CNDDB within five miles.
Ione manzanita *Arctostaphylos myrtifolia*	FT/--/1B.2	Acidic sandy or clay soils, chaparral, woodland. Blooms January – February. Elevation 70-770m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Stebbin's morning-glory *Calystegia stebbinsii*	FE/SE/1B.1	Chaparral. Blooms April – June. Elevation 185-1,090m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site
Chaparral sedge *Carex xerophila*	--/--/1B.2	Dry gabbro or serpentine soils in open forest, scrub, thicket edges, chaparral. Fruits March – June. Elevation 450-770m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Pine Hill ceanothus *Ceanothus roderickii*	FE/SR/1B.1	Rocky, gabbro-derived substrates, chaparral, oak/pine woodland. Blooms March – June. Elevation 260-630m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Red Hills soaproot *Chlorogalum grandiflorum*	--/--/1B.2	Serpentine or gabbro outcrops, open shrubby or wooded hills. Blooms May – June. Elevation 300-500m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Bisbee Peak rush rose *Crocanthemum suffrutescens*	--/--/3.2	Shallow soils on Ione formations within in chaparral. Blooms April – June. Elevation 100-700m.	**Unlikely.** Suitable habitat is not present within the project site. There are three recorded observations of this species in the CNDDB within five miles.
Dwarf downingia *Downingia pusilla*	--/--/2B.2	Vernal pools, roadside ditches. Blooms March – May. Elevation up to 150m.	**Moderate.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Starved daisy *Erigeron miser*	--/--/1B.3	Rocky sites. Blooms July – October. Elevation 1,900-2,300m.	**Unlikely.** Suitable habitat is not present within the project site. Site is outside elevation range of species. There is one recorded observation of this species in the CNDDB within five miles.
Ione buckwheat *Eriogonum apricum* var. *apricum*	FE/SE/1B.1	Clay soils on Ione formations. Blooms June – October. Elevation 80-200m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Irish Hill buckwheat *Eriogonum apricum* var. *prostratum*	FE/SE/1B.1	Clay soils on Ione formations. Blooms June – July. Elevation 90-120m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Tuolumne button-celery *Eryngium pinnatisectum*	--/--/1B.2	Vernal pools, swales, intermittent streams. Blooms May – August. Elevation 70-950m.	**Moderate.** Suitable habitat present in the vernal pools, seasonal wetlands, swales and intermittent streams present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Pine Hill flannelbush *Fremontodendron decumbens*	FE/SR/1B.2	Gabbro outcrops in chaparral or pine woodland. Blooms April – July. Elevation 425-7 60m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
El Dorado bedstraw *Galium californicum* subsp. *sierrae*	FE/SR/1B.2	Oak pine, oak forests, chaparral. Blooms March – July. Elevation 100-500m.	**Unlikely.** Suitable habitat is not present within the project site. There is one recorded observation of this species in the CNDDB within five miles.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--/SE/1B.2	Shallow water, margins of vernal pools. Blooms April – September. Elevation up to 1,600m.	**Moderate.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There is one recorded observation of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFW/ CNPS**	**General Habitat Requirements**	**Potential for Species Occurrence at the Project Site**
Parry's horkelia *Horkelia parryi*	--/--/1B.2	Chaparral or woodland. Blooms April – September. Elevation 80-1,070m.	**Unlikely.** Suitable habitat is not present within the project site. There are no recorded observations of this species in the CNDDB within five miles.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--/--/1B.2	Vernal pool margins, grassland swales, and gopher mounds. Fruits March – May. Elevation 30-90m.	**Moderate.** Suitable habitat present in the vernal pools, seasonal wetlands, and swales present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Legenere *Legenere limosa*	--/--/1B.1	Wet areas, vernal pools, ponds. Blooms March – June. Elevation up to 950m.	**Moderate.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There is one recorded observation of this species in the CNDDB within five miles.
Pincushion navarretia *Navarretia myersii* subsp. *myersii*	--/--/1B.1	Vernal pools. Blooms April – May. Elevation 20-90m.	**Moderate.** Suitable habitat present in the vernal pools and some seasonal wetlands present in the project site. There are no recorded observations of this species in the CNDDB within five miles.
Slender Orcutt grass *Orcuttia tenuis*	FT/SE/1B.1	Vernal pools, often gravelly soils. Species requires prolonged inundation period. Species known from larger pools (>0.2 acre). Blooms May – October. Elevation 36-1,760m.	**Unlikely**. Although the project site supports vernal pool habitat, the vernal pools in the site are not large enough nor do they remain inundated long enough to support this species. There are no recorded observations of this species in the CNDDB within five miles.
Sacramento Orcutt grass *Orcuttia viscida*	FE/SE/1B.1	Vernal pools. Species requires prolonged inundation period. Species known from larger pools (>0.1 acre). Blooms April – July. Elevation up to 100m.	**Unlikely**. Although the project site supports vernal pool habitat, the vernal pools in the site are not large enough nor do they remain inundated long enough to support this species. There are no recorded observations of this species in the CNDDB within five miles.
Layne's ragwort *Packera layneae*	FT/SR/1B.2	Serpentine or gabbroic soils within openings in chaparral or woodlands. Blooms April – August. Elevation 200-1,085m.	**Unlikely.** Suitable habitat is not present within the project site. There are three recorded observations of this species in the CNDDB within five miles.
Sanford's arrowhead *Sagittaria sanfordii*	--/--/1B.2	Ponds, ditches. Blooms May – November. Elevation up to 300m.	**Low**. Most of the aquatic habitats do not inundate long enough to support this species. There is limited habitat in some of the aquatic habitats that receive warm-season irrigation runoff from nearby development. There is one recorded observation of this species in the CNDDB within five miles, but most records are in the Central Valley and not the foothills.
El Dorado County mule ears *Wyethia reticulata*	--/--/1B.2	Wooded slopes, chaparral, coniferous forest, clay or gabbroic soils. Blooms April – August. Elevation 150-630m.	**Unlikely.** Suitable habitat is not present within the project site. There are two recorded observations of this species in the CNDDB within five miles.

TABLE 3
REGIONAL SPECIAL-STATUS SPECIES

Common Name *Scientific Name*	Listing Status USFWS/ CDFW/ CNPS	General Habitat Requirements	Potential for Species Occurrence at the Project Site

STATUS CODES:

FEDERAL (U.S. Fish and Wildlife Service):

FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FPT = Federally proposed as Threatened
FC = Candidate for Federal Listing
MBTA = Migratory Bird Treaty Act (used when other designations absent)

STATE (California Department of Fish and Wildlife):

SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SCE = Candidate for state Listing
SSC = California species of special concern
CFP = California fully protected bird species

California Native Plant Society (CNPS):

Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
Rank 2A = Plants presumed extirpated in California but common elsewhere
Rank 2B = Plants rare, threatened, or endangered in California but more common elsewhere
Rank 3 = Plants about which more information is needed
Rank 4 = Plants of limited distribution

CNPS Code Extensions
.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly threatened in California (20-80% occurrences threatened)
.3 = Not very threatened in California (less than 20% of occurrences threatened or no current threats known)

SOURCE: CDFW, 2023a; USFWS, 2023a; CNPS, 2023, ESA, 2024b

Regulatory Framework

There are no updates to the regulatory framework from the 2023 BRCR.

Impacts and Mitigation Measures

Significance Criteria

There are no updates to the significance criteria from the 2023 BRCR.

Impact Assessment Methodology

There are no updates to the impact assessment methodology from the 2023 BRCR; however, it should be noted that the updates in the subsequent sections of this memorandum provide a comparison of potential impacts based on the two project alternatives. The revised tables provide for a side-by-side comparison of Proposed Project and the Reduced Impact Alternative impacts. The Proposed Project design included impacts to several biological resources.

Impact Analysis

There are updates to the acreages for habitat impacts from the 2023 BRCR.

Habitat impacts for the two project alternatives are identified in **Table 4**. The impacts on habitats associated with the Proposed Project and Reduced Impact Alternatives are depicted in **Figure 5** and **Figure 6**, respectively. All

the offsite impacts will be in Latrobe Road or adjacent developed/disturbed areas, and those acreage impacts are included in the table below. The impacts for the Proposed Project Area and Reduced Impact Alternative Area include impacts associated with the emergency vehicle access road.

TABLE 4
HABITAT IMPACTS

Habitat Type	Proposed Project Area (acres)[1, 2]	Reduced Impact Alternative Area (acres)[1, 2]
Annual Grassland	180.78	193.86
Blue Oak Woodland	0.20	0.39
Culvert	<0.01	<0.01
Developed/Disturbed	0.54	0.38
Ditch	--	0.014
Ephemeral Drainage (Riverine)	1.91	1.98
Intermittent Drainage (Riverine)	0.67	0.75
Seasonal Wetland[3]	1.33	1.45
Valley Foothill Riparian	0.10	0.54
Vernal Pool	0.07	0.07
Total Impacts[4]	**185.59**	**199.42**

SOURCE: ESA, 2024.

[1] The Proposed Project Area and Reduced Impact Alternative Area includes Project Area impacts related to disturbance and development of the emergency vehicle access road.
[2] Impact acreages to the offsite areas along Latrobe Road and for transportation intersection and sewer improvements are limited to developed/disturbed land covers within the existing roadways and the roadway rights-of-way and are not included in this table.
[3] Seasonal wetland includes seeps, riverine seasonal wetland, and seasonal wetland features.
[4] Totals may not sum due to rounding.

Impact Discussion

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

There are updates to the impact discussion on tricolored blackbird, western burrowing owl, northwestern pond turtle, vernal pool tadpole shrimp, and vernal pool fairy shrimp from the 2023 BRCR. Some of these changes may only apply to the Reduce Impact Alternative, while other changes are reflective of both alternatives and universally applicable to the entire site. Updates in this section are focused on the following species:

- *Vernal pool fairy shrimp*
- *Vernal pool tadpole shrimp*
- *Tricolored blackbird*

- *Western burrowing owl*
- *Northwestern pond turtle*

Less than Significant with Mitigation Incorporated. Special-status species and their habitats that may be affected either directly or indirectly through implementation of the alternatives. Each of these potentially affected species is described below.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Vernal pools and some seasonal wetlands in the project site may provide suitable habitat for the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. Most of the waters and wetlands on the project site are not habitat for listed branchiopods because they are either riverine, flow-through channels, or sloped wetlands that do not pond water. A field visit on December 10, 2020 identified potential habitat for listed branchiopods in select aquatic resource features. Other small seasonal wetlands, and one vernal pool (VP-2), were determined based on topography and vegetation to be too infrequently, if ever, inundated to support listed branchiopods. In coordination with the USFWS, ESA biologists completed protocol level surveys of all the potentially suitable aquatic habitat for listed branchiopods (ESA, 2024b).

No vernal pool fairy shrimp nor other fairy shrimp species were observed in any of the aquatic features that retained sufficient water for dipnet surveys.

Dry season soil sampling was also completed in early summer 2024. The soil sample analysis was completed per the USFWS protocol and no fairy shrimp eggs were observed in any of the soil samples. Based on these results, it is unlikely that vernal pool fairy shrimp and vernal pool tadpole shrimp occur in the project site and the project will not adversely affect any branchiopod individuals (ESA, 2024b).

Given the negative results from the wet and dry season surveys for large, listed branchiopods, it was determined that vernal pool fairy shrimp and vernal pool tadpole shrimp are unlikely to occur at the project site. Thus, it was determined there would be a **less than significant** impact on vernal pool fairy shrimp and vernal pool tadpole shrimp.

Special-Status Birds and Common Nesting Migratory Birds and Raptors

The project site and adjacent areas provide suitable habitats for nesting birds, including, but not limited to, special-status species such as tricolored blackbird, grasshopper sparrow, western burrowing owl, and white-tailed kite, as well as more common migratory birds and raptors.

Tricolored Blackbird

The Proposed Project would remove blackberry shrubs located along a riparian wetland corridor known to support tricolored blackbirds nesting colony. ESA conducted a site visit on April 19, 2022 to determine the current status of the tricolored blackbird nesting colony. The nesting colony reported in CNDDB was observed in clusters of Himalayan blackberry in riparian wetlands during the survey. The tricolored blackbird nesting colony was observed again incidentally during the wet season fairy shrimp dipnet surveys in 2024. This nesting colony likely returns to these blackberry thickets most years because it continues to have successful nests.

Both the Proposed Project and the Reduced Impact Alternative would have direct impacts on a portion of tricolored blackbird nesting habitat (e.g., blackberry thicket associated with Riparian Wetland [RW] 11). Impacts associated with the Proposed Project and Reduce Impact Alternative would be similar in location and magnitude.

For the portion of the nesting habitat that would be remain after construction, human disturbances and noise from construction activities have the potential to cause colony abandonment and death of young or loss of reproductive success during nesting season. Nesting birds could be adversely affected if the colony is exposed to a substantial increase in noise or human presence during project construction and operation.

Under both the Proposed Project and Reduced Impact Alternative, potential impacts on tricolored blackbird would be considered a **potentially significant** impact. Both the Proposed Project and Reduced Impact Alternative would implement **Mitigation Measures BIO-2a**, **BIO-4**, **BIO-5,** and **BIO-6,** to reduce impacts on tricolored blackbirds to **less than significant**.

Western Burrowing Owl and Grasshopper Sparrow

The grasshopper sparrow is a California species of special concern. The western burrowing owl is a candidate endangered species for listing under the CESA after the California Fish and Game Commission accepted a petition to list it on October 10, 2024.

Suitable annual grassland habitat for these species is present within the project site; however, no burrowing owls or grasshopper sparrows or active nests were observed during the biological surveys. Some soils within the project site are sandy and friable, which could provide suitable burrowing sites. However, there was no California ground squirrel (*Otospermophilus beecheyi*) activity observed within the project site and there were few alternative burrow features observed during the surveys. While no soil mounds were visible during the field survey, surrounding fence posts would provide suitable perches above potential nests within the annual grassland habitat. The annual grassland habitat also provides suitable foraging habitat for these species.

The proposed project could also result in a permanent loss of foraging opportunities for these species under either alternative. The loss of foraging habitat in the project site is not expected to significantly impact these species because these habitats are abundant in the vicinity.

Because the western burrowing owl is a candidate under CESA, if the species is present, and could be impacted by either alternative, then an incidental take permit may be required under CESA. CDFW may require compensatory mitigation, to meet the “fully mitigated” standard (CA Fish and Game Code §2081(b)(2)), a threshold higher than CEQA requirements.

Accordingly, under either alternative could potentially impact individual burrowing owls or grasshopper sparrows if they occupied the project site prior to construction. Indirect impacts to nesting birds during construction could extend up to 500 feet from the limits of construction. Potential impacts could include abandonment of nest sites and the mortality of young. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-2a**, **BIO-2b**, **BIO-5**, and **BIO-6,** the project’s impact to western burrowing owl and grasshopper sparrow would be considered **less than significant**.

Northwestern Pond Turtle

Four CNDDB occurrences occur within five miles of the project site, with the nearest two occurrences(#1316 and 468) respectively from observations in 2016 in Carson Creek 0.5 mile west of the project and 1988 from Deer Creek where it crosses Latrobe Road 0.9 mile southeast of the project site. Potentially suitable aquatic habitat for northwestern pond turtle was determined to occur on the project site within the intermittent drainage when inundated and the annual grasslands near the drainage may provide suitable upland nesting habitat. However, it is unlikely that northwestern pond turtles would occur in intermittent drainage feature and adjacent uplands within 0.25-mile (1,320 feet) because of insufficient water in the drainage feature year-round. To date this species has not been observed within this marginally suitable habitat during numerous survey efforts, including aquatic resource delineation and protocol-level branchiopod surveys. The drainage feature only has sufficient water during the winter and spring and it is typically dry by late spring. Also, the intermittent drainage is narrow (3-5 feet wide at the most), is densely vegetated throughout most of it, and has incised steep banks. Since the aquatic feature is mostly unsuitable habitat for northwestern pond turtle, it is unlikely any individuals would move upstream from the larger creek to the west into the project site. Also, there is no substantial open water upstream from where they may originate.

Given the marginally suitable aquatic habitat present, both alternatives have low potential to directly impact northwestern pond turtle. If present, northwestern pond turtle individuals could be harmed during placement of fill and grading activities during construction, which could crush individuals or occupied nests. Further reduction in habitat quantity and quality could result from hydrological alterations related to culvert or bridge installation, grading, or through construction of impervious surfaces, which could prevent adults from utilizing the affected habitats for nesting. Reduction in water quality could also occur from the creation of exposed areas of bare soil. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-3** and **BIO-5** through **BIO-7,** the project's impact to northwestern pond turtle would be considered **less than significant**.

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

There are no updates or revisions to the 2023 BRCR. The Reduced Impact Alternative has the same impacts on sensitive natural communities as the Proposed Project and would require the same mitigation measures. As described in Table 4, there are minor differences in the acreage of impacts on riparian habitat.

c) **Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Table 5 provides an update to the acreages of impact on state or federally protected wetlands associated with the Proposed Project and Reduced Impact Alternative. These changes are due, in part, to the revised aquatic resource delineation and input from the USACE.

Less than Significant with Mitigation Incorporated. The project site supports wetlands and other waters that may be subject to USACE jurisdiction under Section 404 of the CWA and/or regulation under the Porter-Cologne Act, California Fish and Game Code Section 1600 et seq. and the State Wetland Dredge and Fill Policy.

Development of the Proposed Project and Reduced Impact Alternative would result in the loss of potentially jurisdictional wetlands and other waters of the U.S. or State protected waters/wetlands as summarized in **Table 5**.

These features would be directly affected through grading and placement of fill. The loss of wetlands and other waters of the U.S. or State protected waters/wetlands is considered **potentially significant** impact. With the implementation of **Mitigation Measures BIO-4** through **BIO-7,** the project's impact to state or federally protect wetlands would be considered **less than significant**.

TABLE 5
SUMMARY OF IMPACTS TO AQUATIC RESOURCES

Aquatic Resource	Proposed Project Acres[1, 2]	Reduced Impact Alternative Acres[1, 2]
Culvert	0.003	0.004
Ditch	--	0.014
Ephemeral Drainage	1.906	1.978
Intermittent Drainage	0.671	0.753
Riparian Wetland	0.097	0.479
Riverine Seasonal Wetland	0.165	0.165
Seasonal Wetland	0.016	0.110
Seep	1.151	1.173
Vernal Pool	0.063	0.065
Wetland Swale	--	--
Totals[3]	**4.069**	**4.741**

SOURCE: ESA, 2024.

[1] The Proposed Project Area and Reduced Impact Alternative Area includes Project Area impacts related to disturbance and development of the emergency vehicle access road.
[2] Impact acreages to the offsite areas along Latrobe Road and for transportation intersection and sewer improvements are limited to developed/disturbed land covers within the existing roadways and the roadway rights-of-way and are not included in this table.
[3] Totals may not sum due to rounding

d) **Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Most of the information presented in the 2023 BRCR remains the same. The Reduced Impact Alternative would have similar impacts on tricolored blackbird nesting habitat, a wildlife nursery site, as the Proposed Project.

As discussed above, there is a nesting colony of tricolored blackbirds on the project site. This colony is considered a native wildlife nursery site. Implementation of the Proposed Project and Reduced Impact Alternative would result in the removal of, or disturbance to the nursey site, and would be considered a **potentially significant** impact.

Both the Proposed Project and the Reduced Impact Alternative would remove a portion of tricolored blackbird nursery site (e.g., blackberry thicket associated with Riparian Wetland [RW] 11). Removal of habitat, human disturbances, and noise from construction and operation activities have the potential to cause adverse affects on the nursery site and could lead to colony abandonment and death of young or loss of reproductive success during nesting season.. This would be considered a **potentially significant** impact. With the implementation of **Mitigation Measures BIO-2a**, **BIO-4, BIO-5**, and **BIO-6,** the Proposed Project and Reduced Impact Alternative 's impact to native nursery sites would be considered **less than significant**.

e) **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

The Reduced Impact Alternative would impact additional blue oak woodland compared to the Proposed Project .

Less than Significant. The refined boundary of blue oak woodland is approximately 0.45 acre in size and is regulated under the El Dorado County Oak Resources Conservation Ordinance (County Code §130.39). Under the Proposed Project, grading would remove approximately 0.20 acre of the blue oak woodland. In comparison, the Reduce Impact Alternative would remove approximately 0.39 acres of blue oak woodland. The County ordinance requires mitigation at a 1:1 ratio for projects that remove less than 50% of on-site oak woodland. Mitigation may be in the form of an in-lieu fee to the County (used to conserve oak woodland in high priority areas of the County pursuant to the El Dorado County [2017] Oak Resources Management Plan), offsite conservation, replacement planting, or a combination of those methods. The mitigation is included as part of a development application and approved by the County as part of the review process. Both alternatives would remove oak woodland, but would not conflict with the local ordinance because mitigation would be required as part of the local approval process. Therefore, neither alternative would conflict with any other local policies or ordinances protecting biological resources.

f) **Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

Neither the Proposed Project nor the Reduced Impact Alternative would conflict with an adopted Habitat Conservation, Natural Community Conservation or other approved local, regional or state habitat conservation plan.

Mitigation Measures

Some mitigation measures were revised or updated from the biological resources constraints report submitted in 2023. Mitigation Measure BIO-1 was deleted because after conducting wet and dry season surveys for large,

listed branchiopods, it was determined the project would have no impacts on these vernal pool species. The compensatory mitigation for loss of wetlands and other waters of the US is covered in BIO-4.

Mitigation Measure BIO-1: Compensate for the Loss of Habitat for Vernal Pool Species.

This mitigation measure should be removed and is no longer applicable since protocol surveys for these species were negative (ESA, 2024b). Neither the Proposed Project, nor the Reduced Impact Alternative would result in significant impacts on this species and thus no mitigation would be required.

Mitigation Measure BIO-2a: Perform Pre-Construction Surveys for Nesting Special-Status and Common Migratory Birds.

There are no proposed changes to this Mitigation Measure.

Mitigation Measure BIO-2b: Perform Pre-Construction Surveys for Burrowing Owl

There are no proposed changes to this Mitigation Measure. However, it should be noted that due to the recent State Candidate listing status of the species, if western burrowing owls are found in or near the alternative an Incidental Take Permit from CDFW may be required.

Mitigation Measure BIO-3: Perform Pre-Construction Surveys for Northwestern Pond Turtle and Monitoring of In-water Work

There are no proposed changes to this Mitigation Measure. However, it should be noted that relocation of northwestern pond turtles could only be conducted with the expressed consent and incidental take authorization by the USFWS.

Mitigation Measure BIO-4: Compensatory Mitigation for Loss of Regulated Resources

Revisions to this measure are proposed to provide greater flexibility in applying compensatory mitigation to all potential regulated resources, not just aquatic resources.

The project proponent shall demonstrate that there is no net loss of wetlands and other waters of the United States or state and other regulated resources including USFWS or CDFW listed wildlife. The project proponent shall develop a compensatory mitigation plan as a part of the permitting process. Compensatory mitigation shall be implemented provided prior to construction-related impacts to the existing waters/wetlands and protected species. The exact mitigation ratio would be determined in consultation with the applicable permitting agencies, which may include USACE, CDFW, and/or RWQCB. The amount of mitigation will be based on the type and value of the resource affected by the project, and will be determined in consultation with the USACE and/or RWQCB, and/or CDFW during the regulatory permitting process. Compensation shall take the form of preservation, restoration, enhancement, or creation in accordance with USACE and/or RWQCB and/or CDFW mitigation requirements, as required under project permits. Compensatory mitigation obligations may be satisfied through the purchase of credits from an agency-approved mitigation bank, contribution to an established in-lieu fee program, or through permittee responsible mitigation.

Mitigation Measure BIO-5: Conduct Environmental Awareness Training

There are no proposed changes to this Mitigation Measure.

Mitigation Measure BIO-6: Install Temporary Barrier Fencing, and/or Flagging to Protect Environmentally Sensitive Habitat Areas

There are no proposed changes to this Mitigation Measure.

Mitigation Measure BIO-7: Implement Best Management Practices to Protect Water Quality

There are no proposed changes to this Mitigation Measure.

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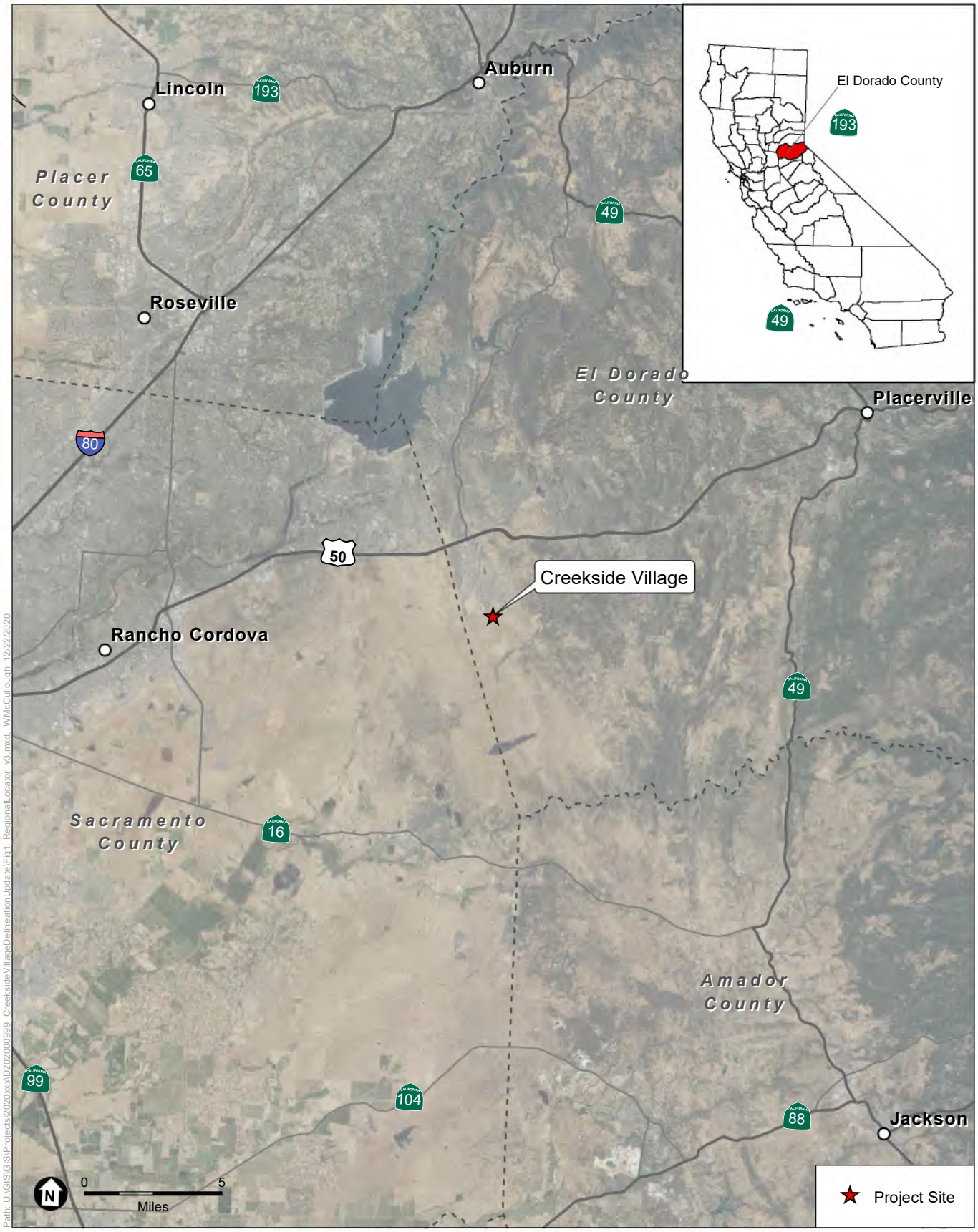
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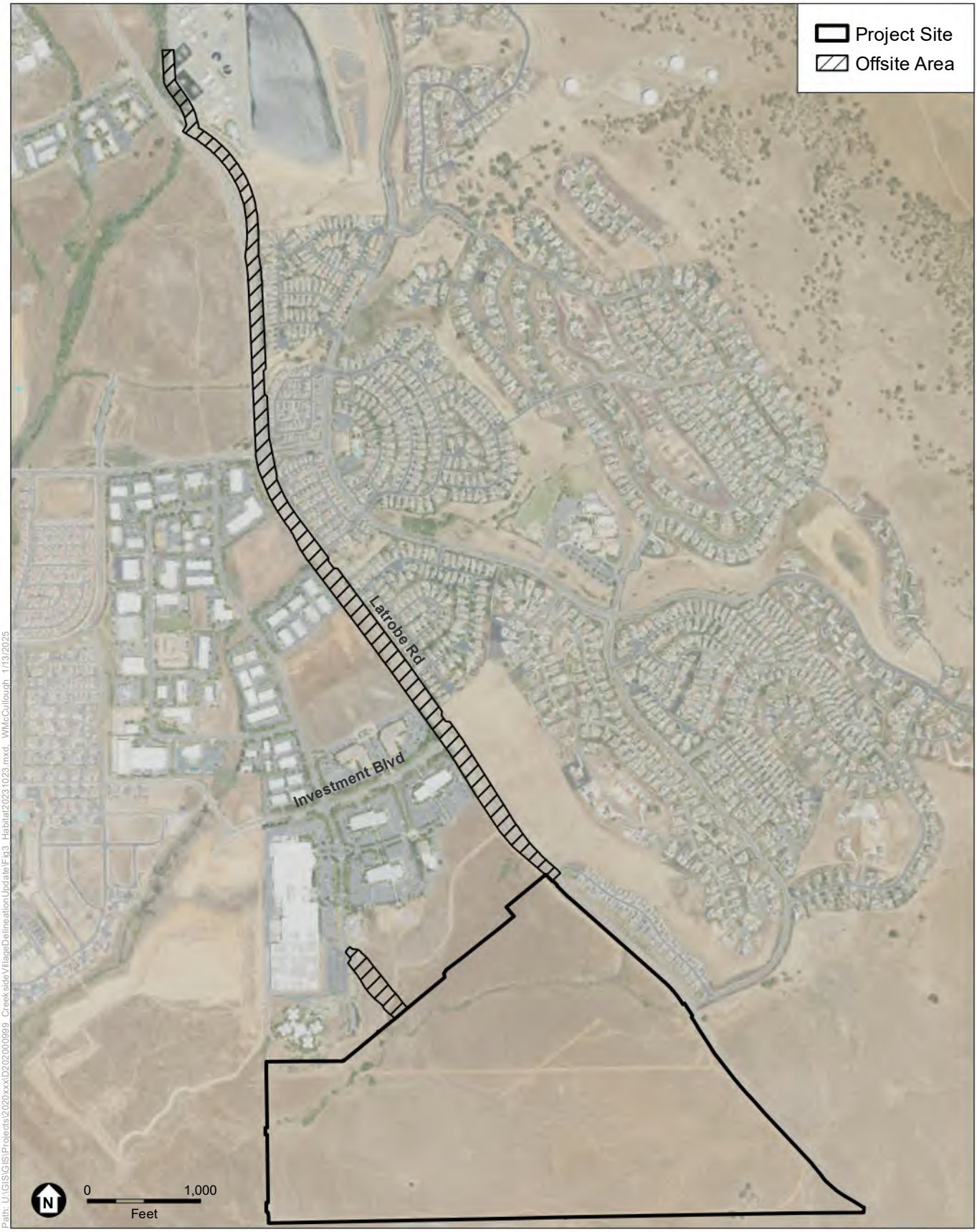
Figures



SOURCE: NAIP, 2018; ESRI, 2012; ESA, 2020

Creekside Village

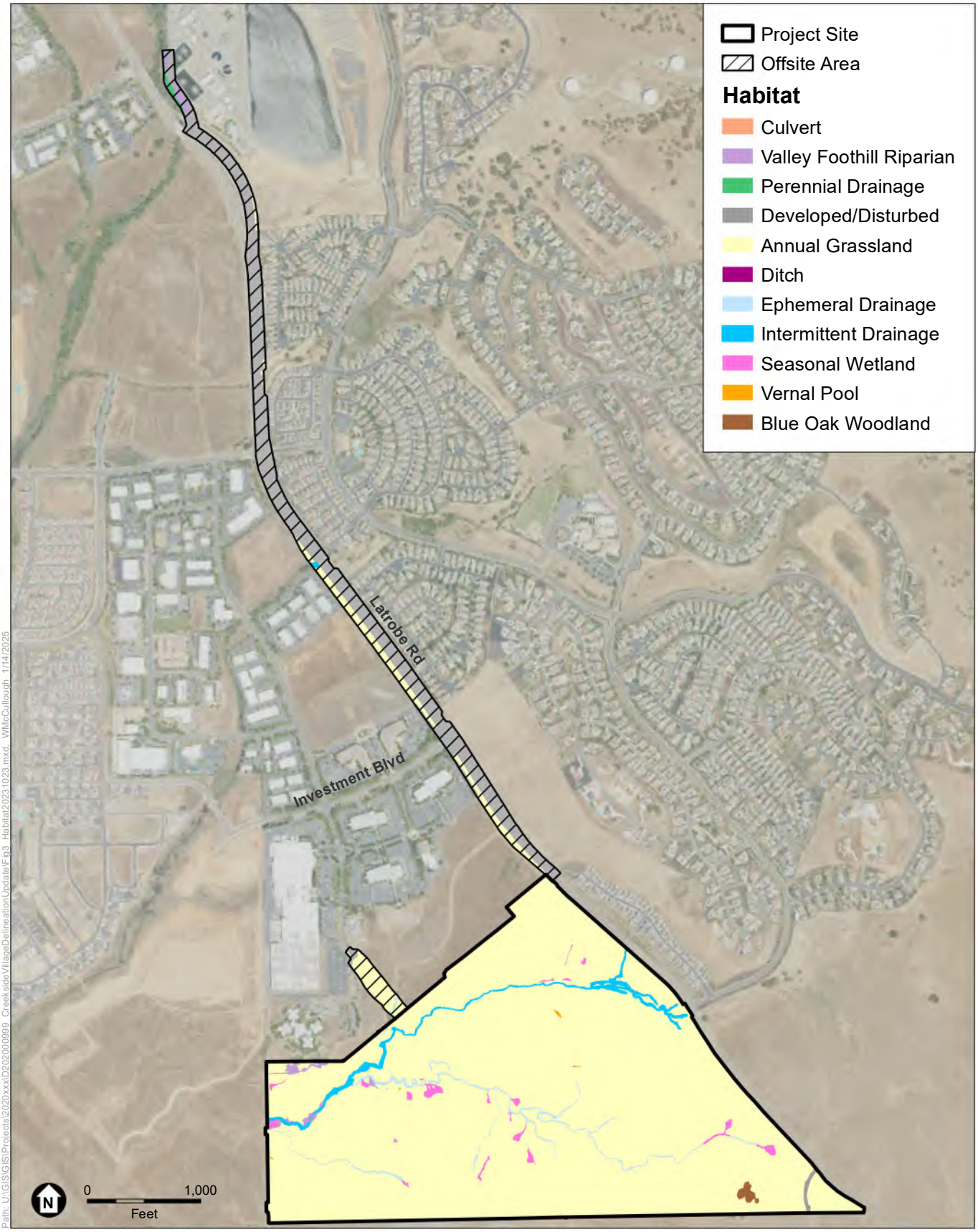
Figure 1
Regional Location



SOURCE: NAIP, 2020; Winn Communities, 2024; ESA, 2024

Creekside Village

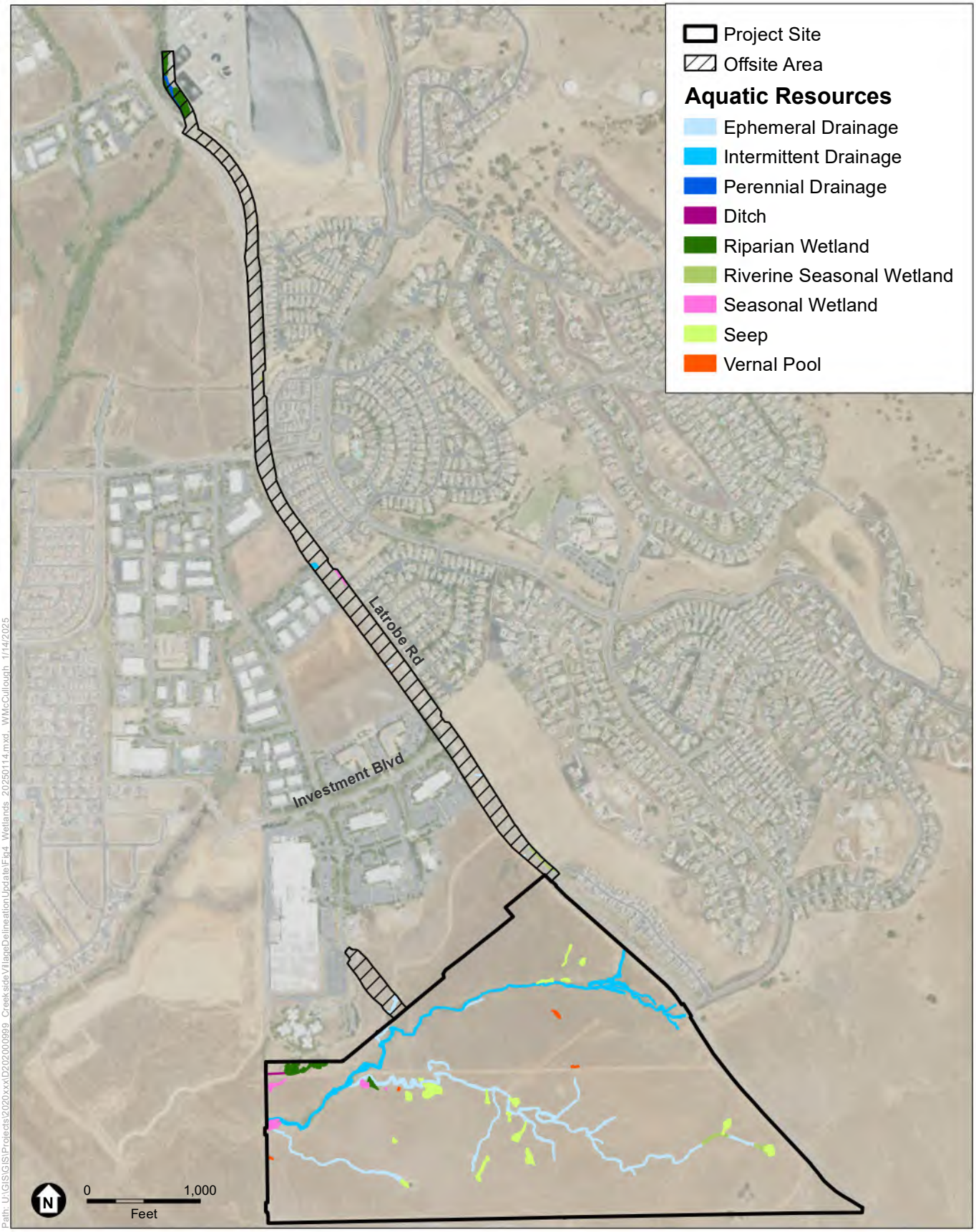
Figure 2
Project Site



SOURCE: NAIP, 2020; Winn Communities, 2024; ESA, 2024

Creekside Village

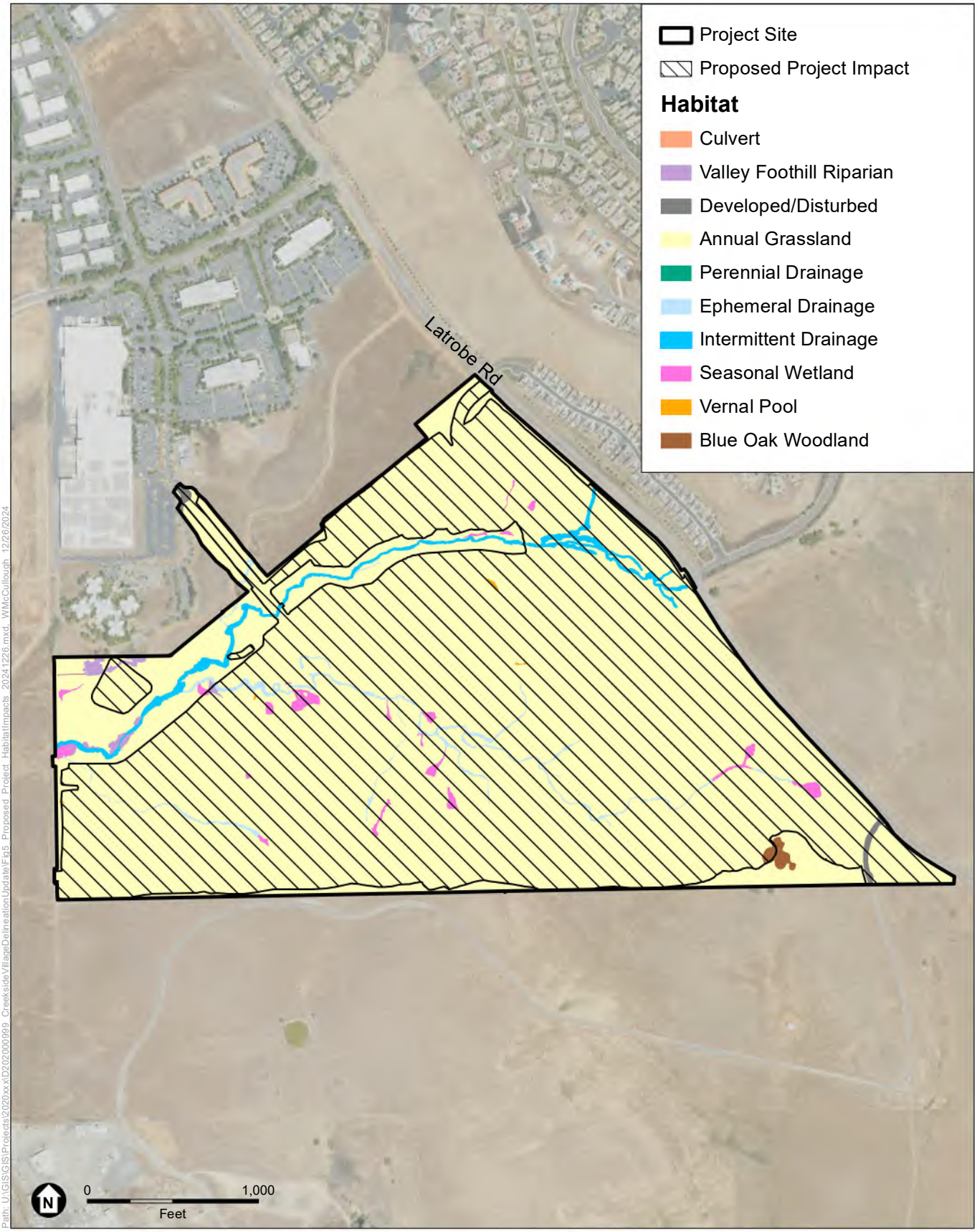
Figure 3
Habitats



SOURCE: NAIP, 2020; Winn Communities, 2024; ESA, 2024

Creekside Village

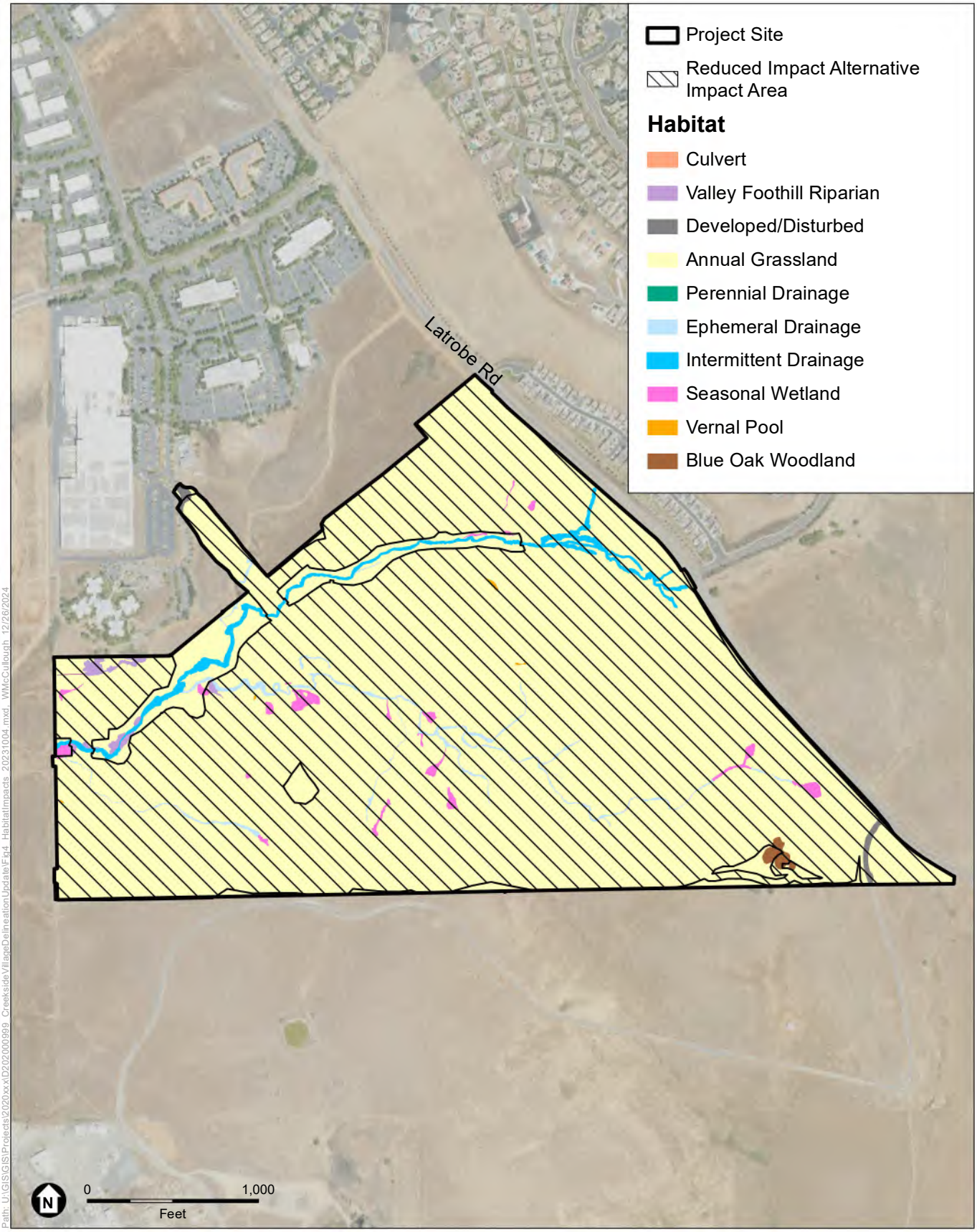
Figure 4
Aquatic Resources



SOURCE: NAIP, 2020; Winn Communities, 2024; ESA, 2024

Creekside Village

Figure 5
Habitat within the Proposed Project Impact Area



SOURCE: NAIP, 2020; Winn Communities, 2024; ESA, 2024

Creekside Village

Figure 6
Habitat within the Reduced Impact Alternative Impact Area

Appendix A Updated Database Queries

United States Department of the Interior

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

In Reply Refer To: 11/15/2024 23:44:55 UTC
Project Code: 2025-0020559
Project Name: Creekside Village

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

To Whom It May Concern:

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2025-0020559
Project Name: Creekside Village
Project Type: Residential Construction
Project Description: Creekside Village is a development project in southwestern El Dorado Hills in western El Dorado County, just east of the City of Folsom. The project area is approximately 210-acres and construction is proposed to begin around 2026. The project's design has been modified from its original design to avoid and minimize impacts to sensitive biological resources.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.61388595,-121.0505398119451,14z



Counties: El Dorado County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
Foothill Yellow-legged Frog *Rana boylii* Population: South Sierra Distinct Population Segment (South Sierra DPS) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5133	Endangered
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Joseph Huang
Address: 2600 Capitol Ave, Ste 200
City: Sacramento
State: CA
Zip: 95816
Email jhuang@esassoc.com
Phone: 9165644500

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Folsom SE (3812151) OR Latrobe (3812058) OR Shingle Springs (3812068) OR Clarksville (3812161) OR Folsom (3812162) OR Buffalo Creek (3812152) OR Sloughhouse (3812142) OR Carbondale (3812141) OR Irish Hill (3812048))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Allium jepsonii Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S1	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos myrtifolia Ione manzanita	PDERI04240	Threatened	None	G1	S1	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Calycadenia spicata spicate calycadenia	PDAST1P090	None	None	G3?	S3	1B.3
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Carex xerophila chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Dumontia oregonensis hairy water flea	ICBRA23010	None	None	G1G3	S1	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eriogonum apricum var. apricum Ione buckwheat	PDPGN080F1	Endangered	Endangered	G2T1	S1	1B.1
Eriogonum apricum var. prostratum Irish Hill buckwheat	PDPGN080F2	Endangered	Endangered	G2T1	S1	1B.1
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Ione Chaparral Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	
Juncus leiospermus var. ahartii Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Nannopterum auritum double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
Orcuttia tenuis slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
Orcuttia viscida Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Rana boylii pop. 5 foothill yellow-legged frog - south Sierra DPS	AAABH01055	Endangered	Endangered	G3T2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 68

CNPS Rare Plant Inventory

Search Results

37 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3812048:3812058:3812068:3812141:3812151:3812162:3812161:3812142:3812152]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2019 Steven Perry
Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2	Yes	1974-01-01	 © 2006 Steve Matson
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G4G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
Bryum chryseum	brassy bryum	Bryaceae	moss		None	None	G5	S3	4.3		2014-05-05	No Photo Available
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Calycadenia spicata	spicate calycadenia	Asteraceae	annual herb	May-Sep	None	None	G3?	S3	1B.3		2023-04-05	 © 2023 Christopher Bronny
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE	G1	S1	1B.1	Yes	1980-01-01	No Photo Available
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	2016-06-06	 © 2023 Steven Perry

Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr)May-Jul	None	None	G4	S4	4.3	Yes	1980-01-01	No Photo Available
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	(Apr)May-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	No Photo Available
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	Yes	1974-01-01	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
Eriogonum apricum var. *apricum*	Ione buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	Yes	1974-01-01	 ©2008 Steven Perry
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2007 Robert E. Preston, Ph.D.
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	Yes	1974-01-01	No Photo Available

Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
Galium californicum ssp. *sierrae*	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	Yes	1974-01-01	 © 2019 John Doyen
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	4.3	Yes	2001-01-01	 © 2019 Barry Breckling
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2009 Barry Breckling
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	Yes	2006-10-12	 © 2014 Aaron Schusteff
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	Yes	1984-01-01	 © 2004 Carol W. Witham
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game

Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3		1974-01-01	 ©2021 Scot Loring
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994-01-01	 © 2020 Leigh Johnson
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © Rick York and CNPS
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Trichostema rubisepalum	Hernandez bluecurls	Lamiaceae	annual herb	Jun-Aug	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available

Showing 1 to 37 of 37 entries

Suggested Citation:
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Aquatic Resources Delineation Report (November 2023)

CREEKSIDE VILLAGE PROJECT

Aquatic Resources Delineation Report

Prepared for
Winn Communities

November 2023



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November 2023

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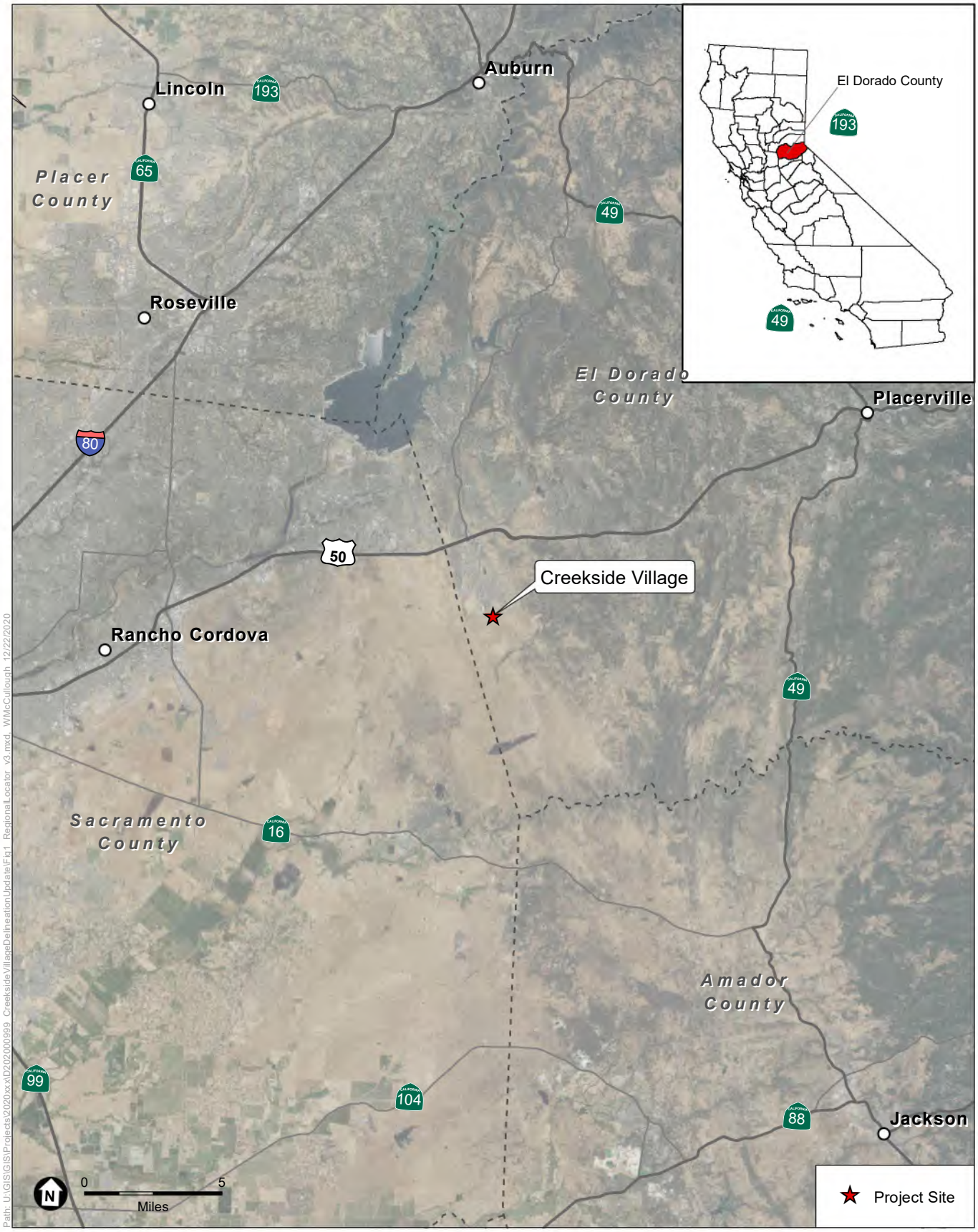
CHAPTER 1
Introduction

This Aquatic Resources Delineation report (report) has been prepared to document the results and conclusions of an aquatic resources delineation and field survey conducted in August 2019 and January 2021 for Creekside Village Project (project). On behalf of Winn Communities, Environmental Science Associates (ESA) investigated the extent of aquatic resources within the project study area that may be subject to Federal regulation under Section 404 of the Clean Water Act (CWA) as well as state of California regulations under the Porter-Cologne Water Quality Control Act, State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Wetlands Procedures), and California Fish and Game Code (FGC) Section 1600. The purpose of this report is to (1) identify features within the project study area (i.e., areas that could be directly affected by construction of the project) that may be regulated under federal or state laws and regulations and (2) provide necessary background information to support required permit applications under said regulations.

The aquatic resource delineation process involves determining the boundaries between wetlands, waters, and surrounding uplands through the investigation of the three parameters that define a wetland: vegetation, soils, and hydrology, as well as those parameters that define non-wetland waters (other waters). This delineation is based on the best professional judgment of ESA investigators. All aquatic resources and the extent of boundaries identified in this report are considered preliminary, pending verification from the appropriate regulatory agencies.

1.1 Survey Location

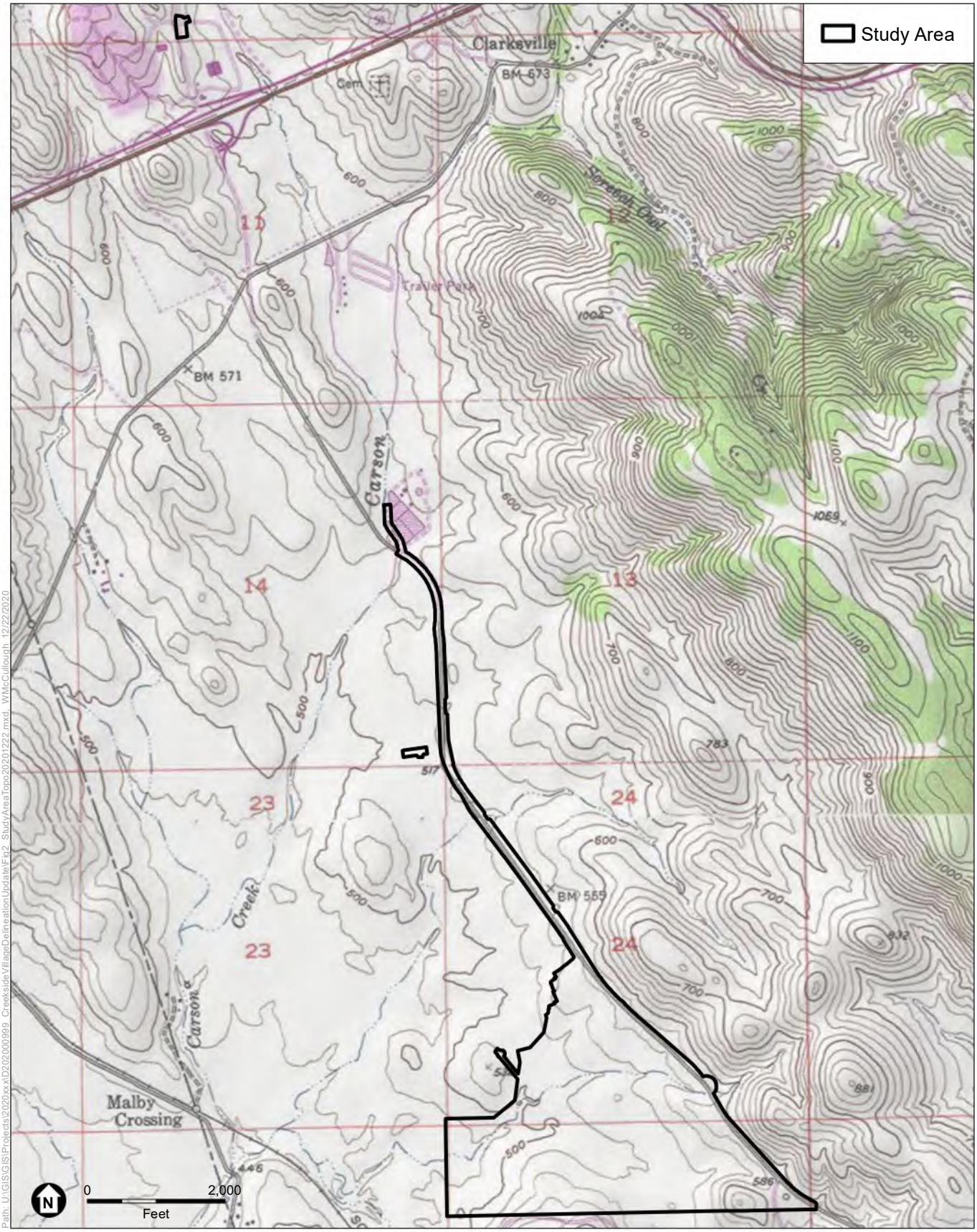
The approximately 271.81-acre study area is located south of the unincorporated community of El Dorado Hills in in western El Dorado County, just east of the City of Folsom, California (**Figures 1** through **3**). The study area for this report comprises the main project footprint (234.43 acres) and offsite locations (37.38 acres) including the sewer force main alignment along Latrobe Road, and three offsite intersections. The Specific Plan Area and Community Park are located south of the intersection of Latrobe Road and Investment Boulevard and corresponds to the Folsom SE, California U.S. Geological Survey (USGS) 7.5-minute series quadrangle. The project also includes the installation of a sewer force main within the alignment of Latrobe Road and offsite improvements at three intersections in El Dorado Hills. These intersections are located at El Dorado Hills Boulevard and Saratoga Way; Golden Foothill Parkway and Robert J. Mathews Parkway; and Latrobe Road and Royal Oaks Drive.



SOURCE: NAIP, 2018; ESRI, 2012; ESA, 2020

Creekside Village

Figure 1
Regional Location

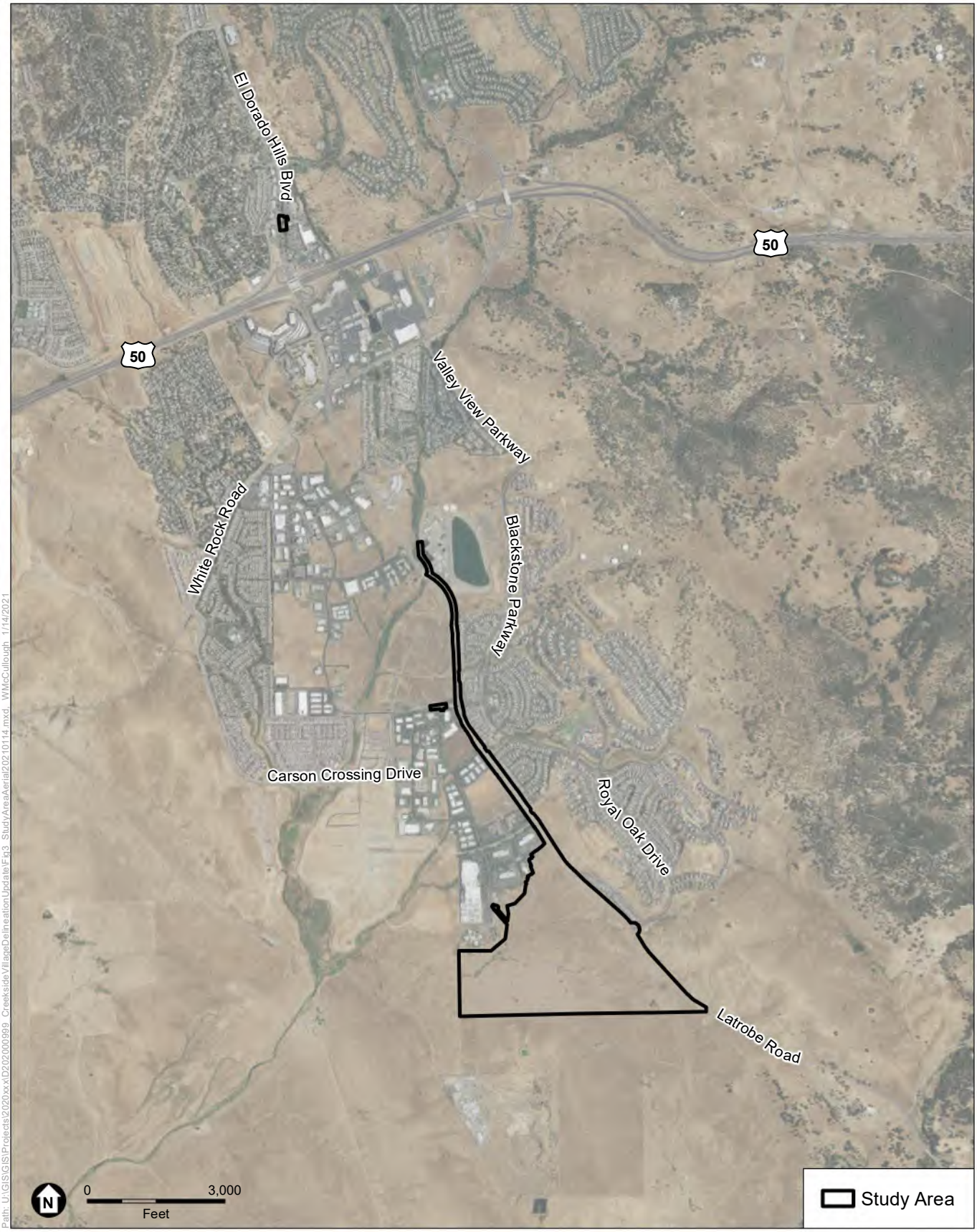


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SOURCE: USGS, 1980; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 2
Study Area (topo)
Clarksville Quad and Folsom SE Quad



SOURCE: NAIP, 2018; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 3
Study Area (aerial)

1.1.1 Directions to the Survey Area

Please contact Winn Communities for access to the study area, as access is controlled by locked gates. Directions to the study area from Sacramento:

- Take US-50 east from Sacramento;
- Take exit 30A for Latrobe Road;
- Continue on Latrobe Road south to Investment Boulevard;
- Continue west on Investment Boulevard to Robert J. Mathews Parkway;
- Continue south on Robert J Mathews Parkway to the study area.

1.2 Contact Information

1.2.1 Applicant

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CHAPTER 2
Existing Conditions

2.1 Aquatic Resources Delineation Survey Area

The study area is in western El Dorado County south of the community of El Dorado Hills. Regionally, the site is located in the low Sierra Nevada foothills, just west of the Sierra Nevada Range, within the northern Sierra Nevada Foothills District of the California Floristic Province (Baldwin et al., 2012). Regional natural vegetation communities in the vicinity of the study area include those that are prevalent to the Sierra Nevada foothills, such as annual grasslands, blue oak woodlands, chamise chaparral, and mixed oak/foothill pine woodlands. Topography throughout the study area drains generally from east to west and is characterized by rolling hills and slopes. The elevation within the study area ranges from approximately 476 feet in the west to 642 feet on an isolated hill in the south and 662 feet at the intersection of El Dorado Hills Boulevard and Saratoga Way in the north.

2.2 Vegetation Communities and Wildlife Habitats

Wildlife habitats are generally described in terms of vegetation types along with landform, disturbance regime, and other unique environmental characteristics. Vegetation communities are assemblages of plant species that occur together in the same area, are repeated across landscapes, and are defined by species composition and relative abundance. Wildlife habitats generally correspond to vegetation communities. The wildlife habitat types described in this document were classified using the California Department of Fish and Wildlife's (CDFW) *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988), a habitat classification scheme that was developed to support the CDFW's California Wildlife Habitat Relationship (CWHR) System. The CWHR System is a wildlife information system and predictive model for California's regularly-occurring wildlife species. The vegetation types described in this report were classified according to *A Manual of California Vegetation, 2nd Edition* (Sawyer et al., 2009). Plant nomenclature follows *The Jepson Manual: Vascular Plants of California (Second Edition)* (Baldwin et al., 2012) as revised by the Jepson eFlora (Jepson Flora Project, 2021). Common names of plant species are derived from the Jepson Manual or Calflora (2021). A list of plant species observed during the surveys and their wetland indicator status is provided in **Appendix A**.

2.2.1 Aquatic Habitat Types

Valley Foothill Riparian

The vegetation of riparian habitats is quite variable and often structurally diverse. Usually, riparian habitat occurs along streambanks and lakeshores as a narrow, often dense grove of broad-

leaved, winter deciduous trees with an overstory tree layer and an understory shrub layer. In the study area, characteristic species of riparian wetlands include Goodding's black willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii* subsp. *fremontii*), and red willow (*Salix laevigata*) trees in the overstory. The understory consists of sandbar willow (*Salix exigua*) and Himalayan blackberry (*Rubus armeniacus*), and a variety of grasses and forbs, including miner's lettuce (*Claytonia perfoliata*) and rye grass (*Festuca perennis*).

Seasonal Wetlands

Seasonal Wetland/Seep/Wetland Swale/Riverine Seasonal Wetland

These habitat types are discussed collectively due to the similarities in their vegetation composition, substrate, and hydrologic conditions. These communities exhibit variable hydrologic conditions but annually pond surface water or maintain saturated soils at the ground surface for long enough each year to support facultative or obligate wetland plant species. These wetlands support ponded or saturated soil conditions during winter and spring and are typically dry through the summer and fall. Vegetation is characterized by both annual and perennial species including native and non-native grasses and forbs. Plant species found within these wetlands are adapted to withstand intermittent periods of inundation, and typically initiate growth as aquatic or semi-aquatic plants and transition to a dry-land environment as the wetlands dries. Upland grasses and forbs often establish after wetland species desiccate and features become dry. Within the study area, these wetlands occur in depressions, swales, drainages, seeps, or low areas within annual grassland habitat. These communities are dominated by Mediterranean barley (*Hordeum marinum* subsp. *gussoneanum*), rye grass, rabbitsfoot grass (*Polypogon monspeliensis*), curly dock (*Rumex crispus*), and common toad rush (*Juncus bufonius*).

Riverine seasonal wetlands have a similar hydroperiod to the wetland communities described above, exhibiting variable hydrologic conditions but annually pond surface water or maintain saturated soils at the ground surface for long enough each year to support facultative or obligate wetland plant species. Riverine seasonal wetlands are contained within natural or man-made drainage channels. In the study area, these wetlands support a variety of wetland plant species, ranging from facultative wetland species such as rye grass and Mediterranean barley, to obligate wetlands species such as broad-leaved cattail (*Typha latifolia*).

Vernal Pool

Vernal pools are seasonal wetlands that occur in grasslands. These wetlands are typically found in slight depressions that form over bedrock or hardpan soils that allow water to pool during winter and spring rains. Vernal pools typically have an impervious layer of silicate-based hardpan underlying them that prevents water from percolating into the soil. Vernal pools are considered unique habitat and often support species that are endemic to vernal pools or other shallow pools in that particular geographic region. Vernal pool communities have been greatly reduced due to conversion of grasslands to agriculture or urban development. In the study area, vernal pools are dominated by coyote-thistle (*Eryngium castrense*), common toad rush (*Juncus bufonius*), and popcornflower (*Plagiobothrys* sp.).

Riverine

Riverine habitats are distinguished by intermittent or continually running water, and occur in association with a variety of terrestrial habitats. Carson Creek, a perennial channel, is the dominant riverine habitat feature within the study area. This feature flows year-round under typical climatic conditions. All features in the study area eventually drain to Carson Creek. The remaining drainage features in the study area are intermittent or ephemeral in nature and do not support flowing water year-round. Drainage features in the project site consist of perennial, intermittent, and ephemeral channels as well as man-made ditches and culverts. A perennial channel is a stream, or stream portion, that flows continuously during the calendar year. An intermittent channel has flowing water during certain times of the year, when precipitation or groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. In the study area, intermittent channels generally flow throughout the winter season and into the late spring or early summer. An ephemeral channel has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow. This habitat type also includes a man-made drainage ditch located in the northwestern corner of the main project site. This shallow, graded ditch drains the adjacent parking lots to the north. Culverted portions of natural stream channels are also included in this habitat type.

2.2.2 Upland Habitats

Annual Grassland

Annual grassland, the most abundant habitat type in the study area, is an annual herbaceous plant community characterized mostly by naturalized annual grasses. In the study area, annual grassland is dominated by naturalized herbaceous annual grasses and forbs, with smaller patches with relatively high proportions of native grasses and forbs. The most abundant species in this community include non-native grasses such as wild oats (*Avena barbata*, *A. fatua*, *A. sativa*), bromes (*Bromus diandrus*, *B. hordeaceus*), barleys (*Hordeum marinum* subsp. *gussoneanum*, *H. murinum*), and fescues (*Festuca myuros*, *F. perennis*); non-native weedy herbaceous species including yellow star-thistle (*Centaurea solstitialis*), tall sock-destroyer (*Torilis arvensis*), Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), vetch (*Vicia villosa*, *V. sativa* subsp. *sativa*), California burclover (*Medicago polymorpha*), broad-leaf filaree (*Erodium botrys*), black mustard (*Brassica nigra*), and shortpod mustard (*Hirschfeldia incana*); and native herbaceous species such as narrow tarplant (*Holocarpha virgata* subsp. *virgata*), yarrow (*Achillea millefolium*), and spikeweed (*Centromadia fitchii*). The native perennial purple needle grass (*Stipa pulchra*) was observed in the study area but was not present in sufficient density to be considered a separate habitat.

Blue Oak Woodland

There is a small grove of blue oaks (*Quercus douglasii*) in the southeast corner of the site. Annual grassland is found in the understory of this grove and surrounds the grove on all sides. The grove is located on the top of a steep rise, approximately 100 feet above the rest of the site. The trees

were generally in fair to good condition and ranged in size from 18 to 24 inches in diameter at breast height (DBH).

Developed/Disturbed

Developed portions of the study area include paved roads, sidewalks, parking lots, buildings, and associated infrastructure. These areas are paved or otherwise developed and generally lack natural vegetation. Vegetation associated with developed areas consists of ornamental shrubs and trees. Disturbed areas include roadsides and other areas with continuous disturbance which limits the establishment of vegetation. Plant species adapted to frequent disturbance observed in the disturbed areas include: stinkwort (*Dittrichia graveolens*), Russian thistle (*Salsola tragus*), short-pod mustard (*Hirschfeldia incana*), and yellow star-thistle (*Centaurea solstitialis*). Plant cover is extremely sparse; few individuals are established within the disturbed area.

2.3 Soils

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey was consulted to determine the soil units occurring within the delineation study area. The *Custom Soil Resource Report for El Dorado Area* (NRCS, 2021; included as **Appendix B**) shows six soil units occurring within the study area (**Table 1**). Two of these six units contain components that are listed by the NRCS on the national hydric soils list for El Dorado County, California (NRCS, 2021). A brief description of each soil unit is provided below. Please see Appendix B for a soils map showing the soil units in the study area, as well as a source for the following descriptions.

- **Argonaut very rocky loam, 3 to 30 percent slopes**, may have hydric components in the mapping unit on fan remnants. This soil unit occurs on ridges with parent material comprised of residuum weathered from andesite and/or residuum weathered from metasedimentary rock. This is a well-drained soil with a low available water capacity of about 3.9 inches. This map unit is composed of 75 percent Argonaut and similar soils, 15 percent rock outcrops, and 10 percent minor components. Minor components include Auburn and unnamed soils. The unnamed inclusions are listed as hydric.
- **Auburn silt loam, 2 to 30 percent slopes**, is not listed as a hydric soil. This soil unit occurs on hills with parent material comprised of residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock. This is a well-drained soil with a very low available water capacity of about 2.3 inches. This map unit is composed of 85 percent Auburn and similar soils, and 15 percent minor components. Minor components include Perkins, Sobrante, and Argonaut soils.
- **Auburn very rocky silt loam, 2 to 30 percent slopes**, is not listed as a hydric soil. This soil unit occurs on hills with parent material comprised of residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock. This is a well-drained soil with a very low available water capacity of about 2.3 inches. This map unit is composed of 75 percent Auburn and similar soils, 15 percent rock outcrops, and 10 percent minor components. Minor components include Boomer, Sobrante, Argonaut, and Unnamed soils.
- **Perkins gravelly loam, moderately deep variant, 2 to 5 percent slopes**, is not listed as a hydric soil. This soil unit occurs on hillslopes with parent material comprised of consolidated gravelly alluvium derived from igneous, metamorphic, and sedimentary rock. This is a

moderately well-drained soil with a low available water capacity of about 4.3 inches. This map unit is composed of 85 percent Perkins variant and similar soils, and 15 percent minor components. Minor components include Argonaut, Auburn, and Whiterock soils.

- **Placer diggings** may have hydric components in channels. This soil unit occurs in channels with parent material comprised of alluvium derived from mixed sources. This map unit is composed of 90 percent Placer diggings and 10 percent minor components. Minor components consist of unnamed soils. The unnamed inclusions are listed as hydric.
- **Whiterock gravelly silt loam, 3 to 50 percent slopes**, is not listed as a hydric soil. This soil unit occurs on hillslopes with parent material comprised of residuum weathered from slate. This is a somewhat excessively-drained soil with a very low available water capacity of about 1.0 inches. This map unit is composed of 85 percent Whiterock and similar soils, and 15 percent minor components. Minor components include Argonaut, Auburn, and rock outcrop soils.

TABLE 1
STUDY AREA SOIL UNITS

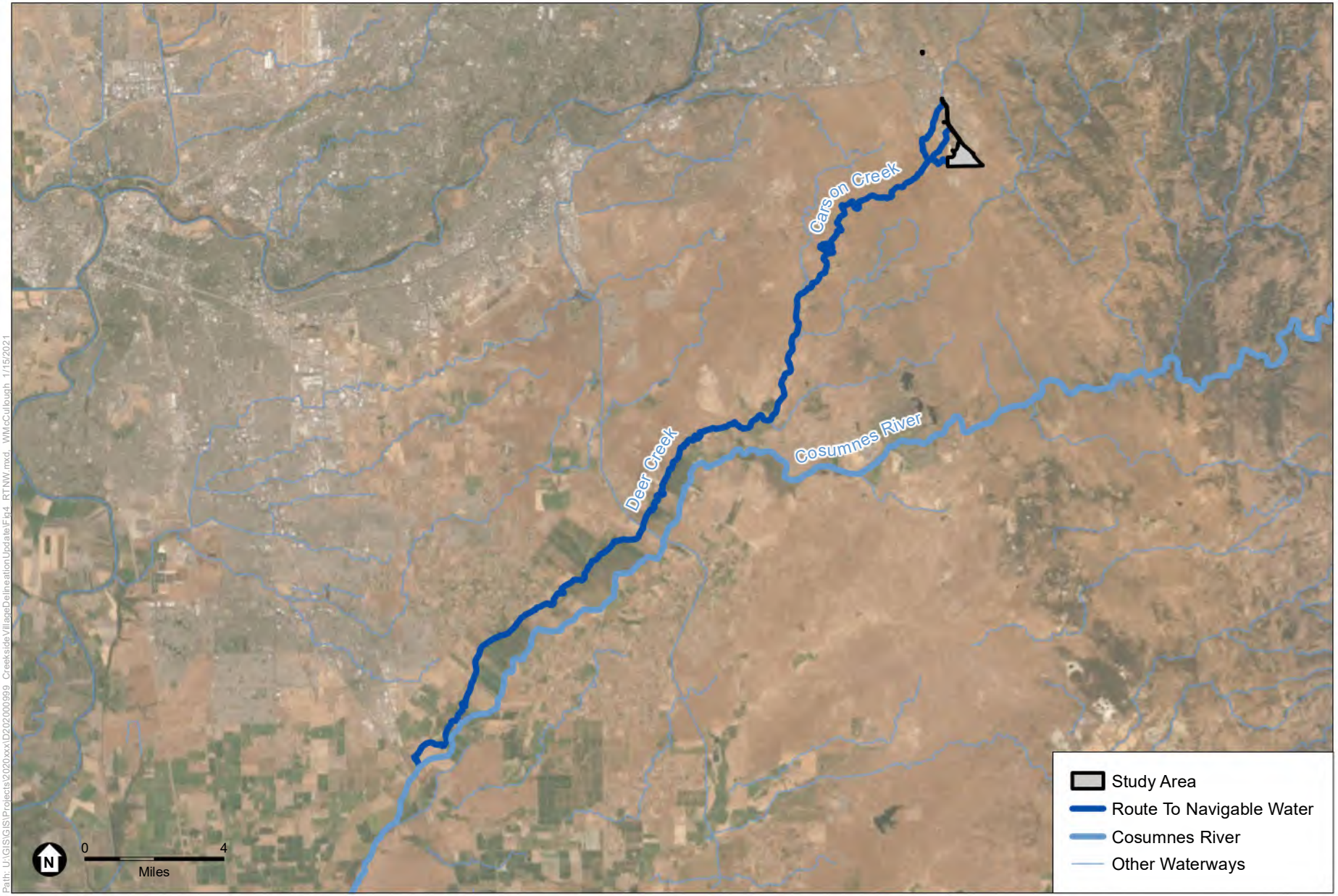
Soil Map Unit Name	Hydric Status	Landforms
AmD: Argonaut very rocky loam, 3 to 30 percent slopes	Hydric*	Ridges
AwD: Auburn silt loam, 2 to 30 slopes	Non-hydric	Hills
AxD: Auburn very rocky silt loam, 2 to 30 percent slopes	Non-hydric	Hills
PgB: Perkins gravelly loam, moderately deep variant, 2 to 5 percent slopes	Non-hydric	Hillslopes
PrD: Placer diggings	Hydric*	Channels
WhE: Whiterock gravelly silt loam, 3 to 50 percent slopes	Non-hydric	Hillslopes

NOTE:
* Soil unit contains minor component(s) that is (are) hydric, but the major component of the soil unit is not hydric.

SOURCE: NRCS, 2021

2.4 Hydrology

The study area is located in the Lower Cosumnes watershed. The main project site generally drains from east to west though a series of intermittent and ephemeral channels. These channels merge into a single channel just west of the study area boundary, which then flows to Carson Creek approximately 3,000 feet west of the study area. Latrobe Road and the three offsite improvement locations all drain to roadside swales or stormwater collection systems and eventually to Carson Creek. Carson Creek flows southwest to Deer Creek, which eventually joins the Cosumnes River. The Cosumnes River empties into the Mokelumne River in the Sacramento-San Joaquin Delta. The Mokelumne River is considered a traditional navigable water of the United States (TNW) from its mouth to Frandy Gage (3.5 miles upstream from New Hope Road) (**Figure 4**).



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SOURCE: Maxar, 2019; Winn Communities, 2020; ESA, 2020

Creekside Village

Figure 4
Route To Navigable Water

ESA

2.5 Climate

The overall Northern California climate is Mediterranean in nature, which is characterized by warm, dry summers and cool, wet winters, with the bulk of precipitation occurring as rain in the winter months. The climate in the El Dorado Hills area is temperate with mean annual precipitation of 25.80 inches and mean annual temperatures ranging from a high of 74 to a low of 50 degrees Fahrenheit (Western Regional Climate Center, 2021). The field investigation for this aquatic resources delineation was conducted on August 20, 2019 and January 13, 2021. According to the National Oceanic and Atmospheric Administration (NOAA), no rain had fallen in the study area in the seven days prior to any of the survey dates (NOAA, 2021). **Table 2** summarizes monthly total precipitation at the Folsom 1.2 SSE, CA weather station for recent years. The annual precipitation total through May 2020 for the region was below average according to the mean precipitation totals for the years 2015-2020. The USACE Antecedent Precipitation Tool (APT) was run for January 13, 2021, the day most of the datapoints were taken (**Appendix C**). According to the APT, the study area had drier than normal conditions during the 2020–2021 wet season. The Drought Index (PDSI) for the study area was categorized as "severe drought".

TABLE 2
MONTHLY TOTAL PRECIPITATION FOR FOLSOM 1.2 SSE, CA

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2015	T	2.65	0.17	2.00	1.57	0.11	0.01	T	0.01	0.28	2.04	3.22	12.06
2016	5.84	1.08	6.53	1.60	0.40	0.00	0.00	0.00	T	6.96	3.10	4.88	30.39
2017	11.64	10.89	3.43	4.62	0.21	0.32	0.00	T	T	0.25	5.05	0.52	36.93
2018	5.52	0.62	8.09	2.74	0.71	0.00	T	0.00	T	0.87	3.50	2.88	24.66
2019	5.84	10.43	4.24	M	5.01	0.00	0.00	0.00	0.50	0.00	0.62	5.18	M
2020	1.94	0.00	3.32	3.03	1.03	0.04	0.00	T	0.00	0.00	0.98	2.02	12.36
2021	4.30	1.91	2.00	0.02	0.02	M	M	M	M	M	M	M	M
Mean	4.12	3.60	4.23	2.30	1.08	0.23	0.00	T	0.14	1.48	2.44	4.03	20.50

NOTES:

T = trace amounts of precipitation
M = missing and is used when more than one day of data is missing for a month.

SOURCE: NOAA, 2021.

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CHAPTER 3
Regulatory Framework

3.1 Waters of the U.S.

3.1.1 Clean Water Act

The CWA establishes the basic structure for regulating discharges of pollutants into waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resources projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material maybe discharged into waters of the United States, unless the activity is exempt from Section 404 regulations (e.g., certain farming and forestry activities).

Wetlands are defined by USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” (33 CFR §328.3[c][1]; 40 CFR §120.2[c][1]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by site investigation, must be present for a site to be classified as a wetland by USACE (Environmental Laboratory 1987).

Section 401 of the CWA gives the state authority to grant, deny, or waive certification of proposed federally licensed or permitted activities resulting in discharge to waters of the U.S. The state Water Resources Control Board (State Water Board) directly regulates multi-regional projects and supports the Section 401 certification and wetlands program statewide. The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the federal CWA, which specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State or appropriate interstate water pollution control agency in/where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

3.1.2 Waters of the U.S.

Since its inception, the definition of the Waters of the U.S. has been a litigious issue. Most recently, the Supreme Court, ruling in *Sackett v. Environmental Protection Agency*, sharply limited the scope of the federal Clean Water Act's protection for the nation's waters. As a result of this decision, on August 29, 2023, the U.S. Environmental Protection Agency (EPA) and the USACE issued a final rule that amends the "Revised Definition of 'Waters of the United States'" to conform key aspects of the regulatory text to the U.S Supreme Court's decision.

Under the amended Revised Definition of "Waters of the United States," the term "waters of the United States" was defined as follows (33 CFR 328.3(a)):

(1) Waters which are:

(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) The territorial seas; or

(iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section; To meet this category, you must be able to demonstrate that the current impoundment would have met the criteria of a water of the U.S. at the time of impoundment. Meaning that prior to the impoundment the feature would have met a(1), a(3), a(4) or a(5). This usually requires using historic aerial photos/maps or historic topo maps.

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

(i) Waters identified in paragraph (a)(1) of this section; or

(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

In addition, the amended regulations include eight types of excluded waters (33 CFR 328.3(b)) which are not ''waters of the United States'' even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

3.2 Waters of the State

3.2.1 Porter-Cologne Water Quality Control Act of 1969

Most projects involving water bodies or drainages are regulated by the RWQCB, the principal State agency overseeing water quality of the State at the local/regional level. The survey area is located within the region of the Central Valley RWQCB. RWQCBs are responsible for implementing Section 401 of the CWA as described above under the Clean Water Act.

In the absence of waters of the U.S., waters may be regulated under the Porter-Cologne Water Quality Control Act if project activities, discharges, or proposed activities or discharges could affect California's surface, coastal, or ground waters. The permit submitted by the applicant and issued by RWQCB is either a Water Quality Certification in the presence of waters of the U.S. or a Waste Discharge Requirement (WDR) in the absence of waters of the U.S.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Wetland Definition and Procedures), as prepared by the State Water Resources Control Board, was adopted April 2, 2019, and revised April 6, 2021. The State Wetland Definition and Procedures include a definition for wetland waters of the state as well as exclusions for certain artificial wetlands, as listed below.

The Water Code defines "waters of the state" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." "Waters of the state" includes all "waters of the U.S." The following wetlands are waters of the state:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
        i. Industrial or municipal wastewater treatment or disposal,
        ii. Settling of sediment,
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters,
        v. Agricultural crop irrigation or stock watering
        vi. Fire suppression,
        vii. Industrial processing or cooling,
        viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
        ix. Log storage,
        x. Treatment, storage, or distribution of recycled water, or
        xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
        xii. Fields flooded for rice growing.

3.3 Rivers, Streams, and Lakes

Pursuant to Division 2, Chapter 6, Section 1600 et seq. of the FGC, California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake which supports fish or wildlife. A notification of a Lake or Streambed Alteration must be submitted to CDFW for "any activity that may

substantially change the bed, channel, or bank of any river, stream, or lake." In addition, CDFW has authority under FGC over wetland and riparian habitats associated with lakes and streams. The CDFW reviews proposed actions, and if necessary, submits to the applicant a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement (LSAA).

Fish and Game Code Section 2785 defines riparian habitat as "lands which contain habitat which grows close to and depends upon soil moisture from a nearby freshwater source." Additionally, the CDFW Notification Instructions and Process guide characterizes the riparian zone as "the area that surrounds a channel or lake and supports (or can support) vegetation that is dependent on surface or subsurface flow." Furthermore, this CDFW guide calls for the analysis of impacts to the riparian zone up to the outer landward edge of the drip line of riparian vegetation.

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CHAPTER 4
Methodology

4.1 Pre-Field Review

Prior to conducting the field investigation, ESA biologists performed the following pre-field investigations:

- Review of the Folsom SE, CA U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map;
- Review of Google Earth aerial photographs of the study area for vegetative, topographic, and hydrographic signatures (Google Earth, 2021) (historic aerial photographs from 1993 – 2019 were reviewed as well as 2020 aerial photographs);
- Review of the *Custom Soil Resource Report for El Dorado Area, California*, for information about soils and geomorphology (NRCS, 2021);
- Review of the National Wetlands Inventory (U.S. Department of the Interior, 2021); and
- Review of the Arid West Regional Wetland Plant List (USACE, 2018).

4.2 Field Survey Methods

A delineation of aquatic resources within the survey area was conducted on August 20, 2019, and January 13, 2021, by ESA Biologists ESA biologists Joshua Boldt and Erich Fischer. The delineation was conducted by walking throughout the survey area to selected areas where potential jurisdictional features were identified during the literature review. Features that were identified as potentially jurisdictional included, but were not limited to, drainages that had an OHWM and defined channels with bed and bank, as well as potential wetlands evidenced by visible hydrologic indicators and/or hydrophytic vegetation. Additional data, such as landforms, vegetation, hydrology, and soils, were noted where these characteristics were pertinent to identification of features.

Potential jurisdictional features were identified and delineated following current federal and state methodology and guidelines, including waters of the U.S., waters of the State and FGC Section 1600 resources. Survey data forms are included in **Appendix D**.

4.2.1 Waters of the U.S.

Wetlands

The delineation used the "Routine Determination Method" as described in the *1987 Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), hereafter called the "1987 Manual." The 1987 Manual was used in conjunction with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008), hereafter called the "Arid West Supplement." For areas where the 1987 Manual and the Arid West Supplement differ, the Arid West Supplement was followed. Wetlands and waters were classified using commonly accepted habitat types; however, the Cowardin classification (Cowardin et al. 1979) of each feature type is noted in the discussion in Chapter 5.

To determine the extent of potential jurisdictional wetlands on a project site, the 1987 Manual and Arid West Supplement were used as a guide for identifying wetland characteristics. Three positive wetland parameters must normally be present for an area to be considered a wetland: 1) a dominance of wetland vegetation, 2) presence of hydric soils, and 3) presence of wetland hydrology. Presence or absence of positive indicators for wetland vegetation, soils and hydrology was assessed per the 1987 Manual and Arid West Supplement guidelines. Data points were taken within suspected wetlands and a paired point was taken (where applicable) in nearby upland areas. Data points were recorded on Arid West Region wetland determination data forms, which are provided in Appendix D.

At each data point, a visual assessment of the dominant plant species within the vegetation community was made. Dominant species were assessed using the recommended "50/20" rule per the Arid West Supplement. Plants were identified to species using the *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) .The *Arid West 2020 Regional Wetland Plant List* (USACE, 2020) was used to determine the wetland indicator status of all plants.

Hydric soils were identified using soil indicators presented in the *Regional Supplement to the* Arid West Supplement and the *Field Indicators of Hydric Soils in the United States*, Version 7.0, 2010 (NRCS 2010). Soils at each data point were characterized by color, texture, organic matter accumulation, and the presence or absence of hydric soil indicators. The coloration of the soil samples, matrix, and mottles is assessed using the *Munsell Soil Color Charts* (Munsell, 2000).

Presence of wetland hydrology was determined at each data point by presence of one or more of the primary and/or secondary indicators, per guidance of the Arid West Supplement.

Non-Wetland (Other) Waters of the U.S.

Non-wetland waters of the U.S. extend to the OHWM, defined in 33 CFR 328.3 as the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, or the presence of litter and debris. In the Arid West region of the United States, waters are variable and include ephemeral, intermittent and perennial channel forms. The most problematic ordinary high-water delineations are associated with the commonly occurring ephemeral and intermittent channel forms that dominate the Arid West landscape.

Delineation methods were completed in accordance with *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (USACE, 2008b) and *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Curtis and Lichvar, 2010). OHWM data sheets are provided in Appendix D.

4.2.2 Waters of the State

Waters of the State outside of CWA Section 401 jurisdiction and subject to Porter-Cologne Water Quality Cologne Act and State Wetland Definition and Procedures were delineated to also include aquatic features up to the [ordinary high water mark OR top of bank OR the outer edge of riparian areas] per the delineation guidance provided by the Central Valley RWQCB.

4.2.3 Rivers, Streams, and Lakes

FGC Section 1600 resources were delineated to include bed, bank, and channel up to the top of bank, and/or associated wetlands and riparian vegetation to the outer drip line, whichever is wider.

4.2.4 Mapping and Acreage Calculations

All features, including wetland sample points, wetland boundaries, OHWM intervals, and stream channel courses were recorded using a global positioning system (GPS) with sub-meter accuracy or hand-recorded on aerial images of the study area. All sample points were also recorded using a Trimble GeoExplorer GPS. In the office, GPS data were downloaded and aquatic features mapped using Geographic Information System (GIS) software (ArcGIS 10.6.1) on an overlay of both topography and geo-referenced aerial photography. GPS-determined wetland boundaries and data points were visually confirmed. Acreages of wetland and waters of the U.S. polygons and the length of linear features were determined using ArcGIS.

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CHAPTER 5
Results

5.1 Aquatic Resources

The aquatic resources delineation identified approximately 7.585 acres of aquatic resources in the study area. Aquatic habitats in the study area were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013) ("Cowardin Classification"). In the following aquatic resource descriptions, the Cowardin habitat type will follow the general habitat type in each habitat type header. A summary of the aquatic resources within the study area is presented in **Table 3** and described below (see **Table 4** in Section 5.2 for further details of on the individual aquatic features). **Figures 5-1** through **5-8** show the location and extent of the aquatic resources within the study area. The Aquatic Resources Spreadsheet is provided in **Appendix E**. Study area photographs are provided in **Appendix F**.

TABLE 3
SUMMARY OF AQUATIC RESOURCES

Aquatic Feature	Cowardin Classification	Total Acres
Wetlands		
Riparian Wetland	Palustrine Forested Wetland (Seasonally Flooded)	1.251
Riverine Seasonal Wetland	Palustrine Emergent Wetland (Seasonally Flooded)	0.620
Seasonal Wetland	Palustrine Emergent Wetland (Seasonally Flooded)	0.271
Seep (Seasonal Wetland)	Palustrine Emergent Wetland (Seasonally Flooded)	1.119
Vernal Pool	Palustrine Emergent Wetland (Seasonally Flooded)	0.071
Wetland Swale (Seasonal Wetland)	Palustrine Emergent Wetland (Seasonally Flooded)	1.116
Waters		
Perennial Drainage	Riverine Lower Perennial	0.297
Intermittent Drainage	Riverine Intermittent	1.201
Ephemeral Drainage	Riverine Ephemeral	1.579
Culvert	N/A	0.044
Ditch	N/A	0.014
Total Area of Aquatic Resources:		**7.585**

NOTE: Total may not sum due to rounding.

SOURCE: ESA, 2021

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RW-5 (0.11 ac.)

P-1 (0.30 ac.)

RW-4 (0.04 ac.)

RW-3 (0.31 ac.)

DP-45

CUL-12 (0.01 ac.)

RSW-10 (0.001 ac.)

N

0 200

Feet

1 inch = 200 feet

Path: U:\GIS\GIS\Projects\2020xxx\ID202000999_CreeksideVillageDelineationUpdate\Wetlands.mxd WMcCullough 10/15/2023

SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Creekside Village

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

- Survey Area (271.81 ac.)
- Project Footprint
- RefPoints

Sampling Points

- Upland
- Wetland

Other Waters (3.14 ac.)

- Ephemeral Drainage (1.58 ac.)
- Intermittent Drainage (1.20 ac.)
- Perennial Drainage (0.30 ac.)
- Ditch (0.01 ac.)
- Culvert (0.04 ac.)

Wetlands (4.45 ac.)

- Riparian Wetland (1.25 ac.)
- Riverine Seasonal Wetland (0.62 ac.)
- Seasonal Wetland (0.27 ac.)
- Seep (1.12 ac.)
- Vernal Pool (0.07 ac.)
- Wetland Swale (1.12 ac.)

Figure 5-1
Delineation of
Aquatic Resources
(1 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021



SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

Survey Area (271.81 ac.)
Project Footprint
RefPoints

Sampling Points
Upland
Wetland

Other Waters (3.14 ac.)
Ephemeral Drainage (1.58 ac.)
Intermittent Drainage (1.20 ac.)
Perennial Drainage (0.30 ac.)
Ditch (0.01 ac.)
Culvert (0.04 ac.)

Wetlands (4.45 ac.)
Riparian Wetland (1.25 ac.)
Riverine Seasonal Wetland (0.62 ac.)
Seasonal Wetland (0.27 ac.)
Seep (1.12 ac.)
Vernal Pool (0.07 ac.)
Wetland Swale (1.12 ac.)

Creekside Village

Figure 5-2
Delineation of Aquatic Resources
(2 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021



SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Creekside Village

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

- Survey Area (271.81 ac.)
- Project Footprint
- RefPoints

Sampling Points

- Upland
- Wetland

Other Waters (3.14 ac.)

- Ephemeral Drainage (1.58 ac.)
- Intermittent Drainage (1.20 ac.)
- Perennial Drainage (0.30 ac.)
- Ditch (0.01 ac.)
- Culvert (0.04 ac.)

Wetlands (4.45 ac.)

- Riparian Wetland (1.25 ac.)
- Riverine Seasonal Wetland (0.62 ac.)
- Seasonal Wetland (0.27 ac.)
- Seep (1.12 ac.)
- Vernal Pool (0.07 ac.)
- Wetland Swale (1.12 ac.)

Figure 5-3
Delineation of
Aquatic Resources
(3 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021



SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Creekside Village

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

Survey Area (271.81 ac.)
Project Footprint
RefPoints

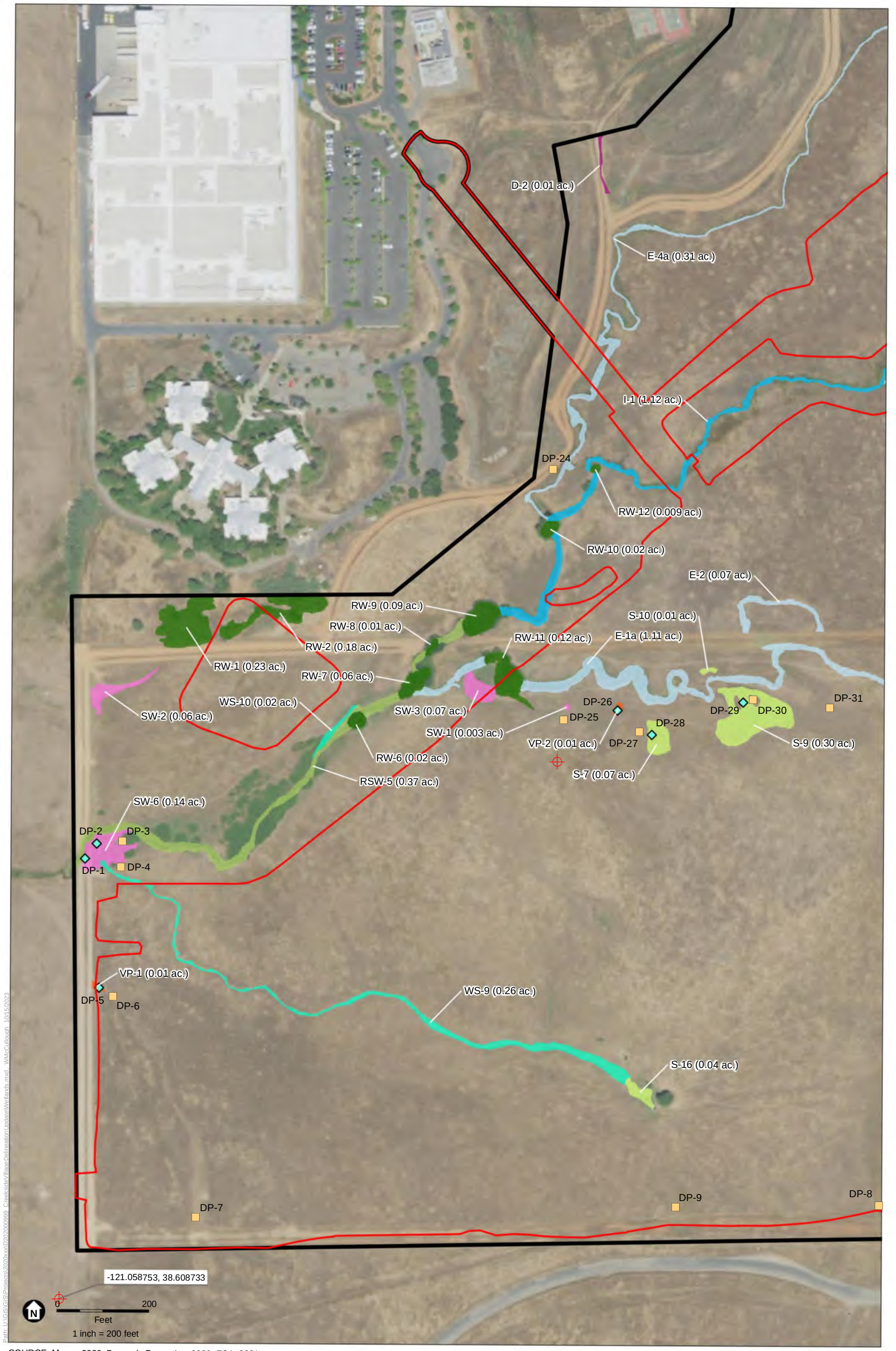
Sampling Points
Upland
Wetland

Other Waters (3.14 ac.)
Ephemeral Drainage (1.58 ac.)
Intermittent Drainage (1.20 ac.)
Perennial Drainage (0.30 ac.)
Ditch (0.01 ac.)
Culvert (0.04 ac.)

Wetlands (4.45 ac.)
Riparian Wetland (1.25 ac.)
Riverine Seasonal Wetland (0.62 ac.)
Seasonal Wetland (0.27 ac.)
Seep (1.12 ac.)
Vernal Pool (0.07 ac.)
Wetland Swale (1.12 ac.)

Figure 5-4
Delineation of
Aquatic Resources
(4 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021



SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Creekside Village

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

Survey Area (271.81 ac.)
Project Footprint
RefPoints

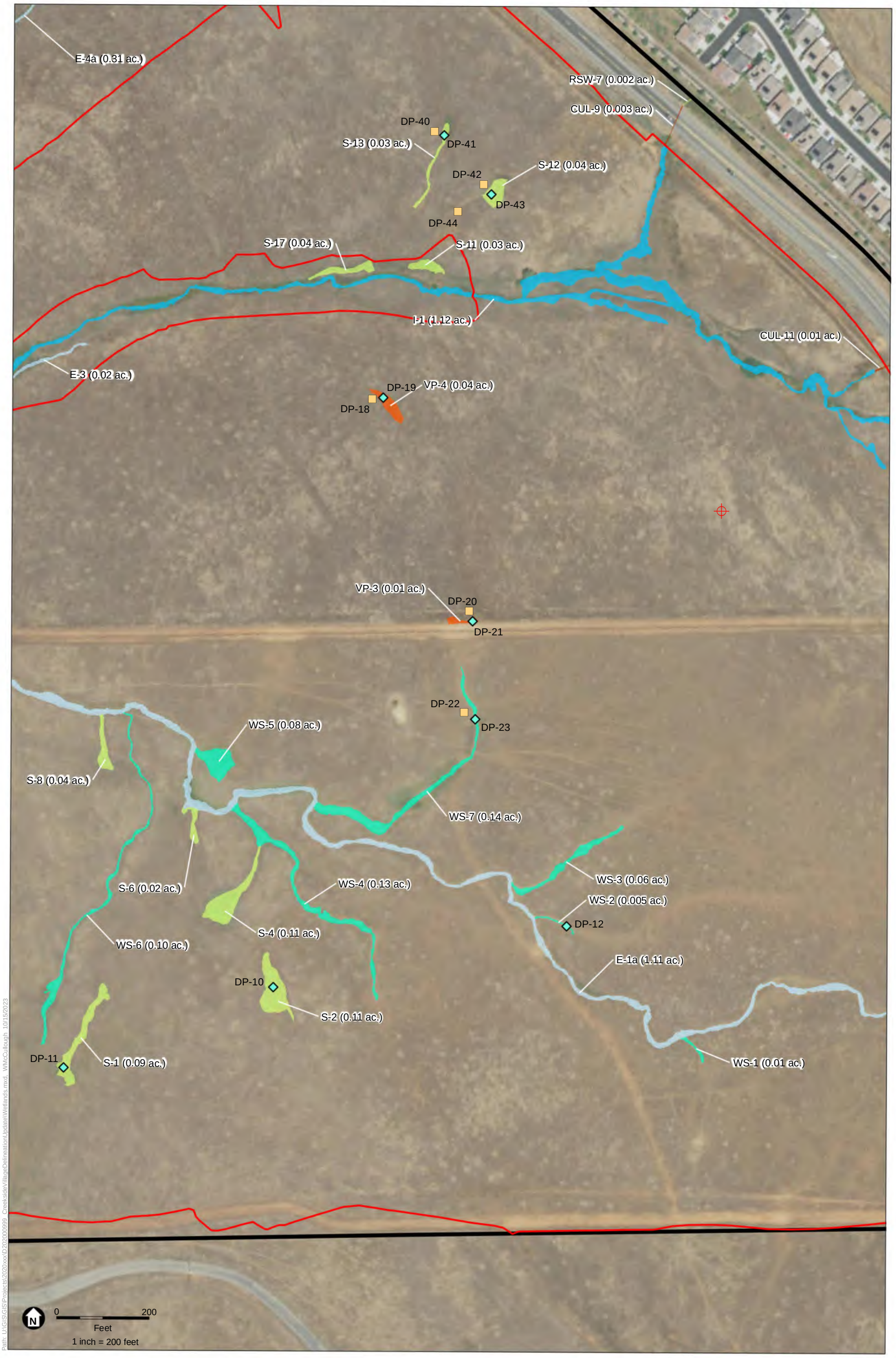
Sampling Points
Upland
Wetland

Other Waters (3.14 ac.)
Ephemeral Drainage (1.58 ac.)
Intermittent Drainage (1.20 ac.)
Perennial Drainage (0.30 ac.)
Ditch (0.01 ac.)
Culvert (0.04 ac.)

Wetlands (4.45 ac.)
Riparian Wetland (1.25 ac.)
Riverine Seasonal Wetland (0.62 ac.)
Seasonal Wetland (0.27 ac.)
Seep (1.12 ac.)
Vernal Pool (0.07 ac.)
Wetland Swale (1.12 ac.)

Figure 5-5
Delineation of Aquatic Resources
(5 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021



SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Creekside Village

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

Survey Area (271.81 ac.)
Project Footprint
RefPoints

Sampling Points
Upland
Wetland

Other Waters (3.14 ac.)
Ephemeral Drainage (1.58 ac.)
Intermittent Drainage (1.20 ac.)
Perennial Drainage (0.30 ac.)
Ditch (0.01 ac.)
Culvert (0.04 ac.)

Wetlands (4.45 ac.)
Riparian Wetland (1.25 ac.)
Riverine Seasonal Wetland (0.62 ac.)
Seasonal Wetland (0.27 ac.)
Seep (1.12 ac.)
Vernal Pool (0.07 ac.)
Wetland Swale (1.12 ac.)

Figure 5-6
Delineation of Aquatic Resources
(6 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021



SOURCE: Maxar, 2020; Dermody Properties, 2020; ESA, 2021

Creekside Village

Coordinate System: CA State Plane Zone II NAD83
Projection: Lambert Conformal Conic
Datum: North America Datum 1983]

Survey Area (271.81 ac.)
Project Footprint
RefPoints

Sampling Points
Upland
Wetland

Other Waters (3.14 ac.)
Ephemeral Drainage (1.58 ac.)
Intermittent Drainage (1.20 ac.)
Perennial Drainage (0.30 ac.)
Ditch (0.01 ac.)
Culvert (0.04 ac.)

Wetlands (4.45 ac.)
Riparian Wetland (1.25 ac.)
Riverine Seasonal Wetland (0.62 ac.)
Seasonal Wetland (0.27 ac.)
Seep (1.12 ac.)
Vernal Pool (0.07 ac.)
Wetland Swale (1.12 ac.)

Figure 5-7
Delineation of Aquatic Resources
(7 of 7)

Delineated by: Josh Boldt
Mapping by: Josh Boldt and Wes McCullough
Created on: 1/15/2021, Revised on: 1/15/2021

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5.1.1 Wetlands

Seasonal Wetlands/Palustrine Emergent Wetland (Seasonally Flooded)

Seasonal Wetland/Seep/Wetland Swale/Riverine Seasonal Wetland

The seasonal wetlands within the study area are classified as Palustrine Emergent Wetland (Seasonally Flooded) using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). Seasonal wetland habitats in the study area include seasonal wetland (five features totaling 0.271 acre), seep (15 features totaling 1.119 acres), wetland swale (10 features totaling 1.116 acres), and riverine seasonal wetland (10 features totaling 0.620 acre). Seasonal wetlands are ephemeral wetlands that pond water or remain saturated for extended periods during a portion of the year, often throughout the wet season, then dry up in spring or early summer. Dominant plant species include rye grass (FAC[1]), Mediterranean barley (FAC), rabbitsfoot grass (FACW), curly dock (FAC), lesser hawkbit (FACU), toad rush (FACW), broad-leaved cattail (OBL), and hyssop loosestrife (OBL). Surface water was present in some of the seasonal wetlands in the study area at the time of the survey (December 2020) (Indicator A1 from the Arid West Supplement[2]), with saturation (Indicator A3) and high water table (Indicator A2) also noted. In addition, inundation visible in aerial imagery (Indicator B7), oxidized rhizospheres (Indicator C3, and saturation visible on aerial imagery (Indicator C9) were indicators of wetland hydrology observed in these wetlands. These features exhibited hydric soil indicators including soils with a depleted matrix (Indicator F3 from the Arid West Supplement[3]) and redox depressions (Indicator F8). Sample points 1, 4, 5, 6, 7, 8, 9, and 10 reflect the conditions observed in the seasonal wetlands during the field investigation and the surrounding upland areas are represented by sample points 12 and 14.

Vernal Pool/Palustrine Emergent Wetland (Seasonally Flooded)

Five vernal pools, totaling approximately 0.071 acre, were identified in the study area. This wetland type is characterized by shallow depressions that pond water throughout the winter and spring due to a restrictive soil layer that acts as a barrier preventing water percolation to deeper soil layers. Vernal pools are found within a larger grassland vegetation community and typically collect rainwater runoff from the adjacent upland areas. The pools are very different from the nearby upland grasslands both in their topography and soil characteristics as well as species composition. The annual cycle of inundation and drying of vernal pools has facilitated the evolution of plant species uniquely adapted to these conditions. In the study area, vernal pools are dominated by coyote-thistle (FACW), toad rush (FACW), and popcornflower (FACW). Wetland hydrology indicators observed in these features include inundation (Indicator A1), a high water table (10 inches below the surface) (Indicator A2), saturation (6 inches below the surface) (Indicator A3), and sediment deposits (Indicator B2). Hydric soils were indicated in this feature by the presence of a redox dark surface (Indicator F6) and redox depressions (Indicator F8).

---

1 FAC = facultative (occurs in wetlands and non-wetlands); FACW = facultative wetland (usually occurs in wetlands, but may occur in non-wetlands); OBL = obligate wetland (almost always occurs in wetlands under natural conditions); NL = not listed.

2 Wetland hydrology indicators are presented in four groups in the Arid West Supplement. Group A: Observation of Surface Water or Saturated Soils. Group B: Evidence of Recent Inundation. Group C: Evidence of Current or Recent Soil Saturation. Group D: Evidence from Other Site Conditions or Data.

3 Hydric soil indicators are presented in three groups in the Arid West Supplement. Group A: Indicators for All Soils. Group F: Indicators for Loamy and Clayey Soils. Group S: Indicators for Sandy Soils.

Sample points DP 2, 13, 18, and 20 reflect the conditions observed in the freshwater seasonal wetlands during the field investigation and the surrounding upland areas are represented by sample points DP-3, 14, 19, and 21 (Appendix D).

Riparian Wetland/Palustrine Forested Wetland (Seasonally Flooded)

Thirteen riparian wetlands, totaling approximately 1.251 acres, were identified in the study area. Riparian wetlands in the study area are classified as Palustrine Forested Wetlands (Seasonally Flooded) using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). Palustrine forested wetlands in the study area are dominated by woody vegetation, mainly willows and cottonwood trees. Three riparian wetlands occur along Carson Creek, a perennial channel, and the other riparian wetlands occur in a depression on the northwestern border of the main project site. The overstory of these wetlands include Goodding's black willow (FACW), Fremont cottonwood (NL), and red willow (FACW) trees in the overstory. The understory consists of sandbar willow (FACW) and Himalayan blackberry (FAC), and a variety of grasses and forbs, including miner's lettuce (FAC) and rye grass (FAC). Wetland hydrology indicators observed in these features include inundation (Indicator A1), a high water table (10 inches below the surface) (Indicator A2), saturation (6 inches below the surface) (Indicator A3), and sediment deposits (Indicator B2). Hydric soils were indicated in these features by the presence of a redox dark surface (Indicator F6) and redox depressions (Indicator F8). Sample points DP 2, 13, 18, and 20 reflect the conditions observed in the freshwater seasonal wetlands during the field investigation and the surrounding upland areas are represented by sample points DP 3, 14, 19, and 21 (Appendix D).

5.1.2 Other Waters

Perennial Channel/Riverine Perennial

Perennial channels are classified as "riverine perennial" using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). A perennial channel is a stream, or stream portion, that flows continuously during the calendar year. One perennial channel segment (P-1, Carson Creek), totaling approximately 0.297 acre, was identified in the study area. Bed material consists of cobbles, mud, and sand. Carson Creek supports sporadic patches of freshwater emergent wetland species within the channel and riparian species along its lower and upper banks.

Intermittent Channel/Riverine Intermittent

Intermittent channels are classified as Riverine Intermittent using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). An intermittent channel has flowing water during certain times of the year, when precipitation or groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. In the study area, intermittent channels generally flow throughout the winter season and into the late spring or early summer. Two intermittent channel segments (I-1 and I-2), totaling approximately 1.201 acres, were identified in the study area. In general, these channels are medium to low gradient and are bordered by annual grasslands. Bed material consists of sand, fine and medium gravel, and cobbles, but the beds are typically not vegetated.

Ephemeral Channel/Riverine Ephemeral

Ephemeral channels are classified as Riverine Ephemeral using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). An ephemeral channel has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow. The study area contains nine ephemeral channel segments (E-1a, E-1b, E-2, E-3, E-4a, E-4b, and E-5 through E-7), totaling approximately 1.579 acres. Ephemeral channels in the study area are typically medium to high-gradient and flow through annual grassland. Bed material consists of soil, sand, and gravel, and the beds are typically not vegetated.

Culverted Streams

Because a portion of the study area consists of the right-of-way of Latrobe Road, many of the stream segments delineated are partially or completely culverted within the study area. Culverted streams do not have a classification under the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). Twelve culverted stream segments (CUL-1 through CUL-12), totaling approximately 0.044 acre, were identified in the study area.

Ditches

Ditches do not have a classification under the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). One ditch segment (D-2), totaling approximately 0.014 acre, was identified in the study area. This ditch is a constructed feature built for the purpose of draining the adjacent parking lots to the north. This feature was excavated in uplands and is not a traditional navigable water, not a relocated tributary, and is not constructed in adjacent wetlands.

5.2 Analysis of Waters of the United States

As defined under Section 3.1, under the Revised Definition of Waters of the U.S, there are five categories that are considered jurisdictional waters of the U.S. These categories include (a)(1) territorial seas and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide, and interstate waters, including interstate wetlands; (a)(2) impoundments of waters of the U.S; (a)(3) tributaries of waters of the U.S that are RPWs; (a)(4) wetlands adjacent to RPWs or maintain a continuous surface connection to RPWs; and (a)(5) intrastate lakes and ponds that are RPWs or maintain a continuous surface connection to RPWs. See Table 4, below, for an evaluation of the aquatic resources in the survey area that meet the Revised Definition of Waters of the U.S.

The mapped 2.824 acres of wetlands and other waters are expected to be waters of the United States pursuant to 33 CFR 328.3(a)(3) and (a)(4). Thus, these features are expected to be subject to USACE and Central Valley Regional Water Quality Control Board jurisdiction under CWA Sections 404 and 401, and/or the Porter-Cologne Water Quality Control Act.

TABLE 4
POTENTIAL WATERS OF THE UNITED STATES

Aquatic Feature ID	Feature Type	Cowardin Type [a]	Rational	Acreage Waters of the U.S.	Acreage Non-Jurisdictional
Wetlands					
RW-1	Riparian Wetland	RP1FO	No continuous surface connection to a relatively permanent water (RPW)	--	0.232
RW-2	Riparian Wetland	RP1FO	No continuous surface connection to RPW	--	0.178
RW-3	Riparian Wetland	RP1FO	(a)(4)(ii)	0.313	--
RW-4	Riparian Wetland	RP1FO	(a)(4)(ii)	0.045	--
RW-5	Riparian Wetland	RP1FO	(a)(4)(ii)	0.115	--
RW-6	Riparian Wetland	RP1FO	(a)(4)(ii)	0.025	--
RW-7	Riparian Wetland	RP1FO	(a)(4)(ii)	0.060	--
RW-8	Riparian Wetland	RP1FO	(a)(4)(ii)	0.012	--
RW-9	Riparian Wetland	RP1FO	(a)(4)(ii)	0.092	--
RW-10	Riparian Wetland	RP1FO	(a)(4)(ii)	0.024	--
RW-11	Riparian Wetland	RP1FO	No continuous surface connection to RPW	--	0.119
RW-12	Riparian Wetland	RP1FO	(a)(4)(ii)	0.009	--
RW-13	Riparian Wetland	RP1FO	(a)(4)(ii)	0.028	--
			Riparian Wetland Subtotal	0.723	*0.529*
RSW-1	Riverine Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.078
RSW-2	Riverine Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.087
RSW-3	Riverine Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.001
RSW-4	Riverine Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.014
RSW-5	Riverine Seasonal Wetland	PEM	(a)(4)(ii)	0.372	--
RSW-6	Riverine Seasonal Wetland	PEM	(a)(4)(ii)	0.018	--
RSW-7	Riverine Seasonal Wetland	PEM	(a)(4)(ii)	0.002	--
RSW-8	Riverine Seasonal Wetland	PEM	(a)(4)(ii)	0.039	--
RSW-9	Riverine Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.008
RSW-10	Riverine Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.001
			Riverine Seasonal Wetland Subtotal	*0.431*	*0.189*

TABLE 4 (CONTINUED)
POTENTIAL WATERS OF THE UNITED STATES

Aquatic Feature ID	Feature Type	Cowardin Type [a]	Rational	Acreage Waters of the U.S.	Acreage Non-Jurisdictional
SW-1	Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.003
SW-2	Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.062
SW-3	Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.066
SW-6	Seasonal Wetland	PEM	(a)(4)(ii)	0.136	--
SW-7	Seasonal Wetland	PEM	No continuous surface connection to RPW	--	0.004
			Seasonal Wetland Subtotal	0.136	0.135
S-1	Seep	PEM	No continuous surface connection to RPW	--	0.091
S-2	Seep	PEM	No continuous surface connection to RPW	--	0.110
S-3	Seep	PEM	No continuous surface connection to RPW	--	0.108
S-4	Seep	PEM	No continuous surface connection to RPW	--	0.106
S-5	Seep	PEM	No continuous surface connection to RPW	--	0.100
S-6	Seep	PEM	No continuous surface connection to RPW	--	0.022
S-7	Seep	PEM	No continuous surface connection to RPW	--	0.069
S-8	Seep	PEM	No continuous surface connection to RPW	--	0.036
S-9	Seep	PEM	No continuous surface connection to RPW	--	0.297
S-10	Seep	PEM	No continuous surface connection to RPW	--	0.007
S-11	Seep	PEM	No continuous surface connection to RPW	--	0.029
S-12	Seep	PEM	No continuous surface connection to RPW	--	0.042
S-13	Seep	PEM	No continuous surface connection to RPW	--	0.026
S-16	Seep	PEM	No continuous surface connection to RPW	--	0.038
S-17	Seep	PEM	No continuous surface connection to RPW	--	0.037
			Seep Subtotal	--	*1.119*
VP-1	Vernal Pool	PEM	No continuous surface connection to RPW	--	0.007
VP-2	Vernal Pool	PEM	No continuous surface connection to RPW	--	0.007
VP-3	Vernal Pool	PEM	No continuous surface connection to RPW	--	0.012
VP-4	Vernal Pool	PEM	No continuous surface connection to RPW	--	0.038
VP-5	Vernal Pool	PEM	No continuous surface connection to RPW	--	0.006

TABLE 4 (CONTINUED)
POTENTIAL WATERS OF THE UNITED STATES

Aquatic Feature ID	Feature Type	Cowardin Type [a]	Rational	Acreage Waters of the U.S.	Acreage Non-Jurisdictional
			Vernal Pool Subtotal	*--*	*0.071*
WS-1	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.009
WS-2	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.005
WS-3	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.061
WS-4	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.135
WS-5	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.078
WS-6	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.097
WS-7	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.144
WS-8	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.303
WS-9	Wetland Swale	PEM	No continuous surface connection to RPW	--	0.260
WS-10	Wetland Swale	PEM	(a)(4)(ii)	0.024	--
			Wetland Swale subtotal	*0.024*	*1.092*
			Wetlands Total	**1.314**	**3.134**
Other Waters					
P-1	Perennial Drainage (Carson Creek)	R2	(a)(3)	0.297	--
			Perennial Drainage Subtotal	*0.297*	*--*
I-1	Intermittent Drainage	R4	(a)(3)	1.115	--
I-2	Intermittent Drainage	R4	(a)(3)	0.086	--
			Intermittent Drainage Subtotal	*1.201*	*--*
E-1a	Ephemeral Drainage	R6	Non-RPW	--	1.110
E-1b	Ephemeral Drainage	R6	Non-RPW	--	0.052
E-2	Ephemeral Drainage	R6	Non-RPW	--	0.066
E-3	Ephemeral Drainage	R6	Non-RPW	--	0.021
E-4a	Ephemeral Drainage	R6	Non-RPW	--	0.315
E-4b	Ephemeral Drainage	R6	Non-RPW	--	0.012
E-5	Ephemeral Drainage	R6	Non-RPW	--	0.004

TABLE 4 (CONTINUED)
POTENTIAL WATERS OF THE UNITED STATES

Aquatic Feature ID	Feature Type	Cowardin Type [a]	Rational	Acreage Waters of the U.S.	Acreage Non-Jurisdictional
E-6	Ephemeral Drainage	R6	Non-RPW	--	<0.001
E-7	Ephemeral Drainage	R6	Non-RPW	--	0.001
			Ephemeral Drainage Subtotal	--	*1.579*
CUL-1	Culvert	N/A	Non-RPW	--	0.004
CUL-2	Culvert	N/A	Non-RPW	--	0.005
CUL-3	Culvert	N/A	Non-RPW	--	0.005
CUL-4	Culvert	N/A	Non-RPW	--	0.001
CUL-5	Culvert	N/A	Non-RPW	--	<0.001
CUL-6	Culvert	N/A	Non-RPW	--	0.003
CUL-7	Culvert	N/A	Non-RPW	--	0.001
CUL-8	Culvert	N/A	Non-RPW	--	0.002
CUL-9	Culvert	N/A	RPW	0.003	--
CUL-10	Culvert	N/A	RPW	0.007	--
CUL-11	Culvert	N/A	RPW	0.006	--
CUL-12	Culvert	N/A	Non-RPW	--	0.007
			Culvert Subtotal	*0.016*	*0.028*
D-2	Ditch	N/A	Ditch Dug in and Draining Only Uplands	--	0.014
			Ditch Subtotal	--	*0.014*
			Other Waters Total:	**1.514**	**1.623**
			Wetlands and Other Waters Total	**2.828**	**4.756**

NOTE: Differences between values and totals are due to minor rounding differences.

5.2.1 Potentially Jurisdictional Wetlands

There are 1.314 acres of wetlands (riparian wetlands RW-3 through RW-10, RW-12, and RW-13, riverine seasonal wetlands RSW-5 through RSW-8, wetland swale SW-6, and WS-10) are adjacent to other jurisdictional waters and have direct hydrologic surface connections to another jurisdictional non-wetland relatively permanent water (RPW). Therefore, these wetlands are expected to be subject to Corps' jurisdiction.

5.2.2 Potentially Jurisdictional Other Waters

There are 1.514 acres of other waters (perennial drainage P-1, intermittent channels I-1 and I-2, and culvert features (CUL-9, CUL-10, CUL-11) are RPWs that flow directly or indirectly into a TNW, and are therefore waters of the United States. Carson Creek (P-1) is a perennial tributary (during a typical year this feature flows year-round) that contributes surface water flow in a typical year to a downstream jurisdictional water (Mokelumne River – TNW). Intermittent channels I-1 and I-2 are intermittent tributaries (during a typical year these features flow continuously during certain times of the year and more than in direct response to precipitation) that contribute surface water flow to a downstream jurisdictional water (Mokelumne River – TNW). Portions of I-1 are culverted (CUL-9, CUL-10, CUL-11) under Latrobe Road and convey the perennial or intermittent features described above. Therefore, these other waters features are expected to be subject to Corps' jurisdiction.

5.2.3 Non-Jurisdictional Wetlands

Wetland features including riparian wetlands RW-1, RW-2 and RW 11; riverine seasonal wetland RSW-1 through RSW-4, RSW9 and RSW-10; seasonal wetland SW-1 through SW-5 and SW-7; all seep features S-1through S-17; all vernal pools VP 1 through VP-5; wetland swales WS-1 through WS-9 are not expected to be waters of the U.S. These features are wetlands that are not RPWs, and they do not have a continuous hydrologic surface connection to RPWs. Therefore, these wetlands totaling 3.133 acres are not considered waters of the U.S. under the 2023 NWPR (33 CFR Section 328.3(a)(4) waters).

5.2.4 Non-Jurisdictional Non-Wetland Features

Non-RPWs that lack a continuous surface connection to a water of the U.S. do not qualify as waters of the United States. A total of 1.623 acres of non-wetland features identified within the study area are not expected to be subject to Corps' jurisdiction under the 2023 NWPR and supporting rationale is provided below.

All ephemeral channels (E-1 through E-7) flow only in direct response to precipitation and are not RPWs. These features lack a continuous surface connection to RPWs and are not considered waters of the U.S. under the 2023 Navigable Waters Protection Rule (NWPR) (33 CFR Section 328.3(a)(3) waters).

The ditch (D-2) feature is a constructed drainage ditch that is not a traditional navigable water, not an RPW, does not have a continuous surface connection to an RPW, not a relocated tributary,

and was not constructed in adjacent wetlands. This feature is not considered waters of the U.S. under the 2023 NWPR (33 CFR Section 328.3(b)(3) waters).

Culverts (CUL-1 through CUL-8, and CUL-12) are considered non-jurisdictional features under the 2023 NWPR (33 CFR Section 328.3(a)(3) waters) since they connect ephemeral channels that are not RPWs and lack a continuous connection to downstream RPWs.

5.3 Analysis of Waters of the State

The State Wetland Definition and Procedures defines "water of the state" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." All features that are waters of the U.S. are also waters of the state. The State Water Board has not adopted a definition for non-wetland waters of the state, however the Porter-Cologne Water Quality Control Act regulates project activities, discharges, or proposed activities or discharges that could affect California's surface, coastal, or ground waters. Therefore, ephemeral channels that are not expected to qualify as waters of the U.S. are likely to qualify as waters of the state at the discretion of the RWQCB.

All non-wetland features identified, with the exception of ditch D-2, are expected to be considered waters of the state by the RWQCB. Ditch 2 may not qualify as a water of the state given its construction in uplands and degree of isolation. Although the Boards have not adopted a definition of non-wetland waters, the definition used for which wetlands qualify as waters of the state suggests that the RWQCB may not claim jurisdiction over small, artificial features that are subject to ongoing maintenance, such as Ditch 2 (0.014 acre).

All of the wetlands identified in the study area, with the exception of SW-7, are likely to meet the definition of wetlands defined as waters of the state (see Section 3.3.1), because they are either "natural wetlands", wetlands created by a modification of a surface water of the state, or they resulted from historic human activity and are not subject to ongoing operation and maintenance. SW-7 (0.004 acre) is in a constructed swale next to Latrobe Road, does not appear to be a realigned natural feature, and is likely subject to ongoing operation and maintenance by El Dorado County Department of Transportation for road drainage. Therefore, SW-7 (0.004 acre) may not qualify as a water of the state.

Based on the State Wetland Definition and Procedure and the Porter-Cologne Water Quality Control Act, a total of 7.567 acres of wetlands and non-wetland waters are expected to qualify as waters of the state. These features include all wetlands and non-wetlands identified except for ditch D-2 and seasonal wetland SW-7 based on the rationale described above.

5.4 Analysis of Section 1600 Regulated Areas

Pursuant to Division 2, Chapter 6, Section 1600 et seq. of the FGC, CDFW regulates diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake. Under FGC Section 1602 (Lake and Streambed Alteration Agreements), CDFW will generally include the "stream zone" up to the top of bank or outside extent of riparian vegetation, whichever is the greatest, although CDFW may at their discretion include any project activities

where material may pass into the stream. Features identified expected to be subject to CDFW regulation include riparian wetlands (RW-3 through RW-10, and RW-12 through RW-13), riverine seasonal wetlands (RSW-5 through RSW-8), seasonal wetland SW-6, wetland swale WS-10, perennial drainage P-1, intermittent drainages (I-1 and I-2), ephemeral drainages (E-1a, E-1b, E-2 through E-7), and culverts (CUL-1 through CUL-12), which collectively total 4.437 acres. CDFW is likely to require a 1600 notification of streambed alteration for all of the channels in the study area, regardless of hydrology, including any wetlands that may be connected to the channels during times of high water.

5.5 Conclusions

A total of 7.585 acres of aquatic resources occur within the 271.81-acre study area. This includes approximately 2.828 acres of aquatic resources that qualify as waters of the U.S. The other 4.756 acres of aquatic resources are not expected to qualify as waters of the U.S. due to these features not being RPWs and the lack of a continuous connection with RPWs that drain to the nearest downstream traditional navigable water, the lower Cosumnes River.

A total of 7.567 acres of aquatic resources are expected to qualify as waters of the state subject to regulation under Section 401 of the CWA and/or the Porter-Cologne Water Quality Control Act. Ditch 2 and SW-7 are not expected to qualify as waters of the state. All of the perennial, intermittent, and ephemeral channels and abutting wetlands and riparian features, which total 4.437 acres, are expected to be subject to regulation under Section 1600 of the FGC.

This report documents the boundary delineation for these aquatic features and best professional judgment of ESA investigators. All aquatic resources and extent of potentially jurisdictional boundaries identified in this report are considered preliminary pending verification from the appropriate regulatory agencies.

CHAPTER 6
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Appendix A
Plant Species Observed

TABLE A-1
VASCULAR FLORA RECORDED FROM THE CREEKSIDE VILLAGE PROJECT STUDY AREA

Scientific Name	Common Name	Wetland Indicator Status
Apiaceae		
Daucus carota	Wild carrot	UPL
Eryngium vaseyi	Coyote-thistle	FACW
Foeniculum vulgare	Fennel	NL
Torilis arvensis	Tall sock-destroyer	NL
Apocynaceae		
Asclepias fascicularis	Narrow leaf milkweed	FAC
Araceae		
Lemna minuta	Least duckweed	OBL
Asteraceae		
Achillea millefolium	Yarrow	FACU
Achyrachaena mollis	Blow-wives	FAC
Artemisia douglasiana	Douglas' milkwort	FAC
Baccharis pilularis	Coyote brush	NL
Baccharis salicifolia	Coyote brush	FAC
Carduus pycnocephalus subsp. *pycnocephalus*	Italian thistle	NL
Centaurea solstitialis	Yellow star-thislte	NL
Centromadia fitchii	Spikeweed	FACU
Centromadia pungens subsp. *pungens*	Common spikeweed	FAC
Dittrichia graveolens	Stinkwort	NL
Erigeron canadensis	Canada horseweed	FACU
Helminthotheca echioides	Bristly ox-tongue	FAC
Holocarpha virgata subsp. *virgata*	Narrow tarplant	NL
Hypochaeris glabra	Smooth cat's-ear	NL
Hypochaeris radicata	Hairy cat's-ear	FACU
Lactuca serriola	Prickly lettuce	FACU
Leontodon saxatilis	Lesser hawkbit	FACU
Senecio vulgaris	Common groundsel	FACU
Silybum marianum	Milk thistle	NL
Sonchus oleraceus	Common sow thistle	UPL
Xanthium strumarium	Rough cocklebur	FAC
Boraginaceae		
Amsinckia menziesii	Menzies' fiddleneck	NL
Plagiobothrys stipitatus var. *micranthus*	Common vernal pool allocarya	FACW
Brassicaceae		
Brassica nigra	Black mustard	NL
Capsella bursa-pastoris	Shepherd's purse	NL
Hirschfeldia incana	Mustard	NL
Lepidium latifolium	Perennial pepperweed	FAC
Nasturtium officinale	Watercress	OBL
Raphanus sativus	Radish	NL
Convolvulaceae		
Convolvulus arvensis	Bindweed	NL

TABLE A-1
VASCULAR FLORA RECORDED FROM THE CREEKSIDE VILLAGE PROJECT STUDY AREA

Scientific Name	Common Name	Wetland Indicator Status
Cyperaceae		
Cyperus eragrostis	Tall flatsedge	FACW
Cyperus esculentus	Nut grass	FACW
Eleocharis macrostachya	Common spikerush	FACW
Schoenoplectus acutus var. *occidentalis*	Common tule	OBL
Euphorbiaceae		
Croton setigerus	Turkey-mullein	NL
Euphorbia maculata	Spotted spurge	UPL
Fabaceae		
Acmispon americanus	Spanish lotus	UPL
Medicago polymorpha	California burclover	FACU
Melilotus albus	White sweetclover	NL
Melilotus officinalis	Yellow sweetclover	FACU
Vicia sativa subsp. *sativa*	Spring vetch	FACU
Vicia villosa	Hairy vetch	NL
Fagaceae		
Quercus lobata	Valley oak	FACU
Geraniaceae		
Erodium botrys	Broad-leaf filaree	FACU
Erodium cicutarium	Redstem filaree	NL
Geranium dissectum	Cut leaved geranium	NL
Geranium molle	Crane's bill geranium	NL
Hypericaceae		
Hypericum perforatum subsp. *perforatum*	Klamathweed	FACU
Juncaceae		
Juncus bufonius	Toad rush	FACW
Juncus effusus	Common rush	FACW
Lythraceae		
Lythrum hyssopifolia	Hyssop loosestrife	OBL
Malvaceae		
Malva neglecta	Common mallow	NL
Montiaceae		
Claytonia perfoliata subsp. *perfoliata*	miner's lettuce	FAC
Papaveraceae		
Eschscholzia californica	California poppy	NL
Plantaginaceae		
Plantago major	Common plantain	FAC
Poaceaa		
Avena barbata	Slender wild oat	NL
Avena fatua	Wild oat	NL
Avena sativa	Cultivated oat	UPL
Briza minor	Little rattlesnake grass	FAC
Bromus diandrus	Ripgut grass	NL

TABLE A-1
VASCULAR FLORA RECORDED FROM THE CREEKSIDE VILLAGE PROJECT STUDY AREA

Scientific Name	Common Name	Wetland Indicator Status
Bromus hordeaceus	Soft chess	FACU
Crypsis schoenoides	Swamp picklegrass	FACW
Cynodon dactylon	Bermuda grass	FACU
Distichlis spicata	Salt grass	FAC
Elymus caput-medusae	Medusa head	NL
Elymus triticoides	Beardless wild-rye	FAC
Festuca myuros	Rattail sixweeks grass	FACU
Festuca perennis	Rye grass	FAC
Hordeum marinum subsp. *gussoneanum*	Mediterranean barley	FAC
Hordeum murinum	Wall barley	FACU
Paspalum dilatatum	Dallisgrass	FAC
Phalaris aquatica	Harding grass	FACU
Poa annua	Annual bluegrass	FAC
Polypogon monspeliensis	Rabbitsfoot grass	FACW
Sorghum halepense	Johnson grass	FACU
Stipa pulchra	Purple needlegrass	NL
Polygonaceae		
Polygonum aviculare	Prostrate knotweed	FAC
Rumex crispus	Curly dock	FAC
Rumex pulcher	Fiddle dock	FAC
Rosaceae		
Rosa californica	Wild rose	FAC
Rubus armeniacus	Himalayan blackberry	FAC
Rubiaceae		
Galium aparine	Goose grass	FACU
Salicaceae		
Populus fremontii subsp. *fremontii*	Fremont cottonwood	NL
Salix exigua	Sandbar willow	FACW
Salix gooddingii	Goodding's black willow	FACW
Salix laevigata	Red willow	FACW
Salix lasiolepis	Arroyo willow	FACW
Sapindaceae		
Acer negundo	Boxelder	FACW
Typhaceae		
Typha latifolia	Broadleaf cattail	OBL
Vitaceae		
Vitis californica	Wild grape	FACU

SOURCE: ESA, 2020

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Appendix B
Soils Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for El Dorado Area, California

Creekside Village



January 15, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Dorado Area, California
Survey Area Data: Version 12, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 8, 2019—May 12, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AmD	Argonaut very rocky loam, 3 to 30 percent slopes	37.9	13.7%
AwD	Auburn silt loam, 2 to 30 percent slopes	7.4	2.7%
AxD	Auburn very rocky silt loam, 2 to 30 percent slopes	144.2	52.1%
PgB	Perkins gravelly loam, moderately deep variant, 2 to 5 percent slopes	69.0	24.9%
PrD	Placer diggings	1.5	0.5%
WhE	Whiterock gravelly silt loam, 3 to 50 percent slopes	16.9	6.1%
Totals for Area of Interest		**277.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Dorado Area, California

AmD—Argonaut very rocky loam, 3 to 30 percent slopes

Map Unit Setting

National map unit symbol: hhyd
Elevation: 120 to 2,500 feet
Mean annual precipitation: 20 to 50 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 220 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Argonaut and similar soils: 75 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Argonaut

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from andesite and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 10 inches: gravelly loam
H2 - 10 to 30 inches: clay
H3 - 30 to 36 inches: weathered bedrock

Properties and qualities

Slope: 3 to 30 percent
Depth to restrictive feature: 30 to 36 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: F018XI201CA - Moderately Deep Thermic Foothills 22-31 PZ
Hydric soil rating: No

Description of Rock Outcrop

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Minor Components

Auburn

Percent of map unit: 9 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent
Landform: Fan remnants
Hydric soil rating: Yes

AwD—Auburn silt loam, 2 to 30 percent slopes

Map Unit Setting

National map unit symbol: hhyq
Elevation: 120 to 3,000 feet
Mean annual precipitation: 20 to 40 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 175 to 275 days
Farmland classification: Not prime farmland

Map Unit Composition

Auburn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Auburn

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 18 inches: unweathered bedrock

Properties and qualities

Slope: 2 to 30 percent
Depth to restrictive feature: 14 to 18 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: F018XI200CA - Low Elevation Foothills 18-25 PZ
Hydric soil rating: No

Minor Components

Perkins

Percent of map unit: 4 percent
Hydric soil rating: No

Sobrante

Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Argonaut

Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Hydric soil rating: No

AxD—Auburn very rocky silt loam, 2 to 30 percent slopes

Map Unit Setting

National map unit symbol: hhyr
Elevation: 120 to 3,000 feet
Mean annual precipitation: 20 to 40 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 175 to 275 days
Farmland classification: Not prime farmland

Map Unit Composition

Auburn and similar soils: 75 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Auburn

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 18 inches: unweathered bedrock

Properties and qualities

Slope: 2 to 30 percent
Depth to restrictive feature: 14 to 18 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R018XD076CA - SHALLOW LOAMY
Hydric soil rating: No

Description of Rock Outcrop

Setting

Parent material: Metamorphic rock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Minor Components

Boomer

Percent of map unit: 3 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Argonaut

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Sobrante

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent
Hydric soil rating: No

PgB—Perkins gravelly loam, moderately deep variant, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: hj0v
Elevation: 450 to 700 feet

Mean annual precipitation: 25 inches
Mean annual air temperature: 63 degrees F
Frost-free period: 170 to 270 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Perkins variant and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Perkins Variant

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Consolidated gravelly alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 12 inches: gravelly loam
H2 - 12 to 17 inches: clay loam
H3 - 17 to 30 inches: very gravelly sandy clay loam
H4 - 30 to 37 inches: sandy clay
H5 - 37 to 41 inches: unweathered bedrock

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 37 to 41 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F018XI200CA - Low Elevation Foothills 18-25 PZ
Hydric soil rating: No

Minor Components

Argonaut

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Auburn

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Whiterock

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

PrD—Placer diggings

Map Unit Composition

Placer diggings: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Placer Diggings

Setting

Parent material: Alluvium derived from mixed sources

Typical profile

H1 - 0 to 60 inches: fine sandy loam, cobbles

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Ecological site: R018XD084CA - PLACER DIGGINGS
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Landform: Channels
Hydric soil rating: Yes

WhE—Whiterock gravelly silt loam, 3 to 50 percent slopes

Map Unit Setting

National map unit symbol: hj20
Elevation: 300 to 2,000 feet
Mean annual precipitation: 20 inches
Mean annual air temperature: 61 degrees F
Frost-free period: 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Whiterock and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Whiterock

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from slate

Typical profile

H1 - 0 to 8 inches: gravelly silt loam
H2 - 8 to 12 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 50 percent
Depth to restrictive feature: 8 to 12 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R018XD085CA - VERY SHALLOW LOAMY
Hydric soil rating: No

Minor Components

Auburn

Percent of map unit: 7 percent

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Argonaut

Percent of map unit: 6 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Hydric soil rating: No

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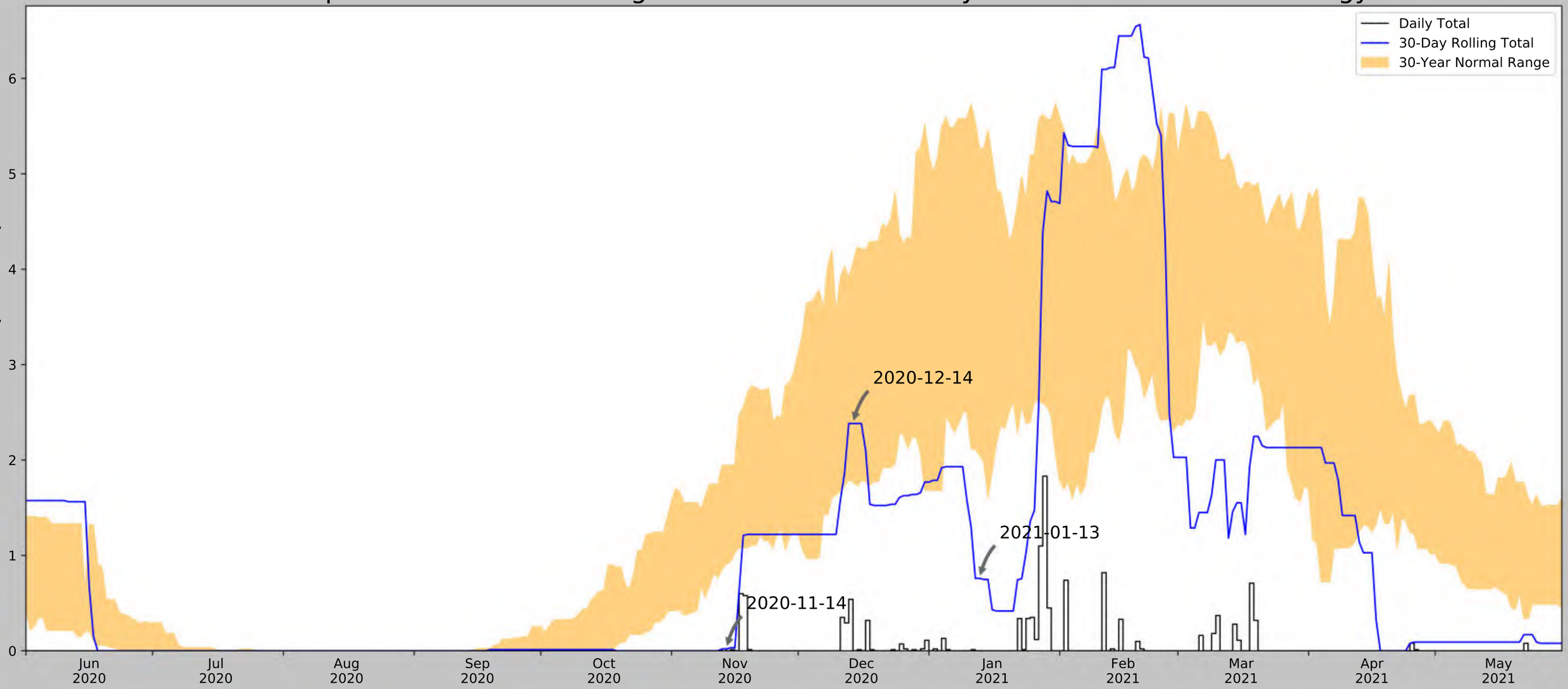
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Appendix C
Antecedent Precipitation

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	38.613366, -121.050502
Observation Date	2021-01-13
Elevation (ft)	533.81
Drought Index (PDSI)	Severe drought
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-01-13	2.051181	5.268898	0.759843	Dry	1	3	3
2020-12-14	1.770866	4.06811	2.38189	Normal	2	2	4
2020-11-14	0.913386	1.944095	0.019685	Dry	1	1	1
Result							Drier than Normal - 8

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CAMP PARDEE	38.2486, -120.8433	658.137	27.585	124.327	15.843	11025	90
ELECTRA P H	38.3306, -120.6706	714.895	10.946	56.758	5.547	16	0
WALLACE 0.3 NE	38.1967, -120.9728	297.9	7.891	360.237	6.394	239	0
SUTTER CREEK 0.1 WSW	38.3904, -120.8045	1266.076	10.021	607.939	10.602	15	0
SUTTER HILL CDF	38.3772, -120.8008	1585.958	9.179	927.821	12.647	49	0
FOLSOM 3.4 ESE	38.6546, -121.0907	594.16	31.082	63.977	15.975	5	0
ELLIOTT	38.2333, -121.2	91.864	19.386	566.273	19.701	2	0
ACAMPO 5NE	38.2178, -121.2014	86.942	19.551	571.195	19.965	2	0

Appendix D
Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-1

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is seasonal wetland associated with intermittent drainage/riverine wetland.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Cynodon dactylon	20	Yes	FACU
2. Cyperus eragrostis	25	Yes	FACW
3. Polypogon monspelienses	20	Yes	FACW
4. Festuca perennis	15	No	FAC
5. Juncus xiphioides	10	No	OBL
6. Rumex crispus	5	No	FAC
7. Mentha pulegium	5	No	OBL
8. _____			
	100	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	45	x 2 =	90
FAC species	20	x 3 =	60
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		245 (B)

Prevalence Index = B/A = 2.45

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/2	75	Gley 1 4/N	10	D	M	silty loam	
			5 YR 4/6	15	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-2

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is seasonal wetland associated with intermittent drainage/riverine wetland.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Eleocharis macrostachya	30	Yes	OBL
2. Cyperus eragrostis	15	Yes	FACW
3. Mentha pulegium	15	Yes	OBL
4. Hordeum marinum	10	No	FAC
5. Festuca perennis	10	No	FAC
6. Acmispon americanus	10	No	UPL
7. Leontodon saxatilis	5	No	FACU
8. _____			
	95	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	15	x 2 =	30
FAC species	20	x 3 =	60
FACU species	5	x 4 =	20
UPL species	10	x 5 =	50
Column Totals:	95 (A)		205 (B)

Prevalence Index = B/A = 2.157894737

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 4/1	90	7.5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-3

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Festuca perennis	25	Yes	FAC
2. Cynodon dactylon	25	Yes	FACU
3. Bromus hordeaceus	20	Yes	FACU
4. Elymus caput-medusae	20	Yes	NL
5. Zeltnera muehlenbergii	5	No	FAC
6.			
7.			
8.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	45	x 4 =	180
UPL species	20	x 5 =	100
Column Totals:	95 (A)		370 (B)

Prevalence Index = B/A = 3.894736842

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 4/2	95	7.5 YR 4/6	5	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-4

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	50	Yes	NL
2. Holocarpha virgata	25	Yes	NL
3. Bromus hordeaceus	10	No	FACU
4. Festuca perennis	5	No	FAC
5. Avena fatua	5	No	NL
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	10	x 4 =	40
UPL species	80	x 5 =	400
Column Totals:	95 (A)		455 (B)

Prevalence Index = B/A = 4.789473684

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 4/4	100					silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-5

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is small vernal pool adjacent to fire break/fence line.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Erynigum vaseyi	25	Yes	OBL
2. Pleuropogon californicus	20	Yes	OBL
3. Lythrum hyssopifolia	20	Yes	OBL
4.			
5.			
	65 = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 65	x 1 =	65
FACW species 0	x 2 =	0
FAC species 0	x 3 =	0
FACU species 0	x 4 =	0
UPL species 0	x 5 =	0
Column Totals: 65 (A)		65 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/1	90	5 YR 4/6	10	C	PL	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-6

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is minor swale but does not meet wetland parameters.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	25	Yes	NL
2. Festuca perennis	20	Yes	FAC
3. Avena fatua	20	Yes	NL
4. Holocarpha virgata	15	No	NL
5. Leontodon saxatilis	10	No	FACU
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	10	x 4 =	40
UPL species	60	x 5 =	300
Column Totals:	90 (A)		400 (B)

Prevalence Index = B/A = 4.444444444

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Dominated by upland plants.

SOIL

Sampling Point: DP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/3	100					silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-7

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is minor swale but does not meet wetland parameters.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Festuca perennis	40	Yes	FAC
2. Elymus caput-medusae	20	Yes	NL
3. Bromus hordeaceus	20	Yes	FACU
4. Leontodon saxatilis	10	No	FACU
5. _____			
6. _____			
7. _____			
8. _____			
	90	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	30	x 4 =	120
UPL species	20	x 5 =	100
Column Totals:	90 (A)		340 (B)

Prevalence Index = B/A = 3.777777777

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 4/3	100					silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-8

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	35	Yes	FAC
2. Bromus hordeaceus	25	Yes	FACU
3. Festuca myuros	20	Yes	FACU
4. Rumex crispus	10	No	FAC
5. Leontodon saxatilis	5	No	FACU
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	95 (A)		335 (B)

Prevalence Index = B/A = 3.526315789

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-9

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes _____ No _____	
Wetland Hydrology Present?	Yes _____ No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Avena fatua	20	Yes	NL
2. Elymus caput-medusae	25	Yes	NL
3. Bromus diandrus	10	No	NL
4. Bromus hordeaceus	15	No	FACU
5. Festuca perennis	10	No	FAC
6. Carduus pycnocephalus	5	No	NL
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	15	x 4 =	60
UPL species	60	x 5 =	300
Column Totals:	85 (A)		390 (B)

Prevalence Index = B/A = 4.588235294

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/3	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-10

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Festuca perennis	25	Yes	FAC
2. Juncus bufonius	20	Yes	FACW
3. Lythrum hyssopifolium	15	Yes	OBL
4. Hordeum marinum	10	No	FAC
5. Zeltnera muehlenbergii	10	No	FAC
6. Briza minor	5	No	FAC
7.			
8.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 15	x 1 =	15
FACW species 20	x 2 =	40
FAC species 50	x 3 =	150
FACU species 0	x 4 =	0
UPL species 0	x 5 =	0
Column Totals: 85 (A)		205 (B)

Prevalence Index = B/A = 2.411764705[illegible]

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/2	90	5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-11

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	30	Yes	FAC
2. Lythrum hyssopifolium	15	Yes	OBL
3. Juncus bufonius	15	Yes	FACW
4. Hordeum marinum	10	No	FAC
5. Helminthotheca echioides	5	No	FAC
6. Briza minor	5	No	FAC
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	15	x 2 =	30
FAC species	50	x 3 =	150
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	80 (A)		195 (B)

Prevalence Index = B/A = 2.4375

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/2	90	5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-12

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is wetland swale.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Eleocharis macrostachya	35	Yes	OBL
2. Mentha pulegium	20	Yes	OBL
3. Cyperus eragrostis	10	No	FACW
4. Paspalum dilatatum	10	No	FAC
5. Gastridium phleoides	5	No	FACU
6. Rumex crispus	5	No	FAC
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 55	x 1 =	55
FACW species 10	x 2 =	20
FAC species 15	x 3 =	45
FACU species 5	x 4 =	20
UPL species 0	x 5 =	0
Column Totals: 85 (A)		140 (B)

Prevalence Index = B/A = 1.647058823

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 2/2	90	5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-13

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	15	Yes	NL
2. Leontodon saxatilis	15	Yes	FACU
3. Acmispon americanus	10	No	UPL
4. Juncus bufonius	15	Yes	FACW
5. Juncus capitatus	5	No	FACU
6. Briza minor	10	No	FAC
7. Bromus diandrus	15	Yes	NL
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	10	x 3 =	30
FACU species	20	x 4 =	80
UPL species	40	x 5 =	200
Column Totals:	85 (A)		340 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 4/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-14

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Polypogon monspeliensis	20	Yes	FACW
2. Eleocharis macrostachya	15	Yes	OBL
3. Festuca perennis	10	No	FAC
4. Juncus bufonius	10	No	FACW
5. Zeltnera muehlenbergii	10	No	FAC
6.			
7.			
8.			
	65 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 15	x 1 =	15
FACW species 30	x 2 =	60
FAC species 20	x 3 =	60
FACU species 0	x 4 =	0
UPL species 0	x 5 =	0
Column Totals: 65 (A)		135 (B)

Prevalence Index = B/A = 2.076923076

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	90	5 YR 4/6	10	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-15

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	30	Yes	NL
2. Festuca perennis	15	Yes	FAC
3. Bromus diandrus	15	Yes	NL
4. Erodium botrys	10	No	FACU
5. Juncus bufonius	10	No	FACW
6. Lythrum hyssopifolium	5	No	OBL
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	10	x 2 =	20
FAC species	15	x 3 =	45
FACU species	10	x 4 =	40
UPL species	45	x 5 =	225
Column Totals:	85 (A)		335 (B)

Prevalence Index = B/A = 3.941176470[illegible]

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/4	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-16

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Polypogon monspeliensis	25	Yes	FACW
2. Lythrum hyssopifolium	20	Yes	OBL
3. Festuca perennis	20	Yes	FAC
4. Hordeum marinum	10	No	FAC
5. Juncus bufonius	10	No	FACW
6. Acmispon americanus	10	No	UPL
7. Helminthotheca echioides	5	No	FAC
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 20	x 1 = 20
FACW species 35	x 2 = 70
FAC species 35	x 3 = 105
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 100 (A)	245 (B)

Prevalence Index = B/A = 2.45

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/1	90	7.5 YR 4/6	10	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-17

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	20	Yes	NL
2. Bromus hordeaceus	15	Yes	FACU
3. Bromus diandrus	15	Yes	NL
4. Leontodon saxatilis	10	No	FACU
5. Avena fatua	10	No	NL
6. Festuca myuros	10	No	FACU
7. Festuca perennis	5	No	FAC
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	35	x 4 =	140
UPL species	45	x 5 =	225
Column Totals:	85 (A)		380 (B)

Prevalence Index = B/A = 4.470588235

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-18

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elyumus caput-medusae	30	Yes	NL
2. Avena fauta	15	Yes	NL
3. Bromus hordeaceus	15	Yes	FACU
4. Leontodon saxatilis	10	No	FACU
5. Geranium dissectum	10	No	NL
6. Erodium botrys	10	No	FACU
7. _____			
8. _____			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	65	x 5 =	325
Column Totals:	100 (A)		465 (B)

Prevalence Index = B/A = 4.65

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5 Y 3/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hardpan/cobbles

Depth (inches): 6

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-19

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is vernal pool.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Eryngium vaseyi	20	Yes	FACW
2. Pogogyne ziziphoroides	5	No	OBL
3. Plagiobothrys stipitatus	15	Yes	FACW
4. Eleocharis macrostachya	15	Yes	OBL
5. Deschampsia elgonata	10	No	FACW
6. Lasthenia fremontii	5	No	OBL
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 25	x 1 =	25
FACW species 45	x 2 =	90
FAC species 0	x 3 =	0
FACU species 0	x 4 =	0
UPL species 0	x 5 =	0
Column Totals: 70 (A)		115 (B)

Prevalence Index = B/A = 1.642857142

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5 Y 4/4	90	7.5 YR 4/6	10	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hardpan/cobbles

Depth (inches): 8

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 2

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-20

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	30	Yes	NL
2. Festuca myuros	15	Yes	FACU
3. Bromus hordeaceus	10	Yes	FACU
4. Leontodon saxatilis	10	Yes	FACU
5. Holocarpha virgata	10	Yes	NL
6. Erodium botrys	5	No	FACU
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	65	x 5 =	325
Column Totals:	80 (A)		385 (B)

Prevalence Index = B/A = 4.8125

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-21

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is vernal pool adjacent to fence line/fire break.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Eryngium vaseyi	15	Yes	FACW
2. Hordeum marinum	20	Yes	FAC
3. Polypogon monspeliensis	15	Yes	FACW
4. Festuca perennis	15	Yes	FAC
5. Lasthenia fremontii	10	No	OBL
6. Pogogyne ziziphoroides	5	No	OBL
7. _____			
8. _____			
	80	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	30	x 2 =	60
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		180 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5 Y 4/4	90	7.5 YR 4/4	10	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hardpan/cobbles

Depth (inches): 8

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 3

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-22

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes _____ No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	10	No	FAC
2. Elymus caput-medusae	15	Yes	NL
3. Lythrum hyssopifolium	20	Yes	OBL
4. Acmispon americanus	15	Yes	UPL
5. Gastridium phleoides	5	No	FACU
6. Hordeum marinum	10	No	FAC
7. Bromus diandrus	10	No	NL
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	5	x 4 =	20
UPL species	40	x 5 =	200
Column Totals:	85 (A)		300 (B)

Prevalence Index = B/A = 3.529411764

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5 YR 4/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hardpan

Depth (inches): 8

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-23

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is wetland swale.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Polypogon monspeliensis	30	Yes	FACW
2. Festuca perennis	20	Yes	FAC
3. Lythrum hyssopifolium	15	No	OBL
4. Hordeum marinum	15	No	FAC
5. Bromus hordeaceus	10	No	FACU
6. _____			
7. _____			
8. _____			
	90	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	30	x 2 =	60
FAC species	35	x 3 =	105
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	90 (A)		220 (B)

Prevalence Index = B/A = 2.444444444

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 4/2	90	7.5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-24

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	60	Yes	NL
2. Festuca perennis	10	No	FAC
3. Avena fatua	10	No	NL
4. Bromus hordeaceus	10	No	FACU
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	70	x 5 =	350
Column Totals:	90 (A)		420 (B)

Prevalence Index = B/A = 4.666666666

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/4	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-25

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	30	Yes	NL
2. Festuca perennis	10	No	FAC
3. Hordeum marinum	10	No	FAC
4. Bromus hordeaceus	15	Yes	FACU
5. Erodium botrys	10	No	FACU
6. Geranium dissectum	10	No	NL
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	25	x 4 =	100
UPL species	40	x 5 =	200
Column Totals:	85 (A)		360 (B)

Prevalence Index = B/A = 4.235294117

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 3/2	95	7.5 YR 4/4	5	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-26

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is seasonal wetland adjacent to drainage.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	25	Yes	FAC
2. Lythrum hyssopifolia	20	Yes	OBL
3. Hordeum marinum	15	Yes	FAC
4. Leontodon saxitilis	10	No	FACU
5. Helminthotecha echioides	10	No	FAC
6. _____			
7. _____			
8. _____			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 20	x 1 = 20
FACW species 0	x 2 = 0
FAC species 50	x 3 = 150
FACU species 10	x 4 = 40
UPL species _____	x 5 = 0
Column Totals: 80 (A)	210 (B)

Prevalence Index = B/A = 2.625

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 3/1	95	7.5 YR 4/4	5	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-27

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	20	Yes	NL
2. Festuca perennis	25	Yes	FAC
3. Acmispon americanus	15	Yes	UPL
4. Leontodon saxatilis	15	Yes	FACU
5. Trichostema lanceoloata	5	No	FACU
6. Juncus bufonius	5	No	FACW
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 25	x 3 = 75
FACU species 20	x 4 = 80
UPL species 35	x 5 = 175
Column Totals: 85 (A)	340 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 4/2	95	7.5 YR 3/4	5	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-28

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	30	Yes	FAC
2. Juncus bufonius	20	Yes	FACW
3. Zeltnera muehlenbergii	10	No	FAC
4. Acmispon americanus	15	No	UPL
5. Leontodon saxatilis	10	No	FACU
6. Helminthotheca echioides	10	No	FAC
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	15	x 5 =	75
Column Totals:	95 (A)		305 (B)

Prevalence Index = B/A = 3.210526315

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	5 YR 4/2	90	5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-29

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	30	Yes	FAC
2. Zeltnera muehlenbergii	15	Yes	FAC
3. Hordeum marinum	15	Yes	FAC
4. Juncus bufonius	15	Yes	FACW
5. Trichostema lanceolata	10	No	FACU
6. Juncus capitatus	5	No	FACU
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 15	x 2 = 30
FAC species 60	x 3 = 180
FACU species 15	x 4 = 60
UPL species 0	x 5 = 0
Column Totals: 90 (A)	270 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	5 YR 3/1	95	5 YR 3/4	5	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-30

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	20	Yes	NL
2. Festuca perennis	20	Yes	FAC
3. Acmispon americanus	20	Yes	UPL
4. Leontodon saxatilis	15	No	FACU
5. Trichostema lanceolata	5	No	FACU
6. Lactuca serriola	5	No	FACU
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	25	x 4 =	100
UPL species	40	x 5 =	200
Column Totals:	85 (A)		360 (B)

Prevalence Index = B/A = 4.235294117[illegible]

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	5 YR 3/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-31

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Festuca perennis	30	Yes	FAC
2. Elymus caput-medusae	15	Yes	NL
3. Acmispon americanus	15	Yes	UPL
4. Leontodon saxitilis	10	No	FACU
5. Bromus hordeaceus	10	No	FACU
6. _____			
7. _____			
8. _____			
	80	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	20	x 4 =	80
UPL species	30	x 5 =	150
Column Totals:	80 (A)		320 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5 YR 3/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-37

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Bromus hordeaceus	20	Yes	FACU
2. Festuca myuros	20	Yes	FACU
3. Polypogon monspeliensis	20	Yes	FACW
4. Eleocharis macrostachya	10	No	OBL
5. Lythrum hyssopifolium	5	No	OBL
6. Bromus diandrus	5	No	NL
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	80 (A)		240 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-37

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	5 YR 4/4						silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-38

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is vernal pool adjacent to wetland swale.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Erynigium vaseyi	40	Yes	OBL
2. Polypogon monspeliensis	15	Yes	FACW
3. Eleocharis macrostachya	15	Yes	OBL
4. Festuca perennis	5	No	FAC
5. Hordeum marinum	5	No	FAC
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 55	x 1 = 55
FACW species 15	x 2 = 30
FAC species 10	x 3 = 30
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 80 (A)	115 (B)

Prevalence Index = B/A = 1.4375

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-38

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 4/2	90	5 Yr 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hardpan/cobbles

Depth (inches): 8

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-39

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is wetland swale.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Eleocharis macrostachya	30	Yes	FACW
2. Eryngium vaseyi	15	Yes	OBL
3. Polypogon monspeliensis	15	Yes	FAC
4. Juncus bufonius	10	No	OBL
5. Festuca perennis	10	No	FAC
6. Hordeum marinum	5	No	FAC
7. _____			
8. _____			
	85	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 25	x 1 =	25
FACW species 30	x 2 =	60
FAC species 30	x 3 =	90
FACU species _____	x 4 =	0
UPL species _____	x 5 =	0
Column Totals: 85 (A)		175 (B)

Prevalence Index = B/A = 2.058823529

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-39

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	80	7.5 YR 4/6	10	C	M	silty loam	
			10 YR 4/1	10	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-40

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Elumus caput-medusae	40	Yes	NL
2. Bromus hordeaceus	10	Yes	FACU
3. Avena fatua	15	Yes	NL
4. Bromus diandrus	15	Yes	NL
5. _____			
6. _____			
7. _____			
8. _____			
	80	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	70	x 5 =	350
Column Totals:	80 (A)		390 (B)

Prevalence Index = B/A = 4.875

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-40

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR 4/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-41

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Polypogon monspeliensis	25	Yes	FACW
2. Eleocharis macrostachya	20	Yes	OBL
3. Festuca perennis	15	Yes	FAC
4. Cyperus eragrostis	10	No	FACW
5. Lythrum hyssopifolium	10	No	OBL
6. Briza minor	5	No	FAC
7. _____			
8. _____			
	85	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	35	x 2 =	70
FAC species	20	x 3 =	60
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	85 (A)		160 (B)

Prevalence Index = B/A = 1.882352941

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-41

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5 YR 3/3	100					silty loam	
6-12	7.5 YR 4/1	90	7.5 YR 3/4	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 4

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-42

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	60	Yes	NL
2. Avena fatua	15	No	NL
3. Bromus hordeaceus	15	No	FACU
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	75	x 5 =	375
Column Totals:	90 (A)		435 (B)

Prevalence Index = B/A = 4.833333333

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-42

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5 Y 3/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-43

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is hillside seep.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus xiphioides	100	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 100	x 1 = 100
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 100 (A)	100 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-43

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5 YR 3/3	100					silty loam	
5-14	7.5 YR 4/1	90	7.5 YR 4/6	10	C	M	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No ___ Depth (inches): 2

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-44

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought".

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Elymus caput-medusae	60	Yes	NL
2. Avena fatua	10	No	NL
3. Bromus hordeaceus	15	No	FACU
4.			
5.			
6.			
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	75	x 5 =	375
Column Totals:	85 (A)		415 (B)

Prevalence Index = B/A = 4.882352941

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: DP-44

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5 Y 3/4	100					silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Creekside Village City/County: El Dorado County Sampling Date: 1/13/21

Applicant/Owner: Winn Communities State: CA Sampling Point: DP-45

Investigator(s): Joshua Boldt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✓ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Climatic/hydrologic conditions were not typical as the 2020-2021 wet season was drier than normal. The PDSI for the study area was categorized as "severe drought". Feature is riparian wetland associated with perennial creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	25	Yes	FACW
2.			
3.			
4.			
	25 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus armeniacus	45	Yes	FAC
2.			
3.			
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Typha latifolia	5	Yes	OBL
2. Cyperus eragrostis	5	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 10	x 1 = 10
FACW species 25	x 2 = 50
FAC species 45	x 3 = 135
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 80 (A)	195 (B)

Prevalence Index = B/A = 2.4375

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: DP-45

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 4/1	85	7.5 YR 4/6	15	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No ___ Depth (inches): 3

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix E

ORM Aquatic Resources Spreadsheet

Waters_Name	State	Cowardin_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
RW-1	CALIFORNIA	RP1FO	Area	0.232	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RW-2	CALIFORNIA	RP1FO	Area	0.178	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RW-3	CALIFORNIA	RP1FO	Area	0.313	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-4	CALIFORNIA	RP1FO	Area	0.045	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-5	CALIFORNIA	RP1FO	Area	0.115	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-6	CALIFORNIA	RP1FO	Area	0.025	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-7	CALIFORNIA	RP1FO	Area	0.060	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-8	CALIFORNIA	RP1FO	Area	0.012	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-9	CALIFORNIA	RP1FO	Area	0.092	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-10	CALIFORNIA	RP1FO	Area	0.024	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-11	CALIFORNIA	RP1FO	Area	0.119	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RW-12	CALIFORNIA	RP1FO	Area	0.009	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RW-13	CALIFORNIA	RP1FO	Area	0.028	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RSW-1	CALIFORNIA	PEM	Area	0.078	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RSW-2	CALIFORNIA	PEM	Area	0.087	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RSW-3	CALIFORNIA	PEM	Area	0.001	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RSW-4	CALIFORNIA	PEM	Area	0.014	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RSW-5	CALIFORNIA	PEM	Area	0.372	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RSW-6	CALIFORNIA	PEM	Area	0.018	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RSW-7	CALIFORNIA	PEM	Area	0.002	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RSW-8	CALIFORNIA	PEM	Area	0.039	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
RSW-9	CALIFORNIA	PEM	Area	0.008	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
RSW-10	CALIFORNIA	PEM	Area	0.001	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
SW-1	CALIFORNIA	PEM	Area	0.003	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
SW-2	CALIFORNIA	PEM	Area	0.062	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
SW-3	CALIFORNIA	PEM	Area	0.066	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
SW-6	CALIFORNIA	PEM	Area	0.136	ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
SW-7	CALIFORNIA	PEM	Area	0.004	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-1	CALIFORNIA	PEM	Area	0.091	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-2	CALIFORNIA	PEM	Area	0.110	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-3	CALIFORNIA	PEM	Area	0.108	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-4	CALIFORNIA	PEM	Area	0.106	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-5	CALIFORNIA	PEM	Area	0.100	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-6	CALIFORNIA	PEM	Area	0.022	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-7	CALIFORNIA	PEM	Area	0.069	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-8	CALIFORNIA	PEM	Area	0.036	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-9	CALIFORNIA	PEM	Area	0.297	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-10	CALIFORNIA	PEM	Area	0.007	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-11	CALIFORNIA	PEM	Area	0.029	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-12	CALIFORNIA	PEM	Area	0.042	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-13	CALIFORNIA	PEM	Area	0.026	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-16	CALIFORNIA	PEM	Area	0.038	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
S-17	CALIFORNIA	PEM	Area	0.037	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
VP-1	CALIFORNIA	PEM	Area	0.007	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
VP-2	CALIFORNIA	PEM	Area	0.007	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
VP-3	CALIFORNIA	PEM	Area	0.012	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
VP-4	CALIFORNIA	PEM	Area	0.038	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
VP-5	CALIFORNIA	PEM	Area	0.006	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-1	CALIFORNIA	PEM	Area	0.009	ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek

WS-2	CALIFORNIA	PEM	Area	0.005 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-3	CALIFORNIA	PEM	Area	0.061 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-4	CALIFORNIA	PEM	Area	0.135 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-5	CALIFORNIA	PEM	Area	0.078 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-6	CALIFORNIA	PEM	Area	0.097 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-7	CALIFORNIA	PEM	Area	0.144 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-8	CALIFORNIA	PEM	Area	0.303 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-9	CALIFORNIA	PEM	Area	0.260 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
WS-10	CALIFORNIA	PEM	Area	0.024 ACRE	RPWWD	38.61260900	-121.04876000	Carson Creek
P-1 (Carson Creek)	CALIFORNIA	R2	Area	0.297 ACRE	RPW	38.61260900	-121.04876000	Carson Creek
I-1	CALIFORNIA	R4	Area	1.115 ACRE	RPW	38.61260900	-121.04876000	Carson Creek
I-2	CALIFORNIA	R4	Area	0.086 ACRE	RPW	38.61260900	-121.04876000	Carson Creek
E-1a	CALIFORNIA	R6	Area	1.110 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-1b	CALIFORNIA	R6	Area	0.052 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-2	CALIFORNIA	R6	Area	0.066 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-3	CALIFORNIA	R6	Area	0.021 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-4a	CALIFORNIA	R6	Area	0.315 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-4b	CALIFORNIA	R6	Area	0.012 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-5	CALIFORNIA	R6	Area	0.004 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-6	CALIFORNIA	R6	Area	0.000 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
E-7	CALIFORNIA	R6	Area	0.001 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-1	CALIFORNIA		Area	0.004 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-2	CALIFORNIA		Area	0.005 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-3	CALIFORNIA		Area	0.005 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-4	CALIFORNIA		Area	0.001 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-5	CALIFORNIA		Area	0.000 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-6	CALIFORNIA		Area	0.003 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-7	CALIFORNIA		Area	0.001 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-8	CALIFORNIA		Area	0.002 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
CUL-9	CALIFORNIA		Area	0.003 ACRE	NRPW	38.61260900	-121.04876000	Carson Creek
CUL-10	CALIFORNIA		Area	0.007 ACRE	NRPW	38.61260900	-121.04876000	Carson Creek
CUL-11	CALIFORNIA		Area	0.006 ACRE	NRPW	38.61260900	-121.04876000	Carson Creek
CUL-12	CALIFORNIA		Area	0.007 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek
D-2	CALIFORNIA		Area	0.014 ACRE	ISOLATE	38.61260900	-121.04876000	Carson Creek

Appendix F
Study Area Photographs



Creekside Village Project. 202000999

Photo 1
I-1. December 10, 2020



Creekside Village Project. 202000999

Photo 2
E-3 is in the foreground and I-1 is I the background. December 10, 2020



Creekside Village Project. 202000999

Photo 3
VP-4. December 10, 2020



Creekside Village Project. 202000999

Photo 4
RW-2. December 10, 2020



Creekside Village Project. 202000999

Photo 5
RSW-5. December 10, 2020



Creekside Village Project. 202000999

Photo 6
S-9. December 10, 2020



Creekside Village Project. 202000999

Photo 7
WS-5. December 10, 2020



Creekside Village Project. 202000999

Photo 8
VP-1. December 10, 2020

Oak Resources Technical Report (January 2019)

Oak Resources Technical Report

Creekside Village (aka DST Property) ±240-Acre Site
El Dorado County, California

Prepared for:

Winn Communities

Date:

January 4, 2019

Prepared by:

FOOTHILL ASSOCIATES

© 2019

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1.0 INTRODUCTION

This report presents the results of an oak resources survey conducted for the ±240-acre Creekside Village (aka DST Property) site (Study Area) located within El Dorado County, California. The purpose of this report is to present information on the species, size, and condition of protected oak trees on the site, map the extent and location of oak woodland, provide an analysis of potential impacts to oak resources from the proposed project, provide mitigation requirements consistent with the County of El Dorado Oak Resources Management Plan, and tree protection recommendations for trees to be preserved onsite.

The Study Area is located along and west of Latrobe Road, approximately three air miles south of U.S. Route 50, El Dorado County, California, within Sections 24 and 25 of Township 9 North, Range 8 East of the *Folsom SE* US Geological (USGS) quadrangle. The approximate location of the center of the Study Area is 38° 36’ 45.123” North, 121° 3’ 2.532” West (**Figure 1**).

The proposed project will construct a residential development with approximately 99 acres of low-density housing, 30.5 acres of medium-density housing, and five acres of high-density housing. Additionally, three parks, totaling approximately eight acres, and approximately 44 acres of open space are proposed.

2.0 OAK RESOURCES MANAGEMENT PLAN

The County of El Dorado (County) adopted the *El Dorado County Oak Resources Management Plan* (ORMP) on October 24, 2017 and the ORMP went into effect on November 23, 2017. The ORMP designates three classes of protected oak resources: oak woodlands, Heritage oak trees, and individual native oak trees. According to the ORMP, there are six primary native oak tree species in El Dorado County, which include blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), canyon live oak (*Quercus chrysolepis*), and Oregon oak (*Quercus garryana*). Additionally, one hybrid, known as oracle oak (*Quercus* x *morehus*) also occurs within the County. These species comprise the County's oak woodlands and also occur as isolated individual trees or small groups of trees. Woodland habitats include biological communities that range in structure and density. Major oak woodland habitats within El Dorado County include blue oak-foothill pine, blue oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland. Additionally, any oak stand that either currently or historically supports a greater than 10 percent oak canopy cover is considered an oak woodland, even if it is located within a larger non-woodland habitat.

A Heritage tree is a protected oak tree that has a single main trunk that measures 36 inches diameter at breast height (DBH) or greater, or a multiple trunk with an aggregate DBH measuring 36 inches or greater. Trees of this size are regulated individually whether located within or outside of an oak woodland. An individual oak tree located outside of an oak woodland is regulated under the ORMP if it has a single main trunk that measures greater than six inches in DBH as measured at four feet six inches from the ground, or a multiple trunk with an aggregate DBH measuring greater than ten inches in DBH and is not a Heritage tree.

A permit is required prior to impacting or removing protected oak resources. Impacts to oak trees include pruning, grading within the root zone, or any other disturbance to the tree. Oak woodland is considered impacted by any development activity, such as clearing, grading, and other modifications for roads, buildings, landscaping, or other development activities.

Mitigation is required for impacts to protected oak resources. Mitigation for individual oak trees is based on an inch-for-inch basis; Heritage tree replacement is required at a 3:1 ratio. Oak woodland mitigation requirements depend on the percentage of oak woodland impacted as follows: 1:1 replacement of canopy acreage, where 50 percent or less of on-site oak woodlands are impacted; 1.5:1 replacement of acreage, where 50.1 to 75 percent of on-site oak woodlands are impacted; and 2:1 replacement of acreage, where 75.1 to 100 percent of on-site oak woodlands are impacted. Additionally, a conservation easement or deed restriction must be placed over any retained on-site woodlands to protect them in perpetuity.

Mitigation under the ORMP may be completed with a combination of the following options: on- or off-site replacement plantings, payment of in-lieu fees, or establishment of an off-site conservation easement for oak woodlands only. Payment of in-lieu fees are currently set at $8,285 per acre for oak woodlands, $153 per trunk inch for individual trees, and $459 per trunk

inch for Heritage trees. Replacement planting is limited to 50 percent of the total required mitigation. Various plant sizes may be used in mitigation planting, as shown in **Table 1**, below.

TABLE 1 — MITIGATION TREE REPLACEMENT RATIOS

Replacement Tree Size		# of Trees Required
Oak Woodland		
	1-gallon / TreePot 4	1 per tree required*
	Acorn	3 per tree required*
Individual / Heritage Trees		
	15-gallon	1 per inch removed
	5-gallon	1.5 per inch removed (rounded up)
	1-gallon / TreePot 4	2 per inch removed
	Acorn	3 per inch removed

* Number of trees required based on actual density of trees removed

Mitigation planting density is based on the actual tree density of the oak woodland removed, with a maximum planting density of 200 trees per acre. All mitigation trees shall be maintained and monitored for a period of seven years following the initial planting. Overplanting is acceptable in order to achieve the required density and acreage at the end of the 7-year monitoring period. If mitigation planting is implemented then a Replacement Planting Plan is required and the planting area must be protected in perpetuity through deed restrictions or a conservation easement.

3.0 METHODOLOGY

The Study Area was surveyed by International Society of Arboriculture (ISA) Certified Arborist, Zachary Neider (WE-11615A) on September 25, 2018. All oak resources within and overhanging the project footprint were inventoried. A diameter tape was used to verify the DBH of each inventoried tree. The measurement from the trunk to the end of the longest lateral limb was estimated, and used as the dripline radius (DLR). All surveyed trees were identified with an aluminum tag that corresponds to the numbering in **Appendix A**. Approximate tree locations were mapped using a Trimble GeoXT Global Positioning System (GPS) hand-held unit with sub-meter accuracy. Tree data was combined with habitat data developed by aerial photo interpretation and field observations in ArcGIS 10.4. Approximate oak tree locations, oak woodland habitat, and potential project impacts to oak resources are identified in **Figure 2**.

The health and structural condition of each tree was rated according to **Table 2,** below. The health rating considers factors such as the size, color, and density of the foliage; the amount of deadwood within the canopy; bud viability; evidence of wound closure; and the presence or evidence of stress, disease, nutrient deficiency, and insect infestation. The structural rating reflects the trunk and branch configuration; canopy balance; the presence of included bark and other structural defects such as decay; and the potential for structural failure. In cases where conditions fall between the Good, Fair, and Poor ratings, intermediate ratings Fair-Good and Poor-Fair were used.

TABLE 2 — TREE RATING SYSTEM

Rating	Tree Health
Good	There is an average or below-average amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density are typical for the species; buds are normal size, viable, abundant, and uniform throughout the canopy; current and past growth increments are generally average or better; any callusing is vigorous. This health rating indicates that there is very little, if any, evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Fair	There is an above-average amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density may be below what is typically expected for the species; buds are normal size and viable, but slightly sparse throughout the canopy; current and past growth increments may be below average; tree may be slow to callus around old wounds. This health rating indicates that there is moderate evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Poor	There is an extreme amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density are clearly compromised; very few viable buds are present throughout the canopy; current and past growth increments are meager; no evidence of callusing around old wounds. This health rating indicates that there is widespread evidence of stress, disease, nutrient deficiency, and/or insect infestation.

Rating	Tree Structure
Good	No wounds, cavities, decay, or indication of hollowness are evident in the root crown, trunk, or primary and secondary limbs; no anchor roots are exposed; no codominant branching or multiple trunk attachments are present; very little included bark at branch attachments exists; no dead primary or secondary limbs are present in canopy; there have been no major limb failures; limbs are not overburdened; branching structure is appropriate for species; any decay is limited to small dead branches/stubs. This structure rating represents a low potential for failure.
Fair	With respect to the size of the tree, small to moderate wounds, cavities, decay, and indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; some anchor roots may be exposed; codominant branching or multiple trunk attachments may be present, but included bark does not exist or is not well developed; minor to moderate amounts of included bark at branch attachments may exist; there may be small to moderate amounts of large dead limbs in canopy, but there is no evidence of large limb failures; limbs may be slightly overburdened; branching structure and/or canopy balance may be moderately altered by the tree's growing environment. This structure rating represents a moderate potential for failure.
Poor	With respect to the size of the tree, significant wounds, cavities, decay, and/or indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; anchor roots may be exposed and/or the tree may have lost anchorage; codominant branching or multiple trunk attachments may be present; significant amounts of included bark may exist in trunk and branch attachments; there may be significant amounts of large dead limbs in the canopy; there may be evidence of trunk or large limb failures; limbs may be severely overburdened; branching structure and/or canopy balance may be drastically altered by the tree's growing environment. This structure rating represents a high potential for failure.

4.0 RESULTS AND DISCUSSION

The Study Area contains approximately 0.96 acres of blue oak woodland habitat (**Figure 2**). This particular biological community is characterized by an overstory composed of exclusively blue oak. The herbaceous understory consists of species such as wild oat (*Avena fatua*), medusahead (*Elymus caput-medusae*), vetch (*Vicia sativa*), Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*), and prickly lettuce (*Lactuca serriola*).

A total of seven oak trees, all Heritage blue oaks, were surveyed. Two trees (#1295 and #1296) were rated as Fair or better for both health and structure, two trees (#1297 and #1300) were rated as having Poor-Fair health, but Fair structure, and the remaining three trees fell below the Fair category in both health and structure. The majority of the inventoried trees are overmature and in decline in regards to health and structure, with common issues in trees of that age such as trunk wounds, rot, dieback, sloughing bark, and broken limbs. Detailed tree data for all surveyed trees is included in **Appendix A**.

5.0 OAK RESOURCE IMPACTS AND MITIGATION

Winn Communities is responsible for implementation of mitigation, if applicable. All oak resources within the Study Area exist within a portion of the proposed open space (**Figure 2**). Therefore, the project is expected to avoid impacts to all oak resources. Best management practices (BMP's), as described in **Section 6.0**, should be implemented for the duration of construction to ensure that existing oak resources are not inadvertently impacted by construction activities. Because the project will avoid all oak resources, no mitigation for individual oak trees, Heritage trees, or oak woodland is expected to be required.

6.0 TREE PROTECTION MEASURES

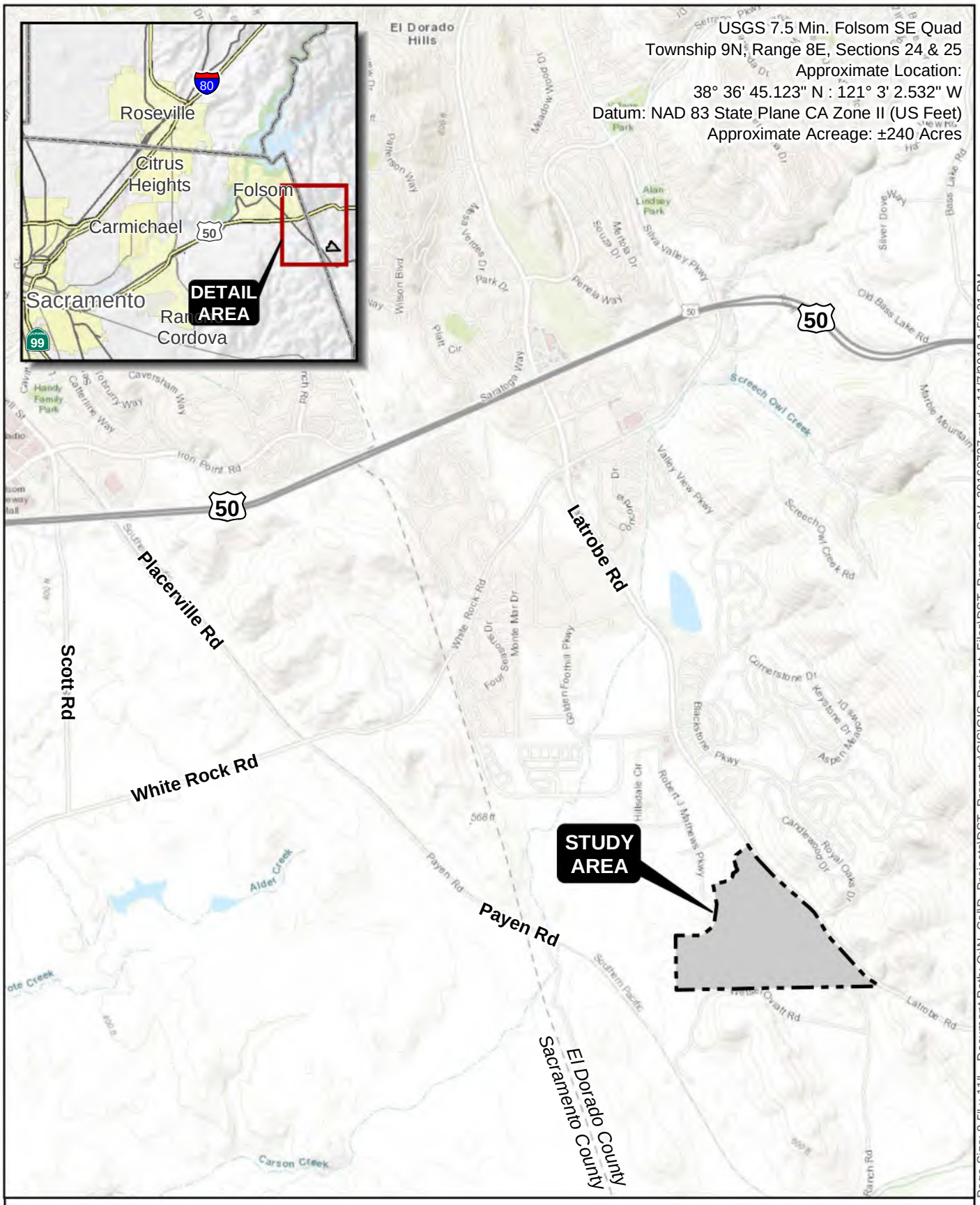
Although the existing oak resources are located in open space areas and no impacts are anticipated, if site improvements occur within 50 feet of the oak trees, the following BMP's should be integrated into the project plans to avoid impacts to protected oak resources within the Study Area:

- Install Tree Protection Fencing, consisting of a minimum 4-foot tall high-visibility fence (orange plastic snow fence or similar) on steel posts placed a maximum of 8-feet on center, shall be placed at the edge of the woodland habitat and around the perimeter of the root protection zone (RPZ) (dripline radius x 1.3) for the trees to remain, whichever is greater. The RPZ is the minimum distance for placing protective fencing, but tree protection fencing should be placed as far outside of the RPZ as possible. Signs shall be placed along the fence at approximately 50-foot intervals. Each sign shall be a minimum of 2 feet by 2 feet and shall include the following:

  TREE PROTECTION ZONE
  DO NOT MOVE OR RELOCATE FENCE
  UNTIL PROJECT COMPLETION WITHOUT
  PERMISSION OF PROJECT ARBORIST
  OR EL DORADO COUNTY

- If permanent site improvements (e.g. paving, buildings, and structures) encroach into the protected area, install fence at limit of work. If temporary impacts (e.g. grading, utility installation) require encroachment into the protected area, move fence to limit of work during active construction of item and return to edge of protected area once work is completed.
- Protection fencing shall not be moved without prior authorization from the Project Arborist or County of El Dorado or as detailed on approved plans.
- Avoid paving within protected area. If paving cannot be avoided, porous materials will be used.
- No parking, portable toilets, dumping or storage of any construction materials, including oil, gas, or other chemicals, or other infringement by workers or domesticated animals is allowed in the protected area.
- No signs, ropes, cables, metal stakes, or any other items shall be attached to a protected tree, unless recommended by an ISA-Certified Arborist.
- Grading, excavation, or trenching within the tree protection zone (TPZ) of existing native oaks should be avoided to the greatest extent possible. Under no circumstances should fill soil be placed against the trunk of an existing tree.
- Underground utilities should be avoided in the TPZ, but if necessary shall be bored or drilled. No trenching is allowed within the TPZ unless specifically approved by the Project Arborist.

- Drains shall be installed according to County specifications to avoid harm to existing oak trees due to excess watering.
- Pruning of living limbs or roots shall be done under the supervision of an ISA-Certified Arborist. All pruning should be done by hand, air knife, or water jet, in accordance with ISA standards using tree maintenance best practices. Climbing spikes should not be used on living trees. Limbs should be removed with clean cuts just outside the crown collar.
- Cover exposed roots or cut root ends in trenches with damp burlap to prevent drying out.
- Minimize disturbance to the native ground surface (grass, leaf, litter, or mulch) under preserved trees to the greatest extent feasible.
- Native woody plant material (trees and shrubs to be removed) may be chipped or mulched on site and placed in a 4 to 6-inch deep layer around existing trees to remain. Do not place mulch in contact with the trunk of preserved trees.
- Deep water preserved trees that have had roots cut during project activities once a month throughout the summer as needed or as recommended by the Project Arborist.
- Appropriate fire prevention techniques shall be employed around all trees to be preserved. This includes cutting tall grass, removing flammable debris within the TPZ, and prohibiting the use of tools that may cause sparks, such as metal-bladed trimmers or mowers.
- No open flames shall be permitted within 15 feet of the tree canopy.
- Damage to any protected tree during construction shall be immediately reported to County of El Dorado Planning Services. Damage shall be corrected as required by the County representative.



SITE AND VICINITY

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

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N

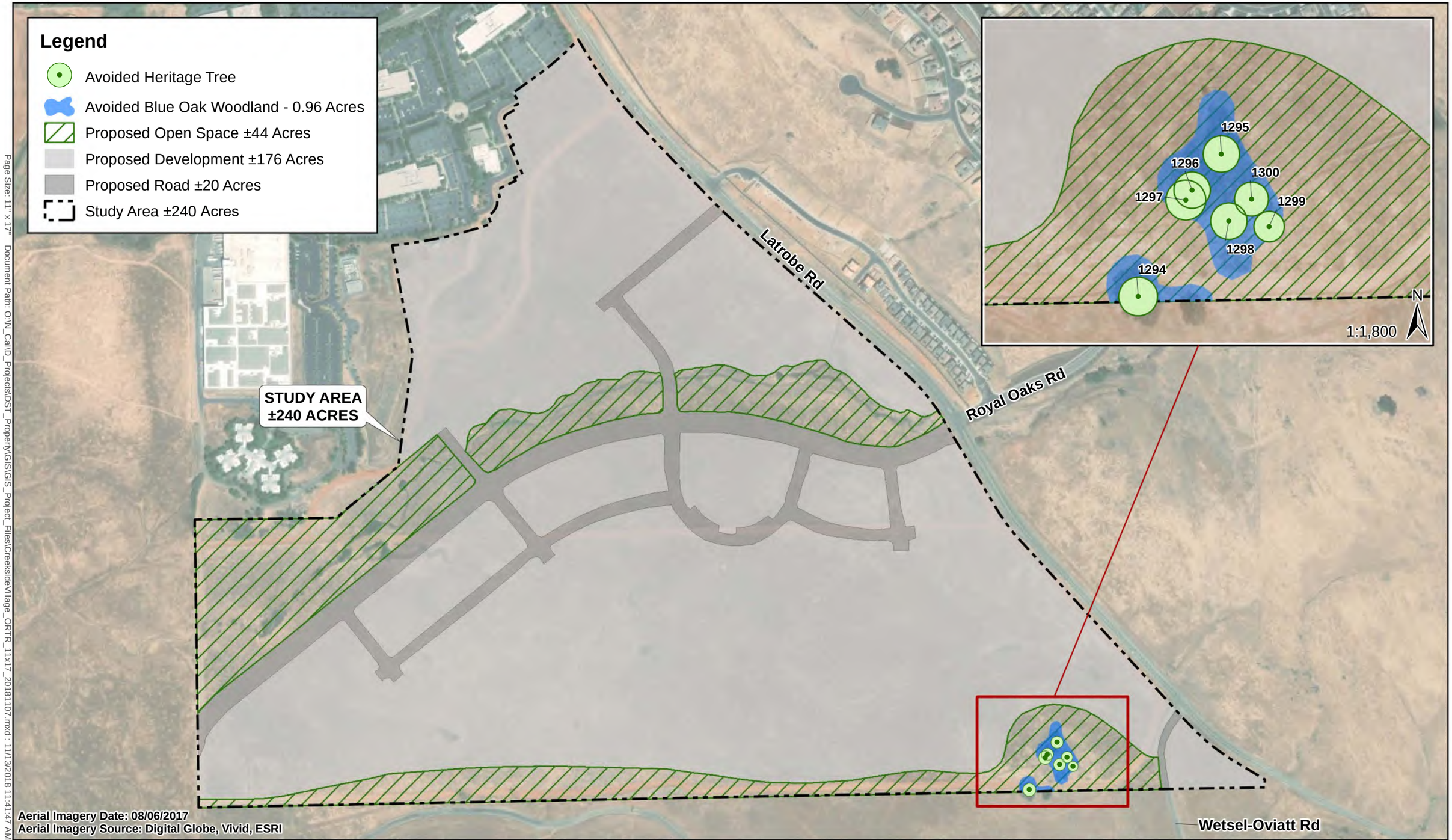
0 1750 3500
Feet
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Drawn By: MUB
QA/QC: SLK
Date: 11/7/2018

FIGURE 1

CREEKSIDE VILLAGE (DST PROPERTY)

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Aerial Imagery Date: 08/06/2017
Aerial Imagery Source: Digital Globe, Vivid, ESRI

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© 2019

N

0 450 900
Feet
1 : 5,400

OAK RESOURCES AND PROJECT FOOTPRINT

Drawn By: MUB
QA/QC: SLK
Date: 11/13/2018

FIGURE 2

CREEKSIDE VILLAGE (DST PROPERTY)

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Appendix A — Oak Tree Survey Data

Appendix A — Oak Tree Survey Data

Tree #	Species	# of Trunks	DBH (inches)	DLR (feet)	Height (feet)	Condition		Notes	Impacts
						Health	Structure		
1295	Blue Oak	1	36	30	45	Fair	Fair-Good	dieback, limb wound	None
1296	Blue Oak	1	33	30	42	Poor-Fair	Poor-Fair	dieback, lean, trunk wound, trunk rot, limb wound, overmature	None
1296	Blue Oak	1	38	32	42	Fair	Fair	embedded fence, dieback, limb wound	None
1297	Blue Oak	1	31	33	40	Poor-Fair	Fair	dieback, trunk wound, pruning cuts, limb wound	None
1298	Blue Oak	1	27	30	45	Poor	Poor-Fair	dieback, lean, overmature, trunk wound, trunk rot	None
1299	Blue Oak	1	30	25	36	Poor	Poor-Fair	dieback, limb wound, limb rot, asymmetrical canopy, sparse canopy, overmature	None
1300	Blue Oak	1	37	28	38	Poor-Fair	Fair	dieback, limb wound, overmature	None

Appendix B — Oak Resources Technical Report Checklist

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667

Phone: (530) 621-5355 www.edcgov.us/Planning/

OAK RESOURCES TECHNICAL REPORT CHECKLIST

The following information is required for all Oak Resources Technical Reports consistent with Section 2.5 (Oak Resources Technical Reports) of the Oak Resources Management Plan (ORMP):

FORMS AND MAPS REQUIRED

Place a check (√) on the "Applicant" lines for those items completed. The planner receiving the application will check (√) the "County" line.

Check (√) Applicant	County	
☑	☐	1) Identify, locate, and quantify all oak resources on the property, as applicable:

a) Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;

b) Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition.

☑	☐	2) Identify and quantify project-related impacts to oak resources
☑	☐	3) Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work

Check (√) Applicant	County		
☒ n/a	☐	4)	Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in the ORMP:

a) For replacement planting, the report shall provide detail regarding the quantity, location, planting density, replacement tree size(s), and acorn/seedling source consistent with the definition of Replacement Planting included in the ORMP;

b) For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;

c) For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable).

☑	☐	5)	Identification of responsible parties
☒ n/a	☐	6)	Identification of maintenance, monitoring, and reporting requirements
☒ n/a	☐	7)	Analysis of non-PCA conservation easement areas, where applicable
☑	☐	8)	Site map(s) depicting:

a) location of all oak woodlands, individual native oak trees, and Heritage Trees;

b) location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and above- and below-ground infrastructure);

c) Site map(s) shall also clearly identify impacted oak resources.

☑	☐	9)	Planning and Building Department Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits.

SUPPLEMENTAL DATA FOR INDIVIDUAL NATIVE OAK TREES WITHIN OAK WOODLANDS:

The ORMP and Oak Resources Conservation Ordinance (No. 5061) was adopted on October 24, 2017 and the Board of Supervisors will review implementation within 12 months after adoption. The Board requested the following supplemental information:

☒ n/a	☐	10)	Provide an inventory (species and size) of impacted Individual Native Oak Trees greater than 24 inches and less than 36 inches (dbh) in oak woodlands.

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667

Phone: (530) 621-5355 www.edcgov.us/Planning/

Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits

Description		Blue *(Quercus douglasii)*	California Black *(Quercus kelloggii)*	Canyon Live *(Quercus chrysolepis)*	Interior Live *(Quercus wislizeni)*	Oregon White *(Quercus garryana)*	Valley *(Quercus loabata)*	Oracle (hybrid) *(Quercus x morehus)*
Individual Native Oak Trees								
Quantity (number of trees) of individual native oak trees to be removed, by species								
Quantity (number of trees) of individual native oak trees to be removed, greater than 24 inches and less than 36 inches (dbh), by species								
Total trunk diameter inches (dbh) to be removed*	0							
Heritage Trees								
Quantity (number of trees) of Heritage Trees to be removed, by species								
Total trunk diameter inches (dbh) to be removed*	0							
Oak Woodlands								
Total Acreage of existing oak woodlands**	0.96							
Acreage of existing oak woodlands to be removed	0							
Percentage of existing oak woodlands to be removed*	0							

**** Information used for purposes of calculating in-lieu mitigation fee payment.***
***** If Heritage Trees occur within oak woodlands, the area of impacted Heritage Tree(s) should be included in oak woodland acreage calculations.***

Revised 11/22/2017

Updated Oak Resources Technical Report (December 2024)

2600 Capitol Avenue
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Sacramento, CA 95816
916.564.4500 phone
916.564.4501 fax

esassoc.com

December 17, 2024

Anthony Gon
Project Manager
Winn Communities
555 University Avenue, Suite 180
Sacramento, CA 95825

Subject: Oak Resources Technical Report Update for the Creekside Village Project, El Dorado County, California.

Dear Tony:

In September 2018, an International Society of Arboriculture (ISA) Certified Arborist from Foothill Associates conducted a survey of oak resources at the Creekside Village project site in El Dorado County, California. The results are documented in an *Oak Resource Technical Report* dated January 4, 2019. The report documents the oak tree locations, tree size and health, potential impacts, mitigation options required by the El Dorado County *Oak Resources Management Plan* (ORMP), and tree protection recommendations for trees preserved onsite. At the time the 2019 report was prepared, no impacts to oak resources were anticipated as part of project development. This *Oak Resources Technical Report Update* summarizes the findings of an updated survey of the oak trees on the project site. This report includes updates to the tree sizes, health conditions, and potential impacts.

The Creekside Village project is located along the west side of Latrobe Road, approximately three air miles south of Highway 50 (**Figure 1**). Habitat on the project site primarily consists of annual grassland with scattered seasonal wetlands and ephemeral drainages. A creek flows east to west through the northern portion of the project site. Blue oak woodland occurs in the southeast corner, near the intersection of Latrobe Road and Wetsel-Oviatt Road. The project proposes to construct a residential development with a mix of low and medium density housing.

El Dorado County Oak Resources Management Plan

As described in the 2019 Foothills Associates report, the El Dorado County ORMP was adopted on October 24, 2017. The ORMP regulates and defines mitigation requirements for impacts to oak woodlands, individual native oak trees, and heritage trees on privately-owned lands within the unincorporated area of the County at or below 4,000 feet elevation. The policy of the County is to preserve oak woodlands when feasible, through the review of all proposed development activities where woodlands are present, while at the same time recognizing individual rights to develop private property in a reasonable manner. As such, the County requires mitigation for impacts to oak woodlands and requires a permit prior to removal.

Oak woodlands are defined as “an oak stand with greater than ten percent canopy cover or that may have historically supported greater than ten percent canopy cover.” Native oak trees comprising El Dorado County’s oak woodlands are blue oak (*Quercus douglasii*), valley oak (*Q. lobata*), California black oak (*Q. kelloggii*), interior live oak (*Q. wislizeni*), canyon live oak (*Q. chrysolepis*), Oregon oak (*Q. garryana*), and oracle oak (*Quercus x morehus*) which is a native hybrid between California black oak and interior live oak. A heritage tree

is defined as a live native oak tree with a single main trunk 36 inches diameter at breast height (DBH) or greater, or with a multiple trunk with an aggregate DBH 36 inches or greater. Individual native oak trees consist of any live native oak tree with a single main trunk greater than six inches DBH, or with a multiple trunk with an aggregate trunk DBH greater than 10 inches and is not a heritage tree.

The ORMP requires mitigation for permitted oak tree removal. To encourage on-site retention of oak woodlands, the ORMP requires increasing mitigation ratios based on the amount of oak woodland removed. Removing 50 percent or less requires a 1-to-1 ratio of mitigation, removing up to 75 percent requires a 1.5-to-1 ratio of mitigation, and removing up to 100 percent requires a 2-to-1 ratio of mitigation. A deed restriction or conservation easement is required to be placed over any retained on-site woodlands and those woodlands retained on site shall not be counted towards the impacted amount or towards the required mitigation. Mitigation for impacted oak woodlands shall occur at the required ratio using one or more of the following options:

1. Off-site deed restriction or conservation easement acquisition and/or acquisition in fee title by a land conservation organization for purposes of off-site oak woodland conservation;

2. In-lieu fee payment 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;

3. Replacement planting on-site within an area subject to a deed restriction or conservation easement;

4. Replacement planting off-site within an area subject to a conservation easement; or

5. A combination of numbers 1 through 4 above.

Mitigation for removal of heritage trees is based on an inch for inch replacement standard at a 3-to-1 ratio. Mitigation options for impacts to heritage trees and individual native oak trees consist of the following:

1. Replacement planting on-site within an area subject to a deed restriction or conservation easement;

2. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization;

3. In-lieu fee payment to be either used by the County to plant oak trees or to be given by the County to a land conservation organization to plant oak trees; or

4. A combination of numbers 1 through 3 above.

A security deposit is required for all discretionary projects proposing on-site oak tree/oak woodland retention and/or replacement planting as mitigation. No grading or other on-site work shall be permitted until the security deposit is posted. Additionally, replacement planting may not account for more than 50 percent of the mitigation requirement.

The ORMP provides an exemption to mitigation for removal of dead, dying, or diseased native oak trees. This exemption applies when the tree is documented as dead, dying, or diseased in writing by a Certified Arborist or Registered Professional Forester; and/or when the tree exhibits high failure potential with the potential to injure persons or damage property and documented in writing by a Certified Arborist or Registered Professional Forester.

The current in-lieu fee for removal of oak woodlands is calculated based on total cost per acre which is currently set at $8,285. The in-lieu fee for removal of individual oak trees is calculated on a total cost per inch which is currently set at $153 for a non-heritage tree and $459 per inch for a heritage tree at a 3-to-1 ratio. The per-inch fee shall be multiplied by the total number of trunk diameter inches removed. The in-lieu fees collected will be deposited in the County's Oak Woodland Conservation Fund. That fund will be used to acquire land and/or conservation easements to conserve oak woodlands, provide for native oak tree planting, and for ongoing conservation area monitoring and management activities.

Methods

ESA's ISA Certified Arborist and Tree Risk Assessment Qualified, Jessica Orsolini (ISA No. WE-7845A) conducted a survey of the oak trees on November 6, 2024. All oak trees on the project site and oak trees with canopies overhanging the project site were surveyed. The location of each tree was recorded using Geographic Positioning System (GPS) technology. Trees were numbered consistent with their numbering from the Foothill survey. No new or additional tags were placed on the trees. The boundary of the blue oak woodland was refined to more accurately represent the outer edge of the oak tree canopy and distinguish individual oak trees per the ORMP. The Project site, inventoried trees, and blue oak woodland are shown in F**igure 2**.

The DBH of each tree was measured using a diameter tape. The height of each tree was visually estimated; the dripline was estimated by pacing out the distance on the ground below the canopy. The health and structural condition of each tree was assessed and rated. Tree health was rated based on the tree's vigor, crown density and dieback, leaf color and size, defects, disease, and evidence of wound closure (callusing). Structural health was rated based on the tree's structural stability and failure potential based on the presence of co-dominant trunks, included bark, branch configuration, decay, abnormal lean, one-sided canopy, and history of failure.

The health and structure of each tree was assigned to one of six categories for tree condition. The six categories were good (G; no defects or minor defects), fair to good (F-G; defects), fair (F; more serious defects), fair to poor (F-P; severe or compounding defects), and poor (P; severe or compounding defects, and short-term death or structural failure of the tree is expected). Condition was judged based on an external inspection of each tree from the ground.

Results and Discussion

The survey for this *Oak Resources Technical Report Update* included the same seven blue oak trees that were surveyed for the 2019 *Oak Resources Technical Report* conducted by Foothill Associates. One additional blue oak not included in the 2019 report was added for this report update (numbered 0000). The added oak tree is rooted on a parcel to the south but overhangs the project site. The refined blue oak woodland boundary totals 0.45 acre. The two blue oaks located along the southern property line are not part of the oak woodland but are considered individual oaks per the ORMP. The results of the tree survey are in the table in **Attachment A**.

Of the seven trees surveyed for the 2019 report, one (tree number 1298) is now dead and has fallen over. Four of the trees surveyed have DBH's of 36 inches or greater, qualifying them as heritage trees under the ORMP (tree numbers 1294, 1295, 1296, and 1300). Of the remaining seven standing trees surveyed, three have a fair health condition, two have a fair-poor health condition, and two have a poor health condition. Structural ratings also range from fair to fair-poor to poor condition. As noted in the 2019 report, all the trees are overmature and in decline. Most have a history of medium to large branch failure and over half (four) have substantial rot in the main trunk.

Impacts and Mitigation

Project construction impacting oak trees consists of construction of a graded slope at the back of houses and installation of a walking path. Construction to create the slope area will require the removal of two blue oak trees (Trees 1295 and 1300), both of which are heritage trees (**Figure 2**). The proposed new walking path crosses through the area of Tree 1298, a non-heritage blue oak tree, however this tree has died and fallen over. Removal of dead trees does not require mitigation.

Prior to project construction, the project proponent must obtain a tree removal permit and mitigate in accordance with the ORMP. The project proponent proposes payment of the in-lieu fee to satisfy the mitigation requirements. Mitigation for removal of heritage trees is based on an inch for inch replacement standard at a 3-to-1 ratio. The in-lieu fee for removal of heritage trees is $459 per inch (3-to-1 ratio of the standard inch cost of $153). Removal of Trees 1295 and 1300 will require payment of $34,425. **Table 1** shows the required mitigation. No other heritage oaks, individual oaks, or oak woodlands will be removed as a result project construction. In accordance with the ORMP, a deed restriction or conservation easement will be placed over the retained on-site woodlands. Tree protection measures specified in the 2019 *Oak Resource Technical Report* will be implemented for oak resources not removed by the project.

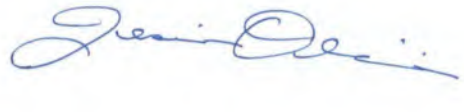
TABLE 1
SUMMARY OF OAK TREE REMOVAL MITIGATION REQUIREMENTS

Tree #	Species	DBH (inches)	In-Lieu Fee per Inch	Mitigation Ratio	Total Mitigation Required
1295	Blue oak	39	$153	3:1	$17,901
1298	Blue oak	N/A – DEAD/ FALLEN OVER	N/A - DEAD/ FALLEN OVER	N/A - DEAD/ FALLEN OVER	N/A - DEAD/ FALLEN OVER
1300	Blue oak	36	$153	3:1	$16,524
				Grand Total	**$34,425**

The El Dorado County Oak Resources Technical Report Checklist is included as **Attachment B** and the El Dorado County Community Development Services Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits is included at **Attachment C**.

We appreciate the opportunity to provide arborist services for the Creekside Village Project. Please contact me with any questions or comments.

Sincerely,



Jessica Orsolini
Senior Biologist/ ISA Certified Arborist #WE-7845A

ATTACHMENT A
2024 OAK TREE SURVEY DATA

Tree #	Species	DBH (inches)	Dripline (feet)	Height (feet)	Health	Structure	Heritage Tree [a] (Yes/No)	Removed (Yes/No)	Notes
1294	Blue oak	43	38	45	Fair	Fair	Yes	No	Located on property line. Barbwire fence growing through trunk. 1- to 4-inch dead branches particularly in lower canopy, some broken. Bulge in trunk at base.
1295	Blue oak	39	24	50	Fair	Fair-Poor	Yes	Yes	No tree tag present. Canopy dieback, 1- to 5-inch dead branches, some broken (old breaks of 12- and 10-inch branches); fungus fruiting body at old branch break; 7-foot-long open wound with rot in trunk; several large live branches laying on ground though not broken.
1296	Blue oak	41.5	35	45	Fair-Poor	Poor	Yes	No	No tree tag present. Recent break of 12-inch branch. Substantial rot in trunk. Honeybees using rotted center. Torsion crack in trunk with trunk lean. Many 4- to 8-inch dead branches in canopy, many broken. Thinning canopy. Swing attached to large branch.
1297	Blue oak	33	30	40	Fair-Poor	Poor	No	No	No tree tag present. Large trunk wound; hollow; numerous dead broken branches in canopy 4- to 8-inches diameter; one-sided canopy due to adjacent tree.
1298	Blue oak	N/A	N/A	N/A	Dead	Dead	No	N/A	Dead and fallen over.
1299	Blue oak	31	25	25	Poor	Poor	No	No	13-inch branch comprising half the canopy broke off, small dead branches in remaining canopy; 5- and 8-inch broken and rotted branches; 6-foot-long open trunk wound with rot likely from prior codominant trunk failure.
1300	Blue oak	36	24	35	Poor	Fair-Poor	Yes	Yes	Substantial dieback and thinning canopy. Many 2- to 4-inch dead branches. Several small wounds at trunk base with rot present.
0000	Blue oak	26	18	34	Fair	Fair	No	No	Tree offsite with limb overhanging project. DBH estimated. 1- to 2-inch dead branches throughout canopy, some old branch breaks.

SOURCE: ESA 2024

NOTES:

a. The El Dorado County *Oak Resources Management Plan* defines a heritage tree as a live native oak tree with a single main trunk 36 inches DBH or greater, or with a multiple trunk with an aggregate DBH 36 inches or greater.

Attachment B

El Dorado County Oak Resources Technical Report Checklist

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667

Phone: (530) 621-5355 www.edcgov.us/Planning/

OAK RESOURCES TECHNICAL REPORT CHECKLIST

The following information is required for all Oak Resources Technical Reports consistent with Section 2.5 (Oak Resources Technical Reports) of the Oak Resources Management Plan (ORMP):

FORMS AND MAPS REQUIRED

Place a check (√) on the "Applicant" lines for those items completed. The planner receiving the application will check (√) the "County" line.

Check (√) Applicant	County	
☑	☐	1) Identify, locate, and quantify all oak resources on the property, as applicable:

a) Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;

b) Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition.

☑	☐	2) Identify and quantify project-related impacts to oak resources
☑	☐	3) Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work

Check (√) Applicant	County		
☑	☐	4)	Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in the ORMP:

a) For replacement planting, the report shall provide detail regarding the quantity, location, planting density, replacement tree size(s), and acorn/seedling source consistent with the definition of Replacement Planting included in the ORMP;

b) For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;

c) For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable).

☑	☐	5)	Identification of responsible parties
☒ N/A	☐	6)	Identification of maintenance, monitoring, and reporting requirements
☒ N/A	☐	7)	Analysis of non-PCA conservation easement areas, where applicable
☑	☐	8)	Site map(s) depicting:

a) location of all oak woodlands, individual native oak trees, and Heritage Trees;

b) location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and above- and below-ground infrastructure);

c) Site map(s) shall also clearly identify impacted oak resources.

☑	☐	9)	Planning and Building Department Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits.

SUPPLEMENTAL DATA FOR INDIVIDUAL NATIVE OAK TREES WITHIN OAK WOODLANDS:

The ORMP and Oak Resources Conservation Ordinance (No. 5061) was adopted on October 24, 2017 and the Board of Supervisors will review implementation within 12 months after adoption. The Board requested the following supplemental information:

☒ N/A	☐	10)	Provide an inventory (species and size) of impacted Individual Native Oak Trees greater than 24 inches and less than 36 inches (dbh) in oak woodlands.

Attachment C

Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667

Phone: (530) 621-5355 www.edcgov.us/Planning/

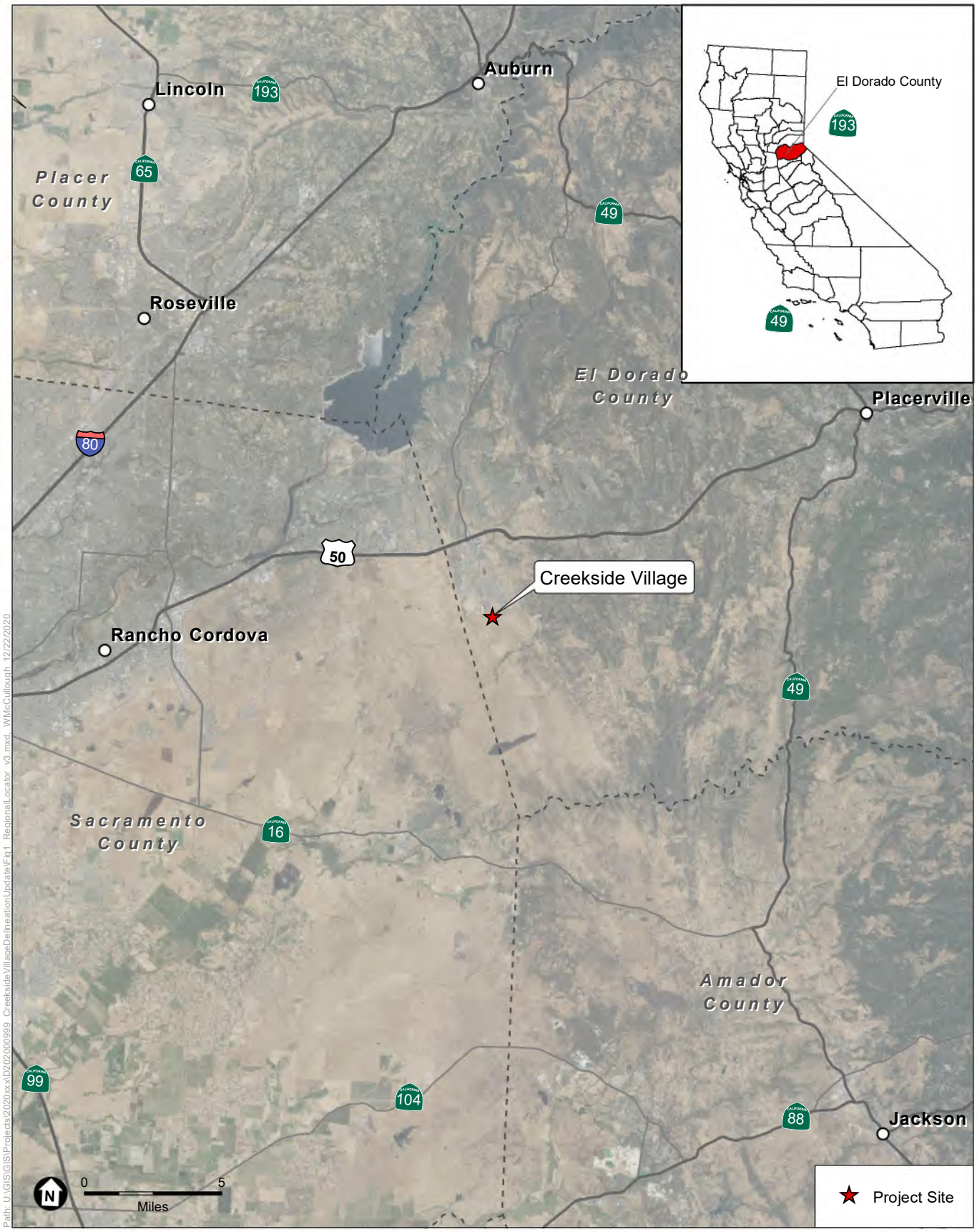
Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits

Description		Blue (*Quercus douglasii*)	California Black (*Quercus kelloggii*)	Canyon Live (*Quercus chrysolepis*)	Interior Live (*Quercus wislizeni*)	Oregon White (*Quercus garryana*)	Valley (*Quercus loabata*)	Oracle (hybrid) (*Quercus x morehus*)
Individual Native Oak Trees								
Quantity (number of trees) of individual native oak trees to be removed, by species		0						
Quantity (number of trees) of individual native oak trees to be removed, greater than 24 inches and less than 36 inches (dbh), by species		0						
Total trunk diameter inches (dbh) to be removed*	0							
Heritage Trees								
Quantity (number of trees) of Heritage Trees to be removed, by species		2						
Total trunk diameter inches (dbh) to be removed*	75							
Oak Woodlands								
Total Acreage of existing oak woodlands**	0.45							
Acreage of existing oak woodlands to be removed	0	All oaks to be removed are heritage trees and included in the calculations above.						
Percentage of existing oak woodlands to be removed*	0							

Information used for purposes of calculating in-lieu mitigation fee payment.

****If Heritage Trees occur within oak woodlands, the area of impacted Heritage Tree(s) should be included in oak woodland acreage calculations.***

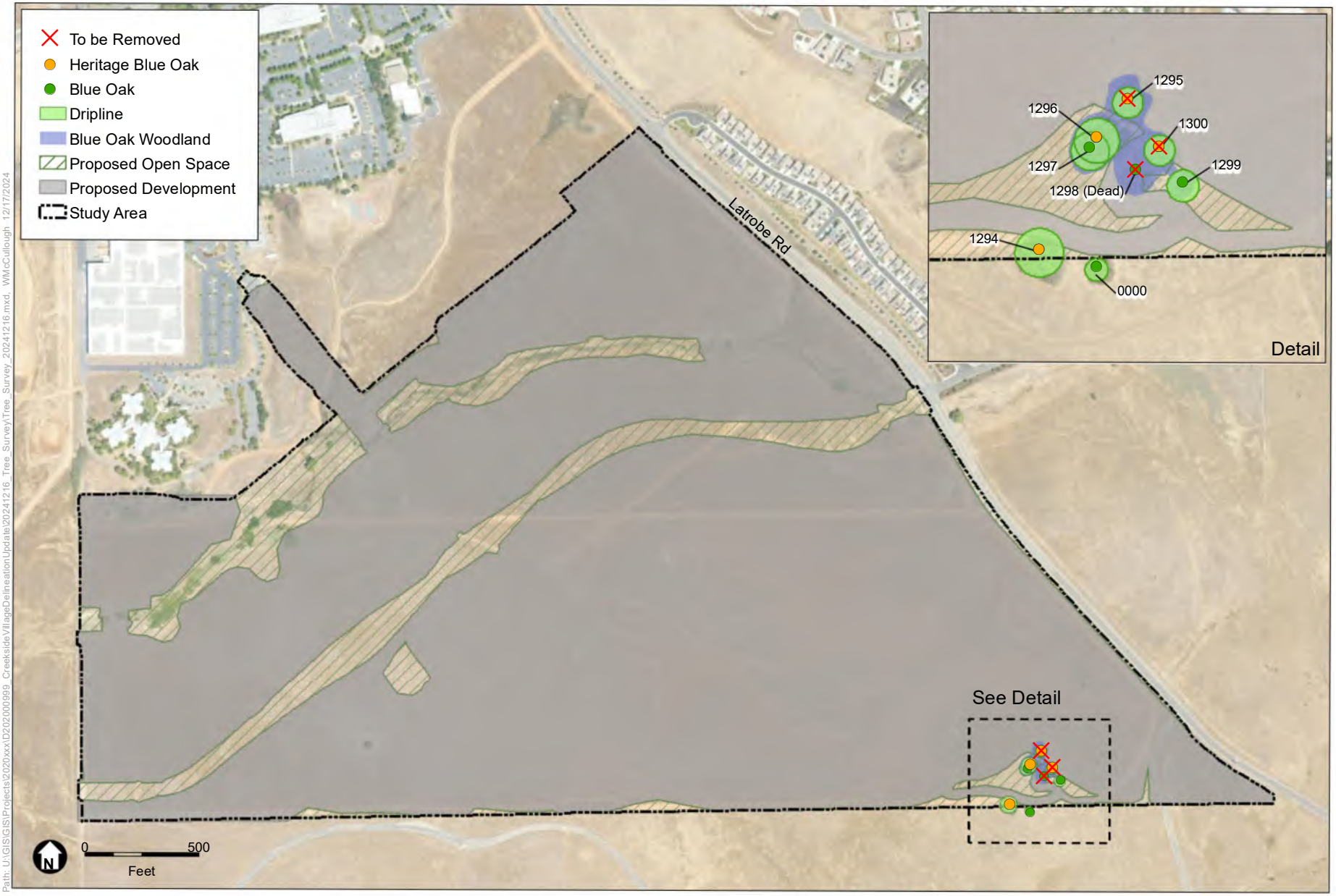
Revised 11/22/2017



SOURCE: NAIP, 2018; ESRI, 2012; ESA, 2020

Creekside Village

Figure 1
Regional Location



SOURCE: Winn Communities, 2024; ESA, 2024

Creekside Village

Figure 2
Blue Oak Survey Results

ESA