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## **Aquatic Resources Delineation Report**



### **Green Valley and Bass Lake Road Parcel, Town of Skinners, El Dorado County, California**

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## ACRONYMS AND ABBREVIATIONS

ACOE	Army Corps of Engineers
APN	Assessor's Parcel Number
CARI	California Aquatic Resource Inventory
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
GIS	Geographic Information System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	Nationwide Permit
NWPL	National Wetland Plant List
OHWM	ordinary high-water mark
PEM	palustrine emergent
RHA	Rivers and Harbors Act
RWQCB	Regional Water Quality Control Board
TNW	Traditional Navigable Water
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDR	Waste Discharge Requirements

## 1.0 INTRODUCTION

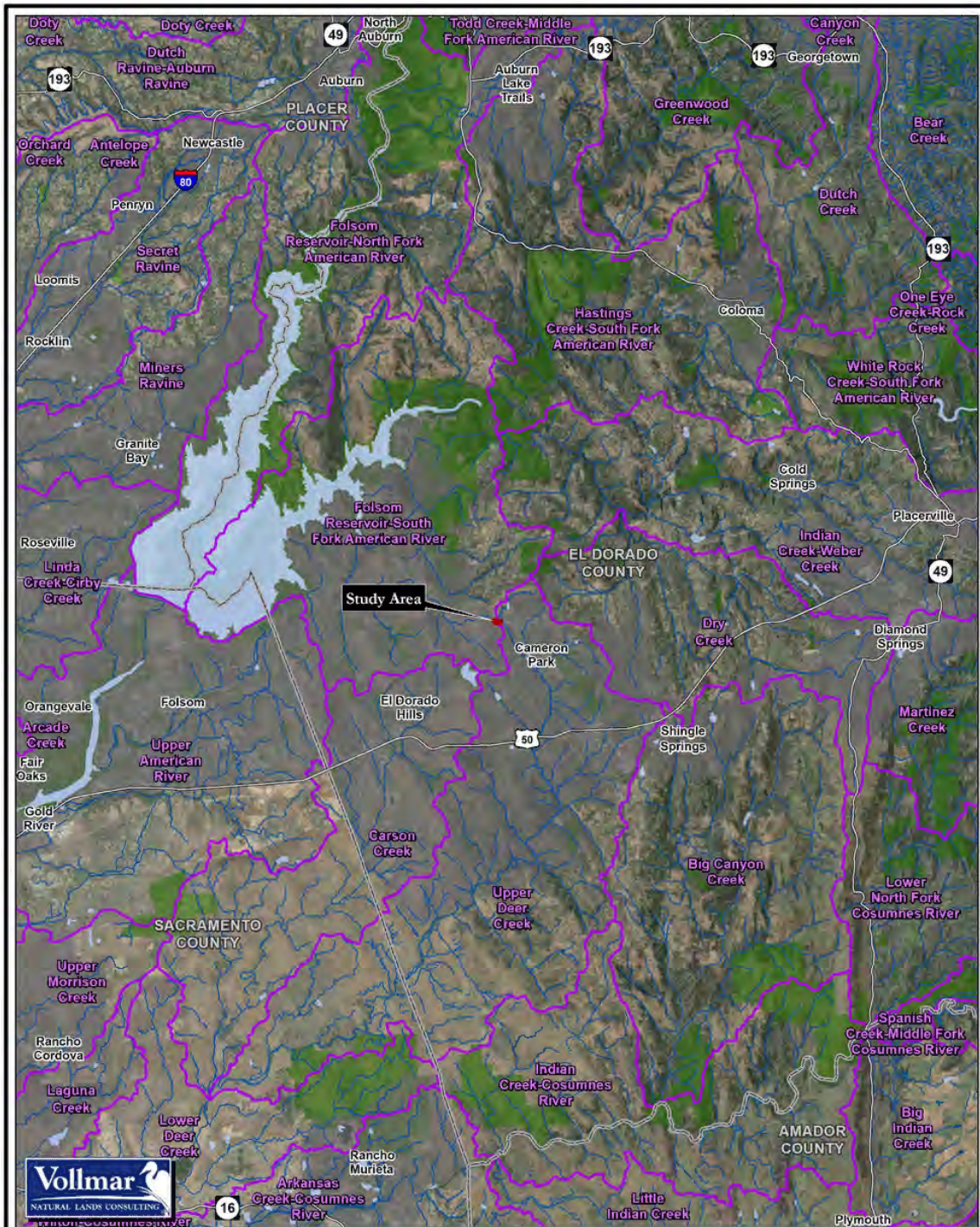
The purpose of this report is to identify and describe aquatic resources in the Study Area. The Study Area includes the entirety of a 5.27-acre parcel in the Town of Skinners, in El Dorado County, California. This report facilitates efforts to:

1. Avoid or minimize impacts to aquatic resources during the design process; and
2. Document aquatic resource boundary determinations for review by regulatory authorities.

This delineation has been conducted in accordance with the 1987 Army Corps of Engineers (ACOE) "Corps of Engineers Wetland Delineation Manual" (Environmental Laboratory 1987), as well as the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ACOE 2008) and ACOE's more recent guides to identification of OHWM in the Arid West (ACOE 2022). The Delineation identified 0.034 acre of potential jurisdictional Waters of the United States. Wetland resources were identified as Seasonal Wetland Swale (0.027 acre) and Artificial Wetland Channel (0.007 acre). Resources were found to be disturbed and characterized by nonnative, disturbance-tolerant vegetation.

## 2.0 LOCATION

The Study Area is located entirely within a 5.27-acre parcel along Green Valley Road in the Town of Skinners, El Dorado County, California (**Figure 1**). The Study Area was selected to cover the entirety of the 5.27-acre parcel (**Figure A-1**). The Study Area occurs in El Dorado County Assessor's Parcel Number (APN) 115-410-011. The Study Area is mapped within the U.S. Geological Survey (USGS) Clarksville 7.5-minute topographic quadrangle and lies entirely within Section 29 of Township 10 North, Range 09 East of the Mount Diablo Principal Meridian (**Figure 2**). The Study Area centroid is located at 38° 41' 52.9057" N", -121° 0' 33.5025" W. The Study Area can be accessed from Interstate 50 via the Bass Lake Road Exit, heading north along Bass Lake Road for 1.4 miles, and continuing east on Green Valley Road for 1.8 miles.

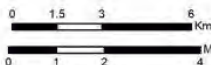


- Legend**
- Highway
  - River or Stream
  - County Boundary
  - Study Area
  - Watershed Boundary
  - Water Body
  - Urban Area
  - Public or Preserved Land

**FIGURE 1**  
**Regional Vicinity Map**  
 Green Valley Road Project  
 El Dorado County, California

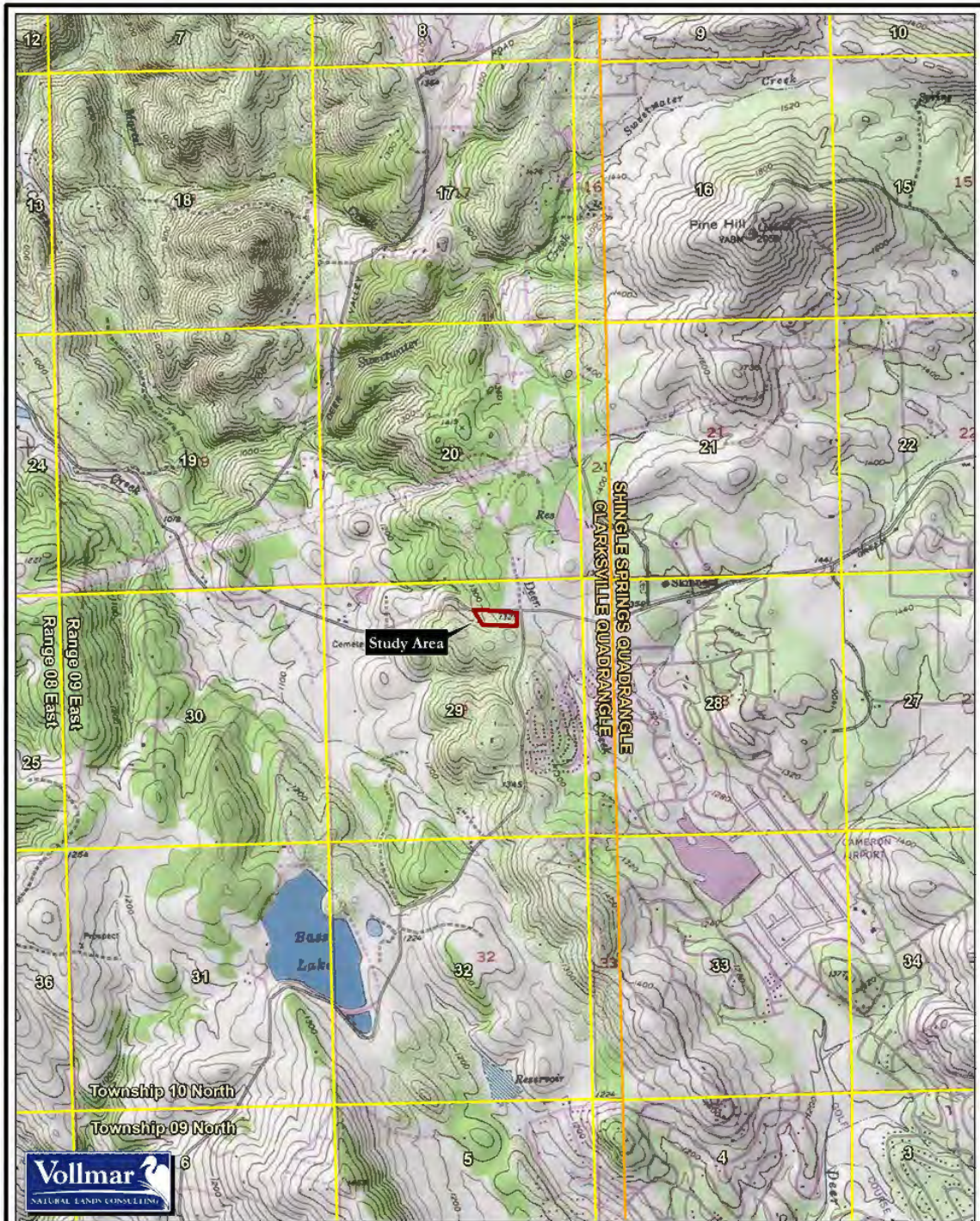


1:150,000






Data Sources: USGS, various | CAP, 1998 | DWR, 2001  
 SFEI, 2016 | USFWS, 2016 | ESRI/DigitalGlobe, 2021  
 GIS/Carthography by: C. Jasper, K. Chinn, Sep. 2022  
 Map File: Vicinity\_556\_02\_B-P\_2023-0915.mxd





**Legend**

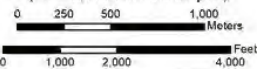
-  Study Area
-  USGS Topographic Quadrangle
-  Public Land Survey Boundary

**FIGURE 2**  
**USGS Topographic Map**

Green Valley Road Project  
El Dorado County, California



1:24,000  
(1 in = 2,000 ft at tabloid layout)



Data Sources: USGS, various | ESRI Online Imagery, 2022  
GIS/Caricography by: G. Saron, K. Chinn, Jun, 2023  
Map File: DRG\_556\_02\_B-P\_2023-0815.mxd



## **3.0 REGULATORY BACKGROUND**

### **3.1 Federal Regulatory Framework**

The federal government, through Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA), has jurisdiction over all Waters of the United States. Waters of the United States are divided into four subsets – territorial seas and traditional navigable waters (TNWs); tributaries to TNWs; lakes, ponds, and impoundments of TNWs; and wetlands adjacent to territorial seas and TNWs. Section 404 of the CWA regulates the discharge of dredged or fill material into Waters of the United States. The CWA grants dual regulatory authority of Section 404 to the U.S. Environmental Protection Agency (EPA) and ACOE. The ACOE is responsible for issuing and enforcing permits for activities in jurisdictional Waters in conjunction with prior permitting authorities in navigable Waters under the RHA of 1899. The EPA is responsible for providing oversight of the permit program. In this capacity, the EPA has developed guidelines for permit review (Section 404 [b][1] Guidelines) and has the authority to veto permits by designating certain sites as non-fill areas (Section 404[c] of the CWA). The EPA also has enforcement authority under Section 404. The ACOE generally extends its jurisdiction to all areas meeting the criteria for Waters of the United States.

On May 25, 2023, the U.S. Supreme Court issued a decision in *Sackett v. EPA* which narrowed the then-current jurisdiction of the CWA. The Sackett decision declared that, in order to be regulated by the CWA, wetlands adjacent to TNWs must be indistinguishably part of a body of water that itself constitutes “waters” under the CWA with a "continuous surface connection to those bodies" (Totenberg 2023). On August 29, 2023, the EPA and ACOE issued a final rule to amend the final “Revised Definition of ‘Waters of the United States’” rule, published in the Federal Register on January 18, 2023. This final rule conforms the definition of “waters of the United States” to the Sackett decision. No new regulatory guidance has been issued to describe the details of the implementation of this rule.

Projects which propose activities that fall under the jurisdiction of Section 404 of the CWA and/or Section 10 of the RHA must obtain approval from the ACOE through the individual or nationwide permit (NWP) process. Individual permits entail a full public interest review that includes consultation with other federal and state agencies.

### **3.2 California State and Regional Regulatory Framework**

#### **California Department of Fish and Wildlife**

The CDFW regulates river, stream, and lake habitats through Fish and Game Code section 1600 *et seq.* Fish and Game Code section 1602 requires an entity to notify the CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit debris, waste, or other materials that could pass into any river, stream, or lake.

A “river, stream, or lake” includes those that are episodic (i.e., they are dry for periods of time) as well as those that are perennial. This definition includes ephemeral streams, desert washes, and watercourses with a subsurface flow (CDFW 2016). It may also apply to work undertaken within the floodplain of a body of water, the boundary of which may be identified as a topographic feature or as riparian vegetation. In addition, the CDFW does not distinguish between a “pond” and a “lake,” such that relatively small bodies of water, including both natural and artificial features, may be regulated under section 1600.

The CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources (ibid). A LSA Agreement includes measures necessary to protect existing fish and wildlife resources. The CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing a LSA Agreement, CDFW must comply with the California Environmental Quality Act (CEQA).

### **Regional Water Quality Control Board**

The Study Area is located within the Central Valley (Region 5) Regional Water Quality Control Board (RWQCB), which has authority to regulate projects that could potentially impact wetlands and/or other Waters. According to the California State Water Resources Control Board (2006), this authority derives from the following:

- The state’s Porter-Cologne Water Quality Control Act through Waste Discharge Requirements to protect Waters of the state;
- The CWA under Section 4013;
- Governor’s Executive Order W-59-93 (i.e., the “California Wetland’s Policy” which requires “No Net Loss of Wetlands”);
- Senate Concurrent Resolution No. 28; and
- California Water Code Section 13142.5 (applies to coastal marine wetlands).

In addition to the state directives to protect wetlands, for individual permits (but not NWP), the Basin Plan also directs the Water Board staff to use the EPA’s CWA 404(b)(1) guidelines to determine circumstances under which the filling of wetlands may be permitted and requires that attempts be made to avoid, minimize, and only lastly to mitigate for adverse impacts (ibid).



California’s jurisdiction to regulate its water resources is much broader than that of the federal government. While the U.S. Supreme Court’s 2001 decision in *SWANCC vs. U.S. Army Corps of Engineers* (the “SWANCC” Decision) called into question the extent to which the federal government may regulate isolated, intrastate, non-navigable waters as “Waters of the United States” under the CWA, state law is unaffected by that decision. The State Water Resource Control Board’s (State Water Board’s) Executive Director issued a memorandum directing the Regional Water Boards to regulate such waters under Porter-Cologne authorities. Porter-Cologne extends to “Waters of the State,” which is broadly defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.” This definition includes isolated wetlands and any action that may impact isolated wetlands is subject to the Water Board’s jurisdiction, which may include the issuance of Statewide General Waste Discharge Requirements (WDRs). For projects that will impact less than 0.2 acres of “isolated” wetlands, the State Water Board issues Order No. 2004-004-DWQ, WDRs for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction (General WDRs). These General WDRs streamline the permitting process for low impact projects in isolated wetlands (ibid).

Activities or discharges from a project that could affect California's surface, coastal, or ground waters, require a permit from the local RWQCB. Discharging pollutants (or proposing to) into surface water requires the applicant to file a complete National Pollutant Discharge Elimination System permit application form with the RWQCB. Other types of discharges, such as those affecting groundwater or from diffused sources (e.g., erosion from soil disturbance or waste discharges to land) are handled by filing a Report of Waste Discharge with the RWQCB in order to obtain WDRs. For specified situations, some permits may be waived, and some discharge activities can be handled through enrollment in an existing general permit (ibid).

## 4.0 METHODS

### 4.1 Preliminary Review and Field Preparation

Prior to conducting the field delineation, the project ecologists reviewed site aerial photography, topographic data, existing preliminary wetland, stream, and watershed mapping, and soil survey maps of the Study Area and surrounding areas. This information was used to help characterize the site, identify any potentially jurisdictional Waters on a preliminary basis, and guide the on-site survey. Background imagery and the Study Area boundary were loaded on to a professional GPS (Trimble GeoXH 6000) for use in navigation and mapping in the field.

### 4.2 Field Survey

VNLC ecologist Gabe Saron conducted a wetland delineation of the Study Area on August 8, 2023. No ground and vegetation disturbances were observed during the site visit. The August 2023 field survey took place following the dry season, and field conditions three months leading up to the field survey were considered normal; see **Table 1**.

**Table 1. WETS Table Analysis for the August 2023 Survey**

Precipitation Data from the Last 30 Years (1992 – 2022) <sup>1</sup>			Recent Field Conditions Compared to Precipitation Data from the Last 30 Years, and Analysis <sup>1</sup>					
Date	30 <sup>th</sup> Percentile (inches)	70 <sup>th</sup> Percentile (inches)	Date	Recorded Rainfall (inches)	Rainfall Condition Compared to Previous 30 years <sup>2</sup>	Numeric Condition Value <sup>3</sup>	Weighting Factor <sup>4</sup>	Product of Condition Value and Weighting Factor <sup>5</sup>
May	0.9	2.71	May 2023	1.99	Normal	2	1	2
June	0	0.65	June 2023	1.18	Wet	3	2	6
July	0	0	July 2023	0	Normal	2	3	6
<sup>1</sup> All precipitation data is obtained from the Georgetown Weather Station <sup>2</sup> Below 30th percentile = dry; between 30th and 70th percentile = normal; above 70th percentile = wet. <sup>3</sup> Relative rainfall conditions are then translated to a numeric condition value, as follows: dry = 1, normal = 2, wet = 3. <sup>4</sup> Greater weight is given to the most recent month as this would most likely influence what hydrologic or vegetative characteristics are observed. <sup>5</sup> The numeric condition value is then multiplied by the weighting factor, then the subtotals are added to get the total value. Total value equivalents: 6-9 = dry; 10-14 = normal; 15-18 = wet								<b>TOTAL <sup>5</sup></b> 14, or NORMAL

During the delineation survey, the ecologist walked the accessible portions of the Study Area, established delineation data points, recorded additional notes on plant community and Study Area characteristics, and took representative photographs of habitats and features of interest. At each delineation data point, data were collected on Version 2.0 of ACOE’s Arid West delineation data form. Data were collected on soils, hydrology, and plant cover following the Routine Wetland Determination Method developed by the ACOE and described in the 1987 ACOE Wetlands Delineation Manual (Environmental Laboratory 1987), as well as the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ACOE 2008) and ACOE’s more recent guides to identification of OHWM in the Arid West (ACOE 2022). The boundaries of potential jurisdictional Waters identified in the Study Area were mapped using a Trimble GeoXH 6000 with nominal sub-foot precision. The specific methods for collecting data on soils, hydrology, and vegetation at delineation data points are described below.

**4.2.1 Soils**

Soil profiles were excavated at each data point using a tile spade shovel, and the profiles were examined for positive hydric soil indicators such as low matrix chromas, redox features, gleys, and iron and manganese concretions. The color and texture of the soil layers encountered were recorded on the delineation forms. Soil color was identified using a Munsell soil color chart (Kollmorgen 2000), and a standardized soil texture chart used by the California Native Plant Society (CNPS) for assessing soils (adapted from Brewer and McCann 1982) was used to determine texture (e.g., clay versus clay loam, etc.). All soil samples were moistened before

determining the color and texture. Soil map units were cross-referenced with the California hydric soils list (SCS 1993) and the national hydric soils list (SCS 1991). Determination of whether or not the hydric soil criterion was met was based upon the criteria specified by the National Technical Committee for Hydric Soils (ibid) and the Arid West Supplement (ACOE 2008), and informed by additional information provided by the US Department of Agriculture Natural Resource Conservation Service (USDA-NRCS 2018).

Prior to the survey, the project ecologist reviewed the U.S. Department of Agriculture-Soil Conservation Service (USDA-SCS) (2023) database to identify soil map units within the study area. **Table 3**, below, summarizes the soil map units within the study area. **Figure 3**, below, displays the soil units mapped within the study area.

**Table 2. Characteristics of Soil Units Mapped within the Study Area**

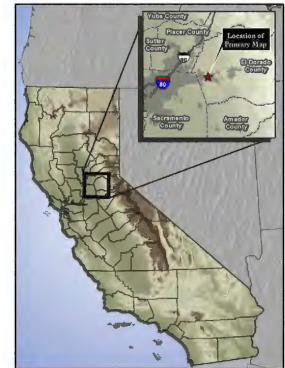
Soil Unit Name and Percent of the Study Area	Parent Material	Surface Texture*	Hydric Class	Drainage
Rescue sandy loam, 2-9% slopes, MLRA 18 (34%)	Residuum of gabbrodiorite rock	Sandy loam	Not Hydric	Well drained
Rescue sandy loam, 9-15% slopes, MRLA 18 (37%)	Residuum of gabbrodiorite rock	Sandy loam	Not Hydric	Well drained
Rescue extremely stony sandy loam, 3-50% slopes, MRLA 18 (29%)	Residuum of gabbrodiorite rock	Rocky Sandy loam	Not Hydric	Well drained

Three soil units occur within the Study Area: Rescue sandy loam, 2-9% slopes; Rescue sandy loam, 9-15% slopes; and Rescue extremely stony sandy loam, 3-50% slopes are mapped within the Study Area (**Figure 3**). Rescue sandy loam soils occur on gently sloping to very steep slopes at elevations of 800 to 2,000 feet. (USDA 2023). As indicated in **Table 2**, none of the three soil units are classified as “hydric”, which is consistent with soil texture, slope, dominant vegetation cover, and present water resources.



**FIGURE 3**  
**Soil Units Map**  
 Green Valley Road Project  
 El Dorado County, California

- Legend**
- Local Road
  - Study Area
  - Soil Unit Boundary



1:1,000  
 1 in. = 83 ft. at tabloid layout

0 10 20 40 Meters  
 0 37.5 75 150 Feet

Data Sources: CNDDB, 01/2023 | TIGER 2021 |  
 ESRI, 2023 | USGS, various | SFEI 2010  
 Map Produced by: Vollmar Natural Lands Consulting  
 GIS/Cartography by: G. Saron Sept. 2023  
 Map File: Soil\_558\_02\_B-P\_2023-0914\_TH.mxd

### 4.2.2 Hydrology

Indicators of wetland hydrology were noted, such as the presence of surface soil cracks, saturated soil, water-stained vegetation, drainage patterns, and sediment deposits. Hydrological connectivity was investigated throughout the Study Area and surrounding habitats. It should be noted that some wetlands in the Arid West region periodically lack indicators of wetland hydrology. If the site is in a geomorphic position where a wetland could occur, but the site visit was during the dry season (i.e., June to October) following a period of 2-3 months of below-normal rainfall, or was during a year of an unusually low winter snowpack, indicators of wetland hydrology might not be present. According to the Arid West Supplement, “under these conditions, a site that contains hydric soils and hydrophytic vegetation and no evidence of hydrologic manipulation should be considered a wetland” (ACOE 2008). The delineation was conducted during the summer season following a wet season that resulted in normal wetland habitat conditions (see **Section 3.2** above).

### 4.2.3 Vegetation

At each delineation data point, all herbaceous plant species within a five-foot radius were identified and a visual estimate of percent coverage for each species was recorded. No trees or shrub species were present at any of the delineation data points. Plant species cover estimations were calibrated using CNPS percent cover templates (CNPS 2001).

The indicator status of each species was then checked using the most recent ACOE National Wetland Plant List—Version 3.2 (Lichvar, R.W. et al. 2023).

Indicator status categories are as follows:

- OBL = obligate wetland; >99% probability of occurring in a wetland
- FACW = facultative wetland; 67%-99% probability of occurring in a wetland
- FAC = facultative; 33%-67% probability of occurring in a wetland
- FACU = facultative upland; 1%-33% probability of occurring in a wetland
- UPL = obligate upland; <1% probability of occurring in a wetland
- NL = not listed (plants not listed in Lichvar et al. [2016], including some known to occur occasionally or primarily in wetlands)

The wetland vegetation criterion is met when the vegetation passes the dominance test: greater than 50 percent of the dominant plants are designated as OBL, FACW, or FAC wetland indicators. The ACOE defines dominant plant species as those that, when included in descending order of their percent cover, together sum up to 50 percent of the total cover in their stratum (tree, sapling/shrub/subshrub, herb, or woody vine). In addition, all species with at least 20 percent coverage of the relative cover within a given stratum are always counted as dominants. All scientific and common plant names correspond to Baldwin et al. (2012) and/or the Calflora database (2023). If the dominance test is not passed, vegetation can be considered hydrophytic if

it meets the requirements of the prevalence index, morphological adaptations, or problematic wetland situations (ACOE 2008).

## 5.0 EXISTING CONDITION

### 5.1 Landscape Setting

The Study Area is located in the Sierra Nevada foothills. The elevation within the Study Area is approximately 1,300 feet above sea level (USGS 2023). Slope within the Study Area ranges from 5 to 15 percent (ibid), and it does not contain any rocky outcrops, caves or other geologic features of interest. The Study Area encompasses predominately mixed oak and pine woodland habitat with a moderately disturbed annual grassland understory. At the western side of the parcel, there is a narrow ephemeral swale which connects to a riprap armored stormwater drainage along the fence line of the neighboring property to the west (**Features SWS-1 and ACW-1, Figure A-1, Appendix A**). There are several stands of coyote brush (*Baccharis pilularis*) scrub along with mixed stands of coyote brush and chamise (*Adenostoma fasciculatum*) throughout the parcel as well. The land is undeveloped and subject to minimal use except for mild trash accumulation and maintenance of a disced fire break along the property boundary. The site is not irrigated, and experienced normal hydrologic and vegetative conditions for the month of August.

### 5.2 Aquatic Resources

#### 5.2.1 Overview

The delineation identified a total of 0.034 acre of potential jurisdictional Waters. **Table 1**, below, provides a summary of the aquatic resources delineated within the Study Area. A map of all aquatic resources within the Study Area is provided in **Appendix A (Figure A-1)**.

**Table 3. Aquatic Resources within the Survey Area**

Aquatic Resource Type	Aquatic Resource Name	Location (Coordinates)	Area (sq. ft.)	Acreage	Width (ft)	Length (ft)
Wetlands						
Seasonal Wetland Swale	SWS-1	38°41'53.4827" N, 121°0'38.3766" W	1177	0.027	-	-
Artificial Wetland Channel	AWC-1	38°41'52.3862" N, 121°0'37.7546" W	328	0.007	2	51
Total			1506	0.034	n/a	n/a

The wetland may be classified as a seasonal wetland swale. The seasonal wetland swale was dominated by a patch of wetland indicator vegetation and displayed soil indicators and wetland hydrology, including standing water. The seasonal wetland swale connects with an artificial wetland channel along the western edge of the Study Area, which collects and diverts water during significant storm events. The artificial wetland channel is primarily armored with stones but contains intermittent patches of fill soil which support wetland vegetation and soil and hydrologic indicators. The seasonal wetland swale flows via surface flow to Green Valley Creek, a tributary of the South Fork American River, a TNW.

There is a narrow upland swale situated in the central-western portion of the Study Area. This drains to the seasonal wetland swale along the west boundary. The upland swale is a non-wetland feature which was dominated by upland grasses and shrubs found throughout the Study Area and was characterized by slight erosional scour along the channel bed and a poorly defined channel margin. This indicates that the drainage will convey water during storm events but does not collect standing water. It is not treated as an aquatic resource, and is not a potential jurisdictional water.

### ***5.2.2 Description of Wetland Resources***

#### **Seasonal Wetland Swale**

A 0.027-acre seasonal wetland swale is located at the western border of the Study Area. This swale collects water from an upland swale drainage (see **Section 5.2.5**) and was observed to have standing water during the delineation. The seasonal wetland swale was dominated by disturbance-tolerant, nonnative facultative wetland and upland grasses and forbs. Dominant plant species included barnyard grass (*Echinochloa crus-galli*, FACW), bermudagrass (*Cynodon dactylon*, FACU) and sharp leaved fluellin (*Kicxia elatine*, UPL). Soil in the seasonal wetland swale was mapped as Rescue extremely stony sandy loam, 3-50% Slopes, MRLA 18. The seasonal wetland swale featured a shallow (6-inch) layer of soil underlain with large cobbles, consistent with the mapped soil unit. This soil matrix featured hue in the 10YR range with chroma/value of 4/2; 3% redox concentrations with hue in the 7.5YR range and chroma/value of 4/6 were present, satisfying indicator F3: depleted matrix. The swale featured wetland hydrologic indicators of surface water, saturation, and oxidized rhizospheres along living roots.

#### **Artificial Wetland Channel**

A 0.007-acre narrow, artificial wetland channel is present in the southwestern portion of the Study Area. This feature collects water from a culvert located offsite, as well as irrigation runoff from the neighboring property. The artificial wetland channel is armored with large cobbles and is mostly unvegetated. Ditch runoff percolates into its surrounding bank and gives rise to wetland indicators, including hydrophytic vegetation, redoximorphic hydric soil features and hydrology indicators. The herb stratum of the channel bank was dominated by tall flatsedge (*Cyperus eragrostis*, FACW), stinkwort (*Dittrichia graveolens*, NL) and barnyard grass (UPL). Soil in the ditch bank was dark with a hue of 10YR and a value/chroma of 4/2; redox features were observed

as 5% of the soil; these took the form of pore linings with a hue of 7.5YR and a value/chroma of 4/6. This satisfied the threshold for hydric soil indicator F3: depleted matrix. Hydrologic indicators included standing surface water, saturation and oxidized rhizospheres along living roots.

#### ***5.2.5. Non-Wetland Features***

##### **Upland Swale**

A narrow, upland swale measuring 0.049 acre or 180 feet long, passes through the central-western portion of the Study Area and drains into the Seasonal Wetland Swale described above (**Section 4.2.4**). The vegetation in the herb stratum of this feature supported upland and facultative grasses and forbs common throughout the Study Area, including wild oat species (*Avena* spp., UPL), hairy vetch (*Vicia villosa*, NL), wall barley (*Hordeum murinum*, FACU) and Italian ryegrass (*Lolium multiflorum*, FAC). The shrub stratum included patches of Himalayan blackberry (*Rubus armeniacus*, FAC) and coyote brush (NL). The tree stratum of this feature included valley oak (*Quercus lobata*, FACU), blue oak (*Quercus douglasii*, NL), interior live oak (*Quercus wislizeni*, NL), and gray pine (*Pinus sabiniana*, NL). The feature did not possess indicators of hydric soils or wetland hydrology. The swale likely collects and diverts water during significant storm events but is unlikely to hold water for a considerable time period, if at all. This feature is not treated as an aquatic resource, and is not a potential jurisdictional water.

##### **Upland**

The majority of the Study Area is upland and consists of annual grassland, mixed oak and pine woodland, and coyote brush shrub plant communities. These included many of the upland species described above.



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# **APPENDIX A**

## **Aquatic Resource Delineation Map**



**FIGURE A-1**  
**Aquatic Resource**  
**Delineation Map**  
 Green Valley Road Project  
 El Dorado County, California

**Legend**

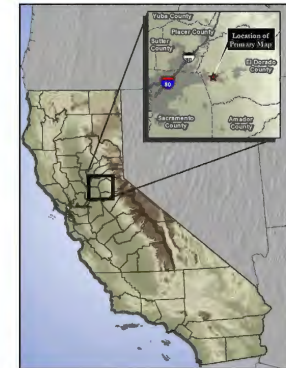
- Location Reference Point
- Delineation Data Point
- Local Road
- Study Area

**Wetland Features**

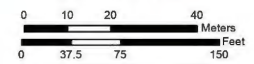
- Artificial Wetland Channel (0.027 ac.)
- Seasonal Wetland Swale (0.007 ac.)

**Non-Wetland Features**

- Upland Swale (0.049 ac.)



1:1,000  
 1 in. = 83 ft. at tabloid layout



Data Sources: VNL/C 2023 | TIGER 2021 |  
 ESRI, 2023 | USGS, various | SFEJ 2016  
 Map Produced by: Vollmar Natural Lands Consulting  
 GIS/ Cartography by: G. Saron Sept., 2023  
 Map File: VLD\_358\_02\_B-P\_2023-0915.mxd

# **APPENDIX B**

## **Representative Photographs**



**Photo 1:** Representative upland habitat in Study Area, consisting of annual grassland and mixed oak woodland. (8/8/23)



**Photo 2:** Location of delineation data point 01W in Seasonal Wetland Swale. (8/8/23)



**Photo 3:** Location of delineation data point 01U in upland adjacent to Seasonal Wetland Swale. (8/8/23)



**Photo 4:** Location of delineation data point 02W in Artificial Wetland Channel. (8/8/23)



**Photo 5:** Location of upland delineation data point 02U upslope of Artificial Wetland Channel. (8/8/23)



**Photo 6:** Upland swale in Mixed Oak Woodland vegetation community.



# **APPENDIX C**

## **Plant List**

**Table C-1. Plant List**

<i>Scientific Name</i>	<b>Common Name</b>	<b>WIS*</b>
<i>Adenostoma fasciculatum</i>	Chamise	NL
<i>Avena spp.</i>	Wild Oats	UPL
<i>Baccharis pilularis</i>	Coyote Brush	NL
<i>Bromus diandrus</i>	Ripgut brome	NL
<i>Chamaesyce maculata</i>	Spotted Spurge	FACU
<i>Cynodon dactylon</i>	Bermudagrass	FACU
<i>Cynosurus echinatus</i>	Dogtail grass	NL
<i>Cyperus eragrostis</i>	Tall flatsedge	OBL
<i>Dittrichia graveolens</i>	Stinkwort	NL
<i>Echinochloa crus-galli</i>	Barnyard grass	FACW
<i>Hordeum murinum</i>	Wal lbarley	FAC
<i>Kicxia elatine</i>	Sharp-leaved fluellin	UPL
<i>Lactuca serriola</i>	Prickly Lettuce	FACU
<i>Lolium multiflorum</i>	Italian ryegrass	FAC
<i>Phalaris aquatica</i>	bulbous canarygrass	FACU
<i>Pinus sabiniana</i>	Gray Pine	NL
<i>Polypogon monspeliensis</i>	Annual Rabbitsfoot Grass	FACW
<i>Pseudognaphalium leteoalbum</i>	Jersey cudweed	FAC
<i>Pseudognaphalium luteoalbum</i>	Jersey Cudweed	FAC
<i>Quercus douglassii</i>	Blue Oak	NL
<i>Quercus lobata</i>	Valley Oak	FACU
<i>Quercus wislezeni</i>	Interior Live Oak	NL
<i>Torilis arvensis</i>	Tall sock-destroyer	NL
<i>Vicia villosa</i>	Hairy Vetch	NL

\*Wetland Indicator Status (WIS):

OBL = occurs in aquatic resources > 99% of time

FACW = occurs in aquatic resources 67-99% of time

FAC = occurs in aquatic resources 34-66% of time

FACU = occurs in aquatic resources 1-33% of time occurs in uplands > 99% of time

UPL = occurs in aquatic resources < 1% of time

NI = indicator status not known in this region

NL = not listed, treated as UPL

# **APPENDIX D**

## **Wetland Data Sheets**

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: 556 Green Valley Road City/County: Skidders, El Dorado Co. Sampling Date: 8/08/2023  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 01U  
 Investigator(s): Gabe Saron, VNLC Section, Township, Range: Section 29, Township 10 N, Range 09 E, MDPM  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): Convex Slope (%): 1  
 Subregion (LRR): \_\_\_\_\_ Lat: 38° 41' 53.3325" N Long: 121° 0' 38.4311" W Datum: \_\_\_\_\_  
 Soil Map Unit Name: Rescue extremeley stony sandy loam, 3 to 50% slopes, eroded NWI classification: None

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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: Atop berm upslope of seasonal wetland.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>50 ft x 50 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <u>Quercus wislizeni</u>	<u>10</u>		<u>NL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. <u>Pinus sabiniana</u>	<u>7</u>		<u>NL</u>	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____				
	<u>17</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10 ft x 10 ft</u> )				<b>Prevalence Index worksheet:</b>
1. <u>Quercus wislizeni</u>	<u>2</u>		<u>NL</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
	<u>2</u>	= Total Cover		UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>3 ft x 3 ft</u> )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Cynosurus echinatus</u>	<u>10</u>		<u>NL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Bromus diandrus</u>	<u>10</u>		<u>NL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Lactuca serriola</u>	<u>0.1</u>		<u>FACU</u>	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Torilis arvensis</u>	<u>2</u>		<u>NL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. <u>Dittrichia graveolens</u>	<u>0.1</u>		<u>NL</u>	
6. _____				
7. _____				
8. _____				
	<u>22</u>	= Total Cover		
Woody Vine Stratum (Plot size: _____ )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>59</u> % Cover of Biotic Crust <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>

Remarks:  
 Mostly senescent ruderal, upland herbaceous vegetation.



**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: 556 Green Valley Road City/County: Skidders, El Dorado Sampling Date: 8/08/2023  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 01W  
 Investigator(s): Gabe Saron, VNLC Section, Township, Range: Section 29, Township 10 N, Range 09 E, MDPM  
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: 38° 41' 53.4869" N Long: 121° 0' 38.5066" W Datum: UTM 10N  
 Soil Map Unit Name: Rescue Sandy Loam 10 Percent Slopes NWI classification: None

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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Seasonal wetland swale collects water from armored ditch.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>20</u> x 2 = <u>40</u> FAC species _____ x 3 = _____ FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>35</u> (A) <u>105</u> (B) Prevalence Index = B/A = <u>3</u>
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>3 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Echinochloa crus-galli</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Cynodon dactylon</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. <u>Kickxia elatine</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
4. <u>Chamaesyce maculata</u>	<u>+</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	_____ = Total Cover
% Bare Ground in Herb Stratum <u>75</u> % Cover of Biotic Crust <u>0</u>				

Remarks:  
 Disturbance-tolerant nonnative wetland and facultative upland plant community.



**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: 556 Green Valley Road City/County: Skidders, El Dorado Co. Sampling Date: 8/08/2023  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 02U  
 Investigator(s): Gabe Saron, VNLC Section, Township, Range: Section 29, Township 10 N, Range 09 E, MDPM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Rescue extremely stony sandy loam, 3 to 50 % slopes, eroded NWI classification: None

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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: Upland upslope of armored ditch bank.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>50 ft x 50 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus wislizeni</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>10</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10ft x 10ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus wislizeni</u>	<u>1</u>	<u>Y</u>	<u>NL</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>22</u> x 4 = <u>88</u> UPL species <u>13</u> x 5 = <u>65</u> Column Totals: <u>40</u> (A) <u>163</u> (B) Prevalence Index = B/A = <u>4.075</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>1</u> = Total Cover				
Herb Stratum (Plot size: <u>3 ft x 3 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Kixia elatine</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Polypogon monspeliensis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
3. <u>Phalaris aquatica</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
4. <u>Dittrichia graveolens</u>	<u>2</u>	<u>N</u>	<u>NL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>29</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust <u>0</u>				
Remarks: Ruderal upland community.				





**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: 556 Green Valley Road City/County: Skidders, El Dorado Co. Sampling Date: 8/08/2023  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 02W  
 Investigator(s): Gabe Saron, VNLC Section, Township, Range: Section 29, Township 10 N, Range 09 E, MDPM  
 Landform (hillslope, terrace, etc.): Ditch bank Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: 38° 41' 52.4056" N Long: 121° 0' 37.6879" W Datum: UTM 10N  
 Soil Map Unit Name: Rescue extremely stony sandy loam, 3 to 50 % slopes, eroded NWI classification: none

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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Vegetated bank of armored ditch.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>50 ft x 50 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus wislizeni</u>	<u>15</u>	<u>Y</u>	<u>NL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.6%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum (Plot size: _____)</b>				
1. <u>Cyperus eragrostis</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Dittrichia graveolens</u>	<u>4</u>	<u>N</u>	<u>NL</u>	
3. <u>Echinochloa crus-galli</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Kickxia elatine</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
5. <u>Chamaesyce maculata</u>	<u>0.1</u>	<u>N</u>	<u>FACU</u>	
6. <u>Pseudognaphalium luteoalbum</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>56</u> % Cover of Biotic Crust _____				
Remarks:				



**APPENDIX E**  
**Aquatic Resource Excel Sheet**

APPENDIX E. AQUATIC RESOURCES SHEET, GREEN VALLEY ROAD PROJECT, EL DORADO COUNTY, CA.

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
SWS-1	CALIFORNIA	PEM	DEPRESS	Area		0.027 ACRE	DELIN.PJD-404	38.69819000	-121.01066000	
AWC-1	CALIFORNIA	PEM	DEPRESS	Area		0.007 ACRE	DELIN.PJD-404	38.69788500	-121.01048700	



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## **Biological Resources Evaluation Report**



### **Green Valley and Bass Lake Road Parcel, Town of Skinners, El Dorado County, California**

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**J-556-02**

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## 1.0 INTRODUCTION

This report presents the methods and results of a Biological Resource Evaluation conducted by Vollmar Natural Lands Consulting, Inc. (VNLC) for the parcel at the corner of Green Valley Road and Bass Road Project ('project') in the Town of Skinners, El Dorado County, California. The parcel of interest is zoned as commercial and may be utilized for commercial development.

This biological resource evaluation was conducted to identify and characterize existing conditions, as well as to assess the potential for special-status species and sensitive habitats to occur within the project disturbance areas. In the absence of avoidance and minimization measures, the project could result in disturbance to the regulated biological resources listed below. Based on habitat requirements and occurrence distributions, there are a total of five non-listed special-status wildlife species with some potential to occur within the immediate proximity of the Study Area. These include:

- One non-listed State Fully Protected Species: white-tailed kite (*Elanus leucurus*),
- Four non-listed Birds of Conservation Concern: oak titmouse (*Baeolophus inornatus*), Bullock's oriole (*Icterus bullocki*), yellow-billed magpie (*Pica nuttalli*); Nuttall's woodpecker (*Dryobates nuttallii*); and
- Other active nests of bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code.

Special-status plants were not observed during the field survey. Due to the moderately disturbed nature of the Study Area and limited habitat types, such as lack of unique soil types and significant wetlands, no special-status plant species known from the region are expected to occur within the Study Area.

Mixed species oak woodland stands occur in the Study Area that are protected under El Dorado County Ordinance No. 5061 (Oak Resource Conservation Ordinance). As such, mitigation of oak tree removal is likely to be required.

The implementation of recommended avoidance and minimization measures would reduce potential impacts to non-listed special-status species to less-than-significant levels. Mitigation of oaks following removal is likely to be required to offset project impacts.

## 2.0 EXTENT AND LOCATION OF THE STUDY AREA

The Study Area is located along Green Valley Road within a 5.27-acre parcel in the Town of Skinners, El Dorado County, California (**Figure 1**). The Study Area was selected to cover the entirety of the 5.27-acre parcel (**Figure 4**).

The Study Area occurs in El Dorado County Assessor’s Parcel Number 115-410-011. The Study Area is mapped within the Clarksville U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle, and lies entirely within Section 29 of Township 10 North, Range 09 East of the Mount Diablo Principal Meridian (**Figure 2**). The Study Area centroid is located at 38° 41' 52.9057" N", -121° 0' 33.5025" W.

### **3.0 METHODS**

#### **3.1 Preliminary Review**

Prior to conducting field surveys, the project ecologists compiled and reviewed existing information pertaining to the Study Area, including the latest version of the California Natural Diversity Database (CNDDB) (CDFW 2023), the California Native Plant Society (CNPS) Inventory of Rare Plants (2023), and a U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation System (IPaC) list (2023).

#### **3.2 Targeted Sensitive Biological Resources**

Special-status animal species targeted and analyzed in this report include those listed by the USFWS and/or California Department of Fish and Wildlife (CDFW) as threatened or endangered, as well as those proposed for listing or that are candidates for listing as threatened or endangered. The listing of “Endangered, Rare, or Threatened” is defined in Section 15380 of the *California Environmental Quality Act (CEQA) Guidelines*. Section 15380(b) states that a species of animal or plant is “endangered” when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is “rare” when either “(A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) the species is likely to become endangered within the foreseeable future throughout all or a portion of its range and may be considered ‘threatened’ as that term is used in the Federal Endangered Species Act” (ESA).

Animal species that are designated as “Fully Protected,” “Species of Special Concern,” or “Watch List” by the CDFW are also considered to be of special-status. Although these species have no legal status under the California Endangered Species Act (CESA), the CDFW recommends their protection as their populations are generally declining and they could be listed as threatened or endangered (under CESA) in the future. “Fully Protected” species generally may not be taken or possessed at any time. The CDFW may only authorize take for necessary scientific research and may authorize live capture and relocation of “fully protected” species in certain circumstances. The “Species of Special Concern” designation is meant to call attention to the plight of the species and address the issues of concern early enough to secure their long-term viability. “Watch List” species were previously designated as “Species of Special Concern” but no longer meet that status, or do not yet meet that status but there is concern and need for more information to clarify status.

Birds that are designated by the USFWS as “Birds of Conservation Concern” are also considered of special-status. Although these species have no legal status under the ESA, the USFWS recommends their protection as their populations are generally declining, and they could be listed as threatened or endangered (under ESA) in the future.

Special-status plants include species that are designated rare, threatened, or endangered as well as candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those plant species identified by the CNPS as California Rare Plant Rank (CRPR) 1A, 1B, and 2 in the Inventory of Rare and Endangered Vascular Plants of California. Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for federal or state status, such as those included as CRPR List 3 in the CNPS Inventory.

For the purposes of this report, ‘sensitive plant communities’ include those designated as such by the CDFW, either in the CNDDDB, the list of California Sensitive Natural Communities (CDFW 2020), or as sensitive alliances classified in the Manual of California Vegetation (MCV) (Sawyer et al. 2009). Alliances included within the MCV that are designated as global or state rank (“G” or “S”) 1-3 are considered “rare or threatened” at the global and/or state level and are therefore considered sensitive.

In addition, wetland and riparian habitats, regardless of MCV status, are considered sensitive. Wetlands, streams, and permanent and intermittent drainages are subject to the jurisdiction of the U.S. Army Corps of Engineers (ACOE) under Section 404 of the Federal Clean Water Act (CWA). The CDFW also generally has jurisdiction over these resources, together with other aquatic features that provide an existing fish and wildlife resource pursuant to Sections 1602-1603 of the California Fish and Game Code. The CDFW asserts jurisdiction to the outer edge of vegetation associated with a riparian corridor. The Regional Water Quality Control Board (RWQCB) also generally has jurisdiction over streams and wetlands. Any grading, excavation, or filling of jurisdictional drainage corridors or wetlands would require a Section 404 permit, a 401 Water Quality Certification, and a CDFW Streambed Alteration Agreement.

Oak trees in El Dorado County are subject to the County’s Oak Resources Conservation Ordinance (Ordinance No. 5061). This ordinance requires one or more oak woodland mitigation alternatives to mitigate the significant effect of the conservation of oak woodlands (El Dorado County 2023).

**Figure 5** shows the distribution of special-status species documented in CNDDDB in the surrounding area. These and other special-status species known from the project region are listed in **Table 1** and **2** of **Appendix B**, along with their regulatory status, habitat requirements, and an evaluation of their potential to occur on or near the Study Area.

### 3.3 Field Survey

A biological resource assessment survey was conducted within the Study Area on May 10<sup>th</sup>, 2023. The survey was conducted by VNLC Ecologist Chris Jasper. During the survey, the ecologist traversed the entire Study Area and recorded all dominant plant taxa and commonly observed animal species, along with general ecological conditions and notable habitat features. An effort was made to find any special-status plants identifiable at the time of year (i.e., late-spring and early-summer blooming species along with woody perennial species). In addition, the survey involved a search for signs of special-status animals as well as habitat with potential to support special-status species (i.e., nesting potential, mammal burrows).

Photographs detailing representative site conditions and habitats were also collected from across the Study Area. The photographs are presented in **Appendix A**.

## 4.0 RESULTS

### 4.1 Existing Conditions

The Study Area encompasses predominately mixed oak and pine woodland habitat with a moderately disturbed annual grassland understory (**Figure 4**). At the western side of the parcel, there is a narrow ephemeral swale which connects to a riprap armored stormwater drainage along the fence line of the neighboring property to the west. There are several stands of coyote brush (*Baccharis pilularis*) scrub along with mixed stands of coyote brush and chamise (*Adenostoma fasciculatum*) throughout the parcel as well. Plant communities are described further in **Section 4.1.4**.

The Study Area is bounded by Green Valley Road to the north, Bass Lake Road to the east, Green Valley Elementary School to the south, and residential homes to the west. The Study Area occurs on a moderate slope of 5-15%, which slopes from east to west, increasing in steepness from Bass Lake Road to the west perimeter. A two track dirt road runs through the center of the parcel from east to west.

#### 4.1.1 Climate

The climate in the region is characterized as “Mediterranean,” with cool, wet winters and warm, fairly dry summers as well as high inter- and intra-annual variability in precipitation. Mean annual precipitation and temperature in the vicinity of the Study Area are 32 inches and 60 degrees Fahrenheit (°F), respectively (PRISM 2023). More than 98 percent of annual precipitation occurs during the “wet season,” which extends from October to May. The 2022 to 2023 wet season has been notably wetter than average, with nearly 45 inches of precipitation recorded from October 2022 to May 2023 (ibid).

#### 4.1.2 Topography

The Study Area is located in the Sierra Nevada foothills. Elevation within the Study Area is approximately 1,300 feet above sea level (NOAA 2019). Slope within the Study Area ranges from 5 to 15 percent (ibid).

### 4.1.3 Substrates

Three soil units: Rescue sandy loam, 2-9% slopes; Rescue sandy loam, 9-15% slopes; and Rescue extremely stony sandy loam, 3-50% slopes are mapped within the Study Area (**Figure 3**). Rescue sandy loam soils occur on gently sloping to very steep slopes at elevations of 800 to 2,000 feet. (USDA 2023). The pH rating for this soil complex is typically between 6 to 6.5 and is considered a slightly acidic soil type (ibid). The primary characteristics related to the soil materials and their relationship to plant growth are presented in **Table 1** below. These soil units are not of a type that supports large numbers of rare plant species and these units are not derived from unique or uncommon rocks such as serpentinite or limestone, no heavy clay soils, no extreme pH values, or other such traits.

**Table 1. Characteristics of Soil Units Mapped within the Study Area**

Soil Unit Name and Percent of the Study Area	Parent Material	Surface Texture*	pH*	Drainage
Rescue sandy loam, 2-9% slopes, MLRA 18 (34%)	Residuum of gabbrodiorite rock	Sandy loam	6.0-6.5	Well drained
Rescue sandy loam, 9-15% slopes, MRLA 18 (37%)	Residuum of gabbrodiorite rock	Sandy loam	6.0-6.5	Well drained
Rescue extremely stony sandy loam, 3-50% slopes, MRLA 18 (29%)	Residuum of gabbrodiorite rock	Rocky Sandy loam	6.0-6.5	Well drained

Source: U.S. Department of Agriculture Natural Resources Conservation Service, SoilWeb website, 2023.

### 4.1.4 Plant Communities

Natural plant communities within the Study Area were mapped during the field survey. The natural plant communities present in the Study Area are described below and mapped on **Figure 4**. Representative photographs of the communities are included in **Appendix A**. The California Native Plant Society (CNPS) Manual of California Vegetation (MCV) is used to classify natural plant communities in California ecosystems, and where possible, the closest CNPS classifications were identified for the plant communities present within the Study Area. Some of the plant communities in the Study Area, such as annual grassland and seasonal swale, do not readily conform to CNPS classifications.

#### *Annual Grassland*

The Study Area contains approximately 1.85 acres of annual grassland. This natural plant community is best characterized as the wild oats and annual brome grassland alliance, which is defined as having a dominance of either wild oat species (*Avena* spp.—at least 50%) or brome species (*Bromus* spp.—at least 60%), and with “native herbs relatively low in cover” (Sawyer et al. 2009, CNPS 2023). This plant community is not considered sensitive and is not afforded protection by any environmental regulatory agency.

The wild oats and annual brome grassland alliance within the Study Area is dominated by approximately 60% absolute cover of soft brome (*Bromus hordeaceus*). Observed associates of soft brome include common oats (*Avena sativa*), Bermuda grass (*Cynodon dactylon*), hairy vetch (*Vicia villosa*), wall barley (*Hordeum murinum*), Italian ryegrass (*Lolium multiflorum*), and broadleaf filaree (*Erodium botrys*). Less abundant, but notable, species include black mustard (*Brassica nigra*), milk thistle (*Silybum marianum*), Italian thistle (*Carduus pycnocephalus*), and yellow salsify (*Tragopogon dubius*). All of these are introduced or widespread plant species that are characteristic of disturbed to moderately disturbed conditions.

Some native species were observed such as sky lupine (*Lupinus nanus*), white-globe lily (*Calochortus albus*), California bee plant (*Scrophularia californica*), western blue-eyed grass (*Sisyrinchium bellum*), and Ithuriel's spear (*Triteleia laxa*).

No special habitat elements with potential to support special-status wildlife were observed within this plant community—there were no significant large mammal burrows, rock outcroppings, wetlands, or other similar features.

#### **Mixed Oak Forest and Woodland**

There is approximately 2.78 acres of mixed oak forest and woodland alliance within the Study Area. This plant alliance is characterized by having three or more oak species at a 30% constancy which are co-dominant within the tree canopy; the understory has little to no shrubs. Within the Study Area, the mixed oak forest and woodland contained valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), and interior live oak (*Quercus wislizeni*). These oak trees varied considerably in height, ranging from approximately 10 to 40 feet tall. The understory of the mixed oak forest and woodland is dominated by the annual grassland species described above, though in several areas there were abundant oak saplings ranging from 2 to 5 feet tall. In the dense oak grove to the south, there were occurrences of poison oak (*Toxicodendron diversilobum*) and Himalayan blackberry (*Rubus armeniacus*) in the understory. This alliance has a ranking of G4 S4 and is not considered sensitive (CDFW 2023).

#### **Mixed Oak and Pine Woodland**

There is approximately 0.23 acre of mixed oak and pine woodland within the Study Area. The pine species present in this habitat type, gray pine (*Pinus sabiniana*), is the most common pine species throughout the foothills of California. This habitat type most closely resembles the foothill pine woodland alliance, though does not strictly qualify due to the presence of oaks in the canopy where much of the pines are generally shorter than the surrounding oaks. As with the mixed oak forest and woodland alliance, the understory of the mixed oak and pine woodland is dominated primarily by the annual grassland species.

#### **Coyote Brush Shrub**

The Study Area has approximately 0.22 acre of coyote brush (*Baccharis pilularis*) shrub habitat. This habitat can be classified in the CNPS MCV system as the Coyote Brush Shrubland Alliance. This alliance is defined by having at least 10% absolute cover of native woody shrubs and less

than 10% absolute tree cover (CNPS 2023). Within the Study Area, the coyote brush shrubland is comprised of coyote brush shrubs along with mixed shrub of coyote brush and chamise, with an herbaceous understory dominated by soft brome and common oat. There are also several isolated occurrences of common manzanita (*Arcotostaphylos manzanita*) along the edges of the coyote brush. This alliance has a ranking of G5 S5 and is not considered sensitive (CDFW 2023).

### ***Seasonal Swale***

There is a narrow seasonal swale drainage feature that drains to the west boundary of the Study Area. This feature was dominated by species found in the annual grassland and did not contain any notable vegetative indicators of wetland conditions though did have a semi-defined channel margin. The swale likely collects and diverts water during significant storm events but is unlikely to hold water for a considerable time period, if at all. This swale connects with an armored storm drain type feature along the western edge of the Study Area.

### **4.1.5 Wildlife**

An effort was made to document commonly occurring animal species within the Study Area, though the survey was reconnaissance in nature and not intended to prove absence of any species within the Study Area. Weather conditions were moderately warm and the beginning of the survey and steadily warmed into the early afternoon (65 to 80° F), with a partly cloudy sky and low windspeeds (approximately 1 to 5 miles per hour). Animals observed include 21 bird species, one reptile species, and evidence of deer.

Bird species observed were noted according to habitat type. Within the scrub and annual grassland habitat were California scrub-jay (*Aphelocoma californica*), California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), and mourning dove (*Zenaida macroura*). There were a variety of bird species utilizing the oak woodland within and just outside of the Study Area such as oak titmouse, Nuttall's woodpecker, Bullock's oriole, acorn woodpecker (*Melanerpes formicivorus*), western tanager (*Piranga ludoviciana*), bushtit (*Psaltiriparus minimus*), and white-breasted nuthatch (*Sitta carolinensis*). Several species were observed flying over the Study Area which include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), Eurasian collared-dove (*Streptopelia decaocto*), and European starling (*Sturnus vulgaris*).

Western fence lizards (*Sceloporus occidentalis*) were observed throughout the Study Area, particularly within the coyote brush and fallen branches beneath trees. There were also hoof prints from deer (*Cervidae* sp.) observed within the Study Area.

## **4.2 Protected Habitats**

### **4.2.1 Wetlands or Waters of the U.S. and State of California**

A formal wetland delineation was not conducted as part of this field survey. Geomorphic indicators of potential seasonal wetland habitat were observed during the site reconnaissance visit within the season swale that drains towards the western edge of the Study Area. While these features are unlikely to fall under federal jurisdiction by the ACOE through Section 404 of the Clean Water Act they may be subject to State jurisdiction by the Regional Water Quality Control Board (RWQCB), and/or the California Department of Fish and Wildlife (CDFW) through State regulations.

### **4.2.2 Sensitive Plant Communities**

Sensitive plant communities within the Study Area include oak woodlands and individual oak trees which are considered sensitive at the state level and are protected under the California Oak Woodlands Conservation Law. No other sensitive plant communities are present within the Study Area

## **5.0 SPECIAL-STATUS SPECIES AND AVOIDANCE MEASURES**

This section provides background information and lists recommended avoidance and minimization measures to reduce the potential for the project to impact special-status species and sensitive habitats within the Study Area. Only listed species and/or special-status species with the greatest potential to occur within the Study Area are addressed here.

In addition to species-specific avoidance measures listed below, the following general avoidance and minimization measures are recommended:

Measure 1: All construction personnel involved in the project shall attend environmental awareness training prior to the commencement of potential project disturbance activities. The training shall be conducted by a qualified biologist and shall involve the presentation of sensitive species and habitats documented or potentially occurring in the Study Area. The training should include handouts that describe each resource with respect to listing status, habitat preferences, distinguishing physical characteristics, causes of its decline, and potential protection and avoidance measures. The handout shall be distributed among construction personnel and shall include photographs of the resources in order to facilitate identification by the personnel.

Measure 2: Silt fencing or other sediment control measures should be utilized to minimize potential construction related pollution to any waterways that drain to downstream waterbodies. To prevent impacts from spills, construction equipment should be staged away from wetlands or sensitive habitat, and a spill prevention plan shall be in place to prevent runoff and contamination into the surrounding wetlands and drainage ditches. Excavated materials will be stockpiled away from sensitive



habitat, in areas that are relatively level, and relatively free of vegetation. Stockpiles will be located as far as reasonably feasible from the limits of sensitive habitat avoidance habitat, and runoff control measures as described above will be used to prevent delivery of sediment into wetlands and watercourses. If wattles are used, they will consist of certified sterile, weed-free materials. Any excavated materials not reused on site will be promptly removed to appropriate permanent disposal locations at the end of project construction. All avoided wetlands and sensitive habitat will be flagged or fenced by a qualified biologist prior to the commencement of ground disturbing activities.

## **5.1 Listed Animal Species**

The Study Area does not support potential habitat for Federal and/or State listed animal species. Overall, many of the listed species in the project vicinity require vernal pools, cold freshwater waterbodies, or chaparral habitats with highly acidic soil types. None of the above are present in the Study Area.

### **5.1.1 Designated Critical Habitat**

As shown in **Figure 5**, the Study Area is not located within USFWS designated critical habitat for any species and there is no critical habitat within a five-mile buffer surrounding the Study Area.

## **5.2 Non-listed Special-Status Animal species**

There are five non-listed bird species that may or are known to utilize the habitat present in the Study Area. White-tailed kite readily use trees such as oaks and pines to nest and prefer to forage in grasslands as one of their primary foraging grounds, both of which occur in the Study Area. The oak titmouse, Bullock's oriole, yellow-billed magpie, and Nuttall's woodpecker are all known to readily nest and forage within oak woodlands. Oak titmouse, Bullock's oriole, and Nuttall's woodpecker were observed during the time of the survey.

These species are not state or federally listed as endangered or threatened. However, their designation as either State Fully Protected by CDFW and/or Bird of Conservation Concern by USFWS warrants consideration, and avoidance and minimization measures are recommended.

### **5.2.1 White-tailed Kite**

White-tailed kite is listed as CDFW Fully Protected. White-tailed kites are endemic to west of the Sierra Nevada Mountain Range, where their range extends into Oregon and Washington, though the majority of the population occurs throughout California (Eisenmann 1971).

White-tailed kite is a medium sized raptor that forages in grasslands, meadows, wetlands, agricultural areas, and other open areas with high small mammal prey abundances. Their name is derived from their hunting style, as white-tailed kite fly into a headwind and hover in place, similar to a kite, before executing a steep dive onto unexpecting prey (Warner and Rudd 1975). They nest in a variety of tree species, anywhere from 6-100 feet tall, close to their preferred foraging habitats

(Niemela 2007). White-tailed kite often forage within half a square mile around their nest and their home ranges outside of the nesting season are often less than 3 square miles (Hawbecker 1942).

White-tailed kite populations were threatened with extinction in the early 20th century due to shooting and egg collecting (Eisenmann 1971). The species has recovered since then, and year-round irrigation of agricultural land produces consistent food sources such as small mammals (Niemela 2007). Land development threatens the species through removal of trees preferred for nesting. Additionally, modern farming techniques and crop rotation can alter prey availability in the nesting season, which can be problematic for white-tailed kite requiring a constant food source to feed their young (Dunk 1995).

White-tailed kite are known to forage and nest near Bass Lake, a small lake approximately 1.4 miles to the southwest of the Study Area (eBird 2023.)

#### *Potential Project Impacts*

The trees present within the Study Area provides suitable nesting habitat for white-tailed kite. Therefore, it is possible that white-tailed kite may be present in the Study Area during construction activities, and could be harmed in the absence of avoidance and minimization measures.

#### *Recommended Avoidance and Minimization Measures*

Measure 3: If construction activities would commence anytime during the nesting/breeding season of Birds of Conservation Concern, raptors, or other migratory birds (typically February 1 through August 31) a pre-construction survey for nesting birds should be conducted by a qualified biologist within two weeks of the commencement of construction activities. If there is a two week or longer lapse in construction activities within the Study Area, the pre-construction survey will be repeated.

If active nests are found in areas that could be directly affected or are within 500 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone should be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zone and types of construction activities restricted within it should be determined through coordination with the CDFW, taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;
- Distance and amount of vegetation or other screening between the construction site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds.

### **5.2.2 Oak Titmouse**

The oak titmouse is listed as a Bird of Conservation Concern by USFWS. A small nonmigratory bird, oak titmouse occur along the Pacific Coast of North America from southwest Oregon to the northwest Baja California peninsula at elevations less than 2,500 feet (Cicero 2000). The oak titmouse is a gray insectivorous bird that is characterized by its crest atop its head and shrill territorial calls. Oak titmice prefer oak woodlands and oak woodlands mixed with pines where they nest in natural cavities, vacant woodpecker cavities, or dense foliage that forms a cavity like structure (Milligan and Dickinson 2016). Pairs bond in their first year and mate for life, and pairs fiercely defend their relatively small territories from other oak titmouse pairs. Though oak titmouse are one of the most common birds in oak woodlands throughout California, their population has experienced nearly a 50% decline, coinciding with the increase in human population through the twentieth century and subsequent destruction of oak woodlands for timber harvest, clearing for agriculture, and removal for urban development (NACBI 2014).

The Study Area provides high quality habitat for oak titmouse, as a significant portion of the Study Area is made up of oak woodland and mixed oak and pine woodlands. At least one oak titmouse pair was present within the Study Area during the time of the survey.

#### *Potential Project Impacts*

The oak woodland present within the Study Area provides ideal nesting and foraging habitat for oak titmouse. Oak titmice were abundant over the course of the survey and were displaying territorial calls, indicating that there are resident pairs which occupy the habitat present within the Study Area. Therefore, it is possible that individual oak titmouse may be present in the Study Area during construction activities, and could be harmed in the absence of avoidance and minimization measures.

#### *Recommended Avoidance and Minimization Measures*

See Measure 3.

### **5.2.3 Bullock's Oriole**

The Bullock's oriole is listed as a Bird of Conservation Concern by USFWS. Bullock's oriole is a vibrant migratory species, with a bright yellowish-orange front and jet-black hooded face, that overwinter in Southern Mexico and breed throughout the western United States as far north as southwest Canada (Flood et al. 2016). They breed in riparian and open woodlands, with a preference for woodlands that have relatively large, isolated trees or distinct stands of trees. Bullock's orioles prefer large riparian trees, such as sycamores and cottonwoods, though will also readily use large oaks such as valley oaks. A highly omnivorous species, they will feed on a variety of insects, nectar from flowers, and juicy fruits such where they pry open the fruit with their beak and drink the fruit juice. Bullock's oriole nest between 10-25 feet off the ground along the outer edge of the canopy, making intricately woven nests. Where the proper habitat occurs within their range, Bullock's orioles can be relatively common, though populations declined by nearly 27%

from 1966 to 2019 (Sauer et al. 2019). Threats to Bullock's oriole include loss of preferred nesting habitat and likely forage contamination by pesticide use (Flood et al. 2016).

There were several Bullock's orioles observed foraging throughout the Study Area. While nesting was not observed at the time of the survey, there is potential nesting habitat present in the form of oak trees.

#### *Potential Project Impacts*

The oak woodland present within the Study Area provides nesting and foraging habitat for Bullock's oriole. Therefore, it is possible that individual Bullock's oriole may be present in the Study Area during construction activities, and could be harmed in the absence of avoidance and minimization measures.

#### *Recommended Avoidance and Minimization Measures*

See Measure 3.

#### **5.2.4 Yellow-billed Magpie**

The yellow-billed magpie is listed as a Bird of Conservation Concern by USFWS and is highly studied due to the dramatic effect West Nile virus had on the population in the early 2000s (Crosbie et al. 2008). The yellow-billed magpie is a medium sized bird with a long tail, iridescent blue-black wings, a striking contrast of a black breast and white belly, and as the name suggests a distinctly yellow bill. As a non-migratory endemic species to California, the yellow-billed magpie can be found in open oak woodlands and oak savannas in the Central Valley, Coast Ranges, and the Sierra Nevada Foothills (Koenig and Walter 2016). Yellow-billed magpie feed predominately on insects found on the ground and as with other members of the Corvid family (e.g., crows, ravens, magpies, and jays) they are clever foragers, often observed flipping objects for food and scavenging for food in unique places. The yellow-billed magpie creates large, domed nests made of twigs near the middle and tops of tall trees, typically over 30 feet off the ground. They will nest in loose colonies, where several pairs will create nests in the same tree. Such colonies are generally conspicuous, as individuals regularly vocalize between the colony members and other nearby colonies. Yellow-billed magpies have experienced a dramatic population decline since the 1960s, as a combination of habitat destruction, rodenticides, and more recently the West Nile virus has caused the population to drop by almost 76% (Sauer et al. 2019). It is estimated that half of the yellow-billed magpie population perished from the West Nile virus in the early 2000s (Crosbie et al. 2008).

#### *Potential Project Impacts*

The oak woodland present, and especially the largest of the valley oaks, within the Study Area provides nesting and foraging habitat for yellow-billed magpie. Therefore, it is possible that individual yellow-billed magpie may be present in the Study Area during construction activities, and could be harmed in the absence of avoidance and minimization measures.

*Recommended Avoidance and Minimization Measures*

See Measure 3.

**5.2.5 Nuttall's Woodpecker**

The Nuttall's woodpecker is listed as a Bird of Conservation Concern by USFWS. A small woodpecker with speckled black and white barring up its back, a bright red cap, and a black and white face mask, the Nuttall's woodpecker is a resident of oak woodlands and riparian areas throughout California (Lowther et al. 2017). Though most commonly observed in oak woodlands, these insectivorous birds can be seen climbing vertically up tree trunks searching for insects in wooded suburban areas as well. While they typically occupy oak woodlands as their primary habitat, they do not eat acorns (Block 1991). As with many woodpeckers, the Nuttall's woodpecker carves out a nest hole in the dead trunks or limbs of trees. Nuttall's woodpeckers excavate a new cavity every season, providing important nesting habitat for species that utilize abandoned woodpecker cavities as nests (i.e., the oak titmouse). Nuttall's woodpecker are relatively common within their limited range, the population has actually experienced a population increase since the mid 1960s (Sauer et al. 2019). Regardless, a combination of a limited range and the loss of oak woodlands throughout California will likely put this species' population stability at risk in the future.

The Study Area provides high quality habitat for Nuttall's woodpecker as a significant portion of the Study Area is made up of oak woodland and mixed oak and pine woodlands. At least one Nuttall's woodpecker individual was present within the Study Area during the time of the survey, and was observed foraging within the oak canopy.

*Potential Project Impacts*

The oak woodland present within the Study Area provides nesting and foraging habitat for Nuttall's woodpecker. A Nuttall's woodpecker was observed foraging within the Study Area over the course of the survey. Therefore, it is possible that individual Nuttall's woodpecker may be present in the Study Area during construction activities, and could be harmed in the absence of avoidance and minimization measures.

*Recommended Avoidance and Minimization Measures*

See Measure 3.

**5.2.6 Migratory and Nesting Birds**

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 704) and the California Fish and Game Code (Section 3503) prohibit the take of migratory birds as well as disturbance to the active nests of most native birds. The trees in the Study Area could support nests of multiple migratory bird species, including raptors. Tree or vegetation removal could result in direct loss of birds protected by the MBTA. Additionally, construction-related noise or other disturbance could result in the abandonment of an active nest in trees adjacent to or near the Study Area, including potential nests of special-status bird species.

### *Potential Project Impacts*

If project activities commence during nesting bird season, individual nesting birds could be harmed.

### *Recommended Avoidance and Minimization Measures*

See Measure 3.

## **5.3 Special-Status Plant Species**

No special-status plants have previously been documented within the Study Area, and none were observed within the Study Area during the May 2023 reconnaissance-level site survey. The Study Area does not support habitat with potential to support special-status plants, including federal and/or state listed taxa, and therefore no negative effects to special-status plants are expected to occur, and no avoidance and minimization measures are recommended.

## **5.4 Oak Woodland**

Oak trees and oak woodlands are afforded protection at both the state and county levels. Woodlands including mature oak trees with a diameter-at-breast-height (DBH) of greater than or equal to five inches are under the potential jurisdiction of the State Oak Woodlands Protection Act and/or local protection ordinances. Trees in El Dorado County are subject to the El Dorado County Ordinance No. 5061 (Oak Resource Conservation Ordinance). When it is determined that a nonexempt project may have a significant effect on oak woodlands, mitigation is required. The County ordinance allows four mitigation options: 1) conserving oak woodland through the use of conservation easements; 2) contributing funds to the Oak Woodlands Conservation Fund through in-lieu fee payment/s; 3) replanting trees in accordance with the Replacement Planting Guidelines, or; 4) implementing other mitigation actions as outlined or developed by the county.

Measure 4: Flag or otherwise demarcate all oak trees that are not posed for removal as a result of the project actions, including mature and sapling trees within any proposed project disturbance areas. Ensure that workers understand the importance of protecting oak trees, and that they avoid any disturbance of, or within the dripline of, all oaks in the Study Area.

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## **FIGURES**

**REGIONAL VICINITY MAP, USGS TOPOGRAPHIC MAP,  
SOIL MAP, SITE BIOLOGICAL RESOURCES MAP,  
SPECIAL-STATUS SPECIES MAP**



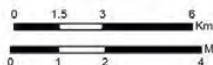
**Legend**

- Highway
- River or Stream
- Study Area
- County Boundary
- Urban Area
- Water Body

**FIGURE 1**  
**Regional Vicinity Map**  
 Green Valley Road Project  
 El Dorado County, California

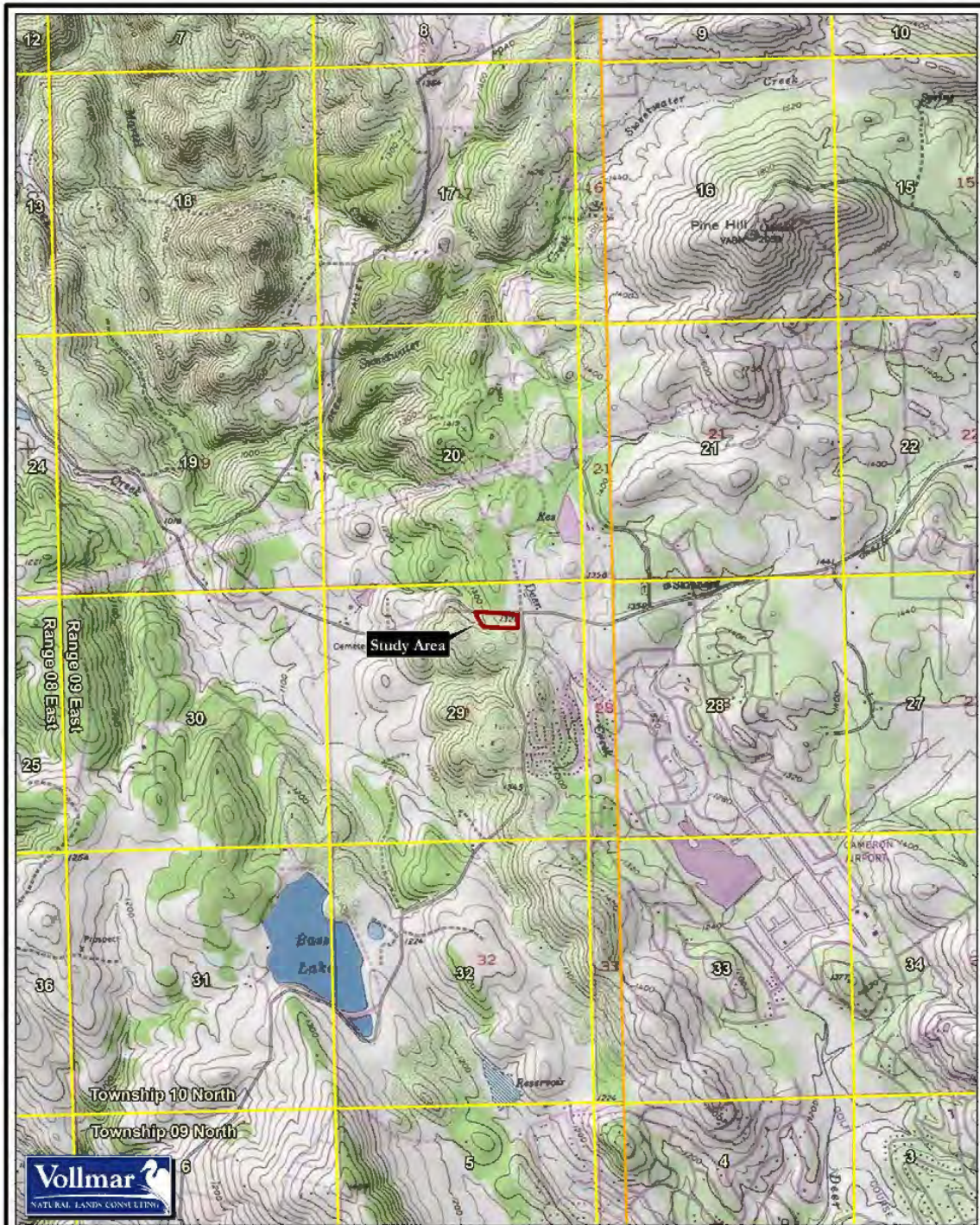


1:150,000



Data Sources: USGS, various | GAP, 1998 | DWR, 2001  
 SFEI, 2016 | USHJD, 2018 | ESRI/DigitalGlobe, 2021  
 GIS/ Cartography by: C. Jasper, K. China, Sep. 2022  
 Map File: Vicinity\_556\_02\_B-P\_2023-0608.mxd





**Legend**

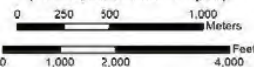
- ▭ Study Area
- ▭ USGS Topographic Quadrangle
- ▭ Public Land Survey Boundary

**FIGURE 2**  
**USGS Topographic Map**

Green Valley Road Project  
 El Dorado County, California



1:24,000  
 (1 in = 2,000 ft at tabloid layout)



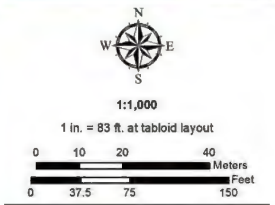
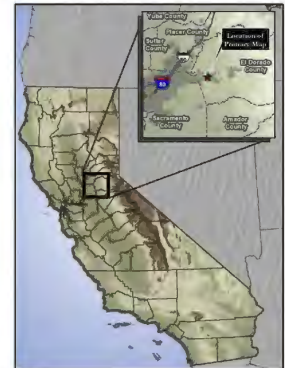
Data Sources: USGS, various | ESRI Online Imagery, 2022  
 GIS/ Cartography by: G. Baron, K. Chinn, Jun. 2023  
 Map File: DRG\_556\_02\_B-P\_2023-0608.mxd



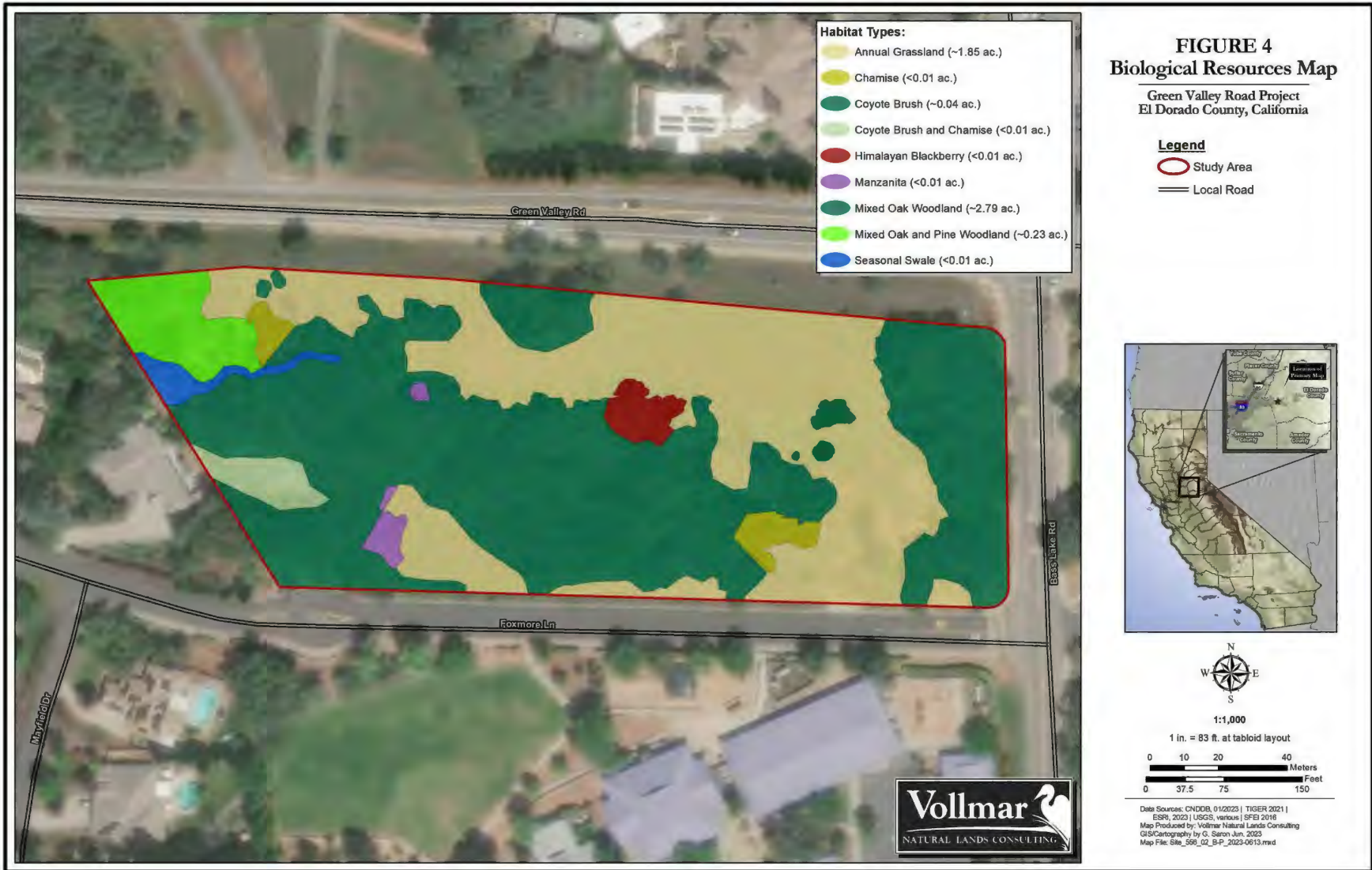


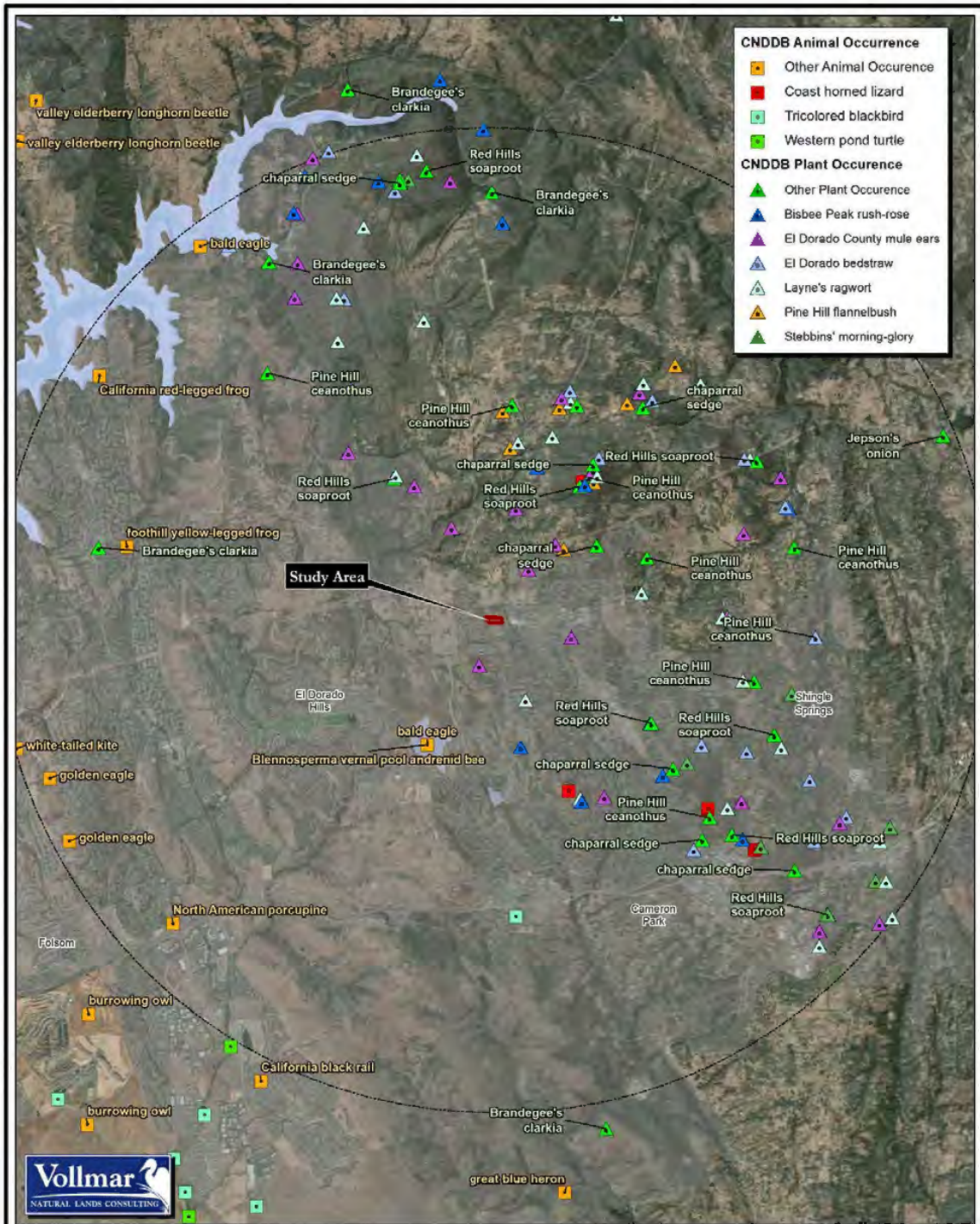
**FIGURE 3**  
**Soil Map**  
Green Valley Road Project  
El Dorado County, California

- Legend**
- Local Road
  - Study Area
  - Soil Unit Boundary



Data Sources: CNDDB, 01/2023 | TIGER 2021 |  
ESRI, 2023 | USGS, various | SFEI 2016  
Map Produced by: Vollmar Natural Lands Consulting  
GIS Cartography by: G. Saron Jun. 2023  
Map File: Soil\_558\_02\_B-P\_2023-0612.mxd





**Legend**

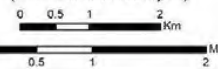
- River or Stream
- Water Body

**FIGURE 5**  
Special-Status Species Map

Green Valley Road Project  
El Dorado County, California



1:63,360  
(1 in = 1 mi at tabloid layout)



Data Sources: USGS, various | GAP, 1998 | DWR, 2001  
SFEI, 2016 | CNDDB, 07/2022 | ESRI/DigitalGlobe, 2021  
GIS/Cartography by: C. Jasper, K. Chinn, Sep. 2022  
Map File: CNDDB\_556\_02\_B-P\_2023-0608.mxd



**APPENDIX A**  
**REPRESENTATIVE SITE PHOTOGRAPHS**



**Photo 1. Ruderal grassland and mixed oak forest woodland facing southeast. (5/10/23)**



**Photo 2. Coyote brush along mixed oak forest woodland facing south. (5/10/23)**





**Photo 3. Ruderal undergrowth of dense mixed oak facing west. (5/10/23)**



**Photo 4. Seasonal swale facing west. (5/10/23)**



**Photo 5. Armored stormwater drainage along western edge of parcel. (5/10/23)**



**Photo 6. Isolated manzanita occurrence along coyote brush and mixed oak forest edge facing south. (5/10/23)**



**Photo 7. Ruderal grassland and mixed oak forest facing northwest. (5/10/23)**



**Photo 8. Two track road through center of parcel facing west. (5/10/23)**



**Photo 9. Ruderal grassland facing northeast. (5/10/23)**



**Photo 10. Mixed oak forest along edge of parcel facing northwest. (5/10/23)**



**Date:** August 21, 2024  
**To:** Jose Lujano  
**From:** Alan Canivel  
**Subject:** Green Valley & Bass Lake – Wetland Survey

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Mr. Lujano,

The limits of the Seasonal Wetland Swale (SWS-1) and Artificial Wetland Channel (ACW-1) as shown in the Parcel Map Exhibit dated 8/21/2024, were surveyed in the field and directly based on the exact stake locations provided by Vollmar Natural Lands Consulting.

Respectfully,

A handwritten signature in black ink, appearing to read 'Alan Canivel'.

Alan Canivel  
Project Manager



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August 21, 2024

José J. Lujano  
Project Manager  
Affirmed Housing  
jose@affirmedhousing.com  
408-823-5801

Dear Mr. Lujano,

I am writing in regard to the Green Valley Road project site, a 5.27-acre parcel along Green Valley Road in the town of Skinners, El Dorado County, California. Vollmar Natural Lands Consulting conducted an aquatic resources delineation of the project site in September 2023. You provided me with maps showing a proposed modification to the parcel boundary of the project site. The modification, as displayed in the Proposed Parcel Map dated 8/21/2024 excludes all potentially-jurisdictional wetlands and waters from the project parcel. Based on the results of our aquatic resources delineation, the modification would ensure that the Proposed Parcel A does not include any wetlands, as defined in the United States Fish and Wildlife Service Manual, Part 660 FW 2 (June 21, 1993).

Please feel free to contact me at [esmith@vollmarconsulting.com](mailto:esmith@vollmarconsulting.com) if you have questions. Thank you.

Sincerely,

A handwritten signature in black ink that reads "Eric Smith". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Eric Smith  
Senior Ecologist  
Vollmar Natural Lands Consulting