DRAFT MITIGATED NEGATIVE DECLARATION

FILE: P21-0004

PROJECT NAME: Jomescbo Tentative Parcel Map

NAME OF APPLICANT: Thomas Van Noord

ASSESSOR'S PARCEL NO.: 105-190-042 **SECTION:** 25 **T:** 11N **R:** 9E

LOCATION: On the south side of Thompson Hill Road, approximately 200-feet east of the intersection with Lotus Road, in the Gold Hill area.

☐ **GENERAL PLAN AMENDMENT:** **FROM:** **TO:**

☐ **REZONING:** **FROM:** **TO:**

☒ **TENTATIVE PARCEL MAP** ☒
SUBDIVISION (NAME):

☐ **SPECIAL USE PERMIT TO ALLOW:**

☐ **OTHER:**

REASONS THE PROJECT WILL NOT HAVE A SIGNIFICANT ENVIRONMENTAL IMPACT:

☐ **NO SIGNIFICANT ENVIRONMENTAL CONCERNS WERE IDENTIFIED DURING THE INITIAL STUDY.**

☒ **MITIGATION HAS BEEN IDENTIFIED WHICH WOULD REDUCE POTENTIALLY SIGNIFICANT IMPACTS.**

☐ **OTHER:**

In accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), State Guidelines, and El Dorado County Guidelines for the Implementation of CEQA, the County Environmental Agent analyzed the project and determined that the project will not have a significant impact on the environment. Based on this finding, the Planning Department hereby prepares this Mitigated Negative Declaration. A period of twenty (20) days from the date of filing this mitigated negative declaration will be provided to enable public review of the project specifications and this document prior to action on the project by COUNTY OF EL DORADO. A copy of the project specifications is on file at the County of El Dorado Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Mitigated Negative Declaration was adopted by the _____on _____.

_____
Executive Secretary

COUNTY OF EL DORADO
PLANNING AND BUILDING DEPARTMENT
INITIAL STUDY
ENVIRONMENTAL CHECKLIST

Project Title: P21-0004/Jomescbo Tentative Parcel Map

Lead Agency Name and Address: El Dorado County, 2850 Fairlane Court, Placerville, CA 95667

Contact Person: Matthew Aselage, Assistant Planner | **Phone Number:** (530) 621-5977

Owner's Name and Address: Jomescbo Family Trust c/o Thomas R. Van Noord, 3350 Country Club Dr., #202, Cameron Park, CA 95682

Applicant's Name and Address: Thomas R. Van Noord, 3350 Country Club Dr., #202, Cameron Park, CA 95682

Project Location: The project is located on the south side of Thompson Hill Road, 200-feet east of the intersection with Lotus Road in the Gold Hill area.

Assessor's Parcel Number: 105-190-042 **Acres:** 55-acres

Sections: S:25 **T:** 11N **R:** 9E

General Plan Designation: Rural Residential (RR)

Zoning: Rural Lands – 10-Acre (RL-10)

Description of Project: A request for a Tentative Parcel Map to subdivide an approximately 55-acre parcel into four parcels as follows: 10.06-acres (Parcel One), 10.55-acres (Parcel Two), 14.02-acres (Parcel Three), 20.29-acres (Parcel Four) (Attachment A). The property is currently undeveloped. Access to each of the proposed parcels will be from future driveway encroachments onto Thompson Hill Road (a county-maintained roadway). Electricity/utilities services are provided by Pacific Gas & Electric (PG&E). The project proposes well water and septic systems on each proposed parcel for water and sanitation service. However, EID water may be pursued in the future- this will require consultation with EID to determine up-to-date requirements for infrastructure developments at that time. Additionally, future EID developments may require a new CEQA analysis. Further, the project will include annexation into the El Dorado County Fire Protection District for structural fire protection and emergency medical services. No new on-site improvements or residential developments are proposed at this time. Any future development would be reviewed at time of building permit issuance. No trees are proposed for removal at this time. The vegetation communities on the project site are classified as Interior Live Oak Woodland, Foothill Pine Woodland, Mixed Serpentine Chaparral, Interior Live Oak Woodland, Blue Oak Woodland, and California Annual Grassland.

Environmental Setting: The project site is an approximately 55-acre developed parcel located in the western slope of the Sierra Nevada Mountains at an elevation of approximately 1,330-feet to 1,560-feet above mean sea level. The topography consists of three northerly-sloping ridges separated by two unnamed intermittent creeks. The slope gradients on the ridges are as follows: westernmost ridge, 15-percent; central ridge, 14-percent; and easternmost ridge, 11-percent. Soils on the project site include Auburn very rocky silt loam (AxE), Serpentine rock land (SaF), Auburn very rocky silt loam, Boomer very rocky loam (BkD and BkE). Auburn soils comprise approximately 30-percent of the parcel; Boomer soils, 40-percent; and serpentine soils, 30-percent. The vegetation community on the project site includes Interior Live Oak Woodland, Foothill Pine Woodland, Mixed Serpentine Chaparral, Interior Live Oak Woodland, Blue Oak Woodland, and California Annual Grassland. Interior live oak woodland covers approximately nine-acres in two areas of the property: five-acres at the western corner of the project site, and four-acres in the center of the parcel. Foothill Pine Woodland covers approximately four and one-half-acres of the project site. Mixed serpentine chaparral vegetation, covering approximately nine-acres, is the dominant vegetation community on the Serpentine soils between the two intermittent creeks in the project site. Blue oak woodland covers about thirty-two-acres on the ridge in the eastern portion of the property. California annual grassland covers about seven-acres, found in two locations: about one-half-acre west of the intermittent creek on Parcel One and about 6.5-acres on Parcels Two and Three. Blue oak woodland covers about 25-acres of the project site, and interior live oak woodland covers about nine-acres. The project site has two intermittent creeks, designated Channels One and Two that flow from south to north across the property, and one ephemeral drainage, Channel Three, that carries water northwesterly from the ridge in the eastern portion of the site. Channel One, located on Parcel One, has its origins south of the project site and carries water northerly through small wetlands near Thompson Hill Road. Water collects at a culvert beneath a dirt road, then

leaves the property within a second culvert beneath Thompson Hill Road. Channel Two carries water from a swale on proposed Parcel Three to a seasonal pond near Thompson Hill Road on Parcel Two, then continues to the property boundary, where it enters a culvert beneath the road. The ephemeral drainage carries storm water northwesterly on proposed Parcel Four to a broad flood plain south of Thompson Hill Road, then collects at a culvert that transports it off the property and beneath the road. Wetlands are found within and adjacent to Channel One and surrounding the pond on Channel Two. The seasonal pond held water until late May in 2017- which was an exceptionally wet winter- but was dry on the same date in 2020. Likewise, water was flowing into the wetlands on Channel One in early June of 2017, but the channel was dry by mid-May in 2020. A Biological Resources Report was completed in August of 2017 and updated in December of 2020 by Ruth A Wilson of Site Consulting, Inc. Biological Services (Attachment B). No oak trees are proposed for removal. No species listed by either the state or federal Endangered Species Acts were found on the project site. Potential habitat was found for one state and federal-listed species: Layne's butterweed. Additionally, two species of special concern were found: Oak titmouse and Wrentit. Further, potential habitat was found for fifty-one other species of concern including two insects, one reptile, sixteen birds, six mammals, and thirty-two plants. However, none of these fifty-one species were observed on site. Each proposed parcel would be allowed to develop up to one primary residence, one secondary residence, accessory residential structures, and/or agricultural structure(s). Each proposed parcel is current undeveloped. Further, no residential development is proposed at this time. The property is located in the Important Biological Corridor; however, there were no recorded occurrences of special-status plants or wildlife species within the project area. The adjacent-neighboring parcels to the east are zoned as Agriculture – 40-acres (AG-40); to the south and north are zoned as Rural Lands – 10-acres (RL-10); and to the west are Residential Estate – Five-Acres (RE-5) and RL-10 properties. These surrounding properties are primarily developed for residential uses, but also include undeveloped parcels and agricultural uses. The Biological Resources Report determined that enhanced 60-foot setbacks from waters and wetlands, pre-construction bird surveys, and pre-construction plant surveys would be the only required mitigations to finalize this Parcel Map.

Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

1. El Dorado County Surveyor
2. El Dorado County Building Services
3. El Dorado County Environmental Management Department
4. El Dorado County Department of Transportation
5. El Dorado County Fire Protection District
6. El Dorado LAFCO

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

At the time of the application request, seven Tribes: Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Shingle Springs Band of Miwok Indians, T'si-Akim Maidu, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of California and Nevada, had requested to be notified of proposed projects for consultation in the project area. Consultation notices were sent on May 2, 2021. Staff had not received a response within a 30-day period from the date of staff's consultation initiation response. As such, AB52 consultation has been closed. Pursuant to the records search conducted at the North Central Information Center on January 7, 2020, the proposed project area contains zero prehistoric-period resources and zero historic-period cultural resources. Additionally, zero cultural resources study reports covering any portion of the site are on file. Outside of the project area, but within the ¼ mile radius of the geographic area, a broader search area contains zero prehistoric-period resources and two historic-period cultural resources. Additionally, two cultural resource study reports are on file which covers a portion of the broader search area. There is low potential for locating prehistoric-period cultural resources in the immediate vicinity. There is low potential for locating historic-period cultural resources in the immediate vicinity. The project site is not known to contain neither Tribal Cultural Resources (TCRs) nor historic-period resources.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
X	Biological Resources		Cultural Resources		Geology / Soils
	Greenhouse Gas Emissions		Hazards & Hazardous Materials		Hydrology / Water Quality
	Land Use / Planning		Mineral Resources		Noise
	Population / Housing		Public Services		Recreation
	Transportation/Traffic		Tribal Cultural Resources		Utilities / Service Systems

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by Mitigation Measures based on the earlier analysis as described in attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standards; and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or Mitigation Measures that are imposed upon the proposed project, nothing further is required.

Printed Name Matthew Aselage, Assistant Planner For: El Dorado County

Signature: Matt Aselage Date: 10/18/2021

Printed Name Rommel Pabalinas, Current Planning Manager For: El Dorado County

Signature: Date: 10/18/21

PROJECT DESCRIPTION

Introduction

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts resulting from the proposed project. The proposed project would allow for the subdivision of an undeveloped approximately 55-acre parcel into four parcels as follows: 10.06-acres (Parcel One), 10.55-acres (Parcel Two), 14.02-acres (Parcel Three), 20.29-acres (Parcel Four)

Throughout this Initial Study, please reference the following Attachments:

Attachment A: Tentative Parcel Map
Attachment B: Biological Resources Report
Attachment C: Wetland Delineation Report

Project Description:

A request for a Tentative Parcel Map to subdivide an approximately 55-acre parcel into four parcels as follows: 10.06-acres (Parcel One), 10.55-acres (Parcel Two), 14.02-acres (Parcel Three), 20.29-acres (Parcel Four) (Attachment A). The property is currently undeveloped. Access to each of the proposed parcels will be from future driveway encroachments onto Thompson Hill Road (a county-maintained roadway). Electricity/utilities services are provided by Pacific Gas & Electric (PG&E). The project proposes well water and septic systems on each proposed parcel for water and sanitation service. However, EID water may be pursued in the future- this will require consultation with EID to determine up-to-date requirements for infrastructure developments at that time. Additionally, future EID developments may require a new CEQA analysis. No new on-site improvements or residential developments are proposed at this time. Any future development would be reviewed at time of building permit issuance. No trees are proposed for removal at this time. The vegetation communities on the project site are classified as Interior Live Oak Woodland, Foothill Pine Woodland, Mixed Serpentine Chaparral, Interior Live Oak Woodland, Blue Oak Woodland, and California Annual Grassland.

Site Description:

The project site is an approximately 55-acre developed parcel located in the western slope of the Sierra Nevada Mountains at an elevation of approximately 1,330-feet to 1,560-feet above mean sea level. The topography consists of three northerly-sloping ridges separated by two unnamed intermittent creeks. The slope gradients on the ridges are as follows: westernmost ridge, 15-percent; central ridge, 14-percent; and easternmost ridge, 11-percent. Soils on the project site include Auburn very rocky silt loam (AxE), Serpentine rock land (SaF), Auburn very rocky silt loam, Boomer very rocky loam (BkD and BkE). Auburn soils comprise approximately 30-percent of the parcel; Boomer soils, 40-percent; and serpentine soils, 30-percent. The vegetation community on the project site includes Interior Live Oak Woodland, Foothill Pine Woodland, Mixed Serpentine Chaparral, Interior Live Oak Woodland, Blue Oak Woodland, and California Annual Grassland. Interior live oak woodland covers approximately nine-acres in two areas of the property: five-acres at the western corner of the project site, and four-acres in the center of the parcel. Foothill Pine Woodland covers approximately four and one-half-acres of the project site. Mixed serpentine chaparral vegetation, covering approximately nine-acres, is the dominant vegetation community on the Serpentine soils between the two intermittent creeks in the project site. Blue oak woodland covers about thirty-two-acres on the ridge in the eastern portion of the property. California annual grassland covers about seven-acres, found in two locations: about one-half-acre west of the intermittent creek on Parcel One and about 6.5-acres on Parcels Two and Three. Blue oak woodland covers about 25-acres of the project site, and interior live oak woodland covers about nine-acres. The project site has two intermittent creeks, designated Channels One and Two, that flow from south to north across the property, and one ephemeral drainage, Channel Three, that carries water northwesterly from the ridge in the eastern portion of the site. Channel One, located on Parcel One, has its origins south of the project site and carries water northerly through small wetlands near Thompson Hill Road. Water collects at a culvert beneath a dirt road, then leaves the property within a second culvert beneath Thompson Hill Road. Channel Two carries water from a swale on proposed Parcel Three to a seasonal pond near Thompson Hill Road on Parcel Two, then continues to the property boundary, where it enters a culvert beneath the road. The ephemeral drainage carries storm water

northwesterly on proposed Parcel Four to a broad flood plain south of Thompson Hill Road, then collects at a culvert that transports it off the property and beneath the road. Wetlands are found within and adjacent to Channel One and surrounding the pond on Channel Two. The seasonal pond held water until late May in 2017- which was an exceptionally wet winter- but was dry on the same date in 2020. Likewise, water was flowing into the wetlands on Channel One in early June of 2017, but the channel was dry by mid-May in 2020. A Biological Resources Report was completed in August of 2017 and updated in December of 2020 by Ruth A Wilson of Site Consulting, Inc. Biological Services (Attachment B). No oak trees are proposed for removal. No species listed by either the state or federal Endangered Species Acts were found on the project site. Potential habitat was found for one state and federal-listed species: Layne's butterweed. Additionally, two species of special concern were found: Oak titmouse and Wrentit. Further, potential habitat was found for fifty-one other species of concern including two insects, one reptile, sixteen birds, six mammals, and thirty-two plants. However, none of these fifty-one species were observed on site. Each proposed parcel would be allowed to develop up to one primary residence, one secondary residence, accessory residential structures, and/or agricultural structure(s). Each proposed parcel is current undeveloped. Further, no residential development is proposed at this time. The property is located in the Important Biological Corridor; however, there were no recorded occurrences of special-status plants or wildlife species within the project area. The adjacent-neighboring parcels to the east are zoned as Agriculture – 40-acres (AG-40); to the south and north are zoned as Rural Lands – 10-acres (RL-10); and to the west are Residential Estate – Five-Acres (RE-5) and RL-10 properties. These surrounding properties are primarily developed for residential uses, but also include undeveloped parcels and agricultural uses. The Biological Resources Report determined that enhanced 60-foot setbacks from waters and wetlands, pre-construction bird surveys, and pre-construction plant surveys would be the only required mitigations to finalize this Parcel Map.

Project Location and Surrounding Land Uses

The project site is located on the south side of Thompson Hill Road, approximately 200-feet west of the intersection with Lotus Road in the Gold Hill area. The adjacent-neighboring parcels to the east are zoned as Agriculture – 40-acres (AG-40); to the south and north are zoned as Rural Lands – 10-acres (RL-10); and to the west are Residential Estate – Five-Acres (RE-5) and RL-10 properties. These surrounding properties are primarily developed for residential uses, but also include undeveloped parcels and agricultural uses.

Project Characteristics

1. Transportation/Circulation/Parking

The project was reviewed by the El Dorado County Transportation Division and it was verified that all resultant parcels will have frontage on Thompson Hill Road. There are currently no driveways on site.. As such, no additional comments or conditions have been submitted by the Transportation Division. El Dorado County Fire Protection District reviewed the project and provided no additional comments.

2. Utilities and Infrastructure

The El Dorado County Environmental Management Department (EMD) reviewed the project. The site has adequate well water access. Each parcel is proposed to develop private septic systems. Prior to issuance of building permits, septic percolation tests will be required for each parcel. Upon EMD approval of septic percolation tests, building permits may be issued. For electricity the parcels would have to connect to service provided by Pacific Gas & Electric (PG&E).

3. Construction Considerations

No construction is proposed as a part of the project. The proposed parcels would maintain the current Rural Residential Ten-Acre (RR-10) zoning designation, which allows for single-family residential development. Any future construction activities, such as single-family dwelling units and accessory structures, would be completed in conformance with applicable agency requirements, and subject to a building permit from the El Dorado County Building Services.

Project Schedule and Approvals

This Initial Study is being circulated for public and agency review for a minimum 20-day period. Written comments on the Initial Study should be submitted to the project planner indicated in the Summary section, above. Following the close of the written comment period, the Initial Study will be considered by the Lead Agency in a public meeting and will be certified if it is determined to be in compliance with California Environmental Quality Act (CEQA). The Lead Agency will also determine whether to approve the project.

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. If the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is a fair argument that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of Mitigation Measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the Mitigation Measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significant.

ENVIRONMENTAL IMPACTS

I. **AESTHETICS.** *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?				**X**
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c. Substantially degrade the existing visual character quality of the site and its surroundings?			**X**	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal regulations are applicable to aesthetics in relation to the proposed project.

State Laws, Regulations, and Policies

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, to preserve and enhance the natural beauty of California (Caltrans, 2015). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways.

There are no officially designated state scenic corridors in the vicinity of the project site.

Local Laws, Regulations, and Policies

The County has several standards and ordinances that address issues relating to visual resources. Many of these can be found in the County Zoning Ordinance (Title 130 of the County Code). The Zoning Ordinance consists of descriptions of the zoning districts, including identification of uses allowed by right or requiring a special-use permit and specific development standards that apply in particular districts based on parcel size and land use density. These development standards often involve limits on the allowable size of structures, required setbacks, and design guidelines. Included are requirements for setbacks and allowable exceptions, the location of public utility distribution and transmission lines, architectural supervision of structures facing a state highway, height limitations on structures and fences, outdoor lighting, and wireless communication facilities.

Visual resources are classified as 1) scenic resources or 2) scenic views. Scenic resources include specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually middle ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor.

A list of the county's scenic views and resources is presented in Table 5.3-1 of the El Dorado County General Plan EIR (p. 5.3-3). This list includes areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, forests, or historic structures or districts that are reminiscent of El Dorado County's heritage.

Several highways in El Dorado County have been designated by the California Department of Transportation (Caltrans) as scenic highways or are eligible for such designation. These include U.S. 50 from the eastern limits of the Government Center interchange (Placerville Drive/Forni Road) in Placerville to South Lake Tahoe, all of SR 89 within the county, and those portions of SR 88 along the southern border of the county.

Rivers in El Dorado County include the American, Cosumnes, Rubicon, and Upper Truckee rivers. A large portion of El Dorado County is under the jurisdiction of the USFS, which under the Wild and Scenic Rivers Act may designate rivers or river sections to be Wild and Scenic Rivers. To date, no river sections in El Dorado County have been nominated for or granted Wild and Scenic River status.

Discussion: A substantial adverse effect to Visual Resources would result in the introduction of physical features that are not characteristic of the surrounding development, substantially change the natural landscape, or obstruct an identified public scenic vista.

a. **Scenic Vista or Resource:** The project site is located in a rural area surrounded by large lot single-family residences and other large undeveloped rural lots. No scenic vistas, as designated by the county General Plan, are located in the vicinity of the site (El Dorado County, 2003, p. 5.3-3 through 5.3-5). The project site is not adjacent to or visible from a State Scenic Highway. Each parcel would be allowed to develop up to one primary residence, one secondary residence, accessory residential structures and/or agricultural structure(s). These potential developments are allowed on all lots zoned for single-family residential/agricultural uses. Any new structures would require permits for construction and would comply with the General Plan and Zoning code. There would be no impact.

b. **Scenic Resources:** The project site is not visible from an officially designated State Scenic Highway or county-designated scenic highway, or any roadway that is part of a corridor protection program (Caltrans, 2013). There are no views of the site from public parks or scenic vistas. Though there are trees on site and within the project vicinity, there are no trees or historic buildings that have been identified by the County as contributing to exceptional aesthetic value at the project site, and no trees are proposed for removal. There would be no impact.

c. **Visual Character:** Each proposed lot would have the capability for single-family residential development, such as a primary dwelling, secondary dwelling, accessory residential structures, and/or agricultural structure(s). The site is surrounded by other single-family homes on large rural lots and other large undeveloped rural lots. The proposed project would not affect the visual character of the surrounding area. Impacts would be less than significant.

d. **Light and Glare:** The proposed project does not include any substantial new light sources, however, the project would allow for new dwelling units, such as a primary or secondary dwelling, to be developed in the future, which could produce minimal new light and glare. The property is currently undeveloped. However, future development would be required to comply with the County lighting ordinance requirements, including the shielding of lights to avoid potential glare, during the building permit process, and therefore any impacts would be less than significant.

FINDING: With adherence to El Dorado County Code of Ordinances (County Code), for this Aesthetics category, impacts would be anticipated to be less than significant.

II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by California Department of forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Locally Important Farmland (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?			**X**	
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d. Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal regulations are applicable to agricultural and forestry resources in relation to the proposed project.

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP), administered by the California Department of Conservation (CDC), produces maps and statistical data for use in analyzing impacts on California's agricultural resources (CDC 2008). FMMP rates and classifies agricultural land according to soil quality, irrigation status, and other criteria. Important Farmland categories are as follows (CDC 2013a):

Prime Farmland: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agricultural production at some time during the four-years before the FMMP's mapping date.

Farmland of Statewide Importance: Farmland similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Farmland of Statewide Importance must have been used for irrigated agricultural production at some time during the four-years before the FMMP's mapping date.

Unique Farmland: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. These lands are usually irrigated but might include non-irrigated orchards or vineyards, as found in some climatic zones. Unique Farmland must have been cropped at some time during the four-years before the FMMP's mapping date.

Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) allows local governments to enter into contracts with private landowners for the purpose of preventing conversion of agricultural land to non-agricultural uses (CDC 2013b). In exchange for restricting their property to agricultural or related open space use, landowners who enroll in Williamson Act contracts receive property tax assessments that are substantially lower than the market rate.

Z'berg-Nejedly Forest Practice Act

Logging on private and corporate land in California is regulated by the 1973 Z'berg-Nejedly Forest Practice Act. This Act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. The California Department of Forestry (CALFIRE) works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs.

Discussion: A substantial adverse effect to Agricultural Resources would occur if:

- There is a conversion of choice agricultural land to nonagricultural use, or impairment of the agricultural productivity of agricultural land;
- The amount of agricultural land in the County is substantially reduced; or
- Agricultural uses are subjected to impacts from adjacent incompatible land uses.

a. **Farmland Mapping and Monitoring Program:** The site is zoned as Rural Lands – 10-acres, which allows for agricultural uses. However, the project site is located adjacent, but not within an Agricultural District. The site is not designated as farm land of local importance. There would be no impact.

b. **Agricultural Uses:** The Agriculture Department reviewed this proposal and found that the property is not located within a Williamson Act Contract; however proposed parcels three and four are adjacent to Ag Preserves #331 and #329 to the east. Both Agricultural Preserve parcels are zoned Agricultural – 40-acres (AG-40) and in the Gold Hill Agricultural District. Both parcels three and four are proposed to be larger than 10-acres and therefore meet the requirements of General Plan Policy 8.1.3.1 which requires agriculturally zoned lands including Williamson Act Contract properties to be buffered from increase in density on adjacent lands by requiring a minimum of 10-acres for any parcel created adjacent to such lands. Any non-agricultural uses will be subject to the standard 200-foot agricultural setback standard. Given the lot size proposals, the project will result in less than significant impacts.

c-d. **Loss of Forest land or Conversion of Forest land:** The site is not designated as Timberland Preserve Zone (TPZ) or other forestland according to the General Plan and Zoning Ordinance. No trees are proposed for removal as part of the project. There would be no impact.

e. **Conversion of Prime Farmland or Forest Land:** The project is not within an agricultural district or located on forest land and would not convert farmland or forest land to non-agriculture use. There would be no impact.

FINDING: For this Agriculture category, the thresholds of significance have not been exceeded and no impacts would be anticipated as a result of the project.

III. AIR QUALITY. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			**X**	
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			**X**	
d. Expose sensitive receptors to substantial pollutant concentrations?			**X**	
e. Create objectionable odors affecting a substantial number of people?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of ten-micrometers or less (PM10), particulate matter of aerodynamic radius of 2.5-micrometers or less (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO2), ground-level ozone, and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health.

State Laws, Regulations, and Policies

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the U.S. National Ambient Air Quality Standards (NAAQS) and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The proposed project is located within the Mountain Counties Air Basin, which is comprised of seven air districts: the Northern Sierra Air Quality Management District (AQMD), Placer County Air Pollution Control District (APCD), Amador County

APCD, Calaveras County APCD, the Tuolumne County APCD, the Mariposa County APCD, and a portion of the El Dorado County AQMD, which consists of the western portion of El Dorado County. The El Dorado County Air Quality Management District (AQMD) manages air quality for attainment and permitting purposes within the west slope portion of El Dorado County.

USEPA and CARB regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications.

Air quality in the project area is regulated by the El Dorado County Air Quality Management District. California Air Resources Board and local air districts are responsible for overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required to comply with CEQA. The AQMD regulates air quality through the federal and state Clean Air Acts, district rules, and its permit authority. National and state ambient air quality standards (AAQS) have been adopted by the Environmental Protection Agency and State of California, respectively, for each criteria pollutant: ozone, particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide.

The Environmental Protection Agency and State also designate regions as “attainment” (within standards) or “nonattainment” (exceeds standards) based on the ambient air quality. The County is in nonattainment status for both federal and state ozone standards and for the state PM10 standard, and is in attainment or unclassified status for other pollutants (California Air Resources Board 2013). County thresholds are included in the chart below.

Criteria Pollutant	**El Dorado County Threshold**	
Reactive Organic Gasses (ROG)	82-lbs/day	
Nitrogen Oxides (NOx)	82-lbs/day	
Carbon Monoxide (CO)	Eight-hour average: Six parts per million (ppm)	One-hour average: 20-ppm
Particulate Matter (PM10):	Annual geometric mean: 30-µg/m3	24-hour average: 50-µg/m3
Particulate Matter (PM2.5):	Annual arithmetic mean: 15-µg/m3	24-hour average: 65-µg/m3
Ozone	Eight-hour average: 0.12-ppm	One-hour average: .09

The guide includes a Table (Table 5.2) listing project types with potentially significant emissions. ROG and NOx Emissions may be assumed to not be significant if:

- The project encompasses 12-acres or less of ground that is being worked at one time during construction;
- At least one of the recommended mitigation measures related to such pollutants is incorporated into the construction of the project;
- The project proponent commits to pay mitigation fees in accordance with the provisions of an established mitigation fee program in the district (or such program in another air pollution control district that is acceptable to District); or
- Daily average fuel use is less than 337-gallons per day for equipment from 1995 or earlier, or 402-gallons per day for equipment from 1996 or later

If the project meets one of the conditions above, AQMD assumed that exhaust emissions of other air pollutants from the operation of equipment and vehicles are also not significant.

For Fugitive dust (PM10), if dust suppression measures will prevent visible emissions beyond the boundaries of the project, further calculations to determine PM emissions are not necessary. For the other criteria pollutants, including

CO, PM10, SO2, NO2, sulfates, lead, and H2S, a project is considered to have a significant impact on air quality if it will cause or contribute significantly to a violation of the applicable national or state ambient air quality standard(s).

Naturally occurring asbestos (NOA) is also a concern in El Dorado County because it is known to be present in certain soils and can pose a health risk if released into the air. The AQMD has adopted an El Dorado County Naturally Occurring Asbestos Review Area Map that identifies those areas more likely to contain NOA (El Dorado County 2005).

Discussion: The El Dorado County Air Quality Management District (AQMD) has developed a Guide to Air Quality Assessment (2002) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. A substantial adverse effect on air quality would occur if:

- Emissions of ROG and No_x will result in construction or operation emissions greater than 82-lbs/day (Table 3.2);
- Emissions of PM_{10}, CO, SO_2 and No_x, as a result of construction or operation emissions, will result in ambient pollutant concentrations in excess of the applicable National or State Ambient Air Quality Standard (AAQS). Special standards for ozone, CO, and visibility apply in the Lake Tahoe Air Basin portion of the County; or
- Emissions of toxic air contaminants cause cancer risk greater than one in one million (ten in one million if best available control technology for toxics is used) or a non-cancer Hazard Index greater than one. In addition, the project must demonstrate compliance with all applicable District, State and U.S. EPA regulations governing toxic and hazardous emissions.

a. **Air Quality Plan:** El Dorado County has adopted the Rules and Regulations of the El Dorado County Air Quality Management District (2000) establishing rules and standards for the reduction of stationary source air pollutants (ROG/VOC, NOx, and O3). The EDC/State Clean Air Act Plan has set a schedule for implementing and funding transportation contract measures to limit mobile source emissions. The project would not conflict with or obstruct implementation of either plan. Any activities associated with future plans for grading and construction would require a Fugitive Dust Mitigation Plan (FDMP) for grading and construction activities. Such a plan would address grading measures and operation of equipment to minimize and reduce the level of defined particulate matter exposure and/or emissions to a less than significant level. The potential impacts of the project would be less than significant.

b-c. **Air Quality Standards and Cumulative Impacts:** No construction is proposed as part of the project. There is the potential for future development on the lots for construction of additional residential structures as well as accessory structures. Although this would contribute air pollutants due to construction and possible additional vehicle trips to and from the site, these impacts would be minimal. Existing regulations implemented at issuance of building and grading permits would ensure that any construction related PM10 dust emissions would be reduced to acceptable levels. The El Dorado County Air Quality Management District (AQMD) reviewed the project and determined that the project is not expected to cause a significant air quality impact. As such, AQMD waived the requirement of an Air Quality Impact Analysis. With full review for consistency with General Plan Policies, any impacts would be less than significant.

d. **Sensitive Receptors:** The CEQA Guidelines (14 CCR 15000) identify sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others that are especially sensitive to the effects of air pollutants. Hospitals, schools, and convalescent hospitals are examples of sensitive receptors. No sources of substantial pollutant concentrations would be emitted by any future single family residences, during construction or following construction. The impact would be less than significant.

e. **Objectionable Odors:** Table 3-1 of the Guide to Air Quality Assessment (AQMD, 2002) does not list the proposed use of the parcels for residential uses as a use known to create objectionable odors. The request to subdivide a 55-acre parcel into four parcels would not be a source of objectionable odors. There would be no impact.

FINDING: The proposed project would not affect the implementation of regional air quality regulations or management plans. The proposed project would not be anticipated to cause substantial adverse effects to air quality, nor exceed established significance thresholds for air quality impacts.

IV. BIOLOGICAL RESOURCES. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		**X**		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		**X**		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		**X**		
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			**X**	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			**X**	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] Section 1531 *et seq*.; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the "take" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC Section 1532). Section 7 of the ESA (16 USC Section 1531 *et seq*.) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in "take" of endangered or threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) protects migratory birds. Most actions that result in take, or the permanent or temporary possession of, a migratory bird constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. USFWS is responsible for overseeing compliance with the MBTA.

Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), first enacted in 1940, prohibits "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The definition for "Disturb" includes injury to an eagle, a decrease in its productivity, or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present.

Clean Water Act

Clean Water Act (CWA) section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control

plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

State Laws, Regulations, and Policies

California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA). The NPPA (California Fish and Game Code Section 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA (California Fish and Game Code Section 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code Section 3503, 3513, and 3800 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, Section 3511, 4700, 5050, and 5515 identify species that are fully protected from all forms of take. Section 3511 lists fully protected birds, Section 5515 lists fully protected fish, Section 4700 lists fully protected mammals, and Section 5050 lists fully protected amphibians.

Streambed Alteration Agreement

Sections 1601 to 1606 of the California Fish and Game Code require that a Streambed Alteration Application be submitted to CDFW for any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Section 1900–1913) prohibits the taking, possessing, or sale of any plants with a state designation of rare, threatened, or endangered (as defined by CDFW). The California Native Plant Society (CNPS) maintains a list of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (CNPS 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

Forest Practice Act

Logging on private and corporate land in California is regulated by the Z'berg-Nejedly Forest Practices Act (FPA), which took effect January 1, 1974. The act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. CALFIRE works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs. A Timber Harvest Plan (THP) must be prepared by a Registered Professional Forester (RPF) for timber harvest on virtually all non-federal land. The FPA also established the requirement that all non-federal forests cut in the State be regenerated with at least three hundred stems per acre on high site lands, and one hundred fifty trees per acre on low site lands.

Local Laws, Regulations, and Policies

The County General Plan also include policies that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that address potential impacts on special-status plant species or create opportunities for habitat improvement. The El Dorado County General Plan designates the Important Biological Corridor (IBC) (Exhibits 5.12-14, 5.12-5 and 5.12-7, El Dorado County, 2003). Lands located within the overlay district are subject to the following provisions, given that they do not interfere with agricultural practices:

- Increased minimum parcel size;
- Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;
- Lower thresholds for grading permits;
- Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;
- Increased riparian corridor and wetland setbacks;
- Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Wildlife);
- Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;
- Building permits discretionary or some other type of "site review" to ensure that canopy is retained;
- More stringent standards for lot coverage, floor area ratio (FAR), and building height; and
- No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).

Discussion: A substantial adverse effect on Biological Resources would occur if the implementation of the project would:

- Substantially reduce or diminish habitat for native fish, wildlife or plants;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a native plant or animal community;
- Reduce the number or restrict the range of a rare or endangered plant or animal;
- Substantially affect a rare or endangered species of animal or plant or the habitat of the species; or
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.

a. **Special Status Species:** The project site is located within the County of El Dorado Important Biological Corridor and Rare Plant Mitigation Area One, but no other sensitive natural community of the County, state or federal agency, including but not limited to an Ecological Preserve, or U.S. Fish and Wildlife Service (USFWS) Recovery Plan boundaries. A biological resources report was prepared in August of 2017 and updated in December of 2020, by Ruth A. Willson of Site Consulting, Inc. **Fauna (animal life)**: The Biological Resources Report states that no species listed under either the United States or California Environmental Protection Acts were found on the project site. However, potential habitat was found for one state and federal-listed species: Layne's butterwood. Two species of concern were found: Oak titmouse and Wrentit. The Biological Resources Report also details potential habitat for fifty-one other species of concern including two insects, one reptile, sixteen birds, six mammals, and thirty-two plants. Species of special concern are species that are at risk. The proposed project is for a Tentative Parcel Map to subdivide an approximately 55-acre parcel into four parcels as follows: 10.06-acres (Parcel One), 10.55-acres (Parcel Two), 14.02-acres (Parcel Three), and 20.29-acres (Parcel Four). The biological resources report suggests the inclusion of pre-construction surveys for nesting birds on all resultant parcels as well as preconstruction plant surveys on resultant Parcels One and Two. These measures have been incorporated into the project a mitigation measures. **Flora (plant life)**: The vegetation communities on the project site are classified as Interior Live Oak Woodland, Foothill Pine Woodland, Mixed Serpentine Chaparral, Blue Oak Woodland, and California Annual Grassland. Interior Live Oak Woodland covers approximately nine-acres in two areas of the property: five-acres at the western corner of the project site, and four-acres in the center of the parcel. Foothill Pine Woodland covers approximately four and one-half-acres of the project site. Mixed serpentine chaparral vegetation, covering approximately nine-acres, is the dominant vegetation community on the Serpentine soils between the two intermittent creeks in the project site. Blue oak woodland covers about thirty-two-acres on the ridge in the eastern portion of the property. California annual grassland covers about seven-acres, found in two locations: about one-half-acre west of the intermittent creek on proposed Parcel One and about 6.5-acres on Parcels Two and Three. The forest overstory includes a mixture of oaks

and pines. The shrub layer contains no protected species. The ground layer is mostly absent where the forest is dense, but in openings, it consists of various non-protected grasses and forbs. No removal of fauna and/or flora is proposed as a result of the Tentative Parcel Map project. Although future development could occur on each of the proposed parcels, future property owners would be required to comply with all applicable County requirements at time of building permit issuance for a new residential dwelling unit. Planning Services would review future building permits to ensure consistency with this requirement. With adherence to the mitigation measures MM BIO-1through MM BIO-2 as well as standard county development requirements and policies, potential impacts to biological resources from future development would be de minimis.

MM BIO-1 Pre-Construction Breeding Bird Surveys:

To comply with the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, and to avoid and reduce direct and indirect on-site and off-site development impacts on migratory, non-game breeding birds and their nests, young, and eggs to less than significant levels, the following measures would be implemented:

a) If construction is scheduled during the normal nesting season (February 1 – August 31), then pre-construction surveys for nesting birds, including raptors, must be conducted no more than 30-days prior to these construction activities.
b) A 30-foot setback from trees with active nests is recommended for most species. However, if raptor nests are found on or immediately adjacent to the site, then consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures.
c) No mitigation will be required if tree removal and grading activities are not scheduled during the normal nesting season.

Monitoring Requirement: Planning Services shall verify completion of the requirement prior to issuance of grading and building permits in coordination with the applicant.

Monitoring Responsibility: El Dorado County Planning and Building Department, Planning Services.

MM BIO-2 Rare Plant Protection:

Although no state or federal-listed plant species were found on the project site, pre-construction plant surveys on Parcels One and Two are required at the grading permit phase to protect any potential species which may have grown on the serpentine soils present on those two parcels.

Monitoring Requirement: Planning Services shall verify completion of the requirement prior to issuance of grading permits.

Monitoring Responsibility: El Dorado County Planning and Building Department, Planning Services.

b, c. **Riparian Habitat and Wetlands:** Based on review of the Wetland Delineation Report prepared for the project by Site Consulting, Inc. in June of 2020, which was based on field reviews conducted between March 20, 2020 and May 15, 2020, indicates that the project site consists of three northerly-sloping ridges separated by two unnamed intermittent creeks (described as Channel One and Channel Two). In addition, the easternmost ridge is cut by an ephemeral drainage (described as Channel Three). Further, five small wetlands and one small pond were found on the project site. The total area of waters on the project site is approximately 5776-square-feet. The total area of wetlands on the project site is approximately 3295-square-feet. No special-status plants or threatened/endangered wildlife species were identified in the project vicinity during the biological field reviews. With adherence to increased setbacks from riparian features and wetlands as stated in MM BIO-3, potential impacts from residential uses allowed on each parcel will have a de minimis impact.

MM BIO-3 Riparian Habitat and Wetland Protection:

Per the recommendations as listed within Attachment C, a 60-foot setback from the ephemeral channels, intermittent channels, wetland areas, and ponds shall be shown prior to recordation of the final map.

Monitoring Requirement: Planning Services shall verify completion of the requirement prior to recordation of the Final Parcel Map.

Monitoring Responsibility: El Dorado County Planning and Building Department, Planning Services.

d. **Migration Corridors:** Review of the Department of Fish and Wildlife Migratory Deer Herd Maps and General Plan DEIR Exhibit 5.12-7 indicate that the Outside deer herd migration corridor does not extend over the project site. The El Dorado County General Plan does identify the project site as an Important Biological Corridor (IBC). The Biological Resources Report prepared by Ruth Wilson, states that mammals found on the project site during the site surveys includes Coyote, Black-tailed deer, Gray fox, Striped skunk, and Western gray squirrel. Species not observed on site, but with suitable habitat on-site includes California ground squirrel, North American deer mouse, California vole, Broad-footed mole, Raccoon, Ringtail, Virginia opossum, Long-tailed weasel, Dusky-footed woodrat, Big-eared woodrat, Cottontail rabbit, Black bear, and Mountian lion, among others not mentioned. With adherence to Important Biological Corridor mitigation requirements, the project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with any established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. The impacts would be less than significant.

e. **Local Policies:** Local protection of biological resources includes the Important Biological Corridor (IBC) overlay with the goal to preserve and protect sensitive natural resources within the County. Review of the Biological Survey Area (BSA) shows that the property is located within the El Dorado County Important Biological Corridors (IBC) overlay area. Oak woodlands, individual native oak trees, or heritage trees, as defined in Section 130.39.030, have not been nor will be impacted or removed as a result of the proposed project. Any future tree removal as a result of potential future residential development would be required to be in compliance with the Oak Resources Conservation Ordinance of Section 130.39.070.C (Oak Tree and Oak Woodland Removal Permits), which would be reviewed at time of future building permit issuance. Future development would be required to comply with all applicable County ordinances and policies regarding oak woodland conservation and conditioned to require a pre-construction survey to detect and protect if any nests exist on site. Therefore, any potential impacts would be less than significant.

f. **Adopted Plans**: No significant impacts to protected species, habitat, wetlands or oak trees were identified for the proposed project. The project will not conflict with the provisions of an adopted Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The impacts would be less than significant.

Finding: As discussed within the biological resources report drafted by Ruth Wilson of Site Consulting, Inc., potential impacts to biological resources from any future residential development would be de minimis with adherence to standard county development standards and proposed mitigation measures. Future residential development is required to comply with applicable County codes and policies which would be reviewed at time of submittal of the grading and building permits. Therefore, potential impacts to Biological Resources as mitigated would be less than significant.

V. CULTURAL RESOURCES. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			**X**	
b. Cause a substantial adverse change in the significance of archaeological resource pursuant to Section 15064.5?			**X**	
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			**X**	
d. Disturb any human remains, including those interred outside of formal cemeteries?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

The National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The criteria for listing in the NRHP include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of history (events);
B. Are associated with the lives of persons significant in our past (persons);
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (architecture); or
D. Have yielded or may likely yield information important in prehistory or history (information potential).

State Laws, Regulations, and Policies

California Register of Historical Resources

Public Resources Code Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the National Historic Preservation Act. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

1. Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Are associated with the lives of persons important in our past;
3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or

4. Have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

The California Register of Historic Places

The California Register of Historic Places (CRHP) program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act. The criteria for listing in the CRHP include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
B. Are associated with the lives of persons important to local, California or national history.
C. Embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
D. Have yielded, or have the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The State Office of Historic Preservation sponsors the California Historical Resources Information System (CHRIS), a statewide system for managing information on the full range of historical resources identified in California. CHRIS provides an integrated database of site-specific archaeological and historical resources information. The State Office of Historic Preservation also maintains the California Register of Historical Resources (CRHR), which identifies the State's architectural, historical, archeological and cultural resources. The CRHR includes properties listed in or formally determined eligible for the National Register and lists selected California Registered Historical Landmarks.

Public Resources Code (Section 5024.1[B]) states that any agency proposing a project that could potentially impact a resource listed on the CRHR must first notify the State Historic Preservation Officer, and must work with the officer to ensure that the project incorporates "prudent and feasible measures that will eliminate or mitigate the adverse effects."

California Health and Safety Code Section 7050.5 requires that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24-hours, the Native American Heritage Commission.

Section 5097.98 of the California Public Resources Code stipulates that whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The decedents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 24-hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CEQA and CEQA Guidelines

Section 21083.2 of CEQA requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.
- Although not specifically inclusive of paleontological resources, these criteria may also help to define "a unique paleontological resource or site."

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are also provided under CEQA Section 21083.2.

Section 15064.5 of the CEQA Guidelines notes that "a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Substantial adverse changes include physical changes to the historic resource or to its immediate surroundings, such that the significance of the historic resource would be materially impaired. Lead agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historic resource before they approve such projects. Historic resources are those that are:

- listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code Section 5024.1[k]);
- included in a local register of historic resources (Public Resources Code Section 5020.1) or identified as significant in an historic resource survey meeting the requirements of Public Resources Code Section 5024.1(g); or
- determined by a lead agency to be historically significant.

CEQA Guidelines Section 15064.5 also prescribes the processes and procedures found under Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.95 for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project site. This includes consultation with the appropriate Native American tribes.

CEQA Guidelines Section 15126.4 provides further guidance about minimizing effects to historical resources through the application of mitigation measures. Mitigation measures must be legally binding and fully enforceable.

The lead agency having jurisdiction over a project is also responsible to ensure that paleontological resources are protected in compliance with CEQA and other applicable statutes. Paleontological and historical resource management is also addressed in Public Resources Code Section 5097.5, "Archaeological, Paleontological, and Historical Sites." This statute defines as a misdemeanor any unauthorized disturbance or removal of a fossil site or remains on public land and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources. This statute would apply to any construction or other related project impacts that would occur on state-owned or state-managed lands. The County General Plan contains policies describing specific, enforceable measures to protect cultural resources and the treatment of resources when found.

Discussion: In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a historical or cultural resource significant or important. A substantial adverse effect on Cultural Resources would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a prehistoric or historic archaeological site or property that is historically or culturally significant to a community or ethnic or social group; or a paleontological site except as a part of a scientific study;
- Affect a landmark of cultural/historical importance;
- Conflict with established recreational, educational, religious or scientific uses of the area; or
- Conflict with adopted environmental plans and goals of the community where it is located.

a-c. **Historic or Archeological Resources.** Cultural resource analysis includes low potential for discovery and disturbance of paleontological resources. A Records Search was conducted through the North Central Information Center (NCIC) dated January 7, 2020. According to the NCIC, the proposed project site contains no pre-historic period cultural resource sites, features, or artifacts, nor were there any historic buildings, structures, or objects discovered. Therefore, no significant cultural resources were identified and the project will have no effect to historic properties. Impacts would be less than significant.

d. **Human Remains.** A records search was conducted at the North Central Information Center on January 7, 2020. There were no Tribal Cultural Resources (TCRs) identified in the project footprint and the project site is not known to contain any TCRs. In the event of human remains discovery during any future construction if additional structures are built, standard conditions of approval to address accidental discovery of human remains would apply during any grading activities. In accordance with the laws of AB 52, the County notified seven Tribes: Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Shingle Springs Band of Miwok Indians, T'si-Akim Maidu, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of California and Nevada, had requested to be notified of proposed projects for consultation in the project area. Consultation notices were sent on May 2, 2021. Staff had not received a response within a 30-day period from the date of staff's consultation initiation response. As such, AB52 consultation has been closed. Impacts would be less than significant.

FINDING: Standard conditions of approval would apply in the event of discovery of any Tribal Cultural Resources (TCRs) during any future construction, that construction would stop immediately and the Tribes would be notified. Therefore, the proposed project as conditioned would have a less than significant impact on Cultural Resources.

VI. GEOLOGY AND SOILS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				**X**
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				**X**
ii) Strong seismic ground shaking?				**X**
iii) Seismic-related ground failure, including liquefaction?				**X**
iv) Landslides?				**X**

b. Result in substantial soil erosion or the loss of topsoil?			**X**	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				**X**
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?				**X**
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk-reduction program to better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: USGS, National Science Foundation (NSF), Federal Emergency Management Agency (FEMA), and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives (NEHRP 2009) are to:

1. Develop effective measures to reduce earthquake hazards;
2. Promote the adoption of earthquake hazard reduction activities by federal, state, and local governments; national building standards and model building code organizations; engineers; architects; building owners; and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or "lifelines";
3. Improve the basic understanding of earthquakes and their effects on people and infrastructure through interdisciplinary research involving engineering; natural sciences; and social, economic, and decision sciences; and
4. Develop and maintain the USGS seismic monitoring system (Advanced National Seismic System); the NSF-funded project aimed at improving materials, designs, and construction techniques (George E. Brown Jr. Network for Earthquake Engineering Simulation); and the global earthquake monitoring network (Global Seismic Network).

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

State Laws, Regulations, and Policies

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 *et seq*.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist–Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active

faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a project can be permitted, cities and counties are required to have a geologic investigation conducted to demonstrate that the proposed buildings would not be constructed across active faults.

Historical seismic activity and fault and seismic hazards mapping in the project vicinity indicate that the area has relatively low potential for seismic activity (El Dorado County 2003). No active faults have been mapped in the project area, and none of the known faults have been designated as an Alquist-Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist–Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist–Priolo Act. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability.

Mapping and other information generated pursuant to the SHMA is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

Title 24 CCR, also known as the California Building Standards Code (CBC), specifies standards for geologic and seismic hazards other than surface faulting. These codes are administered and updated by the California Building Standards Commission. CBC specifies criteria for open excavation, seismic design, and load-bearing capacity directly related to construction in California.

Discussion: A substantial adverse effect on Geologic Resources would occur if the implementation of the project would:

- Allow substantial development of structures or features in areas susceptible to seismically induced hazards such as groundshaking, liquefaction, seiche, and/or slope failure where the risk to people and property resulting from earthquakes could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards;
- Allow substantial development in areas subject to landslides, slope failure, erosion, subsidence, settlement, and/or expansive soils where the risk to people and property resulting from such geologic hazards could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards; or
- Allow substantial grading and construction activities in areas of known soil instability, steep slopes, or shallow depth to bedrock where such activities could result in accelerated erosion and sedimentation or exposure of people, property, and/or wildlife to hazardous conditions (e.g., blasting) that could not be mitigated through engineering and construction measures in accordance with regulations, codes, and professional standards.

a. **Seismic Hazards:**

i) According to the California Department of Conservation Division of Mines and Geology, there are no Alquist-Priolo fault zones within the west slope of El Dorado County. However, a fault zone has been located in the Tahoe Basin and Echo Lakes area. The West Tahoe Fault runs along the base of the range front at the west side of the Tahoe Basin. The West Tahoe Fault has a mapped length of 45-km. South of Emerald Bay, the West Tahoe Fault extends onshore as two parallel strands. In the lake, the fault has clearly defined scarps that offset submarine fans, lake-bottom sediments, and the McKinney Bay slide deposits (DOC, 2016). There is clear evidence that the discussed onshore portion of the West Tahoe Fault is active with multiple events in the Holocene and poses a surface rupture hazard. However, because of the distance between the project site and these faults, there would be no impact.

ii) The potential for seismic ground shaking in the project area would be considered remote for the reason stated in Section i) above. Any potential impacts due to seismic impacts would be addressed through compliance with the Uniform Building Code (UBC). All structures would be built to meet the construction standards of the UBC for the appropriate seismic zone. There would be no impact.

iii) El Dorado County is considered an area with low potential for seismic activity. There are no landslide, liquefaction, or fault zones (DOC, 2007). There would be no impact.

iv) All grading activities onsite would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. There would be no impact.

b. **Soil Erosion:** The project site includes the following soil types (from southwest to northeast), Auburn very rocky silt loam (AxE), Serpentine rock land (SaF), Auburn very rocky silt loam, Boomer very rocky loam (BkD and BkE). Auburn soils comprise approximately 30-percent of the parcel; Boomer soils, 40-percent; and serpentine soils, 30-percent. Auburn Series soils are well-drained soils underlain by hard metamorphic rocks from 12 to 26-inches deep, and are found on undulating to very steep foothills (two to 70-percent slopes). Soils on Serpentine Rock Land are derived from highly resistant serpentine and other ultrabasic rock formations. Rock outcrops and stones make up between 50 to 90-percent of the surface, and there is thin mantle of soil. The Boomer Series consists of well-drained soils underlain by basic shists at a depth of 24 to 52-inches. Slopes are from three to 70-percent. These soils are prominent in the foothills. There could be the potential for erosion, changes in topography during future construction of any primary or accessory structures however these concerns would be addressed during the grading permit process. Any development activities would need to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance, including the implementation of pre- and post-construction Best Management Practices (BMPs). Implemented BMPs are required to be consistent with the County's California Stormwater Pollution Prevention Plan (SWPPP) issued by the State Water Resources Control Board to eliminate run-off and erosion and sediment controls. Any grading activities exceeding 250-cubic-yards of graded material or grading completed for the purpose of supporting a structure must meet the provisions contained in the County of El Dorado Grading, Erosion, and Sediment Control Ordinance. Any future construction would require similar review for compliance with the County SWPPP. Impacts would be less than significant. Potential degradation of water quality and soil erosion impacts. If construction will disturb one-acre or more of soil, the project proponent must obtain a General Permit for discharges of storm water associated with activity from SWRCB. As part of this permit, a SWPPP must be prepared and implemented. The SWPPP must include erosion control measures and construction waste containment measures to ensure that waters of the State are protected during and after project construction. The impacts would be less than significant.

c. **Geologic Hazards:** Based on the Seismic Hazards Mapping Program administered by the California Geological Survey, no portion of El Dorado County is located in a Seismic Hazard Zone or those areas prone to liquefaction and earthquake-induced landslides (DOC, 2013). Therefore, El Dorado County is not considered to be at risk from liquefaction hazards. Lateral spreading is typically associated with areas experiencing liquefaction. Because liquefaction hazards are not present in El Dorado County, the county is not at risk for lateral spreading. All grading activities would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. There would be no impact.

d. **Expansive Soils:** Expansive soils are those that greatly increase in volume when they absorb water and shrink when they dry out. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. This movement may result in cracking foundations, distortion of structures, and warping of doors and windows. The western portions of the county, including the Auburn soil types, have a low expansiveness rating. Any development of the site would be required to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance and the development plans for any homes or other structures would be required to implement the Seismic construction standards. There would be no impact.

e. **Septic Capability:** The El Dorado County Environmental Management Department (EMD) reviewed the project and determined that each proposed parcel meets the requirements for land divisions of parcels to be served by an onsite wastewater treatment system. As verified by (EMD), each proposed parcel meets the minimum parcel size for septic system eligibility. However, percolation tests for the site were not on file with EMD. Percolation tests for each proposed parcel are required to be submitted to and approved by EMD prior to final map recordation. Impacts would be less than significant.

FINDING: A review of the soils and geologic conditions on the project site determined that the project would not result in a substantial adverse effect. All grading activities would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance which would address potential impacts related to soil erosion, landslides and other geologic impacts. Future development would be required to comply with the UBC which would address potential seismic related impacts. Impacts would be less than significant.

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Background/Science

Cumulative greenhouse gases (GHG) emissions are believed to contribute to an increased greenhouse effect and global climate change, which may result in sea level rise, changes in precipitation, habitat, temperature, wildfires, air pollution levels, and changes in the frequency and intensity of weather-related events. While criteria pollutants and toxic air contaminants are pollutants of regional and local concern (see Section III. Air Quality above); GHG are global pollutants. The primary land-use related GHG are carbon dioxide (CO_2), methane (CH_4) and nitrous oxides (N_2O). The individual pollutant's ability to retain infrared radiation represents its "global warming potential" and is expressed in terms of CO_2 equivalents; therefore CO_2 is the benchmark having a global warming potential of one. Methane has a global warming potential of 21 and thus has a 21 times greater global warming effect per metric ton of CH_4 than CO_2. Nitrous Oxide has a global warming potential of 310. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., $MTCO_2e/yr$). The three other main GHG are Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. While these compounds have significantly higher global warming potentials (ranging in the thousands), all three typically are not a concern in land-use development projects and are usually only used in specific industrial processes.

GHG Sources

The primary man-made source of CO_2 is the burning of fossil fuels; the two largest sources being coal burning to produce electricity and petroleum burning in combustion engines. The primary sources of man-made CH_4 are natural gas systems losses (during production, processing, storage, transmission and distribution), enteric fermentation (digestion from livestock) and landfill off-gassing. The primary source of man-made N_2O is agricultural soil management (fertilizers), with fossil fuel combustion a very distant second. In El Dorado County, the primary source of GHG is fossil fuel combustion mainly in the transportation sector (estimated at 70% of countywide GHG emissions). A distant second are residential sources (approximately 20%), and commercial/industrial sources are third (approximately seven-percent). The remaining sources are waste/landfill (approximately three-percent) and agricultural (less than one-percent).

Regulatory Setting:

Federal Laws, Regulations, and Policies

At the federal level, USEPA has developed regulations to reduce GHG emissions from motor vehicles and has developed permitting requirements for large stationary emitters of GHGs. On April 1, 2010, USEPA and the National Highway Traffic Safety Administration (NHTSA) established a program to reduce GHG emissions and improve fuel economy standards for new model year 2012-2016 cars and light trucks. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses.

Federal Laws, Regulations, and Policies

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the *California Climate Solutions Act of 2006* (Stats. 2006, ch. 488) (Health & Safety Code, Section 38500 et seq.). AB 32 requires a statewide GHG emissions reduction to 1990 levels by the year 2020. AB 32 requires the California Air Resources Board (CARB) to implement and enforce the statewide cap. When AB 32 was signed, California's annual GHG emissions were estimated at 600 million metric tons of CO_2 equivalent ($MMTCO_2e$) while 1990 levels were estimated at 427 $MMTCO_2e$. Setting 427 $MMTCO_2e$ as the emissions target for 2020, current (2006) GHG emissions levels must be reduced by 29%. CARB adopted the AB 32 Scoping Plan in December 2008 establishing various actions the state would implement to achieve this reduction (CARB, 2008). The Scoping Plan recommends a community-wide GHG reduction goal for local governments of 15%.

In June 2008, the California Governor's Office of Planning and Research's (OPR) issued a Technical Advisory (OPR, 2008) providing interim guidance regarding a proposed project's GHG emissions and contribution to global climate change. In the absence of adopted local or statewide thresholds, OPR recommends the following approach for analyzing GHG emissions: Identify and quantify the project's GHG emissions, assess the significance of the impact on climate change; and if the impact is found to be significant, identify alternatives and/or Mitigation Measures that would reduce the impact to less than significant levels (CEC, 2006).

Discussion

CEQA does not provide clear direction on addressing climate change. It requires lead agencies identify project GHG emissions impacts and their "significance," but is not clear what constitutes a "significant" impact. As stated above, GHG impacts are inherently cumulative, and since no single project could cause global climate change, the CEQA test is if impacts are "cumulatively considerable." Not all projects emitting GHG contribute significantly to climate change. CEQA authorizes reliance on previously approved plans (i.e., a Climate Action Plan (CAP), etc.) and mitigation programs adequately analyzing and mitigating GHG emissions to a less than significant level. "Tiering" from such a programmatic-level document is the preferred method to address GHG emissions. El Dorado County does not have an adopted CAP or similar program-level document; therefore, the project's GHG emissions must be addressed at the project-level.

Unlike thresholds of significance established for criteria air pollutants in EDCAQMD's *Guide to Air Quality Assessment* (February 2002) ("CEQA Guide"), the District has not adopted GHG emissions thresholds for land use development projects. In the absence of County adopted thresholds, EDCAQMD recommends using the adopted thresholds of other lead agencies which are based on consistency with the goals of AB 32. Since climate change is a global problem and the location of the individual source of GHG emissions is somewhat irrelevant, it's appropriate to use thresholds established by other jurisdictions as a basis for impact significance determinations. Projects exceeding these thresholds would have a potentially significant impact and be required to mitigate those impacts to a less than significant level. Until the County adopts a CAP consistent with CEQA Guidelines Section 15183.5, and/or establishes GHG thresholds, the County will follow an interim approach to evaluating GHG emissions utilizing significance criteria adopted by the San Luis Obispo Air Pollution Control District (SLOAPCD) to determine the significance of GHG emissions.

SLOAPCD developed a screening table using CalEEMod which allows quick assessment of projects to "screen out" those below the thresholds as their impacts would be less than significant.

These thresholds are summarized below:

Significance Determination Thresholds	
GHG Emission Source Category	**Operational Emissions**
Non-stationary Sources	1,150 $MTCO_2e$/yr OR 4.9 MT CO_2e/SP/yr
Stationary Sources	10,000 $MTCO_2e$/yr

SP = service population, which is resident population plus employee population of the project

Projects below screening levels identified in Table 1-1 of SLOAPCD's CEQA Air Quality Handbook (pp. 1-3, SLOAPCD, 2012) are estimated to emit less than the applicable threshold. For projects below the threshold, no further GHG analysis is required.

a. The proposed project would create four new parcels from an approximately 55-acre parcel. The new parcel sizes would be as follows: 10.06-acres (Parcel One), 10.55-acres (Parcel Two), 14.02-acres (Parcel Three), 20.29-acres (Parcel Four). Each parcel would be allowed to have a primary residence and secondary dwelling by right, for a total of eight residences possible. The site is currently undeveloped. The potential for future construction may involve a small increase in household GHG production. However, any future construction would be required to incorporate modern construction and design features that reduce energy consumption to the extent feasible. Implementation of these features would help reduce potential GHG emissions resulting from the development. The proposed project would have a negligible contribution towards statewide GHG inventories and would have a less than significant impact.

b. Because any future construction-related emissions would be temporary and below the minimum standard for reporting requirements under AB 32, and because any ongoing GHG emissions would be a result of a maximum potential of eight households (four primary residences/four secondary dwellings possible), the proposed project's GHG emissions would have a negligible cumulative contribution towards statewide and global GHG emissions. The proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. According to the SLOAPCD Screening Table, the GHG emissions from this project are estimated at less than 1,150-metric-tons/year. Cumulative GHG emissions impacts are considered to be less than significant. Therefore, the proposed project would have a less than significant impact.

FINDING: For the Greenhouse Gas Emissions category, there would be no significant adverse environmental effect as a result of the project. Impacts would be less than significant.

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				**X**
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				**X**
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			**X**	

Regulatory Setting:

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting

requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety provisions for workers and the public. The major federal, state, and regional agencies enforcing these regulations are USEPA and the Occupational Safety and Health Administration (OSHA); California Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); and EDCAPCD.

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC Section 9601 *et seq.*) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 USC Section 6901 *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Energy Policy Act of 2005

Title XV, Subtitle B of the Energy Policy Act of 2005 (the Underground Storage Tank Compliance Act of 2005) contains amendments to Subtitle I of the Solid Waste Disposal Act, the original legislation that created the Underground Storage Tank (UST) Program. As defined by law, a UST is "any one or combination of tanks, including pipes connected thereto, that is used for the storage of hazardous substances and that is substantially or totally beneath the surface of the ground." In cooperation with USEPA, SWRCB oversees the UST Program. The intent is to protect public health and safety and the environment from releases of petroleum and other hazardous substances from tanks. The four primary program elements include leak prevention (implemented by Certified Unified Program Agencies [CUPAs], described in more detail below), cleanup of leaking tanks, enforcement of UST requirements, and tank integrity testing.

Spill Prevention, Control, and Countermeasure Rule

USEPA's Spill Prevention, Control, and Countermeasure (SPCC) Rule (40 CFR, Part 112) apply to facilities with a single above-ground storage tank (AST) with a storage capacity greater than 660-gallons, or multiple tanks with a combined capacity greater than 1,320-gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans.

Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

Federal Communications Commission Requirements

There is no federally mandated radio frequency (RF) exposure standard; however, pursuant to the Telecommunications Act of 1996 (47 USC Section 224), the Federal Communications Commission (FCC) established guidelines for dealing with RF exposure, as presented below. The exposure limits are specified in 47 CFR Section 1.1310 in terms of frequency, field strength, power density, and averaging time. Facilities and transmitters licensed and authorized by FCC must either comply with these limits or an applicant must file an environmental assessment (EA) with FCC to evaluate whether the proposed facilities could result in a significant environmental effect.

FCC has established two sets of RF radiation exposure limits—Occupational/Controlled and General Population/Uncontrolled. The less-restrictive Occupational/Controlled limit applies only when a person (worker) is exposed as a consequence of his or her employment and is "fully aware of the potential exposure and can exercise control over his or her exposure," otherwise the General Population limit applies (47 CFR Section 1.1310).
The FCC exposure limits generally apply to all FCC-licensed facilities (47 CFR Section 1.1307[b][1]). Unless exemptions apply, as a condition of obtaining a license to transmit, applicants must certify that they comply with FCC environmental rules, including those that are designed to prevent exposing persons to radiation above FCC RF limits (47 CFR Section1.1307[b]). Licensees at co-located sites (e.g., towers supporting multiple antennas, including antennas under separate ownerships) must take the necessary actions to bring the accessible areas that exceed the FCC exposure limits into compliance. This is a shared responsibility of all licensees whose transmission power density levels account for five or more percent of the applicable FCC exposure limits (47CFR 1.1307[b][3]).

Code of Federal Regulations (14 CFR) Part 77

14 CFR Part 77.9 is designed to promote air safety and the efficient use of navigable airspace. Implementation of the code is administered by the Federal Aviation Administration (FAA). If an organization plans to sponsor any construction or alterations that might affect navigable airspace, a Notice of Proposed Construction or Alteration (FAA Form 7460-1) must be filed. The code provides specific guidance regarding FAA notification requirements.

State Laws, Regulations, and Policies

Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the state's drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public of exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In accordance with Proposition 65, the California Governor's Office publishes, at least annually, a list of such chemicals. OEHHA, an agency under the California Environmental Protection Agency (CalEPA), is the lead agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General's Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other

state agencies set the standards for their programs, while local governments (CUPAs) implement the standards. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans;
- California accidental release prevention plans or federal risk management plans;
- The operation of USTs and ASTs;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

Hazardous Materials Business Plans

Hazardous materials business plans are required for businesses that handle hazardous materials in quantities greater than or equal to 55-gallons of a liquid, 500-pounds of a solid, or 200-cubic-feet (cf) of compressed gas, or extremely hazardous substances above the threshold planning quantity (40 CFR, Part 355, Appendix A) (Cal OES, 2015). Business plans are required to include an inventory of the hazardous materials used/stored by the business, a site map, an emergency plan, and a training program for employees (Cal OES, 2015). In addition, business plan information is provided electronically to a statewide information management system, verified by the applicable CUPA, and transmitted to agencies responsible for the protection of public health and safety (i.e., local fire department, hazardous material response team, and local environmental regulatory groups) (Cal OES, 2015).

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans. Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible RF radiation exposure limits for workers (Title 8 CCR Section 5085[b]), and requires warning signs where RF radiation might exceed the specified limits (Title 8 CCR Section 5085 [c]).

California Accidental Release Prevention

The purpose of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. In accordance with this program, businesses that handle more than a threshold quantity of regulated substance are required to develop a risk management plan (RMP). This RMP must provide a detailed analysis of potential risk factors and associated mitigation measures that can be implemented to reduce accident potential. CUPAs implement the CalARP program through review of RMPs, facility inspections, and public access to information that is not confidential or a trade secret.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the CALFIRE administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).

- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25-feet of any flammable materials (Public Resources Code Section 4431).

California Highway Patrol

CHP, along with Caltrans, enforce and monitor hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

Local Laws, Regulations, and Policies

A map of the fuel loading in the County (General Plan Figure HS-1) shows the fire hazard severity classifications of the SRAs in El Dorado County, as established by CDF. The classification system provides three classes of fire hazards: Moderate, High, and Very High. Fire Hazard Ordinance (Chapter 8.08) requires defensible space as described by the State Public Resources Code, including the incorporation and maintenance of a 30-foot fire break or vegetation fuel clearance around structures in fire hazard zones. The County's requirements on emergency access, signing and numbering, and emergency water are more stringent than those required by state law (Patton 2002). The Fire Hazard Ordinance also establishes limits on campfires, fireworks, smoking, and incinerators for all discretionary and ministerial developments.

Discussion: A substantial adverse effect due to Hazards or Hazardous Materials would occur if implementation of the project would:

- Expose people and property to hazards associated with the use, storage, transport, and disposal of hazardous materials where the risk of such exposure could not be reduced through implementation of Federal, State, and local laws and regulations;
- Expose people and property to risks associated with wildland fires where such risks could not be reduced through implementation of proper fuel management techniques, buffers and landscape setbacks, structural design features, and emergency access; or
- Expose people to safety hazards as a result of former on-site mining operations.

a-c. **Hazardous Materials:** The Tentative Parcel Map project would not involve the routine transportation, use, or disposal of hazardous materials such as construction materials, paints, fuels, landscaping materials, and household cleaning supplies. The project site is located within a quarter mile of Sutter's Mill School. Any future construction may involve some hazardous materials temporarily but this is considered to be small scale. Impacts would be less than significant.

d. **Hazardous Sites:** The project site is not included on a list of or near any hazardous materials sites pursuant to Government Code section 65962.5 (DTSC, 2015). There would be no impact.

e-f. **Aircraft Hazards, Private Airstrips:** As shown on the El Dorado County Zoning Map, the project is not located within an Airport Safety District combining zone or near a public airport or private airstrip. There would be no impact.

g. **Emergency Plan:** The project was reviewed by the County Transportation Department for traffic and circulation. The Traffic Impact Study (TIS) - Initial Determination were both waived and no further transportation studies are required. All proposed lots have frontage on Thompson Hill Road, and no access road is proposed. The proposed project would not impair implementation of any emergency response plan or emergency evacuation plan. Impacts would be less than significant.

h. **Wildfire Hazards:** The project site is in an area of high fire hazard for wildland fire pursuant to Figure 5.8-4 of the 2004 General Plan Draft Environmental Impact Report (EIR). The project site is not currently within a Fire Protection District for structural fire protection and emergency medical services. The El Dorado Local Agency Formation Commission (LAFCO) has recommended that the project site be annexed into the El Dorado County Fire Protection District as a condition of final project approval. Additionally, a wildfire safe plan and any additional documentation – as required by EDCFPD – must be approved prior recordation of the parcel map. With implementation of standard county fire safe requirements and any additional requirements per EDCFPD's review, impacts would be less than significant.

FINDING: For the Hazards and Hazardous Materials category, with the incorporation of standard county requirements, any potential impacts would be less than significant.

IX. HYDROLOGY AND WATER QUALITY. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			**X**	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			**X**	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or -off-site?			**X**	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			**X**	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			**X**	
f. Otherwise substantially degrade water quality?			**X**	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			**X**	

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			**X**	
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			**X**	
j. Inundation by seiche, tsunami, or mudflow?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The key sections pertaining to water quality regulation for the Proposed Project are CWA Section 303 and Section 402.

Section 303(d) — Listing of Impaired Water Bodies

Under CWA Section 303(d), states are required to identify "impaired water bodies" (those not meeting established water quality standards), identify the pollutants causing the impairment, establish priority rankings for waters on the list, and develop a schedule for the development of control plans to improve water quality. USEPA then approves the State's recommended list of impaired waters or adds and/or removes waterbodies.

Section 402—NPDES Permits for Stormwater Discharge

CWA Section 402 regulates construction-related stormwater discharges to surface waters through the NPDES, which is officially administered by USEPA. In California, USEPA has delegated its authority to the State Water Resources Control Board (SWRCB), which, in turn, delegates implementation responsibility to the nine RWQCBs, as discussed below in reference to the Porter-Cologne Water Quality Control Act.

The NPDES program provides for both general (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits. General Permit for Construction Activities: Most construction projects that disturb one or more acre of land are required to obtain coverage under SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). The general permit requires that the applicant file a public notice of intent to discharge stormwater and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). SWPPP must include a site map and a description of the proposed construction activities, demonstrate compliance with relevant local ordinances and regulations, and present a list of Best Management Practices (BMPs) that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Permittees are further required to monitor construction activities and report compliance to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

Municipal Stormwater Permitting Program

SWRCB regulates stormwater discharges from municipal separate storm sewer systems (MS4s) through its Municipal Storm Water Permitting Program (SWRCB, 2013). Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for medium (population between 100,000 and 250,000 people) and large (population of 250,000 or more people) municipalities, and are often issued to a group of co-permittees within a metropolitan area. Phase I permits have been issued since 1990. Beginning in 2003, SWRCB began issuing Phase II MS4 permits for smaller municipalities (population less than 100,000).

El Dorado County is covered under two SWRCB Regional Boards. The West Slope Phase II Municipal Separate Storm Sewer Systems (MS4) NPDES Permit is administered by the Central Valley Regional Water Quality Control Board (RWQCB) (Region Five). The Lake Tahoe Phase I MS4 NPDES Permit is administered by the Lahontan RWQCB (Region Six). The current West Slope MS4 NPDES Permit was adopted by the SWRCB on February 5, 2013. The Permit became effective on July 1, 2013 for a term of five years and focuses on the enhancement of surface water quality within high priority urbanized areas. The current Lake Tahoe MS4 NPDES Permit was adopted and took effect on December 6, 2011 for a term of five years. The Permit incorporated the Lake Tahoe Total Maximum Daily Load (TMDL) and the Lake Clarity Crediting Program (LCCP) to account for the reduction of fine sediment particles and nutrients discharged to Lake Tahoe.

On May 19, 2015 the El Dorado County Board of Supervisors formally adopted revisions to the Storm Water Quality Ordinance (Ordinance 4992). Previously applicable only to the Lake Tahoe Basin, the ordinance establishes legal authority for the entire unincorporated portion of the County. The purpose of the ordinance is to 1) protect health, safety, and general welfare, 2) enhance and protect the quality of Waters of the State by reducing pollutants in storm water discharges to the maximum extent practicable and controlling non-storm water discharges to the storm drain system, and 3) cause the use of Best Management Practices to reduce the adverse effects of polluted runoff discharges on Waters of the State.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities complying with FEMA regulations that limit development in floodplains. The NFIP regulations permit development within special flood hazard zones provided that residential structures are raised above the base flood elevation of a 100-year flood event. Non-residential structures are required either to provide flood proofing construction techniques for that portion of structures below the 100-year flood elevation or to elevate above the 100-year flood elevation. The regulations also apply to substantial improvements of existing structures.

State Laws, Regulations, and Policies

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with the CWA (see discussion of the CWA above). It established the SWRCB and divided the state into nine regions, each overseen by an RWQCB. SWRCB is the primary State agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Sections 401, 402, and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter–Cologne Act, basin plans must be updated every three-years.

Discussion: A substantial adverse effect on Hydrology and Water Quality would occur if the implementation of the project would:

- Expose residents to flood hazards by being located within the 100-year floodplain as defined by the Federal Emergency Management Agency;

- Cause substantial change in the rate and amount of surface runoff leaving the project site ultimately causing a substantial change in the amount of water in a stream, river or other waterway;
- Substantially interfere with groundwater recharge;
- Cause degradation of water quality (temperature, dissolved oxygen, turbidity and/or other typical stormwater pollutants) in the project area; or
- Cause degradation of groundwater quality in the vicinity of the project site.

a. **Water Quality Standards:** No waste discharge will occur as part of the Tentative Parcel Map project. Erosion control would be required as part of any future building or grading permit. Stormwater runoff from potential development would contain water quality protection features in accordance with a potential National Pollutant Discharge Elimination System (NPDES) stormwater permit, as deemed applicable. The project would not be anticipated to violate water quality standards. Impacts would be less than significant.

b. **Groundwater Supplies:** The geology of the Western Slope portion of El Dorado County is principally hard, crystalline, igneous, or metamorphic rock overlain with a thin mantle of sediment or soil. Groundwater in this region is found in fractures, joints, cracks, and fault zones within the bedrock mass. These discrete fracture areas are typically vertical in orientation rather than horizontal as in sedimentary or alluvial aquifers. Recharge is predominantly through rainfall infiltrating into the fractures. Movement of this groundwater is very limited due to the lack of porosity in the bedrock. Wells are typically drilled to depths ranging from 80 to 300-feet in depth. There is no evidence that the project will substantially reduce or alter the quantity of groundwater in the vicinity, or materially interfere with groundwater recharge in the area of the proposed project. For the final map, the applicant would need to prove that all parcels have a safe and reliable water source that meets the minimum criteria of EDC policy 800-02. The project is not anticipated to affect potential groundwater supplies above pre-project levels. Impacts would be less than significant.

c-f. **Drainage Patterns:** A grading permit would be required to address grading, erosion and sediment control for any future construction. Construction activities would be required to adhere to the El Dorado County Grading, Erosion Control and Sediment Ordinance. This includes the use of Best Management Practices (BMPs) to minimize degradation of water quality during construction. With the application of these standard requirements, impacts would be less than significant.

g-j. **Flood-related Hazards:** The project site is not located within any mapped 100-year flood areas and would not result in the construction of any structures that would impede or redirect flood flows (FEMA, 2008). The risk of exposure to seiche, tsunami, or mudflows would be remote. Impacts would be less than significant.

FINDING: The project would be required to address any potential changes to the drainage pattern on site during the building permit review process for future construction of single-family residences, secondary dwellings, or accessory structures. No significant hydrological impacts are expected as a result of such development, and impacts would be less than significant.

X. LAND USE PLANNING. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Regulatory Setting:

California State law requires that each City and County adopt a general plan "for the physical development of the City and any land outside its boundaries which bears relation to its planning." Typically, a general plan is designed to address the issues facing the City or County for the next 15-20 years. The general plan expresses the community's development goals and incorporates public policies relative to the distribution of future public and private land uses. The El Dorado County General Plan was adopted in 2004. The 2013-2021 Housing Element was adopted in 2013.

Discussion: A substantial adverse effect on Land Use would occur if the implementation of the project would:

- Result in the conversion of Prime Farmland as defined by the State Department of Conservation;
- Result in conversion of land that either contains choice soils or which the County Agricultural Commission has identified as suitable for sustained grazing, provided that such lands were not assigned urban or other nonagricultural use in the Land Use Map;
- Result in conversion of undeveloped open space to more intensive land uses;
- Result in a use substantially incompatible with the existing surrounding land uses; or
- Conflict with adopted environmental plans, policies, and goals of the community.

a. **Established Community:** The project is located near, but not within, the Gold Hill area. The project is surrounded by similar large lots currently which are either developed for single family residential uses or undeveloped. The Tentative Parcel Map project would not conflict with the existing land use pattern in the area or physically divide an established community. Therefore, there will be no impacts.

b. **Land Use Consistency:** The parcel has a General Plan Land Use Designation of Rural Residential (RR) and a zoning designation of Rural Lands – Ten-Acres (RL-10). The RR land use designation establishes areas for single-family residential development in a rural setting. The maximum allowable density shall be one dwelling unit per ten-acres. Parcel size will be as follows: 10.06-acres (Parcel One), 10.55-acres (Parcel Two), 14.02-acres (Parcel Three), 20.29-acres (Parcel Four). The proposed project is compatible with the General Plan land use designation and the zone district. There would be no impacts.

c. **Habitat Conservation Plan:** The project site is not within the boundaries of an adopted Natural Community Conservation Plan or any other conservation plan. As such, the proposed project would not conflict with an adopted conservation plan. Therefore, there will be no impacts.

FINDING: The proposed use of the land would be consistent with the Zoning Ordinance and General Plan. There would be no impact to land use goals or standards resulting from the project. Impacts would be less than significant.

XI. MINERAL RESOURCES. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to mineral resources and the Proposed Project.

State Laws, Regulations, and Policies

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board identify, map, and classify aggregate resources throughout California that contain regionally significant mineral resources. Designations of land areas are assigned by CDC and California Geological Survey following analysis of geologic reports and maps, field investigations, and using information about the locations of active sand and gravel mining operations. Local jurisdictions are required to enact planning procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans.

The California Mineral Land Classification System represents the relationship between knowledge of mineral deposits and their economic characteristics (grade and size). The nomenclature used with the California Mineral Land Classification System is important in communicating mineral potential information in activities such as mineral land classification, and usage of these terms are incorporated into the criteria developed for assigning mineral resource zones. Lands classified MRZ-2 are areas that contain identified mineral resources. Areas classified as MRZ-2a or MRZ-2b (referred to hereafter as MRZ-2) are considered important mineral resource areas.

Local Laws, Regulations, and Policies

El Dorado County in general is considered a mining region capable of producing a wide variety of mineral resources. Metallic mineral deposits, including gold, are considered the most significant extractive mineral resources. Exhibit 5.9-6 shows the MRZ-2 areas within the county based on designated Mineral Resource (-MR) overlay areas. The -MR overlay areas are based on mineral resource mapping published in the mineral land classification reports referenced above. The majority of the county's important mineral resource deposits are concentrated in the western third of the county.

According to General Plan Policy 2.2.2.7, before authorizing any land uses within the -MR overlay zone that will threaten the potential to extract minerals in the affected area, the County shall prepare a statement specifying its reasons for considering approval of the proposed land use and shall provide for public and agency notice of such a statement consistent with the requirements of Public Resources Code section 2762. Furthermore, before finally

approving any such proposed land use, the County shall balance the mineral values of the threatened mineral resource area against the economic, social, or other values associated with the proposed alternative land uses. Where the affected minerals are of regional significance, the County shall consider the importance of these minerals to their market region as a whole and not just their importance to the County.

Where the affected minerals are of Statewide significance, the County shall consider the importance of these minerals to the State and Nation as a whole. The County may approve the alternative land use if it determines that the benefits of such uses outweigh the potential or certain loss of the affected mineral resources in the affected regional, Statewide, or national market.

Discussion: A substantial adverse effect on Mineral Resources would occur if the implementation of the project would:

- Result in obstruction of access to, and extraction of mineral resources classified MRZ-2x, or result in land use compatibility conflicts with mineral extraction operations.

a-b. **Mineral Resources.** The project site has not been delineated in the El Dorado County General Plan as a locally important mineral resource recovery site (2003, Exhibits 5.9-6 and 5.9-7). Review of the California Department of Conservation Geologic Map data showed that the project site is not within a mineral resource zone district. There would be no impact.

FINDING: No impacts to mineral resources are expected either directly or indirectly. For this mineral resources category, there would be no impacts.

XII. NOISE. *Would the project result in:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			**X**	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise level?				**X**
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				**X**

Regulatory Setting:

No federal or state laws, regulations, or policies for construction-related noise and vibration that apply to the Proposed Project. However, the Federal Transit Administration (FTA) Guidelines for Construction Vibration in Transit Noise and Vibration Impact Assessment state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA Leq and 100 dBA Leq should be used for residential and commercial/industrial areas, respectively (FTA 2006).

For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.12-inches per second (in/sec) PPV for buildings susceptible to vibration damage (FTA 2006).

Discussion: A substantial adverse effect due to Noise would occur if the implementation of the project would:

- Result in short-term construction noise that creates noise exposures to surrounding noise sensitive land uses in excess of 60 dBA CNEL;
- Result in long-term operational noise that creates noise exposures in excess of 60 dBA CNEL at the adjoining property line of a noise sensitive land use and the background noise level is increased by 3 dBA, or more; or
- Results in noise levels inconsistent with the performance standards contained in Table 130.37.060.1 and Table 130.37.060.2 of the El Dorado County Zoning Ordinance.

TABLE 6-2
NOISE LEVEL PERFORMANCE PROTECTION STANDARDS
FOR NOISE SENSITIVE LAND USES
AFFECTED BY NON-TRANSPORTATION* SOURCES

Noise Level Descriptor	Daytime 7 a.m. - 7 p.m.		Evening 7 p.m. - 10 p.m.		Night 10 p.m. - 7 a.m.	
	Community/ Rural Centers	Rural Regions	Community/ Rural Centers	Rural Regions	Community/ Rural Centers	Rural Regions
Hourly L_{eq}, dB	55	50	50	45	45	40
Maximum level, dB	70	60	60	55	55	**50**

a. **Noise Exposures:** The proposed project will not expose people to noise levels in excess of standards established in the General Plan or Zoning Ordinance. Future construction may require the use of trucks and other equipment, which may result in short-term noise impacts to surrounding neighbors. These activities would require grading and building permits and would be restricted to construction hours pursuant to the General Plan. There could be additional noise associated with potential future residential development. However, the project is not expected to generate noise levels exceeding the

performance standards contained within the Zoning Ordinance. The noise associated with the project would be less than significant.

b. **Groundborne Shaking:** The site is currently undeveloped. Any future construction may generate short-term ground borne vibration or shaking events during project construction. Impacts would be considered less than significant.

c. **Permanent Noise Increases:** The project does not propose new development; however each parcel by right would have the potential for future residential development (i.e. primary and secondary dwelling, accessory structures). The long term noise associated with an additional home would not be expected to exceed the noise standards contained in the General Plan. Impacts would be considered less than significant.

d. **Short Term Noise:** The construction noise resulting from any future development may result in short-term noise impacts. These activities would require grading and building permits and would be restricted to construction hours. All construction and grading operations would be required to comply with the noise performance standards contained in the General Plan. Impacts would be less than significant.

e-f. **Aircraft Noise:** The project site is not located within an airport land use plan or within two-miles of a public airport or public use airport. There would be no impact.

FINDING: As conditioned and with adherence to County Code, no significant direct or indirect impacts to noise levels are expected. Impacts would be less than significant.

XIII. POPULATION AND HOUSING. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (i.e., by proposing new homes and businesses) or indirectly (i.e., through extension of roads or other infrastructure)?			**X**	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Regulatory Setting:

No federal or state laws, regulations, or policies apply to population and housing and the proposed project.

Discussion: A substantial adverse effect on Population and Housing would occur if the implementation of the project would:

- Create substantial growth or concentration in population;
- Create a more substantial imbalance in the County's current jobs to housing ratio; or
- Conflict with adopted goals and policies set forth in applicable planning documents.

a. **Population Growth:** The approximately 55-acre parcel is currently undeveloped. The proposed project would result in the creation of four parcels, each of which would be allowed a primary residence and a secondary dwelling by right. This potential additional housing and population would not be considered a significant population growth. Impacts would be less than significant.

b. **Housing Displacement:** The 55-acre parcel is currently undeveloped. The proposed project would result in the creation of four parcels. No existing housing would be displaced by the project. There would be no impact.

c. **Replacement Housing:** The proposed project could provide up to a total of eight residences possible (four primary dwellings/four secondary dwellings). No persons would be displaced by the proposed project necessitating for the construction of housing elsewhere. There would be no impact.

FINDING: The project would not displace housing and there would be no potential for a significant impact due to substantial growth, either directly or indirectly. The impacts would be less than significant.

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Fire protection?			**X**	
b. Police protection?			**X**	
c. Schools?			**X**	
d. Parks?			**X**	
e. Other government services?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

California Fire Code

The California Fire Code (Title 24 CCR, Part 9) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of CCR contains requirements for fire safety during construction and demolition.

Discussion: A substantial adverse effect on Public Services would occur if the implementation of the project would:

- Substantially increase or expand the demand for fire protection and emergency medical services without increasing staffing and equipment to meet the Department's/District's goal of 1.5 firefighters per 1,000 residents and two firefighters per 1,000 residents, respectively;
- Substantially increase or expand the demand for public law enforcement protection without increasing staffing and equipment to maintain the Sheriff's Department goal of one sworn officer per 1,000 residents;

- Substantially increase the public school student population exceeding current school capacity without also including provisions to adequately accommodate the increased demand in services;
- Place a demand for library services in excess of available resources;
- Substantially increase the local population without dedicating a minimum of five-acres of developed parklands for every 1,000 residents; or
- Be inconsistent with County adopted goals, objectives or policies.

a. **Fire Protection:** The El Dorado County Fire Protection District (EDCFPD) provides fire protection to the surrounding vicinity of the site. However, this site is not currently within the EDCFPD's jurisdictional boundaries. The project site is located within a High Fire Hazard zone, which does require a Wildland Fire Safe Plan. Per the recommendation of the El Dorado Local Agency Formation Commission (LAFCO), the project site will be required to be annexed into the EDCFPD prior to issuance of residential final occupancy permits. The annexation of this site into the EDCFPD will result in additional properties under EDCFPD protection. The addition of more properties could result in reduced response time; however this project does not include a large number of parcels. As such, fire service impacts are expected to be de minimis. An approved wildfire safe plan will be required prior to issuance of any future residential final occupancy permits. The project must adhere to applicable requirements for emergency vehicle access including roadway widths and turning radii, fire flow and sprinkler requirements, and vehicle ingress/egress. Compliance with these requirements will assure adequate emergency access and evacuation routes. If any additional dwelling units are proposed in the future, the Fire District would review the building permit application and include any fire protection measures at that time. Impacts would be less than significant with adherence to EDCFPD annexation and wildfire safe plan approval.

b. **Police Protection:** Police services would continue to be provided by the El Dorado County Sheriff's Department (EDSO). Any future residential construction would not significantly increase demand for law enforcement protection. Impacts would be less than significant.

c. **Schools:** As a result of project approval, eight potential new dwelling units constructed in the future could add a small number of additional students. The impact would be less than significant.

d. **Parks.** Any additional residents from future construction would not substantially increase the local population and therefore not substantially increase the use of parks and recreational facilities. The dedication of land, the payment of fees in lieu thereof or a combination of both for park and recreational purposes would be required, pursuant to the provisions of Sections 120.12.090 through120.12.110, as a condition of approval for any parcel map which creates parcels less than 20-acres in size. With the payment of park in-lieu fees, impacts would be less than significant.

e. **Government Services.** There are no government services that would be significantly impacted as a result of the project. Impacts would be less than significant.

FINDING: The project would not result in a significant increase of public services to the project. Increased demand to services would be addressed through the payment of established impact fees. For this Public Services category, impacts would be less than significant.

XV. RECREATION.				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would			**X**	

occur or be accelerated?				
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Regulatory Setting:

National Trails System

The National Trails System Act of 1968 authorized The National Trails System (NTS) in order to provide additional outdoor recreation opportunities and to promote the preservation of access to the outdoor areas and historic resources of the nation. The Appalachian and Pacific Crest National Scenic Trails were the first two components, and the System has grown to include 20 national trails.

The National Trails System includes four classes of trails:

1. National Scenic Trails (NST) provide outdoor recreation and the conservation and enjoyment of significant scenic, historic, natural, or cultural qualities. The Pacific Coast Trail falls under this category. The PCT passes through the Desolation Wilderness area along the western plan area boundary.
2. National Historic Trails (NHT) follow travel routes of national historic significance. The National Park Service has designated two National Historic Trail (NHT) alignments that pass through El Dorado County, the California National Historic Trail and the Pony Express National Historic Trail. The California Historic Trail is a route of approximately 5,700-miles including multiple routes and cutoffs, extending from Independence and Saint Joseph, Missouri, and Council Bluffs, Iowa, to various points in California and Oregon. The Pony Express NHT commemorates the route used to relay mail via horseback from Missouri to California before the advent of the telegraph.
3. National Recreation Trails (NRT) are in, or reasonably accessible to, urban areas on federal, state, or private lands. In El Dorado County there are five NRTs.

State Laws, Regulations, and Policies

The California Parklands Act

The California Parklands Act of 1980 (Public Resources Code Section 5096.141-5096.143) recognizes the public interest for the state to acquire, develop, and restore areas for recreation and to aid local governments to do the same. The California Parklands Act also identifies the necessity of local agencies to exercise vigilance to see that the parks, recreation areas, and recreational facilities they now have are not lost to other uses.

The California state legislature approved the California Recreational Trail Act of 1974 (Public Resources Code Section 2070-5077.8) requiring that the Department of Parks and Recreation prepare a comprehensive plan for California trails. The California Recreational Trails Plan is produced for all California agencies and recreation providers that manage trails. The Plan includes information on the benefits of trails, how to acquire funding, effective stewardship, and how to encourage cooperation among different trail users.
The 1975 Quimby Act (California Government Code Section 66477) requires residential subdivision developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act gave authority for passage of land dedication ordinances to cities and counties for parkland dedication or in-lieu fees paid to the local jurisdiction. Quimby exactions must be roughly proportional and closely tied (nexus) to a project's impacts as identified through traffic studies required by CEQA. The exactions only apply to the acquisition of new parkland; they do not apply to the physical development of new park facilities or associated operations and maintenance costs.

The County implements the Quimby Act through §16.12.090 of the County Code. The County Code sets standards for the acquisition of land for parks and recreational purposes, or payments of fees in lieu thereof, on any land subdivision. Other projects, such as ministerial residential or commercial development, could contribute to the demand for park and recreation facilities without providing land or funding for such facilities.

Local Laws, Regulations, and Policies

The 2004 El Dorado County General Plan Parks and Recreation Element establishes goals and policies that address needs for the provision and maintenance of parks and recreation facilities in the county, with a focus on providing recreational opportunities and facilities on a regional scale, securing adequate funding sources, and increasing tourism and recreation-based businesses. The Recreation Element describes the need for 1.5-acres of regional parkland, 1.5-acres of community parkland, and two-acres of neighborhood parkland per 1,000 residents. Another 95-acres of park land are needed to meet the General Plan guidelines.

Discussion: A substantial adverse effect on Recreational Resources would occur if the implementation of the project would:

- Substantially increase the local population without dedicating a minimum of five-acres of developed parklands for every 1,000 residents; or
- Substantially increase the use of neighborhood or regional parks in the area such that substantial physical deterioration of the facility would occur.

a. **Parks.** Any potential additional units from future construction would not increase the local population substantially, and therefore would not substantially increase the use of parks and recreational facilities. The dedication of land, the payment of fees in lieu thereof or a combination of both for park and recreational purposes would be required, pursuant to the provisions of Sections 120.12.090 through120.12.110, as a condition of approval for any parcel map which creates parcels less than 20-acres in size. With the payment of park in-lieu fees, impacts would be less than significant.

b. **Recreational Services.** The project would not include additional recreation services or sites as part of the project. Impacts would be less than significant.

FINDING: No significant impacts to open space or park facilities would result as part of the project. Impacts would be less than significant.

XVI. TRANSPORTATION/TRAFFIC. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			**X**	
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Vehicle Miles Traveled)?			**X**	
c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	

d. Result in inadequate emergency access?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to transportation/traffic and the Proposed Project.

State Laws, Regulations, and Policies

Caltrans manages the state highway system and ramp interchange intersections. This state agency is also responsible for highway, bridge, and rail transportation planning, construction, and maintenance.

Local Laws, Regulations, and Policies

Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development under CEQA. Instead, an alternative metric that supports the goals of SB 743 legislation will be required. The use of vehicle miles traveled (VMT) has been recommended by the Governor's Office of Planning and Research (OPR) and is cited in the CEQA Guidelines as the most appropriate measure of transportation impacts (Section 15064.3(a)).

The intent of SB743 is to bring CEQA transportation analysis into closer alignment with other statewide policies regarding greenhouse gases, complete streets, and smart growth. Using VMT as a performance measure, instead of LOS, is intended to discourage suburban sprawl, reduce greenhouse gas emissions, and encourage the development of smart growth, complete streets, and multimodal transportation networks.

El Dorado County Department of Transportation (DOT) adopted VMT screening thresholds through Resolution 141-2020 on October 6, 2020. The County significance threshold is 15%, as recommended by OPR's Technical Advisory, below baseline for residential projects. There is a presumption of less than significant impact for projects that generate or attract less than 100 trips per day, consistent with OPR's determination of projects that generate or attract fewer than 110 trips per day, and further reduced to 100 to remain consistent with the existing thresholds in General Plan Policy TC-Xe. Access to the project site would be provided by existing driveways for each resulting parcel.

Discussion: A substantial adverse effect on Transportation would occur if the implementation of the project would:

- Conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Vehicle Miles Traveled); or
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

a. **Conflicts with a Transportation Plan, Policy or Ordinance:** No substantial traffic increases would result from the proposed project. Access to the new parcels would be from individual private driveways encroaching onto Thompson Hill Road. The project area is in an area of similar rural large-lot parcels. The El Dorado County Department of Transportation reviewed the project and determined that a Transportation Impact Study (TIS) and On-Site Transportation Review were not required, and both the TIS and OSTR were waived. Trip generation from the properties (four primary residences and four secondary residences) using the ITE Trip Generation Manual, 10th Edition is less than 100 trips daily. This is presumed to have less than significant transportation impacts, per El Dorado County Resolution 141-2020. The proposed project site is not on a main roadway and there are very low traffic volumes. The project would not conflict

with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Impacts would be less than significant.

b. **Vehicle Miles Travelled (VMT):** The proposed project would create four parcels for a total of four primary single-family dwellings. Trip generation from the properties (four primary residences) using the ITE Trip Generation Manual, 10th Edition is less than 100 trips daily. This is presumed to have less than significant transportation impacts, per El Dorado County Resolution 141-2020. Impacts would be less than significant.

c. **Design Hazards**: The design and location of the project is not anticipated to create any significant hazards. The existing project site is undeveloped. Any future road or driveway improvements for access to the newly created parcels would require a grading permit. The El Dorado County Department of Transportation reviewed the project and provided no comments or concerns. The impact for design hazards would be less than significant.

d. **Emergency Access:** The existing project site is undeveloped. LAFCO has reviewed the project and recommends the project be annexed into the EDCFPD for fire protection and emergency medical services. The EDCFPD must review and approve a wildfire safe plan prior to issuance of residential final occupancy permits. Impacts would be less than significant.

FINDING: The project would not conflict with applicable General Plan policies regarding effective operation of the County circulation system. Further, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) (Vehicle Miles Traveled). The project would not create any road hazards or affect road safety and would not result in inadequate emergency access. For this Transportation category, the threshold of significance would not be exceeded and impacts would be less than significant.

XVII. TRIBAL CULTURAL RESOURCES. *Would the project: Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			**X**	
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to Tribal Cultural Resources (TCRs) and the Proposed Project.

State Laws, Regulations, and Policies

Assembly Bill (AB) 52
AB 52, which was approved in September 2014 and effective on July 1, 2015, requires that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. The bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment.

Defined in Section 21074(a) of the Public Resources Code, TCRs are:

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:
    a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Section 21074 as follows:

a. A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
b. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

Discussion:

In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a TCR significant or important. To be considered a TCR, a resource must be either: (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or: (2) a resource that the lead agency chooses, in its discretion, to treat as a TCR and meets the criteria for listing in the state register of historic resources pursuant to the criteria set forth in Public Resources Code Section 5024.1(c). A substantial adverse change to a TCR would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a TCR such that the significance of the resource would be materially impaired

a-b. **Tribal Cultural Resources.** At the time of the application request, seven Tribes: Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Shingle Springs Band of Miwok Indians, T'si-Akim Maidu, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of California and Nevada, had requested to be notified of proposed projects for consultation in the project area. Consultation notices were sent on May 2, 2021. Staff had not received a response within a 30-day period from the date of staff's consultation initiation response. As such, AB52 consultation has been closed. Pursuant to the records search conducted at the North Central Information Center on January 7, 2020, the proposed project area contains zero prehistoric-period resources

and zero historic-period cultural resources. Additionally, zero cultural resources study reports covering any portion of the site are on file. Outside of the project area, but within the ¼ mile radius of the geographic area, a broader search area contains zero prehistoric-period resources and two historic-period cultural resources. Additionally, two cultural resource study reports are on file which covers a portion of the broader search area. There is low potential for locating prehistoric-period cultural resources in the immediate vicinity. There is low potential for locating historic-period cultural resources in the immediate vicinity. The project site is not known to contain neither Tribal Cultural Resources (TCRs) nor historic-period resources. The impacts would be less than significant.

FINDING: No Tribal Cultural Resources (TCRs) are known to exist on the project site and conditions of approval have been included to ensure protection of TCRs if discovered during future construction activities. As a result, the proposed project would not cause a substantial adverse change to any known TCRs. The impacts would be less than significant.

XVIII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			**X**	
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			**X**	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			**X**	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

Energy Policy Act of 2005

The Energy Policy Act of 2005, intended to reduce reliance on fossil fuels, provides loan guarantees or tax credits for entities that develop or use fuel-efficient and/or energy efficient technologies (USEPA, 2014). The act also increases the amount of biofuel that must be mixed with gasoline sold in the United States (USEPA, 2014).

State Laws, Regulations, and Policies

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code, Division 30) requires all California cities and counties to implement programs to reduce, recycle, and compost wastes by at least 50-percent by 2000 (Public Resources Code Section 41780). The state, acting through the California Integrated Waste Management Board (CIWMB), determines compliance with this mandate. Per-capita disposal rates are used to determine whether a jurisdiction's efforts are meeting the intent of the act.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991 (Public Resources Code Sections 42900-42911) requires that all development projects applying for building permits include adequate, accessible areas for collecting and loading recyclable materials.

California Integrated Energy Policy

Senate Bill 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report for the governor and legislature every two-years (CEC 2015a). The report analyzes data and provides policy recommendations on trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewable energy, and public interest energy research (CEC 2015a). The 2014 Draft Integrated Energy Policy Report Update includes policy recommendations, such as increasing investments in electric vehicle charging infrastructure at workplaces, multi-unit dwellings, and public sites (CEC 2015b).

Title 24–Building Energy Efficiency Standards

Title 24 Building Energy Efficiency Standards of the California Building Code are intended to ensure that building construction, system design, and installation achieve energy efficiency and preserve outdoor and indoor environmental quality (CEC 2012). The standards are updated on an approximately three-year cycle. The 2013 standards went into effect on July 1, 2014.

Urban Water Management Planning Act

California Water Code Sections 10610 *et seq.* requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000-acre-feet per year (AFY), prepare an urban water management plan (UWMP).

Other Standards and Guidelines

Leadership in Energy & Environmental Design

Leadership in Energy & Environmental Design (LEED) is a green building certification program, operated by the U.S. Green Building Council (USGBC) that recognizes energy efficient and/or environmentally friendly (green) components of building design (USGBC, 2015). To receive LEED certification, a building project must satisfy prerequisites and earn points related to different aspects of green building and environmental design (USGBC,

2015). The four levels of LEED certification are related to the number of points a project earns: (1) certified (40–49 points), (2) silver (50–59 points), (3) gold (60–79 points), and (4) platinum (80+ points) (USGBC, 2015). Points or credits may be obtained for various criteria, such as indoor and outdoor water use reduction, and construction and demolition (C&D) waste management planning. Indoor water use reduction entails reducing consumption of building fixtures and fittings by at least 20% from the calculated baseline and requires all newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling to be WaterSense labeled (USGBC, 2014). Outdoor water use reduction may be achieved by showing that the landscape does not require a permanent irrigation system beyond a maximum two-year establishment period, or by reducing the project's landscape water requirement by at least 30% from the calculated baseline for the site's peak watering month (USGBC, 2014). C&D waste management points may be obtained by diverting at least 50% of C&D material and three material streams, or generating less than 2.5-pounds of construction waste per square foot of the building's floor area (USGBC, 2014).

Discussion: A substantial adverse effect on Utilities and Service Systems would occur if the implementation of the project would:

- Breach published national, state, or local standards relating to solid waste or litter control;
- Substantially increase the demand for potable water in excess of available supplies or distribution capacity without also including provisions to adequately accommodate the increased demand, or is unable to provide an adequate on-site water supply, including treatment, storage and distribution;
- Substantially increase the demand for the public collection, treatment, and disposal of wastewater without also including provisions to adequately accommodate the increased demand, or is unable to provide for adequate on-site wastewater system; or
- Result in demand for expansion of power or telecommunications service facilities without also including provisions to adequately accommodate the increased or expanded demand.

a. **Wastewater Requirements**: The El Dorado County Environmental Management Department reviewed the project and has required additional septic percolation tests be completed and reviewed by EMD. Prior to installation of any septic system, the site must receive EMD approval of percolation tests. Once each parcel has confirmed adequate soil depth, a soil percolation rate below 120 minutes per inch, and a dispersal area identified, then the site will be eligible for septic system developments. Impacts would be less than significant.

b. **Construction of New Facilities:** No development is proposed as a part of the Tentative Parcel Map project and no construction of new facilities is required. Each parcel is required to provide its own wastewater treatment system, connection to public water service or private well, and utilities/electricity services by Pacific Gas & Electric (PG&E). The impact would be less than significant.

c. **New Stormwater Facilities:** Any possible drainage facilities needed for any future construction would be built in conformance with the County of El Dorado Drainage Manual, as determined by Development Services standards, during the grading and building permit processes. The impacts would be less than significant.

d. **Sufficient Water Supply:** Water for each parcel would be provided by connection to a private well. The El Dorado County Environmental Management Department reviewed the project and concluded that each parcel meets the requirements for private wells on site, including adequate water supply. The impact would be less than significant.

e. **Adequate Wastewater Capacity:** The project would require each parcel to provide its own onsite wastewater treatment system. As discussed in (a.), the Environmental Management Department will review the project to ensure that the parcels can be served by onsite wastewater treatment systems. Once each parcel has confirmed adequate soil depth, a soil percolation rate below 120 minutes per inch, and a dispersal area identified, then the site will be eligible for septic system developments. Impacts would be less than significant.

f-g. **Solid Waste Disposal and Requirements:** El Dorado Disposal distributes municipal solid waste to Forward Landfill in Stockton and Kiefer Landfill in Sacramento. Pursuant to El Dorado County Environmental Management Solid Waste Division staff, both facilities have sufficient capacity to serve the County. Recyclable materials are distributed to a facility in Benicia and green wastes are sent to a processing facility in Sacramento. County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting and loading of solid waste and recyclables. This project does not propose to add any activities that would generate substantial additional solid waste, as future additional housing units would generate minimal amounts of solid waste for disposal. Project impacts would be less than significant.

FINDING: No significant utility and service system impacts would be expected with the project, either directly or indirectly. Impacts would be less than significant.

XIV. MANDATORY FINDINGS OF SIGNIFICANCE. *Does the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			**X**	
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			**X**	
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

Discussion

a. No substantial evidence contained in the project record has been found that would indicate that this project would have the potential to significantly degrade the quality of the environment. There are no project impacts which will result in significant impacts. With adherence to County permit requirements and mitigation measures as applied, this project would not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of California history or pre-history. Any impacts from the project would be less than significant due to the design of the project and required standards that would be implemented prior to recording the final Parcel Map or with the building permit processes and/or any required project specific improvements on the property.

b. Cumulative impacts are defined in Section 15355 of the California Environmental Quality Act (CEQA) Guidelines as *two or more individual effects, which when considered together, would be considerable or which would compound or increase other environmental impacts*.

The project would not involve development or changes in land use that would result in an excessive increase in population growth. Impacts due to increased demand for public services associated with the project would be offset by the payment of fees as required by service providers to extend the necessary infrastructure services. The project would not be anticipated to contribute substantially to increased traffic in the area and the project would not require an increase in the wastewater treatment capacity of the County. Due to the small size of the proposed project and types of activities proposed, which have been disclosed in the Project Description and analyzed in Items I through XVIII, there would be no significant impacts anticipated related to agriculture resources, air quality, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, traffic/transportation, or utilities/service systems that would combine with similar effects such that the project's contribution would be cumulatively considerable. For these issue areas, either no impacts, or less than significant impacts would be anticipated.

As outlined and discussed in this document, as conditioned and with compliance to County Codes, this project would be anticipated to have a less than significant project-related environmental effect which would cause substantial adverse effects on human beings, either directly or indirectly. Based on the analysis in this study, it has been determined that the project would have less than significant cumulative impacts.

c. Based on the discussion contained in this document, no potentially significant impacts to human beings are anticipated to occur with respect to potential project impacts. The project would not include any physical changes to the site, and any future development or physical changes would require review and permitting through the County. Adherence to these standard conditions would be expected to reduce potential impacts to a less than significant level.

FINDINGS: It has been determined that the proposed project would not result in significant environmental impacts. The project would not exceed applicable environmental standards, nor significantly contribute to cumulative environmental impacts.

SUPPORTING INFORMATION SOURCE LIST

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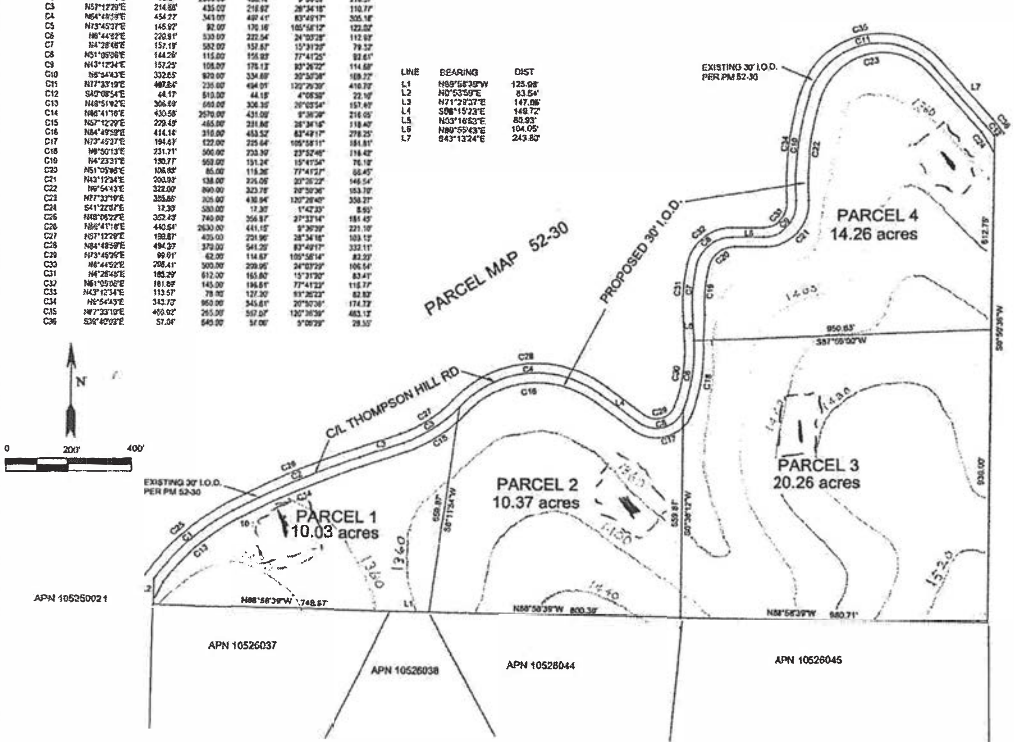
TENTATIVE PARCEL MAP
A PORTION OF SECTION 25, T. 11 N., R. 9 E., M.D.M.
BEING PARCEL B OF PM 51-83
COUNTY OF EL DORADO, STATE OF CALIFORNIA

CURVE	BEARING	HORIZ DIST	RADIUS	ARC	DELTA	TANGENT
C1	N48°27'58"E	329.48'	718.00'	332.52'	26°50'02"	169.37'
C2	N86°41'18"E	435.81'	2600.00'	436.17'	9°36'39"	218.57'
C3	N57°12'29"E	214.88'	435.00'	216.97'	28°34'18"	110.77'
C4	N54°49'59"E	454.22'	341.00'	497.41'	83°49'17"	305.18'
C5	N73°45'37"E	145.92'	92.00'	170.16'	105°58'12"	122.02'
C6	N6°44'52"E	220.81'	530.00'	222.54'	24°03'28"	112.93'
C7	N4°28'48"E	157.19'	582.00'	157.67'	15°31'30"	79.37'
C8	N51°05'56"E	144.28'	115.00'	155.93'	77°41'25"	92.61'
C9	N43°12'34"E	157.23'	108.00'	176.13'	93°26'22"	114.68'
C10	N6°54'43"E	332.65'	920.00'	334.60'	20°50'38"	169.22'
C11	N77°33'19"E	407.84'	235.00'	494.01'	120°26'39"	410.70'
C12	S40°08'54"E	44.17'	510.00'	44.18'	4°05'58"	22.10'
C13	N48°51'02"E	306.88'	660.00'	308.35'	26°03'54"	157.97'
C14	N86°41'18"E	430.58'	2570.00'	431.08'	9°36'39"	216.05'
C15	N57°12'29"E	229.48'	465.00'	231.86'	28°34'18"	118.40'
C16	N84°49'59"E	414.18'	310.00'	453.52'	83°49'17"	278.25'
C17	N73°45'37"E	194.67'	122.00'	225.64'	105°58'11"	161.81'
C18	N6°50'13"E	231.71'	500.00'	233.39'	23°52'46"	116.42'
C19	N4°23'31"E	150.77'	560.00'	151.24'	15°41'54"	76.18'
C20	N51°05'05"E	108.83'	85.00'	115.26'	77°41'27"	68.45'
C21	N43°12'34"E	200.98'	138.00'	225.06'	93°26'22"	146.54'
C22	N6°54'43"E	322.00'	890.00'	323.78'	20°50'36"	163.70'
C23	N77°33'19"E	355.86'	205.00'	430.94'	120°26'40"	358.27'
C24	S41°22'07"E	17.30'	580.00'	17.30'	1°42'33"	8.65'
C25	N48°05'22"E	352.43'	740.00'	356.87'	27°37'14"	181.45'
C26	N86°41'18"E	440.64'	2630.00'	441.15'	9°36'39"	221.10'
C27	N57°12'29"E	198.87'	405.00'	201.96'	28°34'18"	103.13'
C28	N84°49'59"E	494.37'	370.00'	541.29'	83°49'17"	332.11'
C29	N73°45'36"E	99.01'	62.00'	114.67'	105°58'14"	82.20'
C30	N6°44'52"E	208.41'	500.00'	209.95'	24°03'29"	106.54'
C31	N4°28'48"E	165.29'	612.00'	165.80'	15°31'30"	83.41'
C32	N61°05'06"E	181.89'	145.00'	196.61'	77°41'23"	116.77'
C33	N43°12'34"E	113.57'	78.00'	127.20'	93°26'23"	82.82'
C34	N6°54'43"E	343.73'	950.00'	345.61'	20°50'36"	174.73'
C35	N77°33'19"E	460.02'	265.00'	557.07'	120°26'39"	463.13'
C36	S39°40'03"E	57.04'	640.00'	57.06'	5°06'29"	28.55'

LINE	BEARING	DIST
L1	N88°58'39"W	125.98'
L2	N0°53'59"E	83.64'
L3	N71°29'37"E	147.86'
L4	S88°15'23"E	148.72'
L5	N03°16'53"E	88.93'
L6	N80°55'43"E	104.05'
L7	S43°13'24"E	243.83'



OWNER OF RECORD JOMESCBO FAMILY LIVING TRUST

NAME OF APPLICANT (OWNER)

MAP PREPARED BY WAYNE C. SWART LS 4130
4081 DEER VLY RD RESCUE CA . 95672

SCALE 1" = 200 FT

SOURCE OF TOPOGRAPHY USGS 40' INTERVAL

ASSESSORS PARCEL NO 105-190-042

PRESENT ZONING RE 10

TOTAL AREA 54.92 ACRES

TOTAL NO OF PARCELS 4

PROPOSED WATER SOURCE IND. WELLS / EID

PROPOSED SEWAGE DISPOSAL INDIVIDUAL SEPTIC

FIRE PROTECTION EL DORADO COUNTY FIRE

DATE JUNE 2020

ZONING ADMINISTRATOR________________

APPROVAL/DENIAL DATE ________________

BOARD OF SUPERVISORS________________

APPROVAL/DENIAL DATE ________________

P21-0004 Attachment A: Tentative Parcel Map

Biological Resources Report

including

Special-Status Species Survey

for

Assessor' Parcel Number 105-190-042-000

being

Parcel B of Parcel Map 51/083

El Dorado County, CA

Prepared by
Ruth A. Willson
Site Consulting, Inc.
Biological Services
3460 Angel Lane
Placerville, California 95667
(530) 622-7014

Prepared for
Thomas R. Van Noord
tom@tvnlaw.com

August 2017
Updated December 2020

Table of Contents

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Table of Figures, Tables and Appendices

Figures

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Appendices

I. Report Summary

A. Special-Status Species

No species listed by either the state or federal Endangered Species Acts were found on the project site. Potential habitat was found for one state- and federal-listed species: Layne's butterweed (*Packera layneae)* (Table 1).

Two species of concern were found: Oak titmouse (*Baeolophus inornatus*) and Wrentit (*Chamaea fasciata)*. In addition, potential habitat was found for fifty-one other species of concern, including two insects: Western bumble bee (*Bombus occidentalis*) and Cosumnes spring stonefly (*Cosumnoperla hypocrena*); one reptile: Blainville's horned lizard (*Phrynosoma blainvillii*); sixteen birds: Cooper's hawk (*Accipiter cooperii*), Rufous-crowned sparrow (*Aimophila ruficeps*), Grasshopper sparrow (*Ammodramus savannarum*), Golden eagle (*Aquila chrysaetos*), Long-eared owl (*Asio otus*), Merlin (*Falco columbarius*), Loggerhead shrike (*Lanius ludovicianus*), Fox sparrow (*Passerella iliaca*), Nuttall's woodpecker (*Picoides nuttallii*), Purple martin (*Progne subis*), Rufous hummingbird (*Selasphours rufus*), Lawrence's goldfinch (*Spinus lawrencei*), Black-chinned sparrow (*Spizella atrogularis*) Brewer's sparrow (*Spizella breweri*) Chipping sparrow (*Spizella passerina*) and California thrasher (*Toxostoma redivivum*); six mammals: Pallid bat (*Atrozous pallidus*), Ringtail (*Bassariscus astutus*), Townsend's big-eared bat (*Corynorhinus townsendii*), Porcupine (*Erethizon dorsatum*), Silver-haired bat (*Lasionycteris noctivagans*), and Yuma myotis bat (*Myotis yumanensis*); and thirty-two plants: Jepson's onion (*Allium jepsonii*), Nissenan manzanita (*Arctostaphylos nissenana*), Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*), Brassy bryum moss (*Bryum chryseum*), Chaparral sedge (*Carex xerophyla*), Red Hills soaproot (*Chlorogalum grandiflorum*), Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*), Sierra clarkia (*Clarkia virgata*), Streambank spring beauty (*Claytonia parviflora* ssp. *grandiflora*), Ewan's larkspur (*Delphinium hansenii* ssp. *ewanianum*), Northern Sierra daisy (*Erigeron petrophilus* var. *sierrensis*), Tripod buckwheat (*Eriogonum tripodum*), Small-flowered monkeyflower (*Erythranthe inconspicua*), Stinkbells (*Fritillaria agestis*), Butte County fritillary (*Fritillaria eastwoodiae*), Serpentine bluecup (*Githopsis pulchella* ssp. *serpentinicola*), Foothill jepsonia (*Jepsonia heterandra*), Red Bluff dwarf rush (*Juncus leiospermus*), Santa Lucia dwarf rush (*Juncus luciensis*), Dubious pea (*Lathyrus sulphureus* var. *argillaceus)*, Humboldt's lily (*Lilium humboldtii* ssp. *humboldtii*), Sylvan microseris (*Microseris sylvanica*), Shield-bracted monkeyflower (*Mimulus glaucescens*), Sierra sweet bay (*Myrica hartwegii*), Hoary navarretia (*Navarretia eriocephala*), Awl-leaved navarretia (*Navarretia subuligera*), California adder's-tongue (*Ophioglossum californicum*), Bacigalupi's yampah (*Perideridia bacigalupii*), Narrow-petaled rein orchid (*Piperia leptopetala*), Michael's rein orchid (*Piperia michaelii*), Sanford's arrowhead (*Sagittaria sanfordii*), Prairie wedge grass (*Sphenopholis obtusata*), and Oval-leaved viburnum (*Viburnum ellipticum*). See Table 2, pages 19-23, for more details.

Table 1. State/federal-listed species with potential habitat, and special-status species found on the project site.

Special-status Species	Common Name	Legal Status[1] Federal/ State	Species Found On Site?	Habitat Quality
State- or Federal-listed Species				
Packera layneae	Layne's butterwort	T / R	No	Marginal
Species of Concern				
Baeolophus inornatus	Oak titmouse	— / —	Yes	Suitable
Chamaea fasciata	Wrentit	— / —	Yes	Suitable

[1]**Legal Status**: E = Endangered R = Rare T = Threatened

B. Oak Woodlands

Two types of oak woodlands were found on the project site: blue oak woodland and interior live oak woodland. Blue oak woodland covers about twenty-five acres of the project site, and interior live oak woodland covers about nine acres (Figure 5).

C. Suggested Mitigation

No state- or federal-listed species were found on the project site, so no mitigation is required for them. No mitigation should be required for species of concern not found on the project site.

Enhanced setbacks from waters and wetlands (60 feet from intermittent or ephemeral waters and wetlands) would be sufficient to protect features and resources associated with them.

Pre-construction surveys for nesting birds, including raptors, conducted no more that 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (February 1-August 31). A 30-foot setback from trees with active nests is recommended for most species. If raptor nests are found on or immediately adjacent to the site, however, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

Although no state- or federal-listed plant species were found on the project site, preconstruction plant surveys on Parcels 1 and 2 should be required for any future grading permits to protect such species which may have grown on the serpentine soils present on those two parcels. No construction would be required to finalize the Parcel Map, and no listed plants were found on-site, so no plant mitigation should be required as a condition of approval of the Parcel Map.

No oak trees are planned to be removed to finalize the parcel map. Oak removal for construction of driveways and residences would be mitigated through the grading permit process.

II. Introduction

A. Purpose of Report

A biological resources study was conducted on Assessor's Parcel Number 105-190-042-000 (Figure 1), a 54.92 acre parcel, in order to determine the suitability of its habitat to support state- or federal-listed special-status wildlife and plant species. The site was also searched for special-status wildlife and plant species, and special habitats, which might occur there. The report is part of submittal information for four-way subdivision of the parcel, with parcel size varying from 10.02 to 20.26 acres (Figure 2).

B. Property Location and Description

The project site is in the east half of Section 25, Township 11 North, Range 9 East, M.D.M. It lies south of Thompson Hill Road in the Gold Hill/Lotus area of El Dorado County, CA. (Figure 2).

The property has a General Plan designation of Rural Residential (RR) with RL-10 zoning. An Important Biological Corridor (IBC) overlay covers the parcel.

The parcel is bounded by properties varying in size from 5 to 112 acres.

C. Property Owner and Project Manager

Property Owner
Jomescbo Family Trust
Thomas Van Noord, Trustee
3350 Country Club Drive
Cameron Park, CA 95682

Project Manager
Dina Brinkley
dinabrinkley@gmail.com

D. Report Preparer

Ruth A. Willson, M.A., Biology, California State University, Fresno, has been preparing biological reports in El Dorado County since 1992. Her educational and experiential background includes proficiency in botany, entomology, ornithology, wildlife biology and ecology. She completed training in wetland delineation with Wetland Training Institute March 31, 2006, and is an ISA Certified Arborist, No. WE-8335A.

TENTATIVE PARCEL MAP
A PORTION OF SECTION 25, T. 11 N., R. 9 E., M.D.M.
BEING PARCEL B OF PM 51-83
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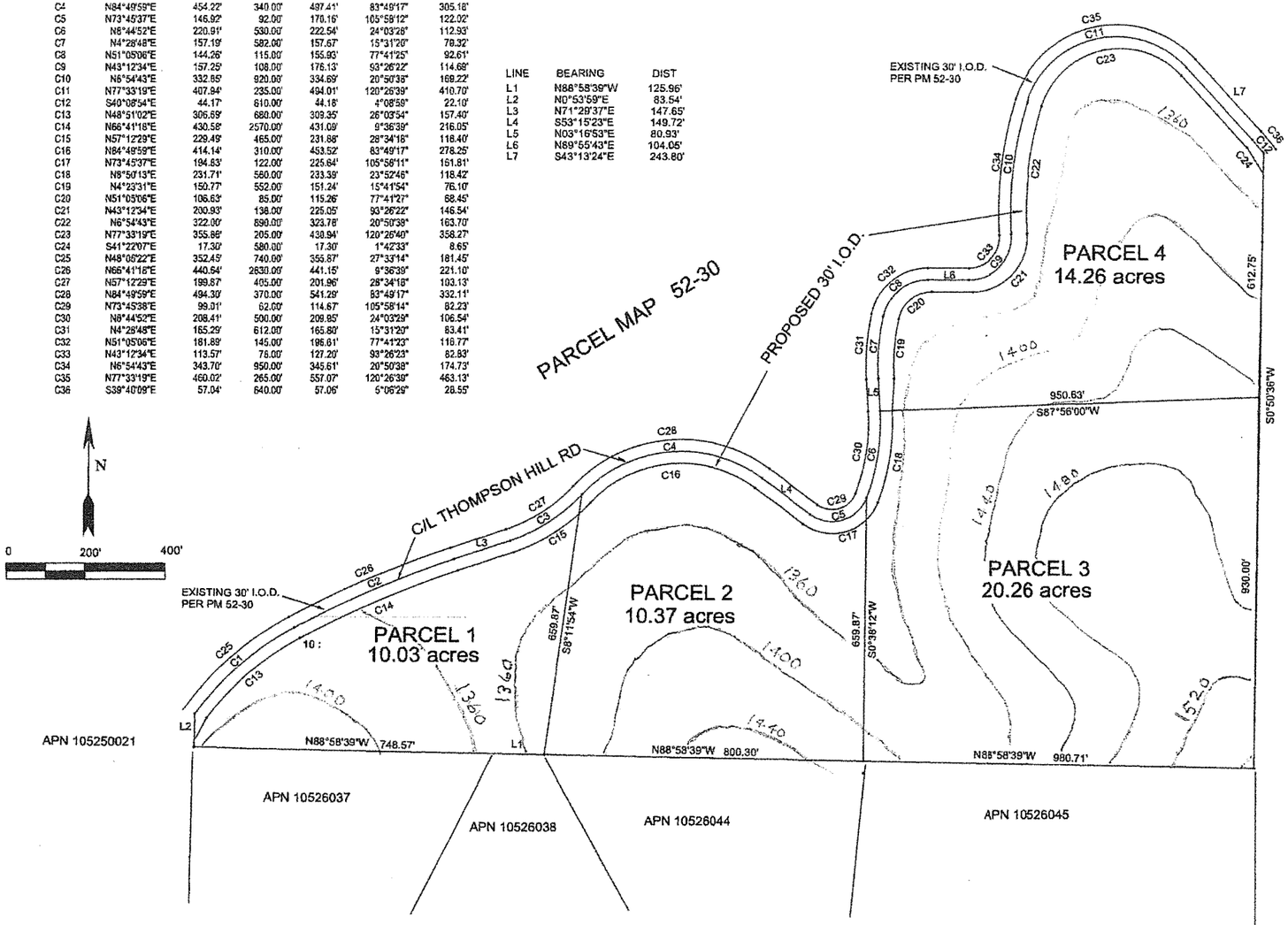
C28	N84°49'59"E	494.30'	370.00'	541.29'	83°49'17"	332.11'
C29	N73°45'38"E	99.01'	62.00'	114.67'	105°58'14"	82.23'
C30	N8°44'52"E	208.41'	500.00'	209.85'	24°03'29"	106.54'
C31	N4°28'48"E	165.29'	612.00'	165.80'	15°31'20"	83.41'
C32	N51°05'06"E	181.89'	145.00'	196.61'	77°41'23"	116.77'
C33	N43°12'34"E	113.57'	78.00'	127.20'	93°26'23"	82.83'
C34	N6°54'43"E	343.70'	950.00'	345.61'	20°50'38"	174.73'
C35	N77°33'19"E	460.02'	265.00'	557.07'	120°26'39"	463.13'
C36	S39°40'09"E	57.04'	640.00'	57.06'	5°06'29"	28.55'

LINE	BEARING	DIST
L1	N88°58'39"W	125.96'
L2	N0°53'59"E	83.54'
L3	N71°29'37"E	147.65'
L4	S53°15'23"E	149.72'
L5	N03°16'53"E	80.33'
L6	N89°55'43"E	104.05'
L7	S43°13'24"E	243.80'



OWNER OF RECORD JOMESCBO FAMILY LIVING TRUST

NAME OF APPLICANT (OWNER)

MAP PREPARED BY WAYNE C. SWART LS 4130
4081 DEER VLY RD RESCUE CA . 95672

SCALE 1" = 200 FT

SOURCE OF TOPOGRAPHY USGS 40' INTERVAL

ASSESSORS PARCEL NO 105-190-042

PRESENT ZONING RE 10

TOTAL AREA 54.92 ACRES

TOTAL NO OF PARCELS 4

PROPOSED WATER SOURCE IND. WELLS / EID

PROPOSED SEWAGE DISPOSAL INDIVIDUAL SEPTIC

FIRE PROTECTION EL DORADO COUNTY FIRE

DATE JUNE 2020

APN 089010071

ZONING ADMINISTRATOR_____
APPROVAL/DENIAL DATE _____

BOARD OF SUPERVISORS_____
APPROVAL/DENIAL DATE _____

Traverse PC

POR. SEC. 25, T.11N., R.9E., M.D.M.

P 17

Bk 06
Pg 40

PM 11/102/2
26
5.0 A

PM 11/102/3
27
5.0 A

PM 11/102/4
28
5.0 A

PM 11/102/1
25
5.0 A

PM 30/64/1
31
5.0 A

PM 30/64/2
32
4.97 A

GLORY VIEW DR

24 5.0 A

23 5.0 A

29
15.0 A

30
5.0 A

2
20.0 A

PM 51/35/1
38
99.52 A

34
6.17 A
LOTUS RD

36 NA
9.2 A

PM 51/83/A
41
112.87 A

PM 51/83/B
42
54.92 A

RS 25/103/2
18
5.006 A

19
5.0 A

15
5.0 A

17
5.0 A

20
10.0 A

RS 28/81/1
22
5.0 A

RS 28/81/2
21
5.0 A

OLD RANCH RD

LOTUS RD

THOMPSON HILL RD

P 25

P 26

Are Estimates

RVEY, it is prepared by the El Dorado Co.
ssment purposes only. Area calculations
ot guaranteed. Users should verify items
acreage.

Adjacent Map Pages Shown in Grey Text
Assessor's Parcel Numbers Shown in Circles

Rev. S

Assessor's Map
County of E

III. Evaluation Methods

A. Field Surveys

The project site was searched for special-status species during field surveys conducted April 18, 2016, April 19, May 17 and June 7, 2017, and May 15, 2020 by Ruth Willson. Field searches were conducted around the perimeter of the parcel, along north-south transects about 50 feet apart in open areas, and along game and cattle trails through brush, wherever possible. 2017 field surveys of impenetrable chaparral cover in the central area of the parcel were limited to the chaparral perimeter and to a path that had been cleared through the dense brush along the south boundary. Those areas were searched in 2020, after chaparral shrubs were removed in 2018.

Plants were identified in the field whenever possible. Samples of unknown plants were taken with identification achieved in the office through the use of Hickman (1993) and Jepson Flora Project (2013). Vegetation communities were identified in the field and mapped utilizing aerial photos.

B. Literature Search

The U.S. Fish and Wildlife Service (USFWS) Official Species List, updated December 7, 2020, and a USFWS IPaC Trust Resource Report, dated May 20, 2020, served as the main sources of data on federal-listed species and migratory birds that could be affected by the project. A report of known occurrences of special-status species in the Coloma and eight surrounding USGS Quads, dated November 29, 2020, was obtained from the California Natural Diversity Database (Appendix B). Other current lists reviewed include the California Department of Fish and Wildlife (DFW) publications *State and Federally Listed Endangered, Threatened and Rare Plants of California* and *Special Vascular Plants, Bryophytes and Lichens,* along with the California Native Plant Society (CNPS) list, *Inventory of Rare and Endangered Plants,* online edition, dated December 7, 2020 (Appendix C).

C. Vegetation Community Classification

References on the classification of vegetation include Mayer & Laudenslayer (1988), Munz & Keck (1959) and Sawyer et al. (2009). Vegetation communities are referenced to those listed in the El Dorado County General Plan, adopted July 19, 2004 (El Dorado County, 2006).

IV. Regulatory Setting

A. Federal Regulations

1. Federal Endangered Species Act (ESA)

Section 9 of the ESA prohibits "take" of endangered or threatened species; take is defined "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." Section 10 of the ESA allows incidental take for listed species for otherwise lawful projects. Section 10 Permits can be obtained through the United States Fish and Wildlife Service.

2. Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act prohibits the take, possession, or trade of migratory birds or their parts. The Act specifically protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and take (16 U.S.C., Sec. 703, Supp. I, 1989). The definition of take is to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect (50 CFR 10.12). Exceptions from the MBTA prohibitions are prescribed by the Secretary of the Interior, and include non-native, invasive species such as European starling, English sparrow, rock dove, and Eurasian collared dove.

3. Raptors

Raptors and their nests are protected under both federal (MBTA) and state (Fish and Game Code Section 3503.5) regulations. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

4. Wetlands and Waters

The U.S. Army Corps of Engineers (USACE) has jurisdiction over "Waters of the U.S." (also called "jurisdictional waters") under provisions of Section 404 of the Clean Water Act (1972). Such "jurisdictional waters" include waters used, or potentially used, for interstate commerce, interstate waters, lakes, rivers, streams, tributaries of streams, and wetlands adjacent to or tributary to the above. Irrigation and drainage ditches excavated on dry land, artificially-irrigated areas, man-made lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions are usually exempted from USACE jurisdiction (33 CFR, Part 328).

California Department of Fish and Wildlife (CDFW) has jurisdiction over alterations to the beds of rivers, streams, creeks, or lakes. The Fish and Game Code (Section 1602) requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Alterations include activities that would: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

Disturbance of any potential jurisdictional features on this project could require one or more of the following permits:

- A Clean Water Act, Section 404 permit from the U.S. Army Corps of Engineers.
- A Water Quality Certification, Section 401, permit from the Regional Water Quality Control Board.
- A 1601-1603 Streambed Alteration Agreement from the California Department of Fish and Game.

B. California Regulations

1. California Environmental Quality Act

According to Section 21002 of CEQA, "It is the policy of the State that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. To clarify that statement, CEQA Guidelines, Section 15370, lists five mitigation concepts for listed species.

a. Avoiding the impact altogether by not taking a certain action.
b. Minimizing impacts by limiting the degree or magnitude of the action.
c. Rectifying the impact by repairing, rehabilitating or restoring the impacted area.
d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project.
e. Compensating for the impact by replacing or providing substitute resources or environments.

2. California Endangered Species Act (CESA)

Section 2052 of CESA states, "The Legislature . . . finds and declares that it is the policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat." Protection for such special-status species is codified in Section 2080 of the Fish and Game Code, which prohibits "take" of any endangered or threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset losses caused by the project, but allows for take incidental to otherwise lawful development projects. When take of a species cannot be avoided, an Incidental Take Permit, authorized under Title 14, Section 783.2, may be obtained through the CESA Section 2081(b) and (c) incidental take permit process.

3. California State Fish and Game Code

The State Fish and Game Code Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act or any part of such migratory non-game bird, except as provided by the Secretary of the Interior under provisions of the Migratory Treaty Act.

C. El Dorado County Regulations

1. El Dorado County Important Habitat Mitigation Program

Mitigation guidelines provided by El Dorado County include, but are not limited to, the following:

a. Avoidance;
b. Open space/conservation easements;
c. Redesign;
d. Clustering;
e. Vegetated buffers;
f. Retaining animal dispersal corridors;
g. Planning construction activity to avoid critical time periods (nesting, breeding) for wildlife species;
h. Careful siting to place new disturbances at previously disturbed locations;
i. Restoration or enhancement of woodland habitat;
j. Best Management Practices for reducing impacts from grading/development in environmentally sensitive areas;
k. Additional oak tree canopy retention and oak woodland habitat preservation or replacement on-site and/or off-site;
l. Retaining contiguous stands of oak woodland habitats by retaining corridors between stands.

2. El Dorado County Ordinance 17.71

Mitigation for projects in Rare Plant Mitigation Areas 1 and 2 are outlined Ordinance 17.71, with a strong emphasis on use of an Ecological Preserve Fee or participation in the Off-site Mitigation Program as the preferred mitigation options. Use of the Ecological Preserve Fee as mitigation can no longer be done, due to the ruling of the California Appellate Court in *California Native Plant Society v. El Dorado County* [*170 Cal. App.4th 1026 (2009)*], and El Dorado County does not currently have an Off-site Mitigation Program. The only remaining mitigation option, On-site Mitigation, is outlined in Section 17.71.020:

1. Development within Mitigation Area 0 will continue to address mitigation for impacts to rare plants on an individual basis. Within Mitigation Area 0, on-site mitigation is strongly encouraged. Developments within Mitigation Area 0 shall mitigate impacts by exercising one of the following three (3) options:

   a. Set aside a part of the property and dedicate a perpetual conservation easement for habitat protection; or

   b. Cluster development in the least environmentally sensitive portion of the property according to the implementation strategy adopted by the County in March 1993 and receive in appropriate cases a density bonus in return for dedication of a perpetual conservation easement over the remainder of the property; or

   c. Provide an independent mitigation plan that meets CEQA requirements, such as the purpose of long-term protection of an amount of habitat in the same ecological preserve and as close to the development site as feasible, equal to at least 1.5 times the acreage developed.

3. El Dorado County General Plan Policy 7.4.2.9, Important Biological Corridor

The project site is within an Important Biological Corridor, as defined in El Dorado County General Plan Policy 7.4.2.9. Guidelines in Policy 7.4.2.9 state, "Lands located within the overlay district shall be subject to the following provisions:

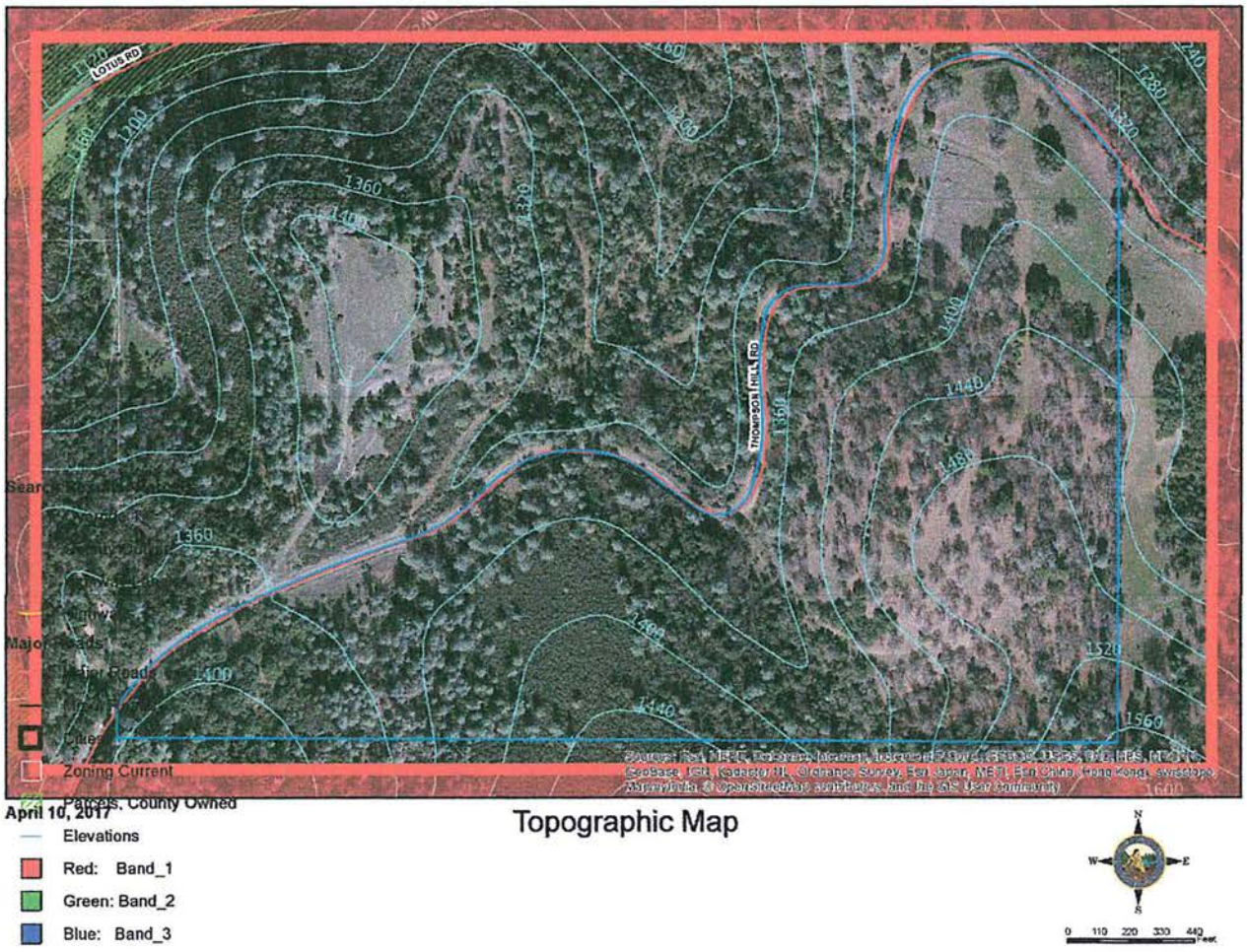
a. Increased minimum parcel size;
b. Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;
c. Lower thresholds for grading permits;
d. Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;
e. Increased riparian corridor and wetland setbacks;
f. Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S.Fish and Wildlife Service/California Department of Fish and Game);
g. Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;
h. Building permits discretionary or some other type of "site review" to ensure that canopy is retained;
i. More stringent standards for lot coverage, floor area ratio and building height;
j. No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement)."

V. Topographic Features

A. Topography

The project site lies between 1330 and 1560 feet (405 and 475 meters) elevation. The topography consists of three northerly-sloping ridges separated by two unnamed intermittent creeks (Figure 4). The slope gradient on the ridges follows: westernmost ridge, 15 percent; central ridge, 14 percent; and easternmost ridge, 11 percent.

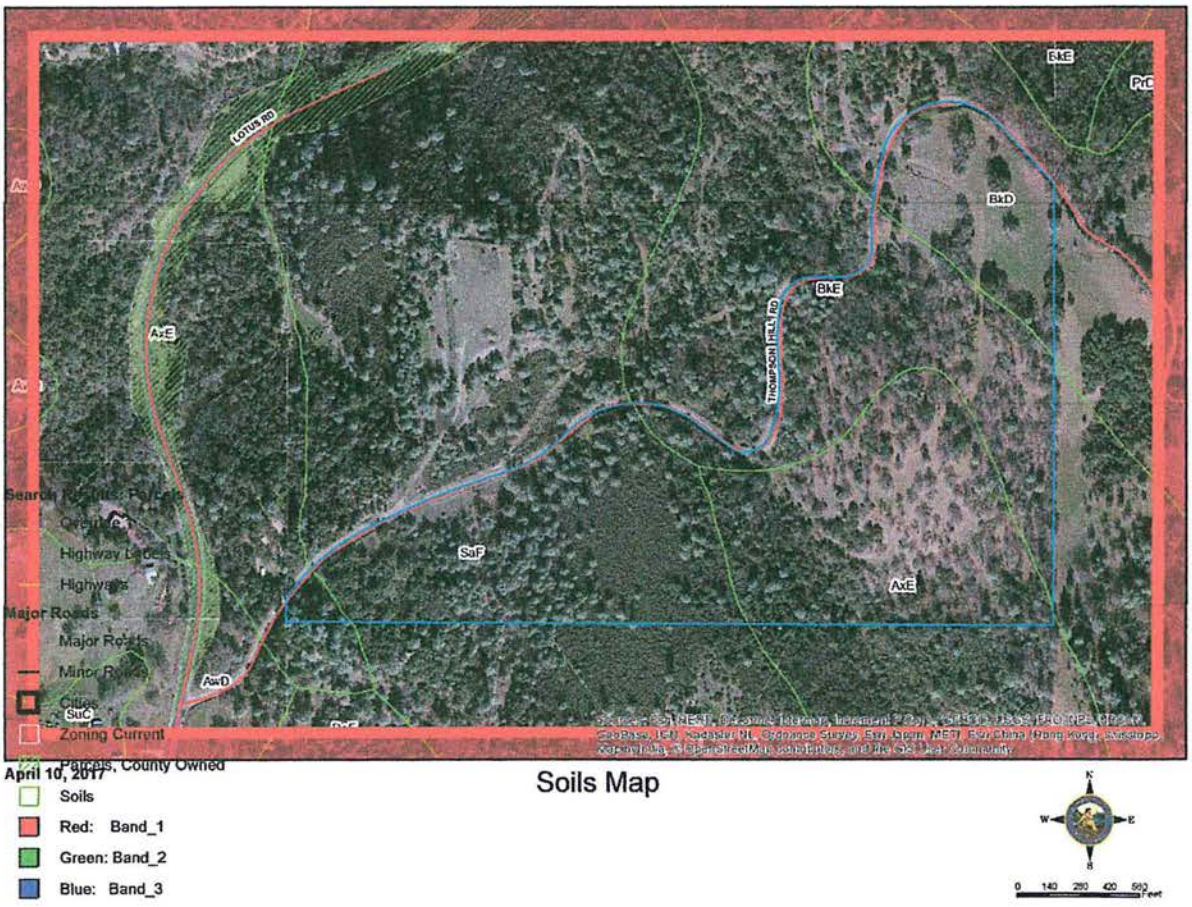
Figure 3. Topographic map, generated by El Dorado County Got Net



B. Soils

Soils on the project site (Figure 4) include (from southwest to northeast) Auburn very rocky silt loam (AxE), Serpentine rock land (SaF), Auburn very rocky silt loam, Boomer very rocky loam (BkD and BkE). Auburn soils comprise approximately 30 percent of the parcel; Boomer soils, 40 percent; and serpentine soils, 30 percent (NRCS 2017). Auburn soils are derived from basic igneous or metamorphic rock; Serpentine soils from ultrabasic metamorphic rock; and Boomer soils from schist (USDA 1974).

Figure 4. Soils map, generated by El Dorado County Got Net.



AxE = Auburn very rocky silt loam
SaF = Serpentine rock land
BkD = Boomer very rocky loam 3 to 30 percent slopes
BkE = Boomer very rocky loam, 30 to 50 percent slopes

VI. Biological Resources

A. Vegetation Communities

Vegetation communities on the project site include, from west to east: 71.080.00 Interior Live Oak Woodland, 87.130.00 Foothill Pine Woodland, 37610 Mixed Serpentine Chaparral (Holland 1986), Interior Live Oak Woodland, 71.020.00 Blue Oak Woodland and 42.040.00 California Annual Grassland. California Annual Grassland is also found along the north property boundary west of an intermittent creek (Figure 6).

1. Interior Live Oak Woodland

Interior live oak woodland covers approximately nine acres in two areas of the property: five acres at the western corner of the project site, and four acres in the center of the parcel. The tree canopy is dominated by interior live oak (*Quercus wislizeni*), but also includes blue oak (*Q. douglasiana*), California buckeye (*Aesculus californica*) and foothill pine (*Pinus sabiniana*) as minor components. The shrub layer includes western poison-oak *(Toxicodendron diversiloba)*, whiteleaf manzanita (*Arctostaphylos viscida)*, toyon (*Heteromeles arbutifolia*), coyote brush (*Baccharis pilularis*), chaparral clematis (*Clematis lasiantha*) and buck brush (*Ceanothus cuneatus*). The ground layer, limited to openings in the woodland, includes various bromes (*Bromus* sp.), sanicle (*Sanicula* sp.), dogtail grass (*Cynosurus echinatus*), silver hair grass (*Aira caryophyllea*), goose grass (*Galium aparine*) and Italian plumeless thistle (*Carduus pycnocephalus)* among other grasses and forbs. A complete list of plant species found on the property is presented in Appendix E.

2. Foothill Pine Woodland

Foothill Pine Woodland covers approximately four and one-half acres of the project site. The tree canopy is primarily foothill pine, but also includes scattered interior live oaks. The dense brushy understory consists of toyon (*Heteromeles arbutifolia*), deer brush (*Ceanothus integerrimus*), coffeeberry *(Frangula californica),* chamise (*Adenostoma fasciculatum)* and western poison-oak. The ground layer consists of various grasses and forbs, as in the interior live oak woodland.

3. Mixed Serpentine Chaparral

Mixed serpentine chaparral vegetation, covering approximately nine acres, is the dominant vegetation community on the Serpentine soils between the two intermittent creeks in the project site. This vegetation community has been described as the *Quercus durata* Association (Leather Oak Association) (Klein et.al, 2007). Trees are limited to scattered foothill pines, and the shrub layer, dominated by leather oak, includes chamise, whiteleaf manzanita (*Arctostaphylos viscida)*, poison-oak, and toyon. Before being cleared in 2018 (Figure 8), the ground layer was mostly absent, due to the dense shade and probable allelopathy of the shrub layer. In 2020, the shrub layer is recovering from removal, with shrubs varying in height from two to six feet. The ground layer consists of annual grasses, primarily perennial ryegrass (*Festuca perennis*), Rat's-tail fescue (*F. myuros*) and various bromes.

Figure 5. Photo at left, along the south property boundary of proposed Parcel 2, contrasts dense chaparral on the neighboring parcel (typical of the project site in 2017) with the cleared area on the project site in 2020. Photo at right shows the regrowth of chamise and manzanita in the cleared area.

4. Blue Oak Woodland

Blue oak woodland (photo at right) covers about thirty-two acres on the ridge in the eastern portion of the property. The most common oak species is blue oak, although interior live oaks can be found in drainage swales and near Thompson Hill Road. The oak woodland includes foothill pines and a single ponderosa pine (*Pinus ponderosa*) along the East property line. The blue oak woodland understory primarily consists of savannah, but western poison oak is found at the base of many oaks and covering some rock outcroppings. Other shrubs include bush beardtongue (*Keckiella breviflora* var. *breviflora*) and lupines (*Lupinus* sp.). The ground layer in the blue oak woodland is dominated by annual grasses, including various bromes, fescues (*Festuca sp.),* Medusa head (*Elymus caput-medusae*), and nit grass (*Gastridium phleoides*), among others. Common forbs include sanicle, wild carrot (*Daucus carata*), yellow star-thistle (*Centaurea solstitialis*), cat's-ear (*Hypochaeris* sp.), rose clover (*Trifolium hirtum*) and Ithuriel's spear (*Triteleia laxa*).

5. California Annual Grassland

California annual grassland (photo at right) covers about seven acres, found in two locations: about one-half acre west of the intermittent creek on Parcel 1 and about 6.5 acres on Parcels 2 and 3 (Figure 5). The vegetation mix in the westernmost grassland includes ryegrass (*Festuca perennis),* various bromes, sanicle, dogtail grass, silver hair grass, and bluegrass (*Poa* sp.). The easternmost grassland has scattered blue oak trees with an herb-layer species mix similar to the vegetation found in the blue oak woodland, described in subsection 4, above.

FIGURE 6
VEGETATION MAP

A PORTION OF EAST HALF OF
SECTION 25, T.11N., R.9E., M.D.M.
BEING PARCEL B OF PM 51/83
EL DORADO COUNTY STATE OF CALIFORNIA
JUNE 2020
FOR: JOMESCBO TRUST
APN: 105-190-042

0 200 400 600

SCALE 1"=200'

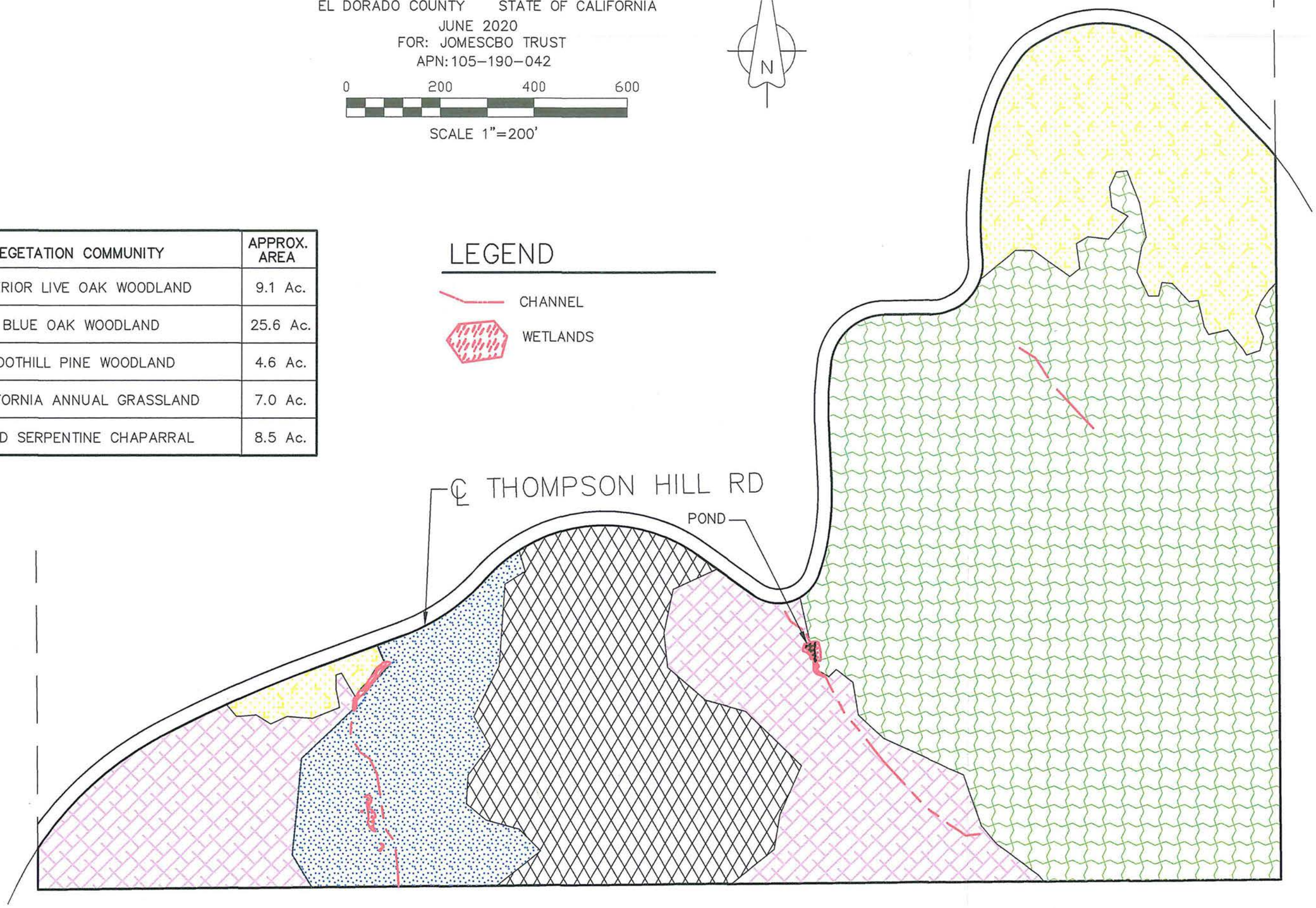
N

	VEGETATION COMMUNITY	APPROX. AREA
	INTERIOR LIVE OAK WOODLAND	9.1 Ac.
	BLUE OAK WOODLAND	25.6 Ac.
	FOOTHILL PINE WOODLAND	4.6 Ac.
	CALIFORNIA ANNUAL GRASSLAND	7.0 Ac.
	MIXED SERPENTINE CHAPARRAL	8.5 Ac.

LEGEND

CHANNEL

WETLANDS



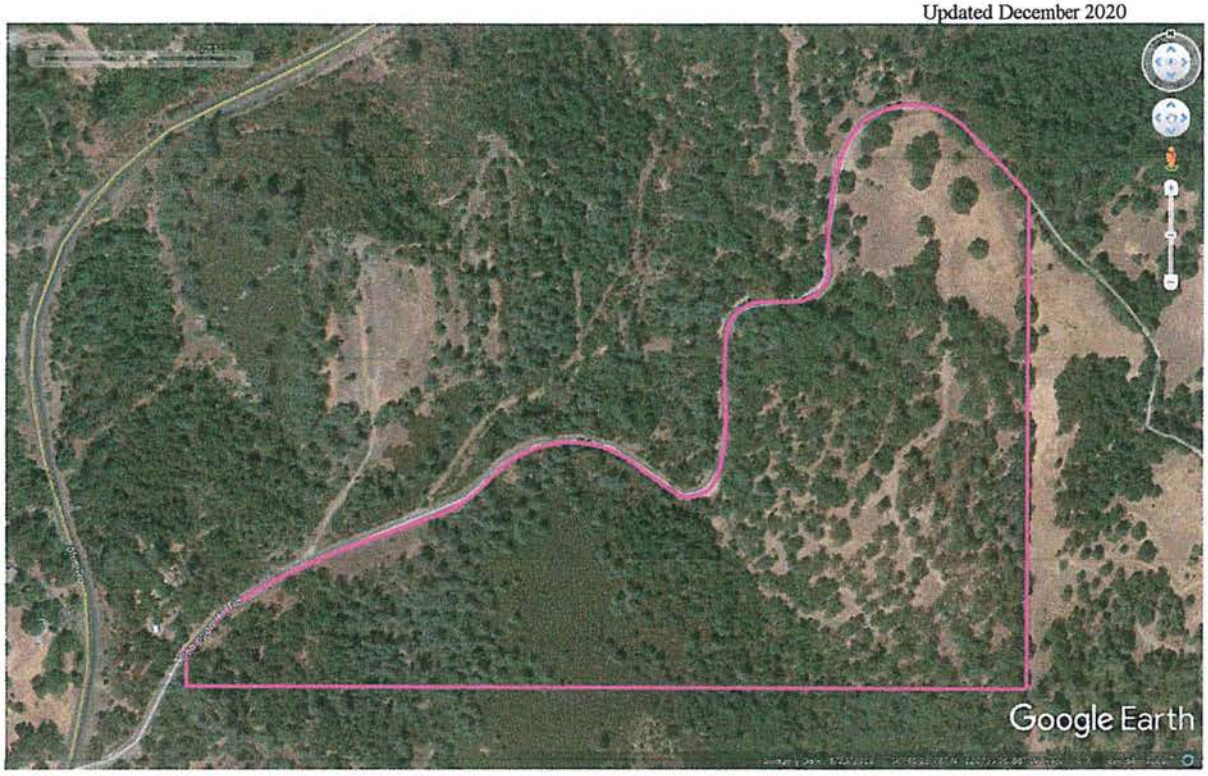
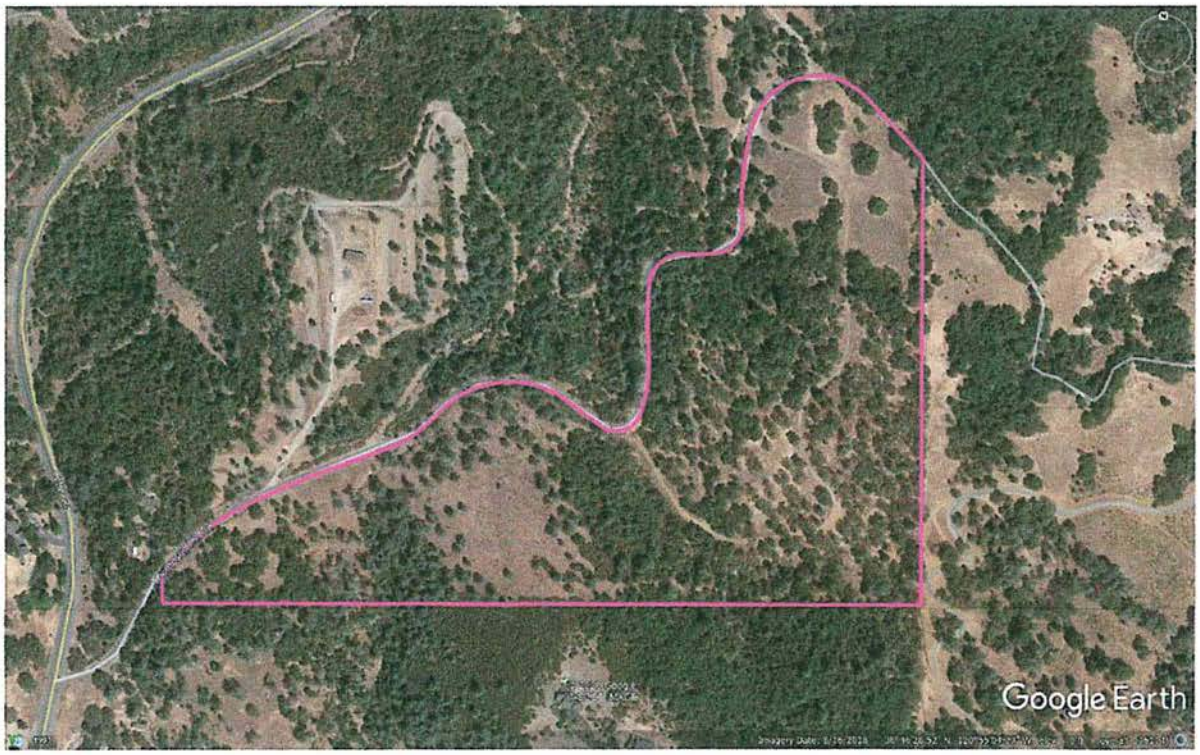


Figure 7. Google Earth photo 2012, before chaparral was removed (above), and from 2018, after shrub removal (below).



B. Waters and Wetlands

The project site has two intermittent creeks, designated Channels 1 and 2, that flow from south to north across the property, and one ephemeral drainage, Channel 3, that carries water northwesterly from the ridge in the eastern portion of the site. Channel 1, located on Parcel 1, (Figure 9) has its origins south of the project site and carries water northerly through small wetlands near Thompson Hill Road (Figure 7). Water collects at a culvert beneath a dirt road, then leaves the property within a second culvert beneath Thompson Hill Road. Channel 2 carries water from a swale on proposed Parcel 3 to a seasonal pond near Thompson Hill Road on Parcel 2 (Figure 7), then continues to the property boundary, where it enters a culvert beneath the road . The ephemeral drainage carries storm water northwesterly on proposed Parcel 4 to a broad flood plain south of Thompson Hill Road, then collects at a culvert that transports it off the property and beneath the road.

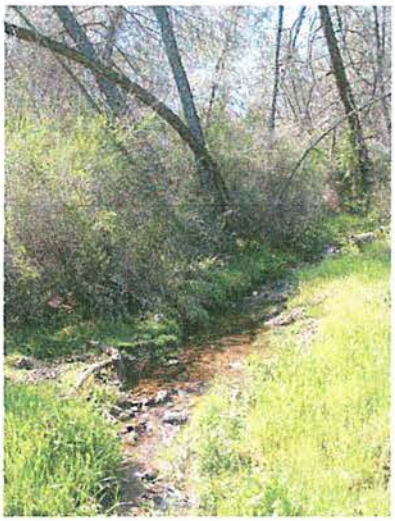


Figure 8. Photos of two unnamed intermittent creeks found on the project site: Channel 1 (left); Channel 2 (right).

Wetlands are found within and adjacent to Channel 1 (Figure 9, left) and surrounding the pond on Channel 2 (Figure 9, right). The seasonal pond held water until late May in 2017, an exceptionally wet winter (approximately 170 percent of average rainfall), but was dry the same date in 2020. Likewise, water was flowing into the wetlands on Channel 1 in early June, 2017, but the channel was dry by mid-May in 2020. Plants in the wetlands include seep monkeyflower (*Mimulus guttatus*), toad rush (*Juncus bufonius*), ryegrass (*Festuca perennis*), Italian plantain (*Plantago lanceolata*), and annual beardgrass (*Polypogon monspeliensis*).

Figure 9. Photo of wetlands within and adjacent to Channel 1 (left), evident by the yellow flowers of the obligate wetland plant, Seep monkeyflower (left); and the pond with surrounding wetlands on Channel 2 (right).

C. Wildlife

Two reptile species were observed on the project site: California alligator lizard (*Elgaria coerulea*) and Western fence lizard (*Sceloporus occidentalis*). The site has suitable habitat for additional reptiles not observed during field surveys, including, but not limited to, Common king snake (*Lampropeltis getula*), Gopher snake (*Pituophis catenifer*), Ringneck snake (*Diadophis punctatus*), Sharp-tail snake (*Contia tenuis*), Racer (*Coluber constrictor*), Terrestrial gartersnake (*Thamnophis elegans*) and Western rattlesnake (*Crotalus viridis*).

One amphibian was observed: Pacific tree frog (*Pseudacris egilla*),. The site has suitable habitat for other amphibians, including, but not limited to, California slender salamander (*Batrachoseps attenuatus*), Western toad (*Anaxyrus boreas*), and Ensatina (*Ensatina eschscholtzii*).

Evidence of mammals found on the project site include Coyote (*Canis latrans*), Black-tailed deer (*Odocoileus hemionus),*Gray fox (*Urocyon cinereoargenteus*), Striped skunk (*Mephitis mephitis*), and Western gray squirrel (*Sciurus griseus*). Not observed, but having suitable habitat on-site, are the following mammals: California ground squirrel (*Spermophilus beecheyi*), North American deer mouse (*Peromyscus mephitis*), California vole (*Microtus californicus*), Broad-footed mole (*Scapanus latimanus*), Raccoon (*Procyon lotor*), Ringtail (*Bassariscus astutus*), Virginia opossum (*Didelphis virginiana*), Long-tailed weasel (*Mustela frenata*), Dusky-footed woodrat (*Neotoma fuscipes*), California ground squirrel (*Spermophilus beecheyi*) Big-eared woodrat (*Neotoma macrotis*), Cottontail rabbit (*Sylvilagus bachmani*), Black bear (*Ursus americanus*) and Mountain lion (*Panthera concolor*), among others not mentioned.

Several bird species were found on or near the project site, including Wrentit (*Chamaea fasciata*), Scrub jay (*Aphelocoma coerulescens),* Stellar's jay (*Cyanocitta stelleri*), Spotted towhee (*Pipilio maculatus*), California towhee (*Pipilo crissalis*), Turkey vulture (*Cathartes aura*), Red-tailed Hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*), Mourning dove (*Zenaida macroura*), American robin (*Turdus migratorius*), Anna's hummingbird (*Calypte anna*), White-breasted nuthatch (*Sitta carolinensis*), Oak titmouse (*Baeolophus inornatus*), Northern mockingbird (*Mimus polyglottos*), House finch (*Carpodacus mexicanus*), Lesser goldfinch (*Spinus psaltria*), Acorn woodpecker (*Melanerpes formicivorus*), Ash-throated flycatcher (*Contopus cooperi*), Hermit Thrush (*Catharus guttatus*), Kinglet (*Regulus* sp.), Warbling vireo (*Vireo gilvus*), Orange-crowned warbler (*Vermivora celata*), Yellow-rumped warbler (*Dendroica coronata*), Bullock's oriole (*Icterus bullockii*), Tree swallow (*Tachycineta bicolor*), and Bushtit (*Psaltriparus minimus*).

The site has suitable habitat for several bird species not observed during field surveys, including, but not limited to, the following: Dark-eyed junco (*Junco hyemalis*), Golden-crowned and White-crowned sparrow (*Zonotrichia atricapilla* and *Z. leucophrys*), Yellow warbler (*Dendroica petechia*), California thrasher (*Toxostoma redivivum*), Rufous-crowned sparrow (*Aimophila ruficeps*), Blue-gray gnatcatcher (*Polioptila caerulea*), Black-throated gray warbler (*Dendroica nigrescens*), Great horned owl (*Bubo virginianus*), Hutton's vireo (*Vireo huttoni*), Rock wren (*Salpinctes obsoletus*) and House wren (*Troglodytes aedon*).

D. Special-Status Species

1. Special-Status Species Without Habitat on the Project site

An evaluation of special-status species which may be found in the Coloma and surrounding USGS Quads is shown in Appendix D. Species lacking suitable habitat on the project site are not discussed further in this report.

2. Special-Status Species with Habitat on the Project site

The property was searched for special-status species during field surveys conducted April 18, 2016, April 19, May 17 and June 7, 2017, and May 15, 2020. Potential habitat was found for one state- and federal-listed species: Layne's butterwort (*Packera layneae).* Two species of concern were found on-site: Oak titmouse (*Baeolophus inornatus*) and Wrentit (*Chamaea fasciata*). In addition, potential habitat for fifty-two additional species of concern was found (Table 3). The suitability of the site to support each species is evaluated in Subsection 3, below.

Table 2. Special-status species with potential habitat on the project site.

	Common Name	Listing Status[1] Federal/ State (Other)	Habitat Quality	Species Found On Site?
State- or Federal-Listed Species				
Packera layneae	**Layne's butterweed**	**T / R**	Marginal	No
Species of Concern				
Invertebrates				
Bombus occidentalis	Western bumble bee	— / C: E	Suitable	No
Cosumnoperla hypocrena	Cosumnes spring stonefly	— / —	Suitable	No
Reptiles				
Phrynosoma blainvillii	Blainville's horned lizard	— / — (SSC)	Marginal	No
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	— / — (IUCN: LC)	Suitable	No
Aimophila ruficeps	Rufous-crowned sparrow	— / — (IUCN: LC)	Suitable	No
Ammodramus savannarum (nesting)	Grasshopper sparrow	— / — (SSC)	Suitable	No
Aquila chrysaetos (nesting)	Golden eagle	— / — (FP)	Suitable	No
Asio otus (nesting)	Long-eared owl	— / — (SSC)	Marginal	No
Baeolophus inornatus (nesting)	Oak titmouse	— / — (BCC)	Suitable	Yes
Continued on next page				

[1]**E** = Endangered; **C**=Candidate; **R** = Rare; **T** = Threatened; **SSC**=Ca. Dept. Fish & Wildlife Species of Special Concern; **IUCN**= World Conservation Union; **LC** = World Conservation Union list of species of least concern; **BCC**= U.S. Fish & Wildlife Service Birds of Conservation Concern; **FP**=Fully protected species

Table 2: Birds (continued)

Special-status Species	Common Name	Legal Status[2] Federal/ State (Other)	Habitat Quality	Species Found On Site?
Chamaea fasciata	Wrentit	— / — (IUCN: LC)	G5 SNR	Yes
Falco columbarius (wintering)	Merlin	— / — (IUCN: LC)	Suitable	No
Lanius ludovicianus (nesting)	Loggerhead shrike	— / — (SSC)	Marginal	No
Passerella iliaca (nesting)	Fox sparrow	— / — (BCC)	Suitable	No
Picoides nuttallii (nesting)	Nuttall's woodpecker	— / — (BCC)	Marginal	No
Progne subis (nesting)	Purple martin	— / — (SSC)	Suitable	No
Selasphorus rufus	Rufous hummingbird	— / — (BCC)	Suitable	No
Spinus lawrencei (nesting)	Lawrence's goldfinch	— / — (BCC)	Suitable	No
Spizella atrogularis (nesting)	Black-chinned sparrow	— / — (BCC)	Suitable	No
Spizella breweri (nesting)	Brewer's sparrow	— / — (BCC)	Marginal	No
Spizella passerina	Chipping sparrow	— / — (BCC)	Marginal	No
Toxostoma redivivum	California thrasher	— / — (IUCN: LC)	Suitable	No

Continued on next page

[2] **CT**=Candidate as Threatened under the California Endangered Species Act; **CNPS**= California Native Plant Society; **CNPS:1B**= CNPS list of rare, threatened or endangered plants in California and elsewhere; **CNPS:2**= CNPS list of rare, threatened or endangered plants in California, but more common elsewhere; **CNPS:3** = CNPS list of plants with problematic taxonomy; **CNPS:4**= CNPS watch list of plants with limited distribution; CNPS Threat Ranks: **0.1**= Seriously threatened in California (over 80% of occurrences threatened); **0.2**= Moderately threatened in California(20-80% of occurrences threatened); **0.3**= Not very threatened in California (<20% of occurrences threatened)

Mammals				
Special-status Species	**Common Name**	**Legal Status[3] Federal/ State** (Other)	**Habitat Quality**	**Species Found On Site?**
Atrozous pallidus	Pallid bat	— / — (SSC)	Marginal	No
Bassariscus astutus	Ringtail	— / — (FP)	Suitable	No
Corynorhinus townsendii	Townsend's big-eared bat	— / CT (SSC)	Marginal	No
Erethizon dorsatum	Porcupine	— / — (IUCN: LC)	Marginal	No
Lasionycteris noctivagans	Silver-haired bat	— / — (IUCN: LC)	Suitable	No
Myotis yumanensis	Yuma myotis bat	— / — (IUCN: LC)	Marginal	No
Plants				
CNPS Group 1B Plants[3]				
Allium jepsonii	Jepson's onion	— / — (CNPS:1B.2)	Marginal	No
Arctostaphylos nissenana	Nissenan manzanita	— / — (CNPS:1B.2)	Marginal	No
Balsamorhiza macrolepis var. *macrolepis*	Big-scale balsamroot	— / — (CNPS:1B.2)	Suitable	No
Carex xerophyla	Chaparral sedge	— / — (CNPS:1B.2)	Marginal	No
Chlorogalum grandiflorum	Red Hills soaproot	— / — (CNPS:1B.2)	Marginal	No
Juncus leiospermus	Red Bluff dwarf rush	— / — (CNPS:1B.1)	Suitable	No
Juncus luciensis	Santa Lucia dwarf rush	— / — (CNPS:1B.2)	Suitable	No

Continued on next page

[3] **CNPS**= California Native Plant Society; **CNPS:1B**= CNPS list of rare, threatened or endangered plants in California and elsewhere. **CNPS Threat Ranks: 0.1**= Seriously threatened in California (over 80% of occurrences threatened); **0.2**= Moderately threatened in California(20-80% of occurrences threatened); **0.3**= Not very threatened in California (<20% of occurrences threatened)

CNPS Group 2 Plants[4]				
Special-status Species	**Common Name**	**Legal Status**[5] **Federal/ State** (Other)	**Habitat Quality**	**Species Found On Site?**
Saggitaria sanfordii	Sanford's arrowhead	— / — (CNPS: 2B.2)	Suitable	No
Sphenopholis obtusata	Prairie wedge grass	— / — (CNPS:2B.2)	Suitable	No
Viburnum ellipticum	Oval-leaved viburnum	— / — (CNPS:2.3)	Suitable	No
CNPS Group 3 Plants[4]				
Fritillaria eastwoodiae	Butte County fritillary	— / — (CNPS:3.2)	Suitable	No
Jepsonia heterandra	Foothill jepsonia	— / — (CNPS:3.3)	Suitable	No
Lathyrus sulphureus var. *argillaceus*	Dubious pea	— / — (CNPS: 3)	Suitable	No
CNPS Group 4 Plants[4]				
Bryum chryseum	Brassy bryum moss	— / — (CNPS:4.3)	Suitable	No
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	— / — (CNPS:4.2)	Suitable	No
Clarkia virgata	Sierra clarkia	— / — (CNPS:4.3)	Marginal	No
Claytonia parviflora ssp. *grandiflora*	Streambank spring beauty	— / — (CNPS:4.2)	Suitable	No
Delphinium hansenii ssp. *ewanianum*	Ewan's larkspur	— / — (CNPS:4.2)	Suitable	No
Erigeron petrophilus var. *sierrensis*	Northern Sierra daisy	— / — (CNPS:4.3)	Suitable	No
Eriogonum tripodum	Tripod buckwheat	— / — (CNPS:4.2)	Suitable	No
Erythranthe inconspicua	Small-flowered monkeyflower	— / — (CNPS:4.3)	Suitable	No
Continued on next page				

[4] **CNPS:2**= CNPS list of rare, threatened or endangered plants in California, but more common elsewhere; **CNPS:3** = CNPS list of plants with problematic taxonomy; **CNPS:4**= CNPS watch list of plants with limited distribution; CNPS Threat Ranks: **0.1**= Seriously threatened in California (over 80% of occurrences threatened); **0.2**= Moderately threatened in California(20-80% of occurrences threatened); **0.3**= Not very threatened in California (<20% of occurrences threatened)

Table 2: CNPS Group 4 Plants (continued)

Special-status Species	Common Name	Legal Status Federal/ State (Other)	Habitat Quality	Species Found On Site?
Fritillaria agrestis	Stinkbells	— / — (CNPS:4.2)	Marginal	No
Githopsis pulchella ssp. *serpentinicola*	Serpentine bluecup	— / — (CNPS:4.3)	Suitable	No
Lilium humboldtii ssp. *humboldtii*	Humboldt's lily	— / — (CNPS:4.2)	Marginal	No
Microseris sylvatica	Sylvan microseris	— / — (CNPS:4.2)	Suitable	No
Mimulus glaucescens	Shield-bracted monkeyflower	— / — (CNPS:4.3)	Suitable	No
Myrica hartwegii	Sierra sweet bay	— / — (CNPS:4.3)	Suitable	No
Navarretia eriocephala	Hoary navarretia	— / — (CNPS:4.3)	Marginal	No
Navarretia subuligera	Awl-leaved navarretia	— / — (CNPS:4.3)	Marginal	No
Ophioglossum californicum	California adder's-tongue	— / — (CNPS:4.3)	Suitable	No
Perideridia bacigalupii	Bacigalupi's yampah	— / — (CNPS:4.2)	Marginal	No
Piperia leptopetala	Narrow-petaled rein orchid	— / — (CNPS:4.3)	Suitable	No
Piperia michaelii	Michael's rein orchid	— / — (CNPS:4.2)	Suitable	No

3. Evaluation of Special-Status Species

a. Federal- or State-listed Species

Layne's butterwort (*Packera layneae*)
Range: Foothills of Butte, El Dorado, Placer, Yuba and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: Approximately 0.5 miles south of the project site along Gold Hill Road (estimated location from herbarium specimen collected in 1962). (CNDDB 2020)
Habitat requirements: Open rocky areas in chaparral on gabbro or serpentine soils (USFWS 2007), 200-1085 m elevation (CNDDB 2020).
Habitat on project site: Marginal on Serpentine soils on the western portion of the project site. The chaparral vegetation is very dense on the serpentine soils area. Clearing or burning the vegetation would provide openings suitable for the species.

b. Species of Concern

i. Invertebrates

Western bumble bee (*Bombus occidentalis*)
Range: Historic range (prior to 1998) included northern California, Oregon, Washington, Alaska, Idaho, Montana, western Nebraska, western North Dakota, western South Dakota, Wyoming, Utah, Colorado, northern Arizona, and New Mexico. Recently, the population has undergone marked reductions. (Xerces Society 2020)
Nearest CNDDB occurrence: Approximately six miles NW of the project site. (BIOS 2020)
Habitat requirements: Bumble bees require flowers on which to forage, nest sites and overwintering sites. Bumble bees forage on a diverse group of plants (eg. *Phacelia, Ceanothus, Eschscholtzia, Lupinus, Rosa, Asclepias, Agastache, Monardella, Helianthus and Solidago* sp.), and need an abundance of flowers to sustain the colony. Nests are often in underground abandoned rodent burrows, or at ground level in grass tufts, or in bird nests, tree cavities or under rocks. Only mated queens overwinter in self-dug cavities in soft earth; the rest of the colony dies. (Xerces Society 2020)
Habitat on project site: Suitable. The project site has flowering plants suitable for foraging by the species and plenty of nesting habitat.

Cosumnes spring stonefly (*Cosumnoperla hypocrena*)
Range: Known only from the Cosumnes River and American River drainages in El Dorado County. (CNDDB 2020)
Nearest CNDDB occurrence: Approximately six miles WSW of the project site. (BIOS 2020)
Habitat requirements: Intermittent streams on western slope of foothills in American and Cosumnes River basins. (CNDDB 2020)
Habitat on project site: Suitable within intermittent streams on the project site.

ii. Reptiles

Blainville's horned lizard (*Phrynosoma blainvillii*)
Range: Found in Sierra Nevada foothills from Butte Co. to Kern Co. up to 1200 m elevation, throughout the central and southern California coast, and in the mountains of southern California, up to 1800 m elevation. (CWHR 2020)
Nearest CNDDB occurrence: Approximately six miles southwest of the project site, near Rescue. (BIOS 2020)
Habitat requirements: Found in open country with sandy areas such as washes, flood plains and wind-blown deposits, in habitats including valley foothill hardwood, conifer, riparian, pine-cypress, juniper and annual grassland. Feeds in open areas between shrubs, often near ant nests; consumes insects, especially ants. (CWHR 2020)
Habitat on project site: Marginal. The project site has very limited areas with sandy substrates.

iii. Birds

Cooper's hawk (*Accipiter cooperii)* nesting
Range: Breeding resident in most wooded portions of California between sea level and 2700 m elevation. (CWHR 2020)
Nearest CNDDB occurrence: Approximately 18 miles southwest of the project site, near Lake Natoma. (BIOS 2020)
Habitat requirements: Dense live oak, riparian deciduous or patchy woodland habitats near water. Feeds on small birds, mammals, reptiles and amphibians. Nests in deciduous trees or conifers, usually near streams. (CWHR 2020)
Habitat on project site: Suitable in interior live oak woodlands.

Rufous-crowned sparrow (*Aimophila ruficeps)*
Range: Resident of sparse, mixed chaparral and coastal scrub habitats (especially coastal sage) from Mendocino and Tehama counties south to the Mexican border. Uncommon on lower slopes of western Sierra Nevada, and on Santa Cruz Island. (CWHR 2020)
Nearest CNDDB occurrence: Los Angeles County. (BIOS 2020)
Habitat requirements: Frequents relatively steep, often rocky hillsides with grass and forb patches; also grassy slopes without shrubs, if rock outcrops are present. (CWHR 2020)
Habitat on project site: Suitable in chaparral on Parcels 1 and 2.

Grasshopper sparrow (*Ammodramus savannarum)* nesting
Range: Summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity counties south to San Diego county. (CWHR 2020)
Nearest CNDDB occurrence: About 19 miles southwest of the project site near Rancho Murieta. (BIOS 2020)
Habitat requirements: Dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting. Uses scattered shrubs for singing perches. Nests on the ground in a slight depression at the base of overhanging grasses or forbs. (CWHR 2020)
Habitat on project site: Suitable in blue oak savannah in the eastern portion of the project site.

Golden eagle (*Aquila chrysaetos)* nesting
Range: Uncommon permanent resident and migrant throughout California except the center of the Central Valley, from sea level to 3833 m elevation. (CWHR 2020)
Nearest CNDDB occurrence: Approximately 12 miles southwest of the project site, near El Dorado Hills. (BIOS 2020)
Habitat requirements: Rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, cliffs and rock outcrops. Needs open terrain for hunting: grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats. Nests on cliffs or large trees in open areas. (CWHR 2020)
Habitat on project site: Suitable in blue oak woodland in the eastern portion of the project site.

Long-eared owl (*Asio otus*) nesting
Range: Resident throughout California except Central Valley and Southern CA deserts, where it is an uncommon winter visitor. (CWHR 2020)
Nearest CNDDB occurrence: Upper Truckee River at Meyers. (BIOS 2020)
Habitat requirements: Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses.. (CNDDB 2020)
Habitat on project site: Marginal. Project site lacks suitable riparian trees, the preferred habitat, but has live oaks near intermittent streams.

Oak titmouse (*Baeolophus inornatus*) nesting
Range: Resident in oak habitats ranging from the Mexican border to Humboldt Co. Range encircles San Joaquin Valley, extending east from the coast through Kern Co. to the western slope of the Sierra Nevada north to Shasta Co. Scattered and local populations north of Humboldt Co. near the coast, and locally in Siskiyou County. (CWHR 2020)
Nearest CNDDB occurrence: Tuolumne County. (BIOS 2020)
Habitat requirements: Closely associated with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California. Prefers open woodlands of oak, and pine and oak. Nests in cavities or tree snags. Ventures into residential areas. (CWHR 2020)
Habitat on project site: Suitable within oak woodlands throughout the project site. The species was seen in on-site blue oak woodlands.

Wrentit (*Chamaea fasciata*)
Range: Resident of California chaparral habitat. Also frequents shrub understory of coniferous habitats from the coast to lower regions of mountains throughout cismontane California. Absent east of the Cascade-Sierra Nevada crest in Great Basin and southeastern deserts, except extends east in small numbers into southwestern Modoc Co. and into eastern Plumas Co. (CWHR 2020)
Nearest CNDDB occurrence: None. (BIOS 2020)
Habitat requirements: Dense chaparral and other shrub habitats. Feeds on insects, spiders, berries and small fruits. (CWHR 2020) Nests in dense stand of shrubs.
Habitat on project site: Suitable in on-site chaparral and oak woodlands having dense brushy understory. The species was heard singing on-site.

Merlin (*Falco columbarius*) wintering
Range: Winter migrant in most of the western half of California below 1500 m elevation. (CWHR 2020)
Nearest CNDDB occurrence: About 17 miles southwest of the project site, at Lake Natoma. (BIOS 2020)
Habitat requirements: Utilizes coastlines, open grasslands, woodlands, lakes, wetlands, edges and early successional stages, ranging from annual grasslands to Ponderosa pine and montane hardwood-conifer habitats. Frequents open habitats at low elevations near water and tree stands, especially near coastlines, lakeshores and wetlands. Does not nest in California. (CWHR 2020)
Habitat on project site: Suitable habitat in blue oak woodland on the eastern portion of the project site.

Loggerhead shrike (*Lanius ludovicianus*) nesting
Range: Resident and winter visitor in lowlands and foothills throughout California (CWHR 2020).
Nearest CNNDB occurrence: San Juaquin and Butte counties. (BIOS 2020)
Habitat requirements: Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Often found in open cropland; sometimes uses edges of denser habitats. (CWHR 2020)
Habitat quality on project site: Marginal in blue oak woodlands on the eastern portion of the project site.

Fox sparrow (*Passerella iliaca*) nesting
Range: Summer ranges in the mountains of California; winters in brushy habitats in foothills and lowlands (CWHR 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Breeds in dense montane chaparral and brushy understory of other wooded, montane habitats. (CWHR 2020)
Habitat on project site: Suitable in mixed serpentine chaparral and brushy understory of interior live oak and foothill pine woodlands on the project site.

Nuttall's woodpecker (*Picoides nuttalli*) nesting
Range: Central Valley, Transverse and Peninsular Ranges, Coast Range north to Sonoma County, lower portions of Cascade Range and Sierra Nevada. Average home range is 0.8 mile from a riparian strip (CWHR 2020).
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Resident of low-elevation riparian deciduous and oak habitats. Feeds on oak and riparian deciduous trees for sap, adult and larval insects; also eats seeds, nuts and fruits. Nests in riparian habitat, usually in a dead willow, sycamore, cottonwood or alder, rarely in oaks. (CWHR 2020)
Habitat on project site: Marginal. Project site lacks preferred nesting vegetation, but may nest in the plentiful on-site oak trees.

Purple martin (*Progne subis*) nesting
Range: Local summer resident in a variety of wooded, low-elevation habitats throughout the state. (CWHR 2020)
Nearest CNDDB occurrence: Roseville area, Placer county. (BIOS 2020)
Habitat requirements: Uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. Frequents old-growth, multi-layered, open forest and woodland with snags in breeding season. Forages over riparian areas, forest, and woodland. (CWHR 2020)
Habitat on project site: Suitable in woodlands throughout the site.

Rufous hummingbird (*Selasphorus rufus)*
Range: Spring migrant northerly through lowlands and foothills, and post-breeders southerly through the Cascade Range and Sierra Nevada in summer. Breeds in Washington and Oregon, and in Transition life zone of northwest coastal area from Oregon border to southern Sonoma County. (CWHR 2020, CNDDB 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Migrants use riparian areas, open woodlands, chaparral, mountain meadows, and other habitats rich in nectar-producing flowers, including gardens and orchards.. (CWHR 2020)
Habitat on project site: Suitable spring migration habitat throughout the project site.

Lawrence's goldfinch (*Spinus lawrencei)* nesting
Range: Rather common along western edge of southern deserts, common but erratic in Santa Clara County and on the coastal slope from Monterey County south. Uncommon in foothills surrounding the Central Valley. (CWHR 2020)
Nearest CNDDB occurrence: Sutter Buttes. (BIOS 2020)
Habitat requirements: Utilizes valley foothill hardwood, valley foothill hardwood-conifer, and, in southern California, desert riparian, palm oasis, pinyon-juniper and lower montane habitats. Requires open woodland or shrubland with a nearby source of water, and forb and shrub seeds. Nests in dense foliage of a tree or shrub, especially within oaks, cypresses or riparian thickets. Most often nests near water in open, arid woodland, but also uses chaparral. (CWHR 2020)
Habitat on project site: Suitable nesting habitat in blue oak woodland in the eastern portion of the project site.

Black-chinned sparrow (*Spizella atrogularis)* nesting
Range: A summer resident that breeds locally and uncommonly in foothills bordering Central Valley, and commonly on arid mountain slopes of southern California. (CWHR 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Occurs mostly on sloping ground in mixed chaparral, chamise-redshank chaparral, sagebrush, and similar brushy habitats, including those in understory of sparse pinyon-juniper, juniper, and other conifer habitats. Frequents shrub stands of mixed species. Breeds and forages in open to moderately dense chaparral and similar brushy habitats; often on arid, south-facing slopes with ceanothus, manzanita, sagebrush, chamise. (CWHR 2020)
Habitat on project site: Suitable in on-site mixed serpentine chaparral.

Brewer's sparrow (*Spizella breweri)* nesting
Range: A common summer resident and breeder east of the Cascade-Sierra Nevada crest, in mountains and higher valleys of Mojave Desert, and in those bounding southern end of the San Joaquin Valley. Breeds locally above pinyon-juniper belt and apparently on western slope of Sierra Nevada (Verner and Boss 1980). (CWHR 2020)
Nearest CNDDB occurrence: Approximately 110 miles southeast, south of Mono Lake. (BIOS 2020)
Habitat requirements: Found in extensive stands of sagebrush with moderate canopy unbroken by trees. Similar shrub habitats, such as bitterbrush, are used to a lesser extent. Breeds in extensive shrub stands with moderate canopy, especially sagebrush. (CWHR 2020)
Habitat on project site: Marginal. The species' preferred nesting habitat is desert shrubs, none of which are present on the project site. The potential to occur on-site is considered here because the species was reported as breeding on the western slope in 1980; however, recent reports of the nesting range of the species do not include habitats found on the project site.

Chipping sparrow (*Spizella passerina*)
Range: A common migrant and summer visitor throughout most of California, excluding Central Valley, southern deserts, and alpine areas. Less common in breeding season in southern and interior foothills than in montane habitats, northern coastal ranges, and Great Basin. (CWHR 2020).
Nearest CNNDB occurrence: None. (BIOS 2020)
Habitat requirements: Prefers open wooded habitats with a sparse or low herbaceous layer and few shrubs, if any. Although apparently requires trees for resting and singing, and prefers trees for nesting, often forages in nearby herbaceous and open shrub habitats, including dry margins of wet meadows. (CWHR 2020)
Habitat on project site: Marginal in on-site blue oak woodlands, which have dense rather than sparse herbaceous layer preferred by the species.

California Thrasher (*Toxostoma redivivum*)
Range: Resident of foothills and lowlands in cismontane California. (CWHR 2020).
Nearest CNNDB occurrence: None. (BIOS 2020)
Habitat requirements: Occupies moderate to dense chaparral habitats and, less commonly, extensive thickets in young or open valley foothill riparian habitat. Feeds on terrestrial invertebrates, fruits, acorns and seeds. (CWHR 2020)
Habitat on project site: Suitable in chaparral and oak woodlands having dense brushy understory.

iv. Mammals

Pallid bat (*Antrozous pallidus*)
Range: Occupies grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests (CWHR 2019).
Nearest CNDDB occurrence: Approximately 2½ miles northerly, at Coloma. (BIOS 2020)
Habitat requirements: Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites (CNDDB 2020). Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and open buildings (CWHR 2020).
Habitat quality on project site: Marginal. Project site has no caves, mines or buildings, but does have some rock outcroppings which may offer roosting habitat.

Ringtail (*Bassariscus astutus*)
Range: Permanent resident in various riparian habitats, and in brush stands of most forest and shrub habitats, at low to middle elevations. (CWHR 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Suitable habitat consists of a mixture of forest and shrubland in close association with rocky areas or riparian habitats. (CWHR 2020)
Habitat on project site: Suitable throughout the project site.

Townsend's big-eared bat (*Corynorhinus townsendii*)
Range: Throughout California in a wide variety of habitats. Most common in mesic sites. (CNDDB 2020).
Nearest CNNDB occurrence: Wentworth Springs area, El Dorado County. (BIOS 2020)
Habitat requirements: Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. Prefers mesic habitats. Gleans insects from brush or trees or feeds along habitat edges. (CWHR 2020). Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance (CNDDB 2020).
Habitat quality on project site: Marginal in a small, rocky, mined depression near Thompson Hill Road.

North American Porcupine (*Erethizon dorsatum*)
Range: Found throughout the Sierra Nevada and Cascades from Kern Co. north to the Oregon border, south in the Coast Ranges to Sonoma Co., and from San Mateo Co. south to Los Angeles Co. (CWHR 2020)
Nearest CNDDB occurrence: Approximately five miles ESE, near Garden Valley. Last sighted 1983. (BIOS 2020)
Habitat requirements: Most common in montane conifer, Douglas-fir, alpine dwarf-shrub, and wet meadow habitats. Less common in hardwood, hardwood-conifer, montane and valley-foothill riparian, aspen, pinyon-juniper, low sage, sagebrush, and bitterbrush habitats. Requires forest with a good understory of herbs, grasses, and shrubs. Prefers open stands of conifers. In spring and summer, uses meadows, brushy and riparian habitats for feeding. In winter, restricted to forests. In relatively arid regions, somewhat restricted to riparian habitats. Dens in caves, crevices in rocks, cliffs, hollow logs, snags, burrows of other animals; will use dense foliage in trees if other sites are unavailable (CWHR 2020).
Habitat quality on project site: Marginal in the oak woodlands in the northern portion of the project site. The site has relatively arid habitats, lacking riparian vegetation, caves and rock outcrops. Species could use hollow logs or dense foliage of on-site trees for dens, and oaks and other vegetation for food.

Silver-haired bat (*Lasionycteris noctivagans*)
Range: Coastal and montane forests from the Oregon border south along the coast to San Francisco Bay, and along the Sierra Nevada and Great Basin region to Inyo County. Also recorded in Sacramento, Stanislaus, Monterey and Yolo counties. Known as a migrant throughout California. The species likely winters in Mexico. (CWHR 2020)
Nearest CNDDB occurrence: About seven miles east of the project site, at Chili Bar. (BIOS 2020)
Habitat requirements: Summer habitats include coastal and montane coniferous forest, valley foothill woodlands, pinyon-juniper woodlands and valley foothill and montane riparian habitats below 2750 m elevation. Feeds over forest streams, ponds and open brushy areas. Requires drinking water. Roosts in hollow trees, snags, buildings, rock crevices, caves and under bark. Nurseries are located in dense foliage or hollow trees. (CWHR 2020)
Habitat on project site: Suitable roosting habitat in woodlands, and suitable forage areas over chaparral.

Yuma myotis bat (*Myotis yumanensis*)
Range: Widespread in California from sea level to 11,000 feet elevation. Uncommon in desert regions, except the mountain ranges bordering the Colorado River Valley. (CWHR 2020)
Nearest CNDDB occurrence: About seven miles east of the project site, at Chili Bar. (BIOS 2020)
Habitat requirements: Open forests and woodlands with bodies of water. Feeds on insects taken over ponds, streams and stock tanks. Requires drinking water. Roosts in buildings, mines, caves, crevices, abandoned swallow nests and under bridges. Maternity colonies are found in warm, dark buildings, caves, mines and under bridges. (CWHR 2020)
Habitat on project site: Marginal. No habitat suitable fore maternity colonies was found on the project site, and foraging habitat is limited to springtime, before intermittent water sources dry.

v. Plants

(1) CNPS List 1B Plants[6]

Jepson's onion (*Allium jepsonii*)
Range: Butte, El Dorado, Placer and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: About four miles south of the project site, near the Lotus/Green Valley Road intersection. (BIOS 2020)
Habitat requirements: Chaparral, cismontane woodland or lower montane coniferous forest on serpentine or volcanic soils between 300 and 1320 meters elevation. (CNPS 2020) On slopes and flats; usually in an open area. 355-1130 m. (CNDDB 2020)
Habitat on project site: Marginal on serpentine soils found on-site; unsuitable on the remainder of the project site.

Nissenan manzanita (*Arctostaphylos nissenana*)
Range: El Dorado, Placer and Tuolumne counties. (Jepson 2020)
Nearest CNDDB occurrence: About 6 miles northeast of the project site, between Garden Valley and Kelsey. (BIOS 2020)
Habitat requirements: Open, rocky shale ridges, chaparral, woodland, between 450 and 1650 meters elevation. (Jepson 2020) Closed-cone coniferous forest, chaparral; usually on metamorphic soils, associated with other chaparral species. 465-1610 m. (CNDDB 2020)
Habitat on project site: Marginal. Project site has few vegetation openings and is near the lower elevation range of the species.

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*)
Range: Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: Approximately 9 miles WNW of the project site, near the North Fork American River. (BIOS 2020)
Habitat requirements: Found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils, between 90 and 1555 meters elevation. (CNPS 2020)
Habitat on project site: Suitable in blue oak savannah on the eastern portion of the project site.

[6]CNPS List 1B= California Native Plant Society list of Rare, Threatened or Endangered Plants in California and Elsewhere

Chaparral sedge (*Carex xerophila*)
Range: Butte, El Dorado, Nevada and Yuba counties. (CNPS 2020)
Nearest CNNDB occurrence: Shingle Springs. (BIOS 2020)
Habitat requirements: Serpentine or gabbroic soils in openings within chaparral, cismontane woodland or lower montane coniferous forest; 440-770 m. elevation. (CNPS 2020)
Habitat quality on project site: Suitable on serpentine soils in the western parts of the project site.

Red Hills soaproot (*Chlorogalum grandiflorum*)
Range: Amador, Butte, Calaveras, El Dorado, Placer and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: Approximate area mapped includes the SW portion of Parcel 1; other occurrence is about two miles southeast of the project site, Springvale Road, Lotus. (BIOS 2020)
Habitat requirements: Open chaparral on gabbro or serpentine soils. (Hunter and Horenstein 1991)
Habitat on site: Marginal on serpentine soils in the western parts of the project site. Having been cleared in 2018, the serpentine soils area supports a grassy ground layer, where the species is not known to occur.

Red Bluff dwarf rush (*Juncus leiospermus*)
Range: Butte, Placer, Shasta and Tehama counties. (CNPS 2020).
Nearest CNNDB occurrence: North of Roseville. (BIOS 2020)
Habitat requirements: Chaparral, valley and foothill grassland, cismontane woodland, vernal pools, meadows and seeps, 30-1025 m. (CNDDB 2020)
Habitat quality on project site: Suitable in and near the pond in Water Channel 2.

Santa Lucia dwarf rush (*Juncus luciensis*)
Range: Lassen, Monterey, Modoc, Napa, Nevada, Placer, Plumas, Riverside, Santa Barbara, San Benito, San Diego, Shasta, and San Luis Obispo counties. (CNPS 2020).
Nearest CNNDB occurrence: Near Donner Lake. (BIOS 2020)
Habitat requirements: Vernal pools, ephemeral drainages, wet meadow habitats and streamsides within lower montane coniferous forest, chaparral, Great Basin scrub; 300-2040 m. (CNDDB 2020)
Habitat quality on project site: Suitable in the two intermittent water channels on the project site.

(2) CNPS List 2B Plants[7]

Sanford's arrowhead (*Sagittaria sanfordii*)
Range: Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Marin, Napa, Orange, Placer, Sacramento, San Bernardino, Shasta, San Joaquin, Solano, Tehama, Tulare, Ventura, and Yuba counties. (CNPS 2020)
Nearest CNDDB occurrence: Alder Creek, Sacramento County. (BIOS 2020)
Habitat requirements: Standing or slow-moving freshwater ponds, marshes, and ditches. (CNDDB 2020)
Habitat quality on project site: Suitable within the pond on Water Channel 2.

[7]California Native Plant Society list of rare, threatened or endangered plants in California, but more common elsewhere.

Prairie wedge grass (*Sphenopholis obtusata*)
Range: Amador, Fresno, Inyo, Mono, Riverside, San Bernardino, San Diego, Stanislaus, and Tulare counties. (CNPS 2020).
Nearest CNNDB occurrence: Amador County. (BIOS 2020)
Habitat requirements: Open moist sites, along rivers and springs, alkaline desert seeps; cismontane woodlands, meadows and seeps; 300-2000 m. (CNDDB 2020)
Habitat quality on project site: Suitable along Water Channel 2. Species' occurrence descriptions (CNDDB 2020) do not indicate it grows on serpentine soils, found on the western portion of the project site.

Oval-leaved viburnum (*Viburnum ellipticum*)
Range: Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama counties. (CNPS 2020)
Nearest CNDDB occurrence: South of Lake Clementine, Placer County. (BIOS 2020)
Habitat requirements: Found in chaparral, cismontane woodland or lower montane coniferous forest between 215 and 1400 m elevation (CNPS 2020). Generally found on north-facing slopes (Jepson 2020).
Habitat on site: Suitable in brushy, non-serpentine soils on the eastern portion of the project site.

(3) CNPS List 3 Plants[8]

Butte County fritillary (*Fritillaria eastwoodiae*)
Range: Butte, El Dorado, Nevada, Placer, Plumas, Shasta, Tehama and Yuba counties, and in Oregon. (CNPS 2020)
Nearest CNDDB occurrence: About eleven miles NE of the project site, at Auburn State Recreation Area. (BIOS 2020)
Habitat requirements: Found in openings in chaparral, cismontane woodland and lower montane coniferous forest (CNPS 2020); usually on dry slopes but also in wet places, on serpentine, red clay and sandy loam soils, 50-1500 meters elevation. (CNDDB 2020)
Habitat on project site: Suitable throughout the project site.

Foothill jepsonia (*Jepsonia heterandra*)
Range: Amador, Calaveras, El Dorado, Mariposa, Stanislaus and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020) Collected near the old community of Nashville along Highway 49, El Dorado County. (Park & Elvander 2012)
Habitat requirements: Cismontane woodland or lower coniferous forest on rocky, metamorphic soils, between 50 and 500 meters elevation (CNPS 2020). Crevices, especially in slate-like rock on dry, rocky slopes below 700 meters elevation (Jepson 2020).
Habitat on project site: Suitable on rock outcroppings in the eastern area of the study site.

Dubious pea (*Lathyrus sulphureus* var. *argillaceus*)
Range: Calaveras, El Dorado, Nevada, Placer, Shasta and Tehama counties. (CNPS 2020)
Nearest CNDDB occurrence: Auburn. (BIOS 2020)
Habitat requirements: Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, between 150 and 930 meters elevation. (CNDDB 2020)
Habitat on project site: Suitable on non-serpentine soils in the eastern portion of the project site.

[8]California Native Plant Society list of plants about which more information is needed; a review list.

(4) CNPS List 4 Plants[9]

Brassy bryum moss (*Bryum chryseum*)
Range: Amador, Butte, Fresno, Madera, and Mendocino counties.(CNPS 2020).
Nearest CNNDB occurrence: None (BIOS 2020)
Habitat requirements: Openings in chaparral, cismontane woodland, and valley and foothill grasslands; 50-600 m. elevation. (CNDDB 2020)
Habitat quality on project site: Suitable in openings throughout the project site.

Brandegee's clarkia (*Clarkia biloba* ssp. *brandageeae)*
Range: Butte, El Dorado, Nevada, Placer, Sacramento, Sierra, and Yuba Counties. (CNPS 2020)
Nearest CNDDB occurrence: About four miles west-southwest of the project site. (BIOS 2020)
Habitat requirements: Dry sites in chaparral, cismontane woodland, and lower montane coniferous forest, often on roadcuts, 75-915 m elevation. (CNPS 2020, CNDDB 2020)
Habitat on project site: Suitable on roadcuts in blue oak woodlands in the eastern portion of the project site.

Sierra clarkia (*Clarkia virgata*)
Range: Amador, Calaveras, El Dorado, Mariposa, Plumas, and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Cismontane woodland or lower montane coniferous forest, between 400 and 1615 meters elevation (CNPS 2020). Lower margin of montane forest and adjacent oak-grey pine woodland (CNDDB 2020).
Habitat on project site: Marginal in oak woodlands in the eastern portion of the project site.

Streambank spring beauty (*Claytonia parviflora* ssp. *grandiflora*)
Range: Amador, Butte, Calveras, El Dorado, Fresno, Kern, Placer, Tulare and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Rocky soils in cismontane woodland, between 250 and 1200 meters elevation (CNPS 2020); vernally moist, often disturbed sites; 150–1200 meters elevation (Jepson 2020).
Habitat on project site: Suitable along Water Channel 2. Literature does not indicate species is found on serpentine soils found on the western portion of the project site.

Ewan's larkspur (*Delphinium hansenii* ssp. *ewanianum*)
Calaveras, Fresno, Kern, Madera, Merced and Tulare counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Cismontane woodland, and valley and foothill grasslands, between 60 and 600 meters elevation (CNDDB 2020). Lower margin of montane forest and adjacent oak-grey pine woodland (CNDDB 2020).
Habitat on project site: Suitable in oak woodlands in the eastern portion of the project site. The species is not known from serpentine soils, the soil type in the western portion of the project site.

[9]California Native Plant Society list of plants of limited distribution.

Northern Sierra daisy (*Erigeron petrophilus* var. *sierrensis*)
Range: Butte, El Dorado, Nevada, Plumas, Sierra and Yuba counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Rocky foothills to montane forest, sometimes on serpentine; 300–1900 meters elevation (Jepson 2020). Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, 300-2073 meters elevation (CNPS 2020).
Habitat on project site: Suitable in openings in woodland areas throughout the project site.

Tripod buckwheat (*Eriogonum tripodum*)
Range: Amador, Colusa, El Dorado, Glenn, Lake, Mariposa, Napa, Placer, Tehama and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Chaparral, cismontane woodland, often on serpentine soils, between 200 and 1600 meters elevation (CNPS 2020).
Habitat on project site: Suitable on serpentine soils in the western portion of the project site.

Small-flowered monkeyflower (*Erythranthe inconspicua*)
Range: Amador, Butte, Calaveras, Fresno, Mariposa and Tuolumne counties. (CNPS 2020)
Nearest CNNDB occurrence: None. (CNDDB 2020)
Habitat requirements: Moist or shaded places in cismontane woodland, lower montane coniferous forest and chaparral, 275-760 m. elevation. (CNDDB 2020)
Habitat quality on project site: Suitable along Water Channel 2.

Stinkbells (*Fritillaria agrestis*)
Range: Alameda, Contra Costa, Fresno, Kern, Mendocino, Merced, Monterey, Mariposa, Placer, Sacramento, Santa Barbara, San Benito, Santa Clara, Santa Cruz, San Luis Obispo , San Mateo, Stanislaus, Tuolumne, Ventura, and Yuba counties. (CNPS 2020).
Nearest CNNDB occurrence: American River canyon near Auburn. (BIOS 2020)
Habitat requirements: Clay soils, sometimes on serpentine within chaparral, cismontane woodland, pinyon and juniper woodlands, valley and foothill grassland; 10-1555 m. elevation. (CNPS 2020)
Habitat quality on project site: Marginal on serpentine soils.

Serpentine bluecup (*Githopsis pulchella* ssp. *serpentinicola*)
Range: Amador, El Dorado, Mariposa, Stanislaus and Tuolumne counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Cismontane woodland on serpentine or Ione soils, between 320 and 610 meters elevation. (CNPS 2020)
Habitat on project site: Suitable in interior live oak woodlands on serpentine soils in the western portion of the project site.

Humboldt's lily (*Lilium humboldtii* ssp. *humboldtii*)
Range: Amador, Butte, Calaveras, El Dorado, Fresno, Mariposa, Nevada, Placer, Tehama, Tuolumne and Yuba counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Openings in chaparral, cismontane woodland or lower coniferous forest, between 90 and 1280 meters elevation (CNPS 2020); openings in yellow-pine forest or open forest (CNDDB 2020).
Habitat on project site: Marginal in interior live oak woodlands on non-serpentine soils in the eastern portion of the project site.

Sylvan microseris (*Microseris sylvatica*)
Range: Alameda, Amador, Butte, Contra Costa, Colusa, Fresno, Glenn, Kern, Lassen, Los Angeles, Merced, Napa, Nevada, Placer, San Benito, Santa Clara, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, and Yolo counties. (CNPS 2020)
Nearest CNNDB occurrence: None. (CNDDB 2020)
Habitat requirements: Chaparral, cismontane woodland, Great Basin scrub, pinyon-juniper woodland, valley and foothill grassland on serpentine soils; 45-1500 m. elevation. (CNDDB 2020) Grassland, open woodland; elevation: < 1700 m. (Jepson 2020)
Habitat quality on project site: Suitable in openings in woodlands and grassy areas on serpentine soils in the western portion of the project site.

Shield-bracted monkeyflower (*Mimulus glaucescens*)
Range: Butte, Colusa, Lake, Nevada, Shasta and Tehama counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Seepage areas on serpentine soils, 60-1240 meters elevation. (Jepson 2020, CNPS 2020)
Habitat on project site: Suitable in the wetlands along Water Channel 1.

Sierra sweet bay (*Myrica hartwegii*)
Range: El Dorado, Madera, Mariposa Nevada, Tuolumne and Yuba counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Streambanks, moist places in foothills or lower montane yellow-pine forest; 300–1800 m. elevation (Jepson 2020). Cismontane woodland, lower montane coniferous forest, riparian forest, 150-1750 m. elevation (CNPS 2020). Riparian forest, cismontane woodland, lower montane coniferous forest. Usually on streamsides. 150-1750 m. (CNDDB 2020)
Habitat on project site: Marginal along both intermittent water channel on the project site. The project has very little riparian vegetation.

Hoary navarretia (*Navarretia eriocephala*)
Range: Amador, Calaveras, El Dorado, Placer and Sacramento counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Vernally mesic sites in cismontane woodland, valley and foothill grassland, 105-400 meters elevation (CNPS 2020). Heavy soil of seasonally wet flats, below 400 m. elevation (Jepson 2020).
Habitat on project site: Marginal in the wetland along Water Channel 1; unsuitable on the remainder of the parcel. Published descriptions do not indicate the species is found on serpentine soils.

Awl-leaved navarretia (*Navarretia subuligera*)
Range: Amador, Butte, Del Norte, Lake, Mendocino, Modoc, Napa, Shasta and Tehama counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Open, rocky, mesic places in chaparral, cismontane woodland and lower montane coniferous forest, 150-1100 meters elevation. (CNPS 2020, Jepson 2020)
Habitat on project site: Marginal in the wetland along Water Channel 1; unsuitable on the remainder of the parcel. Published descriptions do not indicate the species is found on serpentine soils.

California adder's-tongue (*Ophioglossum californicum*)
Range: Amador, Butte, Merced, Monterey, Mariposa, Orange, San Bernardino, San Diego, Stanislaus, and Tuolumne counties. (CNPS 2020).
Nearest CNNDB occurrence: None. (BIOS 2020)
Habitat requirements: Grassy pastures, vernal pool margins, chaparral. Mesic sites. 60-525 m. elevation (CNDDB 2020).
Habitat quality on project site: Suitable in and near the pond in Water Channel 2.

Bacigalupi's yampah (*Perideridia bacigalupii*)
Range: Amador, Butte, Calaveras, Madera, Mariposa, Nevada, Tuolumne and Yuba Counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Serpentine soils with chaparral or lower montane coniferous forest vegetation, 450-1035 meters elevation. (CNPS 2020)
Habitat on site: Suitable in chaparral vegetation on the western, serpentine soils portion of the project site.

Narrow-petaled rein orchid (*Piperia leptopetala*)
Range: El Dorado, Fresno, Lake, Los Angeles, Monterey, Mariposa, Nevada, Orange, Plumas, Riverside, San Bernardino, San Benito, Santa Clara, San Diego, Shasta, Siskiyou, San Luis Obispo, Sonoma, and Tulare counties. (CNPS 2020)
Nearest CNDDB occurrence: None. (CNDDB 2020)
Habitat requirements: Generally dry sites in cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, 380-2225 meters elevation. (Jepson 2020, CNPS 2020)
Habitat on project site: Suitable in woodlands on non-serpentine soils in the eastern portion of the site

Michael's rein orchid (*Piperia michaelii*)
Range: Alameda, Amador, Butte, Contra Costa, Fresno, Humboldt, Los Angeles, Monterey, Marin, Santa Barbara, San Benito, Santa Clara, Santa Cruz, Santa Cruz Isl., San Francisco, San Luis Obispo, San Mateo, Stanislaus, Tulare, Tuolumne, Ventura, and Yuba counties. (CNPS 2020)
Nearest CNNDB occurrence: None. (BIOS 2020)
Habitat requirements: Mudstone and humus, generally dry sites within coastal bluff scrub, coastal scrub, cismontane woodland, chaparral, closed-cone coniferous forest, lower montane coniferous forest; 3-915 m. elevation. (CNDDB 2020)
Habitat quality on project site: Suitable in woodlands on the eastern portion of the project site.

VII. Important Biological Corridor Evaluation

The project site is within an Important Biological Corridor. El Dorado County General Plan Policy 7.4.2.9. Guidelines are listed below in bold type, and the project's compliance with each point follows.

a. Increased minimum parcel size.

The project site is zoned RE-10, allowing 10-acre minimum parcels. The project would create parcels 10.03 to 20.26 acres.

b. Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands.

No oak canopy would be removed for finalization of the Parcel Map.

c. Lower thresholds for grading permits.

No grading is proposed.

d. Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss.

No wetlands or riparian habitats would be disturbed to finalize the Parcel Map.

e. Increased riparian corridor and wetland setbacks.

Setbacks from wetlands and water channels are recommended to increase to 60 feet.

f. Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Game).

No rare plants were found on the project site. Preconstruction rare plant surveys are suggested for Parcels 1 and 2 for any future grading projects.

g. Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities.

The parcels created by the Parcel Map vary in size from 10.03 to 20.26 acres.

h. Building permits discretionary or some other type of "site review" to ensure that canopy is retained.

No oak canopy is proposed to finalize the Parcel Map.

i. More stringent standards for lot coverage, floor area ratio and building height.

Review of any future building permit applications should address this requirement.

j. No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).

It is suggested that fences be limited to those needed to contain livestock and pets, and to project crops.

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APPENDIX A

United States Fish and Wildlife Service
Official Species List
updated December 7, 2020

United States Department of the Interior

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

In Reply Refer To:
Consultation Code: 08ESMF00-2017-SLI-1761
Event Code: 08ESMF00-2021-E-01359
Project Name: Van Noord Parcel

December 07, 2020

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 08ESMF00-2017-SLI-1761

Event Code: 08ESMF00-2021-E-01359

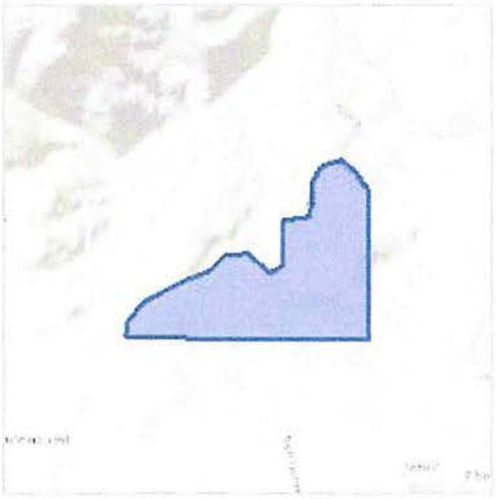
Project Name: Van Noord Parcel

Project Type: DEVELOPMENT

Project Description: Updated special-status species survey of APN 105-190-42, December 2020

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.77474616273517N120.91552359550951W



Counties: El Dorado, CA

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

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

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

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

Amphibians

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

Fishes

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

Flowering Plants

NAME	STATUS
Layne's Butterweed *Senecio layneae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4062	Threatened
Pine Hill Ceanothus *Ceanothus roderickii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3293	Endangered
Stebbins' Morning-glory *Calystegia stebbinsii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3991	Endangered

Critical habitats

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

APPENDIX B

California Department of Fish and Game
Natural Diversity Database RareFind 5 Report
Coloma and Surrounding USGS Quads
dated November 29, 2020

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Coloma (3812078) OR Placerville (3812067) OR Shingle Springs (3812068) OR Pilot Hill (3812171) OR Auburn (3812181) OR Clarksville (3812161) OR Garden Valley (3812077) OR Georgetown (3812087) OR Greenwood (3812088))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	G5	S3	SSC
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Allium jepsonii Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
Ammonitella yatesii tight coin (=Yates' snail)	IMGASB0010	None	None	G1	S1	
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Andrena subapasta An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos nissenana Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Banksula californica Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
Banksula galilei Galile's cave harvestman	ILARA14040	None	None	G1	S1	
Bombus morrisoni Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Calystegia vanzuukiae Van Zuuk's morning-glory	PDCON040Q0	None	None	G2Q	S2	1B.3
Carex cyrtostachya Sierra arching sedge	PMCYP03M00	None	None	G2	S2	1B.2
Carex xerophila chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Cosumnoperla hypocrena Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Fritillaria eastwoodiae Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lathyrus sulphureus var. argillaceus dubious pea	PDFAB25101	None	None	G5T1T2Q	S1S2	3
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Rhynchospora capitellata brownish beaked-rush	PMCYP0N080	None	None	G5	S1	2B.2
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 57

APPENDIX C

California Native Plant Society
On-line Inventory of Rare and Endangered Plants
Coloma and Surrounding USGS Quads
December 7, 2020

CNPS California Native Plant Society

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

Plant List

32 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3812181, 3812088, 3812087, 3812171, 3812078, 3812077, 3812161 3812068 and 3812067;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
Allium sanbornii var. congdonii	Congdon's onion	Alliaceae	perennial bulbiferous herb	Apr-Jul	4.3	S3	G4T3
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	4.2	S3S4	G4T3T4
Arctostaphylos mewukka ssp. truei	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	4.2	S3	G4?T3
Arctostaphylos nissenana	Nissenan manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar(Jun)	1B.2	S1	G1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	1B.1	S1	G1
Calystegia vanzuukiae	Van Zuuk's morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Aug	1B.3	S2	G2Q
Carex cyrtostachya	Sierra arching sedge	Cyperaceae	perennial herb	May-Aug	1B.2	S2	G2
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2	S2	G2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	May-Jul	4.3	S4	G4
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	1B.1	S1	G1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	1B.2	S3	G3
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	4.2	S4	G4G5T4
	streambank spring	Montiaceae	annual herb	Feb-May	4.2	S3	G5T3

Claytonia parviflora ssp. grandiflora	beauty						
Cordylanthus tenuis ssp. brunneus	serpentine bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jul-Aug	4.3	S3	G4G5T3
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	3.2	S2?	G2?Q
Delphinium hansenii ssp. ewanianum	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	4.2	S3	G4T3
Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	4.2	S4	G4
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	4.3	S3	G3
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	1B.2	S1	G1
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	1B.2	S1	G5T1
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.2	S2	G2
Lathyrus sulphureus var. argillaceus	dubious pea	Fabaceae	perennial herb	Apr-May	3	S1S2	G5T1T2Q
Lilium humboldtii ssp. humboldtii	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	4.2	S3	G4T3
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2
Rhynchospora capitellata	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	2B.2	S1	G5
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 07 December 2020].

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Contributors
The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Questions and Comments
rareplants@cnps.org

APPENDIX D

Evaluation of Special-Status Species with Known Occurrences in Coloma and Surrounding USGS Quads

Notations, Symbols and Abbreviations

Species printed in bold type are listed under Federal and/or California Endangered Species Acts.

Listing Status = Federal and California Endangered Species Acts listing status:

E = Endangered R = Rare T = Threatened
D = De-listed C = Candidate for listing

Conservation Ranks are shorthand formulas that provide information on the rarity of species in their global range (G1 to G5) and within the state (S1 to S5). Status of subspecies is also ranked (T1 to T5).

G1 or S1 or T1 = Extremely endangered: <6 viable occurrences (EOs) or <1000 individuals or <2000 acres of occupied habitat
G2 or S2 or T2 = Endangered: 6-20 EOs or 1000-3000 individuals or 2000-10,000 acres
G3 or S3 or T3 = Restricted range, rare: 21-80 EOs or 3000-10,000 individuals or 10,000-50,000 acres
G4 or S4 or T4 = Apparently secure: factors exist to cause some concern, such as narrowing of habitat
G5 or S5 or T5 = Demonstrably secure: commonly found throughout its historic range.

Other Notations

G1G2 = proper rank is most likely withing this range of ranks
G2? = proper rank is probably G2
Q = there is some taxonomic question about the species
H = Historic community, presumed eliminated; possibly extinct
NR = Not ranked
N = Non-breeder

Abbreviations

BCC = U.S. Fish & Wildlife Service Birds of Conservation Concern
CC = Species of conservation concern to the scientific community; no state or federal protected status
CDFW = California Department of Fish and Wildlife
CITGW = CDFW California Interagency Wildlife Task Group
CNPS = California Native Plant Society
CNPS:1B = CNPS list of rare, threatened or endangered plants in California and elsewhere
CNPS:2 = CNPS list of rare, threatened or endangered plants in California, but more common elsewhere
CNPS:3 = CNPS review list of plants with limited distribution information or problematic taxonomy
.1 = Seriously endangered in California (over 80% of occurrences threatened/ high degree of immediate threat
.2 = Fairly endangered in California (20-80% of occurrences threatened)
.3 = Not very endangered in California (<20% of occurrences threatened or no threats known)
SSC = CDFW Species of Special Concern
FP = Fully Protected Species
HCPB = CDFW Habitat Conservation Planning Branch
IUCN = World Conservation Union
VU = World Conservation Union list of vulnerable species
LC = World Conservation Union list of species of least concern
USBC = United States Bird Conservancy
Watch list = USBC list of threatened and declining species
USFWS = United States Fish and Wildlife Service

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Invertebrates				
Ammonitella yatesii Yate's snail, tight coin	— / —	G1 S1	Inhabits limestone caves and outcroppings; favors north-facing slopes. Found in humus in limestone outcroppings. (CNDDB 2020)	No. Project site has no limestone caves or outcroppings required by the species.
Andrena blennospermatis Blennosperma vernal pool andrenid bee	— / —	G2 S2	Forages only on vernal pool *Blennosperma* plants. Nests in uplands surrounding vernal pools. (CNDDB 2020)	No. Project site has no vernal pools and no *Blennosperma* plants.
Andrena subapasta Vernal pool andrenid bee	— / —	G1G2 S1S2	Forages on *Arenaria californica, Orthocarpus erianthus and Lasthenia* sp. (CNDDB 2020)	No. Project site lacks vernal pool habitat. The species' host plants were not found on-site.
Atractelmis wawona Wawona riffle beetle	— / —	G3 S1S2	Aquatic; found in riffles of rapid, small to medium clear mountain streams, usually in submerged aquatic mosses; 2000-5000 ft elev. (CNDB 2020)	No. Project site has no clear mountain stream habitat.
Banksula californica Alabaster cave harvestman	— / —	GH SH	Known only from Alabaster Cave, 5.5 miles west of Pilot Hill alongside Rattlesnake Bar Road. (CNDDB 2020)	No. Project site has no cave habitat.
Banksula galilei Galile's cave harvestman	— / —	G1 S1	Limestone caves. Known only from Lime Rock Caves, south of Clipper Gap and north of the North Fork American River. (CNDDB 2020)	No. Project site has no cave habitat.
Bombus morrisoni Morrison bumble bee	— / C: E	G4G5 S1S2	Occurs throughout the Mountain West from California east of the Sierra-Cascade Ranges to southern British Columbia; in the Desert West east to New Mexico, Texas, and north to western South Dakota (Williams et al. 2014).	No. Project site is not within the known range of the species.
Bombus occidentalis Western bumble bee	— / —	G2G3 S1	Typically nests underground in abandoned rodent burrows or other cavities, but also reported from above-ground locations (in logs or railroad ties).Generalist foragers of flowering plants; do not depend on any one flower type. (Hatfield, et al. 2015)	Yes. See text for further discussion.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Branchinecta lynchi Vernal pool fairy shrimp	T / —	G3 S3	Inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression vernal pools in grasslands of the Central Valley, Central Coast Ranges and South Coast Mountains. (CNDDB 2020)	No. Project site has no vernal pool habitat.
Cosumnoperla hypocrena Cosumnes stripetail stonefly	— / —	G2 S2	Intermittent streams on western slope of Central Sierra Nevada foothills in American and Cosumnes river watersheds (CNDDB 2020)	Yes. See text for further discussion.
Desmocerus californicus dimorphus **Valley elderberry longhorn beetle**	T / —	G3T2 S3	Elderberry shrubs (*Sambucus* species), are the host plants of the beetles (USFWS 1999) Prefers to lay eggs in elderberries 2-8 inches in diameter, especially stressed plants. (CNDDB 2020)	No. Although a single host plant was found on-site, the project site is out of the range of the species, which is limited to CA central valley.
*Hydrochara ricksecker*i Ricksecker's water scavenger beetles	— / —	G2? S2?	Vernal pools. (USFWS 2002) Collected only from the Sacramento Valley and coastal areas from Santa Rosa to Palo Alto. (Short, et. al, 2017)	No. Project site lacks vernal pools
Fish				
Hypomesus transpacificus **Delta smelt**	T / T	G1 S1	Estuaries in Sacramento-San Juaquin Delta, and seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10ppt; most often at salinities < 2ppt. (CNDDB 2020)	No. Project site is outside of the range of the species and lacks perennial waters.
Mylopharodon conocephalus Hardhead	— / — (SSC)	G3 S3	Low to mid-elevation streams in the Sacramento-San Juaquin drainage, and Russian River. Require clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate. (CNDDB 2020)	No. Project site has no perennial streams.
Oncorhynchus mykiss irideus **Central Valley steelhead**	T / —	G5T2Q S2	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (MCGinnis 1984, CNDDB 2020)	No. project site has no perennial streams.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Amphibians				
Rana boylii Foothill yellow-legged frog	— / E (SSC)	G2 S2 S3	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats..Needs at least some cobble-sized substrate fore egg-laying, and requires at least 15 weeks to attain metamorphosis. (CNDDB 2020)	No. Project site has no suitable streams.
Rana draytonii **California red-legged frog**	T / — (SSC)	G2G3 S2S3	Quiet pools of streams, marshes, occasionally ponds; A highly aquatic species with little movement away from streamside habitats. Intermittent streams must retain surface water in pools year-round for frog survival. (CWHR 2020) Permanent deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development, and access to estivation habitat. (CNDDB 2020)	No. Project site has no perennial waters.
Spea hammondii Western spadefoot toad	— / — (SSC)	G3 S3	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying. (CNDDB 2020)	No. Project site has no vernal pools.
Reptiles				
Emys marmorata Western pond turtle	— / — (SSC)	G3G4 S3	Associated with permanent or nearly permanent water in a wide variety of habitat types below 6000 ft. elevation. Requires basking sites, and sandy banks or grassy open fields within 0.5 km of water for egg laying. (CNDDB 2020)	No. Project site has no permanent or nearly permanent waters.
Phrynosoma blainvillii Blainville's horned lizard	— / — (SSC)	G3G4 S3S4	Sacramento Valley, surrounding foothills and Coast Ranges below 1200 m. elevation. Requires sandy or loose soil with abundant ant colonies and otther insects for foraging. (CWHR 2020)	Yes. See text for further discussion.
Birds				
Accipiter cooperii (nesting) Cooper's hawk	— / — (IUCN:LC)	G5 S3	Nests in deciduous trees in riparian areas or live oaks near streams, sea level to 2700 m (9000 ft.) elevation. (CWHR 2020)	Yes. See text for further discussion.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Accipiter gentilis (nesting) Northern goshawk	— / — (SSC)	G5 S3	Nests in mature, dense conifer forest, usually on north slopes near water, in densest part of stand, but near openings. Red fir, lodgepole pine, Jeffrey pine and aspens are typical nest trees. (CNDDB 2020)	No. Project site has no conifer forest habitat.
Accipiter striatus (nesting) Sharp-shinned hawk	— / — (IUCN:LC)	G5 S3	Nests in Ponderosa pine, black oak, riparian deciduous, mixed conifer and Jeffrey pine habitats. Prefers north slopes ususally within 275 ft. of water. (CNDDB 2020)	No. Project site has no suitable riparian or conifer habitats.
Aechmophorus occidentalis Western grebe	— / — (BCC)	G5 SNR	Requires large, open waters for courtship, feeding, and flocking. Frequents extensive beds of tall, emergent vegetation such as tules or cattails for nesting (CWHR 2020).	No. Project site has no large, open water habitat.
Agelaius tricolor (nesting colony) Tricolored blackbird	— / **T** (SSC)	G2G3 S1S2	Dense thickets of cattail, tule, willow, blackberry, wild rose or tall herbs near or emergent from water. (CWHR 2020)	No. Project site has no dense hydrophytic plant thickets near or emergent from water.
Aimophila ruficeps Rufous-crowned sparrow	— / — (BCC)	G5 SNR	Resident of sparse, mixed chaparral and coastal scrub habitats. Frequents relatively steep, often rocky hillsides with grass and forb patches; also grassy slopes without shrubs, if rock outcrops are present. (CWHR 2020)	Yes. See text for further discussion.
Ammodramus savannarum (nesting) Grasshopper sparrow	— / — (SSC)	G5 S3	Summer resident and breeder in dry, dense grasslands with scattered shrubs in foothills and lowlands west of Sierra-Cascade ranges. Uses shrubs for singing perches. (CWHR 2020)	Yes. See text for further discussion.
Aquila chrysaetos (nesting) Golden eagle	— / — (FP)	G5 S3	Nests on cliffs and in large trees in large open areas in rolling foothills. Needs open terrain for hunting: grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats. (CWHR 2020)	Yes. See text for further discussion.
Ardea alba (rookery) Great egret	— / — (CDF:S)	G5 S4	Fresh and saline emergent wetlands, margins of lakes, estuaries, other wetlands and irrigated pastures. Nests in large trees near marshes, tide-flats, irrigated pastures, margins of lakes and rivers. Nesting colonies must be isolated from human activities, or parents may abandon nests. (CWHR 2020)	No. Project site lacks suitable wetland habitats.

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Ardea herodias (rookery) Great blue heron	— / — (CDF:S)	G5 S4	Forages in marshes, lakes margins, tide-flats, rivers, streams, wet meadows, irrigated pastures. Prefers to nest in secluded groves of tall trees near shallow-water feeding areas, but feeding area may be up to 16 km (10 mi) distant. (CWHR 2020)	No. Project site lacks suitable wetland habitats.
Asio flammeus (nesting) Short-eared owl	— / — (SSC, BCC)	G5 S3	Open areas with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline or fresh emergent wetlands. Breeding range does not include Sierra Nevada foothills. (CWHR 2020)	No. Project site is outside of the nesting range of the species.
Asio otus (nesting) Long-eared owl	— / — (SSC)	G5 S3?	Riparian habitat or dense live oak thickets from valley foothill hardwood up to ponderosa pine communities. Nests in dense riparian stands of willow, cottonwoods, live oaks or conifers with adjacent open lands for foraging. (CWHR 2020)	Yes. See text for further discussion.
Athene cunicularia (burrow sites) Burrowing owl	— / — (SSC, BCC)	G4 S3	Open, dry grassland and desert habitats; in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (CWHR 2020). Range includes CA Central Valley, Modoc Plateau, southern deserts (Gervais et. al)	No. Project site is out of the range of the species.
Baeolophus inornatus (nesting) Oak titmouse	— / — (BCC)	G4 S3?S4	Primarily associated with oaks; prefers open woodlands of oak, pine and oak, juniper and pinyon. Ventures into residential areas. (CWHR 2020)	Yes. See text for further discussion.
***Buteo swainsoni* (nesting)** **Swainson's hawk**	— / **T** (SSC)	G5 S3	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields or pastures. (CWHR 2020)	No. Project site is out of the known range of the species.
Chamaea fasciata Wrentit	— / — (IUCN: LC)	G5 SNR	Chaparral and brushy areas, from the coast to lower reaches of mountains . Also occurs in suburban gardens and parks. (NatureServe 2020, CWHR 2020)	Yes. Species was found on-site. See text for further discussion.
Charadrius alexandrinus nivosus (nesting) Snowy plover	T / — (BCC)	G3T3 S2S3	Nests, feeds, and takes cover on sandy or gravelly beaches along the coast, on estuarine salt ponds, alkali lakes, and at the Salton Sea. (CWHR 2020)	No. Project site has no suitable wetland or water habitats, and is out of the nesting range of the species.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Contopus cooperi (nesting) Olive-sided flycatcher	— / — (BCC)	G4 S4	Conifer or mixed hardwood/conifer forests (montane hardwood-conifer). Requires high perches for singing and hunting. (CWHR 2020)	No. Project site has no montane conifer or hardwood-conifer habitat.
Elanus leucurus White-tailed kite (nesting)	— / — (FP)	G5 S3S4	Resident in coastal and valley lowlands; rarely found away from agricultural areas. Nests near top of dense stand of oaks or other trees (CWHR 2020)	No. Project site is out of the known range of the species.
Empidonax traillii brewsteri (nesting) **Little willow flycatcher**	— / **E**	G5T3T4 S1S2	Wet meadows and montane riparian vegetation, 600-2500 m (2000 to 8000 ft) elevation. Dense willow thickets are required for nesting and roosting. (CWHR 2020)	No. Project site is out of the known range of the species, and lacks suitable willow thickets.
Falco columbarius (wintering) Merlin	— / — (IUCN: LC)	G5 S3S4	Winter migrant utilizing habitats from grassland to ponderosa pine and montane hardwood-conifer below 1500 m. Required cover is dense tree stands near water; seldom found in heavily wooded areas, or open deserts. (CWHR 2020)	Yes. See text for further discussion.
Falco peregrinus anatum **(nesting)** **American peregrine falcon**	**D** / **D** (BCC)	G4T4 S3S4	Requires protected cliffs and ledges for cover. Breeds near water on high cliffs, banks, dunes, mound; occasionally in tree or snag cavities or old nests of other raptors. (CWHR 2020)	No. Project site has no cliff/ledge habitat suitable for the species.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	— / — (IUCN: LC)	G5T3 S3	San Francisco Bay region, in fresh and salt water marshes having thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting. (CNDDB 2020)	No. Project site is out of the known range of the species.
Haliaeetus leucocephalus (nesting, wintering) **Bald eagle**	**D** / **E** (FP, BCC)	G5 S3	Large bodies of water or free-flowing rivers with abundant fish, and adjacent snags or other perches. (CWHR 2020)	No. Project site is too far from suitable river or lake foraging habitats.
Icteria virens (nesting) Yellow-breasted chat	— / — (SSC)	G5 S3	Requires riparian thickets of willow and other brushy tangles near watercourses for cover. Nests in dense shrubs along a stream or river. (CWHR 2020)	No. Project site has no suitable riparian habitat.
Lanius ludovicianus (nesting) Loggerhead shrike	— / — (SSC)	G4 S4	Open habitats with scattered shrubs, posts, etc. for perches. Nests in densely-foliated shrub or tree (CWHR 2020)	Yes. See text for further discussion.

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Laterallus jamaicensis coturniculus **California black rail**	— / **T** (BCC)	G3G4T1 S1	Freshwater marshes, wet meadows, shallow margins of saltwater marshes around larger bays. Requires non-fluctuating water depths of about one inch; dense vegetation for nesting. (CNDDB 2020)	No. Project site has no suitable wetland habitat and is out of the known range of the species.
Melanerpes lewis (nesting) Lewis's woodpecker	— / — (BCC)	G4 S4	Winters in open oak savannah, broken deciduous and coniferous habitats. Nests in Coast Ranges, Modoc Plateau and eastern slope of Sierra Nevada. (CWHR 2020)	No. Project site is out of the nesting range of the species, but has suitable winter forage habitat.
Melospiza melodia Song sparrow	— / — (SSC)	G5 S3?	Brushy, shrubby, and deep grassy areas along watercourses and seacoasts; marshes (cattail, bulrush, and salt). (NatureServe 2020) At all seasons, prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. (CNDDB 2020)	No. The populations of concern are located on the Channel Islands, Suisun marsh, and the Alameda, San Pablo and Modesto areas. The project site is not within the range of the protected populations.
Passerella iliaca Fox sparrow	— / — (BCC)	G5 SNR	Breeds in dense, brushy montane habitats or riparian thickets and forages on ground beneath shrubs. Leaves mountains in winter, inhabiting dense brush habitats in foothills and lowlands, except southern deserts (CWHR, 2016)	Yes. See text for further discussion.
Pica nuttalli Yellow-billed magpie	— / — (BCC)	G3G4 S3S4	Resident in Central Valley and central-coast mountain ranges of California. Inhabits valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, orchard, vineyard, cropland, pasture, and urban habitats. (CWHR 2020)	No. Project site is out of the known range of the species.
Picoides nuttallii = Dryobates nuttallii (nesting) Nuttall's woodpecker	— / — (BCC)	G4G5 S4S5	Frequents a mix of deciduous riparian and adjacent oak habitats. Requires snags and dead limbs for nest excavation.(CWHR 2020)	Yes. See text for further discussion.
Pipilo chlorurus Green-tailed towhee	— / — (BCC)	G5 SNRB	Montane chaparral, sagebrush, low sagebrush, and bitterbrush habitats. Uncommon on western slope of Sierra Nevada. (CWHR 2020)	No. Project site has no montane chaparral, sagebrush or bitterbrush habitats.
Pipilo maculatus clementae Spotted towhee		G5T1 S1S2	Found in chaparral, brushy thickets, brushy ravines and willow thickets on Santa Rosa and Santa Catalina islands. (CNDDB 2020)	No. Range restricted to small islands off the southern CA coast

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Progne subis (nesting) Purple martin	— / — (SSC)	G5 S3	Valley foothill and montane hardwood, montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats. Inhabits open forests, woodlands, and riparian areas in breeding season. Nests in tree cavities. (CWHR 2020)	Yes. See text for further discussion.
Riparia riparia (nesting) **Bank swallow**	— / **T**	G5 S2	Open riparian areas, brushland, grassland and cropland. Nests in vertical banks and cliffs with fine-textured/sandy soils near water. (CWHR 2020)	No. Project site lacks suitable bank or cliff nesting habitat, and is out of the known range of the species.
Selasphorus rufus Rufous hummingbird	— / — (BCC)	G5 S1S2	Spring migrant flying north through lowlands and foothills in CA. Post-breeders migrate south through Cascade and Sierra mts. Breeds in OR and WA, along the CA coast south to southern Sonoma County, and in the Trinity mts. (CNDDB & CWHR 2020)	Yes. See text for further discussion.
Setophaga petechia (nesting) Yellow warbler	— / — (SSC)	G5T2T3 S2	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. (CNDDB 2020)	No. Project site lacks suitable riparian habitats.
Spinus lawrencei (nesting) Lawrence's goldfinch	— / — (BCC)	G3G4 S3S4	Common along western edge of southern deserts; uncommon in foothills surrounding Central Valley. Breeds in open oak or other arid woodland near water. Prefers to nest in an oak, but also uses chaparral. (CWHR 2020)	Yes. See text for further discussion.
Sphyrapicus ruber (nesting) Red-breasted sapsucker	— / — (IUCN: LC)	G5 S4	Riparian areas in deciduous and coniferous forest habitats, especially near aspens, open meadows, clearings, lakes. Breeds from ~ 1200-2500 m (4000-8000 ft) elevation in the Sierras. (CWHR 2020)	No. Project site is out of the nesting range of the species, but may provide winter forage areas.
Sphyrapicus thyroideus Williamson's sapsucker	— / — (BCC)	G5 SNR	Coniferous forests at about 1700-2900 m (5500-9500 ft). Preferred nesting habitat is lodgepole pine, but also nests in aspens adjacent to stands of red fir, Jeffrey pine, and eastside pine habitats. (CWHR 2020)	No. Project site is lower in elevation than the known range of the species.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Spizella atrogularis Black-chinned sparrow	— / — (BCC)	G5 SNR	Regularly breeds in foothills bordering Central Valley north to Lake and Mariposa counties, irregularly north to Shasta & Trinity counties; more common on arid mountain slopes of southern California. Breeds and forages in open to moderately dense chaparral and similar brushy habitats. (CWHR 2020)	Yes. See text for further discussion.
Spizella breweri Brewer's sparrow	— / — (BCC)	G5 S4	Breeds in treeless shrub habitats with moderate canopy, especially in sagebrush, commonly above pinyon-juniper belt and reportedly on western slope of Sierra Nevada (Verner & Boss, 1980). (CWHR 2020)	Yes. See text for further discussion.
Spizella passerina (nesting) Chipping sparrow	— / — (CC)	G5 SNR	Oak woodland, orchards, mixed coniferous forest, montane and subalpine forest. Prefers open woody habitats with sparse or low herbaceous layer and few shrubs, if any. Usually nests in conifers. (CWHR 2020)	Yes. See text for further discussion.
Selasphorus calliope Calliope hummingbird	— / — (BCC)	G5 SNR	Breeds in wooded habitats from ponderosa pine and montane hardwood-conifer up through lodgepole pine, favoring montane riparian, aspen, and other open forests near streams. (CWHR 2020)	No. Project site lacks ponderosa pine and montane hardwood-conifer forests.
Strix occidentalis occidentalis California spotted owl	— / — (SSC, BCC)	G3G4T2T3 S3	In northern California, found mixed conifer habitats (canopy closure >40%), often with an understory of black oak, in narrow, steep-sided canyons with north-facing slopes, within 300 meters of water (CWHR 2020)	No. Project site lacks mixed conifer habitat.
Toxostoma redivivum California thrasher	— / — (IUCN: LC)	G5 SNR	Moderate to dense chaparral habitats in foothills and lowands in cismontane CA.; less commonly, extensive thickets in young or open valley foothill riparian habitat. (CWHR 2020)	Yes. See text for further discussion.
Mammals				
Antrozous pallidus Pallid bat	— / —	G5 S3	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. (CNDDB 2020)	Yes. See text for further discussion.

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Bassariscus astutus Ringtail	— / — (FP)	G5 SNR	Resident in habitats with a mixture of forest and shrubland in close association with rocky areas within 1 km of permanent water. (CWHR 2020)	Yes. See text for further discussion.
Corynorhinus townsendii Townsend's big-eared bat	— / CT (SSC)	G3G4 S2	Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. Prefers mesic habitats. Gleans from brush or trees or feeds along habitat edges. (CWHR 2020)	Yes. See text for further discussion.
Erethizon dorsatum North American porcupine	— / —	G5 S3	Wide variety of coniferous and mixed woodland habitats: Broadleaved upland forest, Cismontane woodland, Closed-cone coniferous forest, Lower montane coniferous forest, North coast coniferous forest, Upper montane coniferous forest. (CNDDB 2020)	Yes. See text for further discussion.
Lasionycteris noctivagans Silver-haired bat	— / — (IUCN: LC)	G5 S3S4	Primarily found in coastal and montane forests, but also valley foothill woodlands and riparian areas. Feeds over ponds, streams and open brushy areas. Roosts in hollow trees, beneath loose bark, in abandoned woodpecker holes; rarely under rocks. Requires drinking water. (CWHR 2020)	Yes. See text for further discussion.
Myotis yumanensis Yuma myotis	— / — (IUCN: LC)	G5 S4	Many habitats from sea level to 2400 m. in Sierras, roosting in caves, mines, buildings, bridges, crevices. Distribution is closely tied to bodies of water, over which it forages for insects. (CWHR 2020)	Yes. See text for further discussion.
Pekania pennanti Fisher	— / — (SSC)	G5 S2S3	Suitable habitat is large areas of mature, dense coniferous forest stands or deciduous-riparian habitats with ≥ 50% canopy closure close to water (CWHR 2020).	No. Project site lacks suitable conifer and deciduous-riparian habitats.
Plants				
Allium jepsonii Jepson's onion	— / — (CNPS:1B.2)	G2 S2	Chaparral, cismontane woodland or lower montane coniferous forest on serpentine or volcanic soils, usually in an open area, 450-1130 meters elevation (CNDDB 2020)	Yes. See text for further discussion.

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Allium sanbornii var.congdonii Congdon's onion	— / — (CNPS: 4.3)	G4T3 S3	Ultramafic barrens or volcanic soils with scattered grey pines. 300-990 m. (CNDDB 2020)	No. Project site lacks both ultramafic barrens and volcanic soils.
Allium sanbornii var. *sanbornii* Sanborn's onion	— / — (CNPS: 4.2)	G4T3T4 S3 S4	Chaparral, cismontane woodland and lower montane coniferous forest, usually on gravelly serpentine soils. (CNPS 2016) 260-1510 m. elevation. (CNDDB 2020)	No. Project site lacks suitable gravelly serpentine soils.
Arctostaphylos mewukka ssp. *truei* True's manzanita	— / — (CNPS: 4.2)	G4T3 S3	Chaparral and lower montane coniferous forest, 425-1390 m. elevation. (CNDDB 2020)	No. Chaparral on project site is on serpentine soils. Species is not known from serpentine substrates. Lower montane coniferous forest is not found on-site.
Arctostaphylos myrtifolia Ione manzanita	T / — (CNPS: 1B.2)	G1 S1	Chaparral, cismontane woodland on Ione clay, 90-560 m. elevation. (CNDDB 2020)	No. Project site lacks Ione clay soils.
Arctostaphylos nissenana Nissenan manzanita	— / — (CNPS:1B.2)	G1 S1	Open rocky ridges in chaparral or closed-cone coniferous forest between 465-1100 m elevation. (CNDDB 2020)	Yes. See text for further discussion.
Astragalus pauperculus Depauperate Milk-vetch	— / — (CNPS: 4.3)	G4 S4	Vernally mesic sites in chaparral, cismontane woodland, valley and foothill grassland on volcanic soils. (CNPS 2020)	No. Project site lacks volcanic-derived substrates.
Balsamorhiza macrolepis var. macrolepis Big-scale balsamroot	— / — (CNPS: 1B.2)	G2 / S2	Open grassy slopes and valleys in Sierra Nevada foothills, Sacramento Valley and San Francisco Bay area. (Jepson 2016) Sometimes found on Serpentine soils; 90-1555 m elevation. (CNDDB 2020)	Yes. See text for further discussion.
Bryum chryseum Brassy bryum moss	— / — (CNPS: 4.3)	G5 S3	Found in chaparral, cismontane woodland and valley/foothill grassland vegetation communities, 50-600 m. elevation. (CNPS 2020)	Yes. See text for further discussion.
Calandrinia breweri Brewer's calandrinia	— / — (CNPS: 4.2)	G4 S4	Sandy or loamy soils, disturbed sites, burns in chaparral, coastal shrub. 10-1200 meters elevation.	No. Project site is out of the known range of the species.
Calystegia stebbinsii **Stebbins's morning-glory**	E / E (CNPS:1B.1)	G1 / S1	Chaparral on gabbro or serpentine soils. (USFWS 2002) Usually absent from areas with understory dominated by grasses (Wilson 1986, Hunter and Horenstein 1991); 180-725 m. elevation (CNDDB 2020)	No. Project site is out of the known range of the species.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Calystegia vanzuukiae Van Zuuk's morning-glory	— / — (CNPS: 1B.3)	G2? S2	Chaparral on gabbro or serpentine soils, 500-1180 m. elevation. (CNDDB 2020)	No. Project site is lower in elevation than the known range of the species.
Carex cyrtostachya Sierra arching sedge	— / — (CNPS: 1B.2)	G2 S2	Mesic sites within lower montane coniferous forest, riparian forest, marshes, swamps, meadows and seeps between 605-1390 m. elevation. (CNDDB 2020)	No. Project site is lower in elevation than the known range of the species.
Carex xerophila Chaparral sedge	— / — (CNPS: 1B.2)	G2 S2	Chaparral, cismontane woodland, lower montane coniferous forest on serpentine or gabbro soils, 275-1090 m elevation. (CNDDB 2020)	Yes. See text for further discussion.
Ceanothus fresnensis Fresno ceanothus	— / — (CNPS: 4.3)	G4 S4	Openings in cismontane woodland, lower montane coniferous forest, 900-2105 m elevation. (CNDDB 2020)	No, Project site is too low in elevation for the species.
Ceanothus roderickii **Pine Hill ceanothus**	E / R (CNPS: 1B.1)	G1 S1	Openings or disturbed areas in chaparral on gabbro soils (USFWS 2002) Usually absent from areas with understory dominated by grasses (Wilson 1986, Hunter and Horenstein 1991). 260-630 m. elevation (CNDDB 2020)	No. Project site lacks gabbro soils required by the species.
Chlorogalum grandiflorum Red Hills soaproot	— / — (CNPS: 1B.2)	G3 S3	Open chaparral on gabbro or serpentine soils. (Hunter and Horenstein 1991); sometimes on non-ultramafic substrates, 240-760 m. elevation. (CNDDB 2020)	Yes. See text for further discussion
Clarkia biloba ssp. *brandegeeae* Brandegee's clarkia	— / — (CNPS: 4.2)	G4G5T4 S4	Chaparral, cismontane woodland, lower montane coniferous forest, often on road cuts, 75-915 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Clarkia virgata Sierra clarkia	— / — (CNPS: 4.3)	G3 S3	Cismontane woodland and lower margin of montane coniferous forest, 400-1615 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Claytonia parviflora ssp. *grandiflora* Streambank spring beauty	— / — (CNPS: 4.2)	G5T3 S3	Cismontane woodland, 250-1200 m. elevation. (CNDDB 2020) Vernally moist, often disturbed sites, 150-1200 m. elevation. (Jepson 2016)	Yes. See text for further discussion.
Cordylanthus tenuis ssp. *brunneus* Serpentine bird's-beak	— / — (CNPS: 4.3)	G4G5T3 S3	On barren, rocky serpentine soil within Chaparral, closed-cone coniferous forest, cismontane woodland. 475-915 m. elevation. (CNDDB 2020)	No. Serpentine soils on-site are well-vegetated, not bare and rocky.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Crocanthemum suffrutescens Bisbee Peak rush-rose	— / — (CNPS: 3.2)	G2Q S2?	Chaparral on gabbro soils in El Dorado County or on Ione soils elsewhere (Wilson 1986, Jepson 2016); 45-610 m. elevation (CNDDB 2020).	No. Project site has neither gabbro nor Ione soils required by the species.
Delphinium hansenii ssp. *ewanianum* Ewan's larkspur	— / — (CNPS: 4.2)	G4T3 S3	Rocky soils within cismontane woodland, and valley and foothill grassland. 60-600 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Downingia pusilla Dwarf Downingia	— / — (2B.2)	GU S2	Vernal pools in valley and foothill grasslands, 1-445 m. elevation. (CNPS 2020)	No. Project site has no vernal pools and is out of the known range of the species.
Erigeron petrophilus var. *sierrensis* Northern Sierra daisy	— / — (CNPS: 4.3)	G4T4 S4	Rocky soils, sometimes on serpentine; cismontane woodland, lower and upper montane coniferous forest, 300-2075 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Eriogonum tripodum Tripod buckwheat	— / — (CNPS: 4.2)	G4 S4	Gravelly slopes and flats, often on serpentine, in cismontane woodland and chaparral, 200-1600 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Eriophyllum jepsonii Jepson's wooly sunflower	— / — (CNPS: 4.3)	G3 S3	Coastal scrub, chaparral, cismontane woodland, sometimes on serpentine soils, 200-1025 m. elevation. (CNDDB 2020)	No. Project site is out of the known range of the species, which is limited to the central coastal mountains.
Eryngium pinnatisectum Tuolumne Button-celery	— / — (CNPS: 1B.2)	G2 S2	Vernal pools and other mesic sites on volcanic soils, cismontane woodland and lower montane coniferous forest. (CNDDB 2020) 70-950 m. elevation. (CNPS 2020)	No. Project site is out of the known range of the species.
Erythranthe inconspicua (=Mimulus inconspicuus) Small-flowered monkeyflower	— / — (CNPS: 4.3)	G4 S4	Moist or shaded places in cismontane woodland, lower montane coniferous forest or chaparral, 275-760 m. elevation. (CNDDB 2020) Near hillside streams or seeps, in partial shade. (Jepson 2020)	Yes. See text for further discussion.
Erythranthe laciniata =(Mimulus laciniata) Cut-leaf monkeyflower	— / — (CNPS: 1B.1)	G4 S4	Wet sandy places on decomposed granite in chaparral, lower and upper montane coniferous forest vegetation communites; 490-2650 m. elevation. (CNDDB 2020) Seeps on granite outcrops, > 900 m. elevation. (Jepson 2020)	No. Project site has no decomposed granite substrate.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Erythranthe marmorata (=*Mimulus whipplei*) Stanislaus monkeyflower	— / — (CNPS: 1B.1)	G2? S2?	Cismontane woodland, lower montane coniferous forest, 300-1435 m. elevation. (CNDDB 2020) Currently known only from Calaveras & Fresno counties. (CNPS 2020)	No. Project site is out of the known range of the species.
Fremontodendron decumbens **Pine Hill flannelbush**	**E / R** (CNPS: 1B.2)	G1 S1	On scattered rocky outcrops in chaparral on/in the vicinity of Pine Hill; in black oak woodland on Pine Hill; on gabbro or serpentine soils, 425-760 m. elevation. (CNDDB 2013)	No. Project site is outside of the known range of the species.
Fritillaria agrestis Stinkbells	— /— (CNPS: 4.2)	G3 S3	Mostly found in nonnative grassland or in grassy openings in clay soil, sometimes on serpentine within cismontane woodland, chaparral, valley and foothill grassland. 10-1555 m. (CNDDB 2020)	Yes. See text for further discussion.
Fritillaria eastwoodiae Butte County fritillary	— / — (CNPS: 3.2)	G3Q S3	Chaparral, cismontane woodland and lower montane coniferous forest on serpentine, red clay or sandy loam soils, 50-1500 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Galium californicum* ssp. *sierrae **El Dorado bedstraw**	**E / R** (CNPS: 1B.2)	G5T1 S1	Oak woodland on gabbro soils. (USFWS 2002) Absent from areas with understory dominated by grasses (Wilson 1986, Hunter and Horenstein 1991); 100-585 m. elevation (CNDDB 2020).	No. Project site lacks gabbro soils required by the species.
Githopsis pulchella ssp. *serpentinicola* Serpentine bluecup	— / — (CNPS: 4.3)	G4T3 S3	Serpentine or Ione soils within cismontane woodland, 320-610 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Hesperevax caulescens Hogwallow starfish, dwarf dwarf-cudweed	— / — (CNPS: 4.2)	G3 S3	Mesic sites on clay soils in valley/foothill grasslands; shallow, sometimes alkaline vernal pools; 0-505 m. elevation. CNPS 2020)	No. Project site lacks suitable vernal pool habitat.
Horkelia parryi Parry's horkelia	— / — (CNPS: 1B.2)	G2 S2	Chaparral and cismontane woodland, on Ione or limestone soils, between 80-1035 m. elevation. (CNDDB 2013)	No. Neither Ione nor limestone soils, required by the species, are found on the project site.
Jepsonia heterandra Foothill jepsonia	— / — (CNPS: 4.3)	G3 S3	Rock crevices, especially slate-like rock, in cismontane woodland, lower montane coniferous forest, 50-550 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Juncus leiospermus var. *leiospermus* Red Bluff dwarf rush	— / — (CNPS: 1B.1)	G2T2 S2	Vernally mesic sites, sometimes on edges of vernal pools, within chaparral, valley and foothill grassland, cismontane woodland. 30-1025 m. (CNDDB 2020)	Yes. See text for further discussion.
Juncus luciensis Santa Lucia dwarf rush	— / — (CNPS: 1B.2)	G3 S3	Vernal pools, ephemeral drainages, wet meadow habitats and streamsides within lower montane coniferous forest, chaparral, Great Basin scrub. 300-2040 m. (CNDDB 2020)	Yes. See text for further discussion.
Lathyrus sulphureus var. *argillaceus* Dubious pea	— / — (CNPS: 3)	G5T1T2Q S1S2	Cismontane woodland, lower and upper coniferous forest, 150-305 meters elevation. (CNDDB 2020)	Yes. See text for further discussion.
Lilium humboldtii ssp. *humboldtii* Humboldt lily	— / — (CNPS: 4.2)	G4T3 S3	Openings in chaparral, lower montane coniferous forest (open yellow-pine forest), cismontane woodland, 90-1280 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Microseris sylvatica Sylvan Microseris	— / — (CNPS: 4.2)	G4 S4	Chaparral, cismontane woodland, Great Basin scrub, Pinyon and juniper woodland, Valley and foothill grassland on serpentine soils. (CNPS 2020)	Yes. See text for further discussion.
Mielichhoferia elongata Elongate copper Moss	— / — (CNPS: 4.3)	G5 S3S4	Moss growing on very acidic, metamorphic rock or substrate; usually in higher portions in fens. Often on substrates naturally enriched with heavy metals (e.g. copper). 500-1300 m. (CNDDB 2020)	No. Project site lacks suitable acid substrates and is lower in elevation than the range of the species.
Mimulus glaucescens = *Erythranthe glaucescens* Shield-bracted monkeyflower	— / — (CNPS: 4.3)	G3G4 S3S4	Wet places, rock crevices, serpentine seeps in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, 60-1240 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Monardella candicans Sierra monardella	— / — (CNPS: 4.3)	G4 S4	Sandy or gravelly soil in chaparral, cismontane woodland, lower montane coniferous forest, 150-800 m. elevation. (CNDDB 2020)	No. Soils are primarily loam or serpentine, not sandy or gravelly as required by the species.
Myrica hartwegii Sierra sweet bay	— / — (CNPS: 4.3)	G4 S4	Usually on streamsides in riparian forest, cismontane woodland, lower montane coniferous forest, 150-1750 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Navarretia eriocephala Hoary navarretia	— / — (CNPS: 4.3)	G4 S4?	Vernally mesic sites in cismontane woodland, valley and foothill grassland, 105-400 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.

Special-status Species Common Name	**Listing Status Federal / State (OTHER)**	**CNDDB Rank Global/State**	**Habitat Requirements**	**Potential to occur on project site?**
Navarretia nigelliformis ssp. *nigelliformis* Adobe Navarretia	— / — (CNPS: 4.2)	G4T3 S3	Vernal pools on clay soils (sometimes serpentine soils), 100 to 1000 m. elevation. (CNDDB 2020)	No. Project site lacks suitable vernal pools.
Navarretia subuligera Awl-leaved navarretia	— / — (CNPS: 4.3)	G4 S4	Rocky plains and slopes, mesic sites in cismontane woodland, lower coniferous forest and chaparral, 150-1100 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Ophioglossum californicum California adder's-tongue	— / — (CNPS: 4.3)	G4 S4	Grassy pastures, vernal pool margins, chaparral. Mesic sites. 60-525 m. (CNDDB 2020)	Yes. See text for further discussion.
Packera layneae (=Senecio layneae) **Layne's butterwort**	**T / R** (CNPS: 1B.2)	G2 S2	Open rocky areas in chaparral on gabbro or serpentine soils (USFWS 2002b); 200-1000 m. elevation (CNDDB 2020).	Yes. See text for further discussion.
Perideridia bacigalupii Bacigalupi's yampah	— / — (CNPS: 4.2)	G3 S3	Steep, rocky banks or slopes on serpentine soil in chaparral or lower montane coniferous forest, 450-1035 m. elevation. (CNDDB 2020)	Yes. See text for further discussion.
Piperia leptopetala Narrow-petaled rein orchid	— / — (CNPS: 4.3)	G4 S4	Generally dry sites, scrub, woodland; below 2200 m. elevation. (Jepson 2020) Cismontane woodland, lower and upper montane coniferous forest, 380-2225 m elevation. (CNDDB 2020)	Yes. See text for further discussion.
Piperia michaelii Michael's rein orchid	— / — (CNPS: 4.2)	G3 S3	Mudstone and humus, generally dry sites in chaparral, cismontane woodland, closed-cone coniferous forest and coastal bluff scrub, 3-915 m. elevation. (CNDDB 2020)	Yes. See text for further discussion
Rhynchospora capitellata Brownish beaked-rush	— / — (CNPS: 2B.2)	G5 S1	Mesic sites. Found in upper and lower montane coniferous forest, meadows and seeps, marshes and swamps; 45-1710 m elevation. (CNDDB 2020)	No. Project site has no meadows, marshes or swamps.
Sagittaria sanfordii Sanford's arrowhead	— / — (CNPS: 1B.2)	G3 S3	Standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m.	Yes. See text for further discussion.
Sphenopholis obtusata Prairie wedge grass	— / — (CNPS: 2B.2)	G5 S2	Open moist sites, along rivers and springs, alkaline desert seeps. 300-2000 m. (CNDDB 2020)	Yes. See text for further discussion.
Viburnum ellipticum Oval-leaved viburnum	— / — (CNPS: 2.3)	G4G5 / S3?	Chaparral, cismontane woodland or lower montane coniferous forest between 215-1400 m. elevation (CNDDB 2020)	Yes. See text for further discussion.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Wyethia reticulata El Dorado mule-ears	— / — (1B.2)	G2 / S2	Occurs in chaparral, cismontane woodland and lower montane coniferous forest on stony red clay and gabbro soils (USFWS 2002b); 180-630 m. elevation (CNDDB 2020)	No. Project site is out of the known range of the species.
Special Habitats				
Central Valley Drainage Hardhead/Squawfish Stream	— / —	GNR / SNR	Small to large perennial streams within the Sacramento-San Joaquin, Pajaro-Salinas, Russian, Clear Lake and upper Pit River drainages in California. (Moyle 1995)	No. Project site has no perennial streams.

APPENDIX E

Plant Species Found on the Project site

April 18, 2016

April 19, May 17 & June 7, 2017

May 15, 2020

Plant Species Found on the Project Site
April 18, 2016; and April 19, May 17 & June 7, 2017; May 15, 2020

Adoxaceae
Sambucus nigra L. ssp. *caerulea* (Raf.) Bolli, **Blue elderberry**

Alliaceae
Allium peninsulare Greene var. *peninsulare* **Peninsular Onion**

Anacardiaceae
Toxicodendron diversiloba (Torrey & A. Gray) E. Greene, **Western poison-oak**

Aristolochiaceae
Aristolochia californica Torr., **California pipevine**

Apiaceae
Daucus carota L., **Wild carrot, Queen Anne's Lace**
Daucus pusillus Michx., **American wild carrot**
Sanicula sp., **Sanicle**
Scandix pecten-veneris L., **Venus' needle**
Senecio aronicoides DC., **Rayless ragwort**
Torilis arvensis (Huds.) Link, **Tall sock-destroyer**

Apocynaceae
Asclepias cordifolia (Benth) Jeps., **Purple milkweed**

Asteraceae
Achillea millefolium L., **Yarrow**
Agoseris heterophylla (Nutt.) Greene var. *heterophylla*, **Annual mountain dandelion**
Artemisia douglasiana Besser. **Mugwort**
Baccharis pilularis DC., **Coyote brush**
Carduus pycnocephalus L., **Italian plumeless thistle**
Centaurea solstitialis L., **Yellow star-thistle**
Chondrilla juncea L., **Skeleton weed**
Cirsium vulgare (Savi) Ten., **Bull thistle**
Ericameria arborescens (A. Gray) Greene, **Golden fleece**
Eriophyllum lanatum (Pursh.) J.Forbes var. *achilleoides* (DC.) Jeps. **Common woolly sunflower**
Grindelia camporum Greene, **Gumplant**
Hesperevax acaulis (Kellogg) Greene, **Dwarf evax**
Hypochaeris glabra L., **Smooth cat's-ear**
Lactuca serriola L., **Prickly lettuce**
Leontodon saxatilis Lam., **Hawkbit**
Logfia filaginoides (Hook. & Arn.) Morefield, **California cottonrose**
Madia elegans D. Don, **Common madia**
Madia exigua (Sm.) A. Gray, **Thread-stem madia**
Solidago sp., **Goldenrod**
Sonchus asper (L.) Hill subsp. *asper*, **Prickly sow thistle**

Asteraceae (continued)
Taraxicom sp., **Dandelion**
Tragopogon dubius Scop. **Goat's beard**
Wyethia angustifolia (DC.) Nutt., **Narrow-leaf mule-ears**
Wyethia helenioides (DC.) Nutt., **Gray mule-ears**

Berberidaceae
Berberis aquifolium Pursh., **Oregon-grape**

Betulaceae
Alnus rhombifolia Nutt., **White alder**

Boraginaceae
Amsinckia menziesii (Lehm.) A. Nelson & J.F. Macbr., **Small-flowered fiddleneck**
Eriodictyon californicum (Hook. & Arn.) Torr., **California Yerba Santa**
Nemophila heterophylla Fisch. & C.A. Mey., **White nemophila**
Plagiobothrys tenellus (Hook.) A.Gray, **Pacific popcornflower**

Brassicaceae
Brassica nigra (L.) W.D.J. Koch, **Black mustard**
Capsella bursa-pastoris (L.) Medik., **Shepherd's purse**
Lepidium nitidum Nutt., **Shining Peppergrass**
Nasturtium officinale W.T. Aiton, **Water cress**

Caprifoliaceae
Lonicera hispidula (indl.) Torr. & A. Gray, **California honeysuckle**

Caryophyllaceae
Cerastium arvense L., **Field mouse-ear chickweed**
Cerastium glomeratum Thuill., **Sticky mouse-ear chickweed**
Stellaria media (L.) Vill., **Common chickweed**

Convolvulaceae
Calystegia occidentalis ssp. *fulcrata* (A.Gray) Brummitt, **Chaparral false-bindweed**

Cucurbitaceae
Marah fabacea (Naudin) Greene, **California man-root**

Dryopteridaceae
Dryopteris arguta (Kaulf.) Maxon, **Wood fern**

Ericaceae
Arctostaphylos viscida C. Parry, **White-leaf manzanita**

Euphorbiaceae
Croton setiger Hook, **Dove weed**

Fabaceae
Acmispon brachycarpus (Benth.) D.D. Sokoloff, **Foothill Deervetch**
Acmispon parviflorus (Benth.) D.D. Sokoloff, **Smallflower lotus**
Cercis occidentalis A.Gray, **Western redbud**
Cytisus scoparius (L.) Link, **Scotch broom**
Lathyrus sulphureus A. Gray var. *sulphureus*, **Sulphur Pea, Snub Pea**
Lupinus albifrons Benth, **Silver lupine**
Lupinus bicolor Lindl., **Bicolor lupine**
Lupinus nanus Benth., **Sky lupine**
Trifolium ciliolatum Benth., **Foothill clover**
Trifolium dubium Sibth., **Little hop clover**
Trifolium hirtum All., **Rose clover**
Trifolium subterraneum L., **Subterranean clover**
Vicia sp., **Vetch**

Fagaceae
Quercus douglasii Hook & Arn., **Blue oak**
Quercus kelloggii Newb., **California black oak**
Quercus durata Jeps. var. *durata*, **Leather oak**
Quercus wislizeni A. DC., **Interior live oak**

Geraniaceae
Erodium sp., **Filaree**
Geranium dissectum L., **Cutleaf geranium**
Geranium molle L., **Woodland geranium**

Hypericaceae
Hypericum perforatum L. subsp. *perforatum*, **Klamathweed**

Iridaceae
Sisyrinchium bellum S. Watson, **Western blue-eyed grass**

Juncaceae
Juncus bufonius L. var. *bufonius*, **Toad rush**
Luzula comosa E. Mey. var. *comosa*, **Hairy wood-rush**

Lamiaceae
Scutellaria californica A.Gray, **California skullcap**

Liliaceae
Calochortus albus (Benth.) Douglas ex Benth, **Fairy lantern**
Calochortus monophyllus (Lindl.) Lem., **Yellow star-tulip**
Chlorogalum pomeridianum (DC.) Kunth var. *pomeridianum*, **Common soaproot**

Dichelostemma capitatum (Benth.) Alph. Wood, **Blue dicks**

Liliaceae (continued)
Dichelostemma volubile (Kellogg) A. Heller, **Twining Brodiaea**
Triteleia ixioides (W.T. Aiton) Greene ssp. *ixioides*, **Golden brodiaea**
Triteleia laxa Benth., **Ithuriel's spear**

Linaceae
Linum bienne Mill., **Narrow-leaf flax**

Myrsinaceae
Lysimachia arvensis (L.) U. Manns & Anderb., **Scarlet pimpernel**

Orobanchaceae
Castilleja attenuata (A. Gray) T.I. Chuang & Heckard, **Narrow-leaved owl clover**
Castilleja foliolosa Hook. & Arn., **Wooly paintbrush**
Castilleja lacera (Benth.) T.I. Chuang & Heckard, **Cutleaf Owl's Clover**

Montiaceae
Claytonia exigua Torr. & A. Gray ssp. *exigua*, **Little Spring Beauty**
Claytonia parviflora Hook. subsp. *parviflora*, **Miner's lettuce**

Onagraceae
Clarkia purpurea ssp. *quadrivulnera* (Lindl.) H.Lewis & M. Lewis, **Fourspot**
Epilobium minutum Lindl., **Little willowherb**

Orobanchaceae
Castilleja lineariloba (Benth) T.I. Chuang & Heckard, **Pale owl's clover**
Cordylanthus pilosus A.Gray ssp. *hansenii* (Ferris) T.I. Chuang & Heckard **Hansen's bird-beak**

Papaveraceae
Eschscholzia californica Cham. **California poppy**
Eschscholzia lobbii Greene, **Frying pans**

Phrymaceae
Mimulus guttatus DC., **Common Monkeyflower**

Pinaceae
Pinus ponderosa Lawson & C. Lawson
Pinus sabiniana Douglas, **Gray or foothill pine**

Plantaginaceae
Keckiella breviflora (Lindl.) Straw var. *breviflora* **Beardtongue**
Kickxia elatine (L.) Dumort. **Fluellen**
Plantago erecta E. Morris, **Foothill plantain**
Plantago lanceolata L., **Italian plantain**

Poaceae
Aegilops triuncialis L., **Barbed goatgrass**
Aira caryophyllea L., **Silver hair grass**
Avena sp., **Wild oat**
Briza minor L., **Annual quaking grass**
Bromus hordeaceus L., **Soft chess**
Bromus madritensis L., **Madrid brome**
Bromus sterilis L., **Poverty brome**
Bromus tectorum L., **Cheat grass**
Cynosurus echinatus L., **Hedgehog dogtail**
Elymus caput-medusae (L.) Nevski, **Medusa head**
Elymus glaucus Buckley, **Blue wildrye**
Festuca bromoides L., **Brome fescue**
Festuca perennis (L.) Columbus & J.P.Sm., **Ryegrass**
Gastridium phleoides (Nees & Meyen) C.E. Hubb. **Nit grass**
Hordeum sp., **Barley**
Melica californica Scribn., **California melic**
Melica imperfecta Trin., **Little California Melica**
Phalaris minor Retz., **Little-seeded canary grass**
Poa pratensis L. subsp. *pratensis*, **Kentucky bluegrass**
Polypogon monspeliensis (L.) Desf., **Annual beard grass**
Vulpia myuros L, **Rat's-tail fescue**

Polemoniaceae
Leptosiphon bicolor Nutt., **True babystars**
Leptosiphon montanus (Greene) J.M. Porter & L.A. Johnson, **Mustang clover**

Polygalaceae
Polygala cornuta Kellogg var. *cornuta*, **Milkwort**

Polygonaceae
Rumex acetosella L., **Sheep sorrel**
Rumex conglomeratus Murray, **Clustered dock**
Rumex crispus L., **Curly dock**

Primulaceae
Anagallis arvensis L., **Scarlet pimpernel**

Pteridaceae
Adiantum capillus-veneris L., **Southern maidenhair**
Pentagramma pallida (Weath.) Yatsk. et al., **Silverback fern**

Ranunculaceae
Clematis lasiantha Nutt., **Chaparral clematis**
Ranunculus arvensis L., **Corn buttercup**
Ranunculus canus Benth. var. *canus*, **Buttercup**
Ranunculus hebecarpus Hook. & Arn. **Delicate buttercup**

Rhamnaceae
Ceanothus cuneatus (Hook.) Nutt., var. *cuneatus* **Buck brush**
Ceanothus integerrimus Hook. & Arn, **Deer brush**
Ceanothus palmeri Trel., **Deer brush**
Frangula californica (Eschsch.) A. Gray, **California coffeeberry**
Frangula californica (Eschsch.) A. Gray ssp. *tomentella* (Benth.) Kartesz & Gandhi **Hoary coffeeberry**
Rhamnus ilicifolia Kellogg, **Holly-leaf redberry**

Rosaceae
Adenostoma fasciculatum Hook. & Arn., **Chamise**
Drymocallis glandulosa (Lindl.) Rydb., **Sticky Cinquefoil**
Heteromeles arbutifolia (Lindley) Roemer, **Toyon**
Rubus armeniacus Focke **Himalayan blackberry**

Rubiaceae
Galium aparine L., **Goose grass**
Galium bolanderi A. Gray, **Bolander's bedstraw**
Galium parisiense L. **Wall bedstraw**
Galium porrigens Dempster, **Climbing bedstraw**
Sherardia arvensis L., **Field madder**

Sapindaceae
Aesculus californica (Spach) Nutt. **California buckeye**

Saxifragaceae
Lithophragma bolanderi A. Gray; **Woodland star**

Scrophulariaceae
Scrophularia californica Cham. & Schltdl., **California figwort**
Verbascum thapsus L., **Wooly mullein**

Solanaceae
Solanum xanti A. Gray, **Chaparral nightshade**

Themidaceae
Dichelostemma volubile (Kellogg) A. Heller, **Twining Brodiaea**
Triteleia hyacinthina (Lindl.) Greene, **White brodiaea**
Triteleia ixioides subsp. *scabra* (Greene) L.W. Lenz, **Golden brodiaea**
Triteleia laxa Benth., **Ithuriel's spear**

Valerianaceae
Plectritis ciliosa (Greene) Jeps., **Long-spurred plectritis**
Plectritis macrocera Torr. & A.Gray, **White plectitis**

Viscaceae
Phoradendron villosum (Nutt.) Nutt., **Oak mistletoe**

Wetland Delineation Report

for

Assessor's Parcel Number 105-190-042-000

located south of

Thompson Hill Road

being

Parcel B of PM 51-83

El Dorado County, CA

Prepared by
Ruth A. Willson
Site Consulting, Inc.
Biological Services
3460 Angel Lane
Placerville, California 95667
(530) 622-7014

Prepared for
Dina Brinkley
dinabrinkley@gmail.com

June 2020

Table of Contents

Figures

Tables

Appendices

I. Report Summary

A. Potential Jurisdictional Features

The project site has four waters and five small wetlands. The total potential jurisdictional features on the project site is 9071 ft.^{2} (0.21 acres). See Page 13 for more specific information.

B. Proposed Mitigation

The project site is located within an Important Biological Corridor. The El Dorado County General Plan guidelines require increased setbacks from sensitive habitats; thus, 60-foot setbacks from intermittent and ephemeral waters, as well as from wetlands, is suggested to protect potential jurisdictional features in the study area.

II. Introduction

A. Purpose of Report

A wetland delineation was conducted March 20, April 27, April 30 and May 15, 2020 on Assessor's Parcel Number 105-190-042-000 (Figure 1), at the request of Dina Brinkley. The wetland delineation is part of submittal information required by El Dorado County for a parcel map division of a 54.9-acre parcel of land.

B. Project Location and Description

The study area is in the east half of Section 25, Township 11 North, Range 9 East, M.D.M. It lies south of Thompson Hill Road in the Gold Hill/Lotus area of El Dorado County, CA. (Figure 1). The study area has a General Plan designation of Rural Residential (RR) with RL-10 zoning. An Important Biological Corridor (IBC) overlay covers the parcel.

The parcel, which has no structures, is bounded by properties varying in size from 5 to 61 acres. Recent use of the parcel has been for grazing cattle.

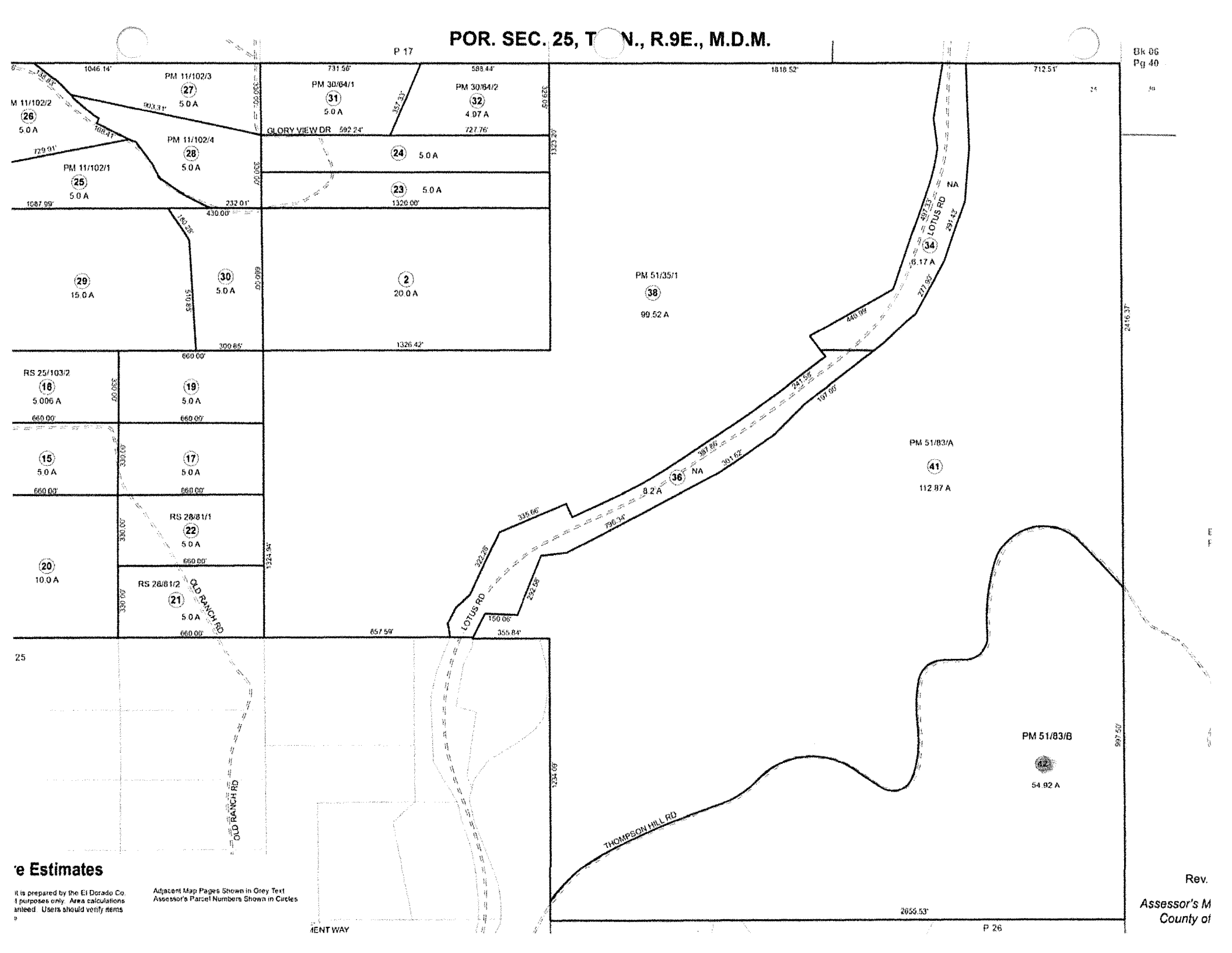
C. Property Owner and Project Manager

Property Owner
Jomescbo Family Trust
Thomas Van Noord, Trustee
3350 Country Club Drive
Cameron Park, CA 95682

Project Manager
Dina Brinkley
dinabrinkley@gmail.com

E. Report Preparer

Ruth A. Willson, M.A., Biology, California State University, Fresno, Senior Biologist for Site Consulting, Inc., has been preparing biological reports in El Dorado County since 1992. Her educational and experiential background includes proficiency in botany, entomology, ornithology, wildlife biology and ecology. She completed training in wetland delineation with Wetland Training Institute March 31, 2006, and is a Certified Arborist with the International Society of Arboriculture (Certification No. WE-8335A).



e Estimates

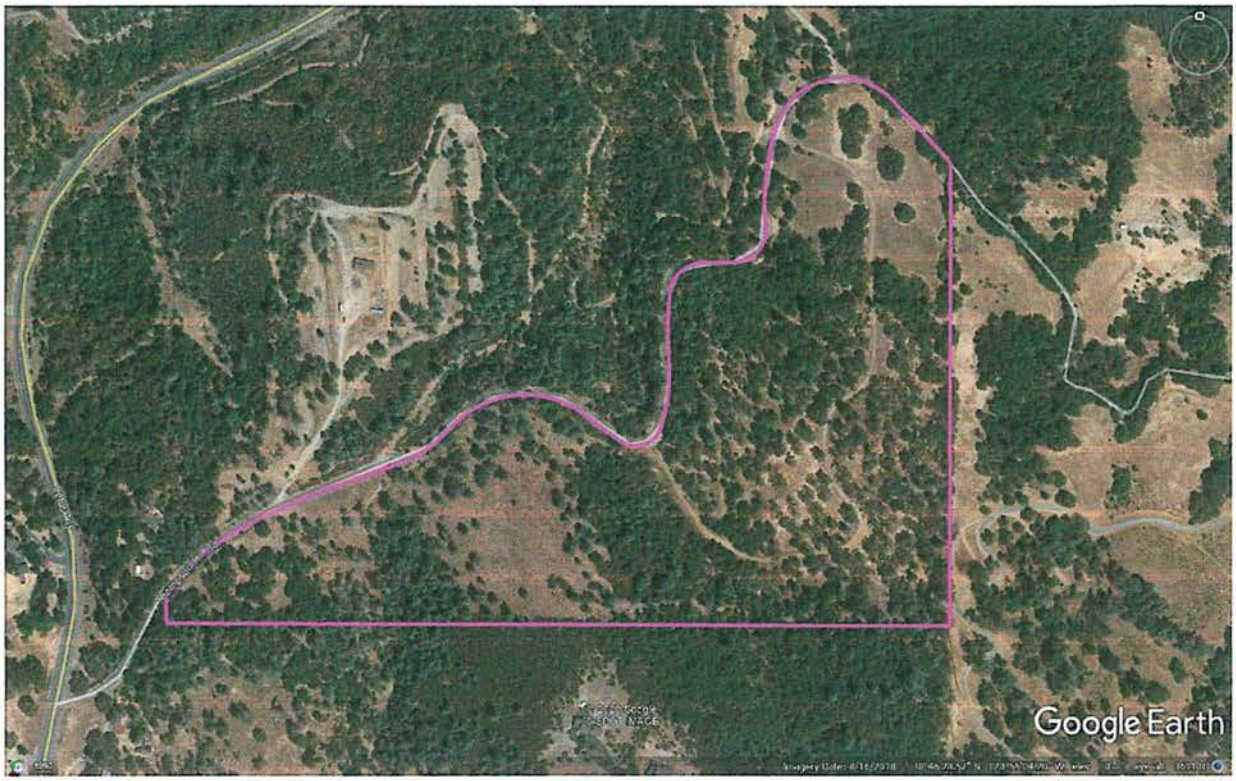
It is prepared by the El Dorado Co.
l purposes only. Area calculations
anteed. Users should verify items

Adjacent Map Pages Shown in Grey Text
Assessor's Parcel Numbers Shown in Circles

Rev.

Assessor's M
County of

Figure 2. Google Earth image of the study area, dated August 2018.



III. Methods

A. Literature

Literature utilized for the wetland delineation includes U.S. Army Corp (2008), and Wetland Training Institute (1995). Jurisdictional suitability of hydrologic features was evaluated utilizing the Environmental Protection Agency's Rapanos guidelines (EPA 2007). Soil color was determined using Munsell (2000). Soil classification and descriptions were found in USDA (1974) and the NRCS Web Soil Survey (2020). Vegetation and plant taxonomy references include DFG (2010), Sawyer et al. (2009), Mayer and Laudenslayer (1988), Klein et al. (2007), and Baldwin, ed. (2012). Hydrophytic vegetation classification was found in Lichvar (2016). Hydric soils information was obtained from USDA, NRCS (2006).

B. Field Survey and Mapping

A field survey to delineate the boundaries of wetlands and waters on the project site was conducted March 20, April 27, April 30 and May 15, 2020 by Ruth Willson, utilizing the routine determination method in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual (Corps 1987) and its Arid West Regional Supplement to the Wetland Delineation Manual (Corps 2008). Wetland determination data points are mapped on Figure 6, page 11, and wetland data sheets are presented in Appendix A.

IV. Site Description

A. Topography

The study area lies between 1330 and 1560 feet (405 and 475 meters) elevation. The topography consists of three northerly-sloping ridges separated by two unnamed intermittent creeks. In addition, the easternmost ridge is cut by an ephemeral drainage (Figure 3). The slope gradient on the ridges follows: westernmost ridge, 15 percent; central ridge, 14 percent; and easternmost ridge, 11 percent.

B. Hydrology

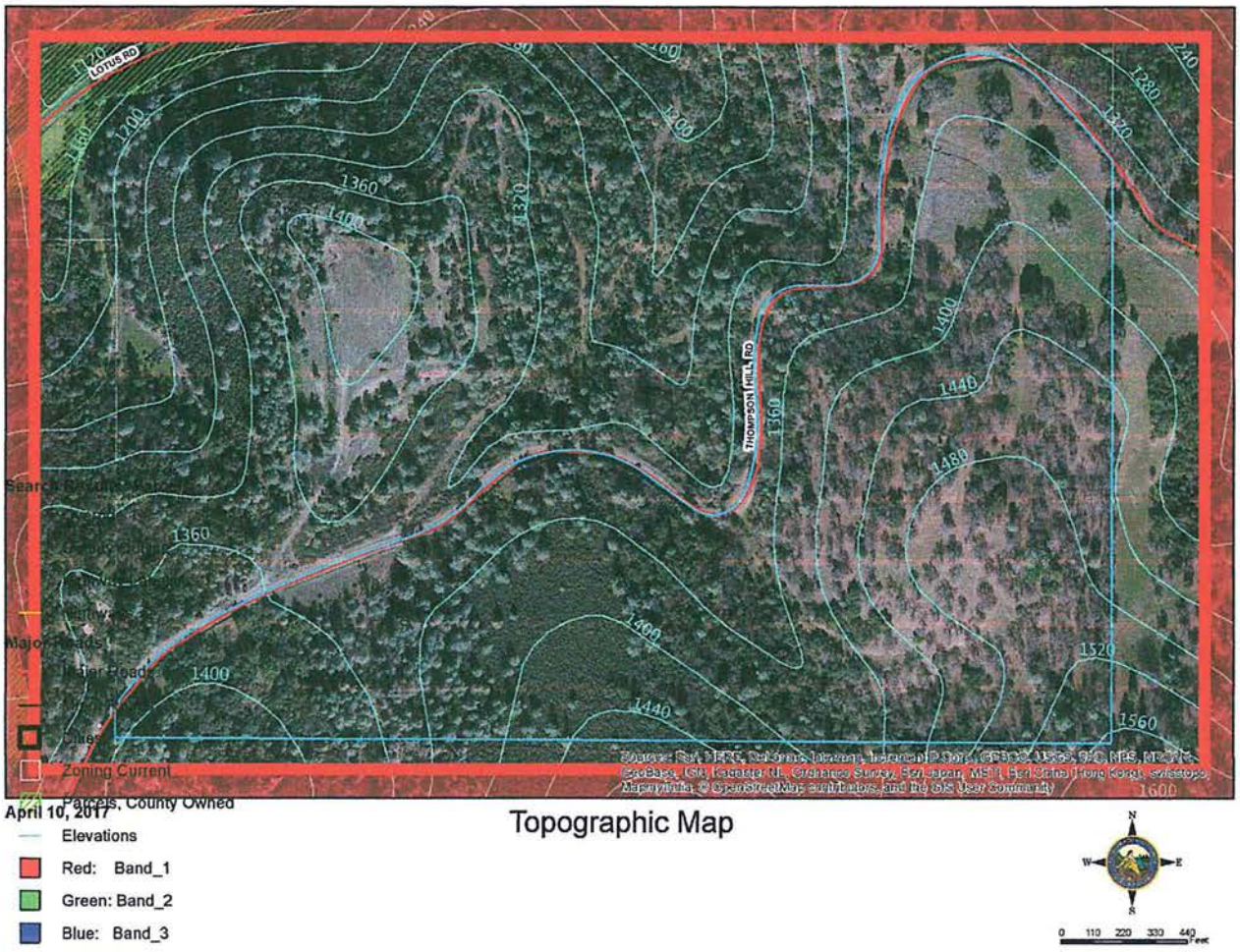
Direct precipitation and drainage of precipitation are the hydrologic sources on the project site. Two intermittent streams, herein designated Channel 1 and Channel 2, and one ephemeral drainage swale, Channel 3, carry water northerly through the project site.

Channel 1 originates south of the project site and carries water northerly through the project site to a culvert beneath a dirt road, then through a second culvert beneath Thompson Hill Road. North of the project site, Channel 1 joins Granite Canyon Creek, a perennial stream, approximately 1.5 miles south of its confluence with the South Fork American River, a traditional navigable river, just west of the community of Lotus.

Channel 2 originates on the project site and carries water northerly through the parcel to a small pond near the north boundary of the parcel, then crosses beneath Thompson Hill Road in a culvert. North of the project site, Channel 2 joins Channel 1 prior to its confluence with Granite Canyon Creek.

Channel 3 originates in the eastern portion of the study area. The channel disburses water into an broad flat area that lacks a defined channel before the water collects at a culvert that carries it beneath Thompson Hill Road. Water then joins Channel 2 north of the project site.

Figure 3. Topographic map, generated by El Dorado County Got Net



C. Vegetation Communities

Vegetation communities on the study area include, from west to east: 71.080.00 Interior Live Oak Woodland; 87.130.00 Foothill Pine Woodland; 37610 Mixed Serpentine Chaparral (Holland 1986); 71.080.00 Interior Live Oak Woodland; 71.020.00 Blue Oak Woodland and 42.040.00 California Annual Grassland. California Annual Grassland is also found along the north property boundary west of a small wetland (Figure 4).

1. Interior Live Oak Woodland

Interior live oak woodland covers approximately nine acres in two areas of the property: five acres at the western corner of the study area, and four acres in the center of the parcel. The tree canopy is dominated by interior live oak (*Quercus wislizeni*), but also includes blue oak (*Q. douglasiana*), California buckeye (*Aesculus californica*) and foothill pine (*Pinus sabiniana*) as minor components. The shrub layer includes western poison-oak *(Toxicodendron diversiloba)*, whiteleaf manzanita (*Arctostaphylos viscida)*, toyon (*Heteromeles arbutifolia*), coyote brush (*Baccharis pilularis*), chaparral clematis (*Clematis lasiantha*) and buck brush (*Ceanothus cuneatus*). The ground layer, limited to openings in the woodland, includes various bromes (*Bromus* sp.), sanicle (*Sanicula* sp.), dogtail grass (*Cynosurus echinatus*), silver hair grass (*Aira caryophyllea*), goose grass (*Galium aparine*) and Italian plumeless thistle (*Carduus pycnocephalus)* among other grasses and forbs. A complete list of plant species found on the property is presented in Appendix E.

2. Foothill Pine Woodland

Foothill Pine Woodland (photo below) covers approximately four and one-half acres of the study area. The tree canopy is primarily foothill pine, but also includes scattered interior live oaks. The brushy understory consists of toyon, deer brush (*Ceanothus integerrimus*), coffeeberry *(Frangula californica),* chamise (*Adenostoma fasciculatum)* and western poison-oak. The ground layer consists of various grasses and forbs, as within the interior live oak woodland.

3. Mixed Serpentine Chaparral

Mixed serpentine chaparral vegetation (photo at left), covering approximately nine acres, is the dominant vegetation community on the Serpentine soils between the two intermittent creeks in the study area. This vegetation community has been described as the *Quercus durata* Association (Leather Oak Association) (Klein et.al, 2007). Trees are limited to scattered foothill pines, but the shrub layer, dominated by leather oak, includes chamise, whiteleaf manzanita and toyon. Before being cleared in 2018, the ground layer was mostly absent, due to the dense shade and probable allelopathy of the shrub layer. In 2020, the shrub layer had recovered, with shrubs varying in height from two to six feet. The ground layer consisted of annual grasses, primarily perennial ryegrass (*Festuca perennis*), Rat's-tail fescue (*F. myuros*) and various bromes (*Bromus* sp.).

4. Blue Oak Woodland

Blue oak woodland (photo at right) covers about thirty-two acres on the ridge in the eastern portion of the property. The most common oak species is blue oak, although interior live oaks can be found in drainage swales and near Thompson Hill Road. The oak woodland includes foothill pines and a single ponderosa pine (*Pinus ponderosa*) along the east property line. The blue oak woodland understory primarily consists of savannah, but western poison oak is found at the base of many oaks and covering some rock outcroppings. Other shrubs include bush beardtongue (*Keckiella breviflora* var. *breviflora*) and lupines (*Lupinus* sp.). The ground layer in the blue oak woodland is dominated by annual grasses, including various bromes, fescues (*Festuca sp.),* Medusa head (*Elymus caput-medusae*), and nit grass (*Gastridium phleoides*), among others. Common forbs include sanicle, wild carrot (*Daucus carata*), yellow star-thistle (*Centaurea solstitialis*), cat's-ear (*Hypochaeris* sp.), rose clover (*Trifolium hirtum*) and Ithuriel's spear (*Triteleia laxa*).

5. California Annual Grassland

California annual grassland (photo at right) covers about seven acres, found in two locations: about one-half acre northwest of small wetlands in the western portion of the property and about 6.5 acres at the northeastern corner of the parcel (Figure 4). The vegetation mix in the westernmost grassland includes ryegrass (*Festuca perennis),* various bromes, sanicle, dogtail grass, silver hair grass, and bluegrass (*Poa* sp.). The easternmost grassland has scattered blue oak trees with an herb-layer species mix similar to the vegetation found in blue oak woodland, described in subsection 4, above.

FIGURE 4
VEGETATION MAP

A PORTION OF EAST HALF OF
SECTION 25, T.11N., R.9E., M.D.M.
BEING PARCEL B OF PM 51/83
EL DORADO COUNTY STATE OF CALIFORNIA
JUNE 2020
FOR: JOMESCBO TRUST
APN: 105-190-042

0 200 400 600

SCALE 1"=200'

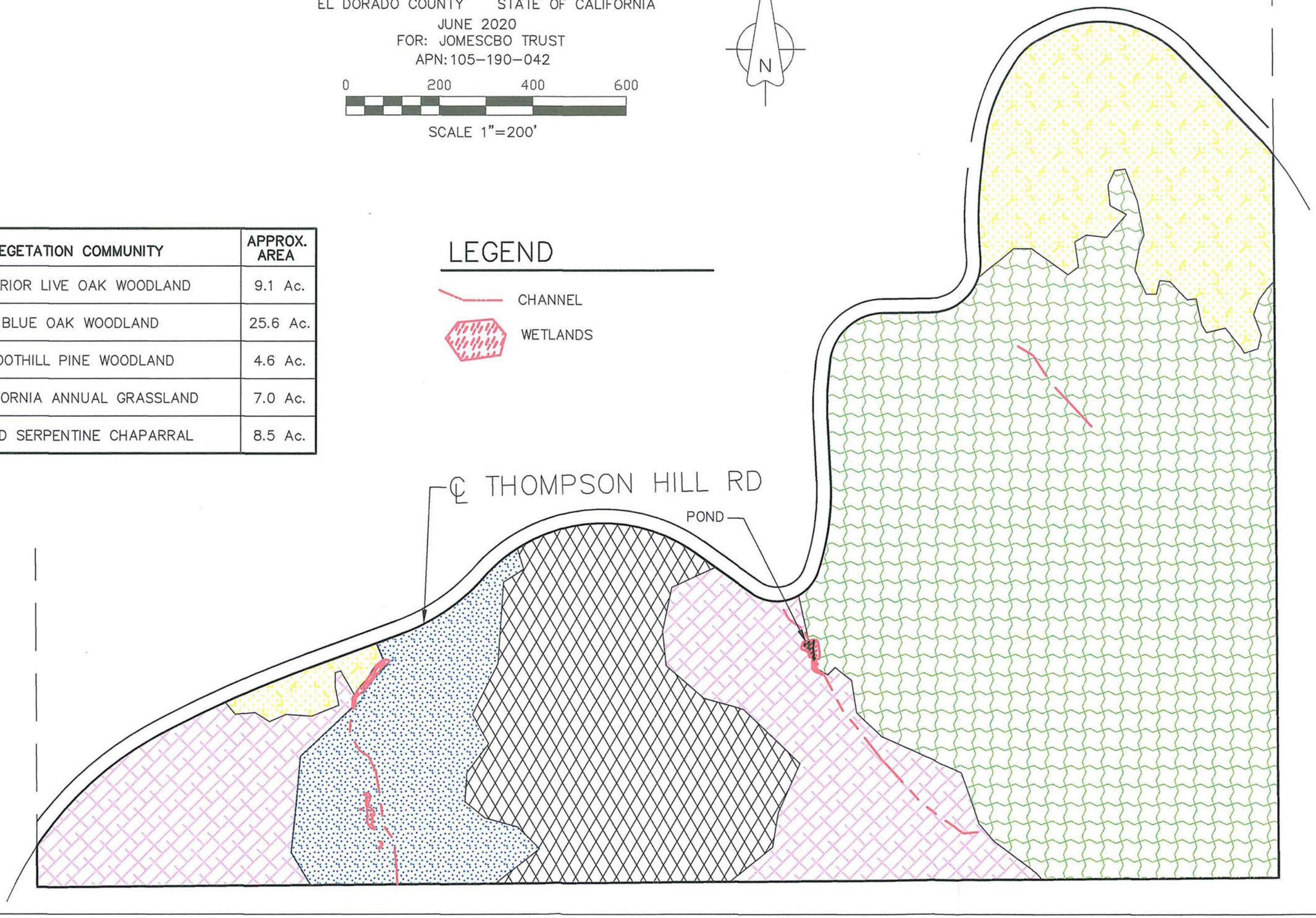
N

	VEGETATION COMMUNITY	APPROX. AREA
	INTERIOR LIVE OAK WOODLAND	9.1 Ac.
	BLUE OAK WOODLAND	25.6 Ac.
	FOOTHILL PINE WOODLAND	4.6 Ac.
	CALIFORNIA ANNUAL GRASSLAND	7.0 Ac.
	MIXED SERPENTINE CHAPARRAL	8.5 Ac.

LEGEND

CHANNEL

WETLANDS



D. Soils

1. Soil Classification

Soils on the study area (Figure 5) include (from southwest to northeast) Auburn very rocky silt loam (AxE), Serpentine rock land (SaF), Auburn very rocky silt loam, Boomer very rocky loam (BkD and BkE). Auburn soils comprise approximately 30 percent of the parcel; Boomer soils, 40 percent; and serpentine soils, 30 percent (NRCS 2017). Auburn soils are derived from basic igneous or metamorphic rock; Serpentine soils from ultrabasic metamorphic rock; and Boomer soils from schist (USDA 1974).

2. Soil Descriptions

a. Auburn Series

Auburn Series soils are well-drained soils underlain by hard metamorphic rocks from 12 to 26 inches deep, and are found on undulating to very steep foothills (2 to 70% slopes) at elevations from 500 to 1800 feet. Average annual rainfall is 25 to 35 inches and frost-free season varies from 170 to 270 days. Soil colors from a representative profile of Auburn very rocky silt loam, 2 to 30 percent slopes, are shown below (USDA 1974).

i. Auburn Very Rocky Silt Loam, 2-30% Slopes (AxD)

0-3 inches: Brown (7.5YR 5/4) silt loam, dark reddish brown (5YR 3/3) when moist;
3 to 14 inches: Reddish yellow (5YR 6/8) silt loam, dark reddish brown (5YR 3/4) when moist;
14 inches: Weathered metabasic rock.

ii. Auburn Very Rocky Silt Loam, 30-50% Slopes (AxE)

Having a soil profile similar to Auburn very rocky silt loam 2-30% slopes (above), this soil is found on slopes that drop into creek channels and drainages.

b. Serpentine Rock Land

Soils on Serpentine Rock Land are derived from highly resistant serpentine and other ultrabasic rock formations. Rock outcrops and stones make up from 50 to 90 percent of the surface, and there is a thin mantle of soil. Depth to hard bedrock ranges from 10 to 24 inches.. (USDA 1974)

c. Boomer Series

The Boomer Series consists of well-drained soils underlain by basic schists at a depth of 24 to 52 inches. Slopes are from 3 to 70 percent, average annual precipitation is 35 to 50 inches, and frost-free season is 170 to 270 days. Soil colors from a representative profile of Boomer very rocky loam, 30 to 50 percent slopes (BkE) follows:

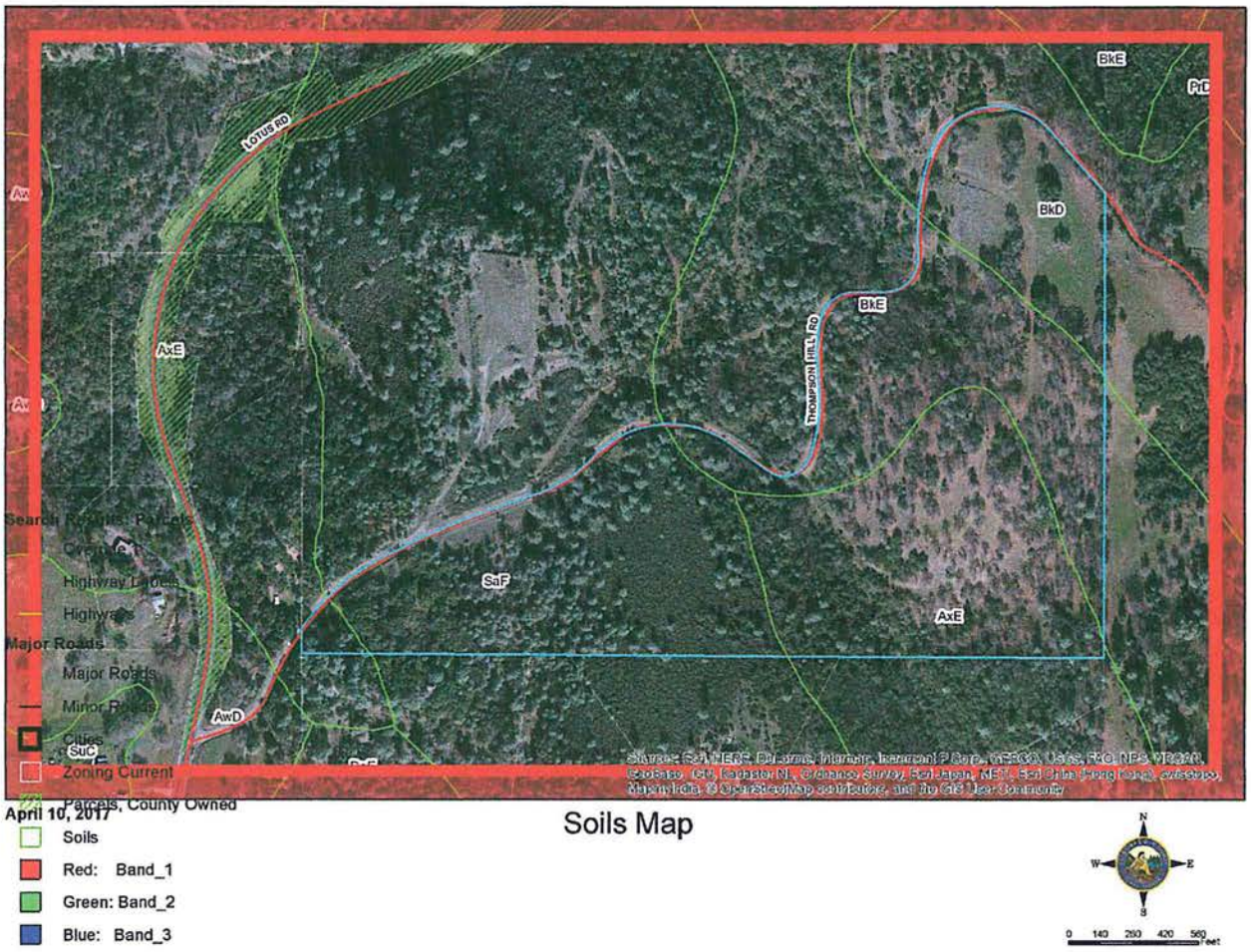
i. Boomer Very Rocky Loam, 30-50% slopes (BkE)

0-13 inches: Yellowish-red (5YR 5/6) gravelly loam, dark reddish brown (5YR 3/4) when moist;
13-24 inches: Red (2.5YR 4/6) gravelly loam, dark reddish brown (2.5YR 3/6) when moist;
24-37 inches: Red (2.5YR 4/8) gravelly sandy clay loam, dark red (2.5 YR 3/6) when moist;
37-52 inches: Red (2.5YR 4/8 very gravelly sandy clay loam, red (s.5YR 5/6) and yellowish red (5YR 4/6) when moist;
52 inches: well-fractured schist that has dark red (2.5YR 36 sandy clay loam in cracks, variable dark red (2.5YR 3/6), yellowish red (5YR 4/6)and strong brown (7.5YR 5/6) when moist.

ii. Boomer Very Rocky Loam, 3 to 30 percent slopes (BkD)

Boomer very rocky loam, 3 to 30 percent slopes, is similar to Boomer very rocky loam, 30 to 50 percent slopes, except it is on less-sloping ground.

Figure 5. Soils map, generated by El Dorado County Got Net.



AxE = Auburn very rocky silt loam
SaF = Serpentine rock land
BkD = Boomer very rocky loam 3 to 30 percent slopes
BkE = Boomer very rocky loam, 30 to 50 percent slopes

FIGURE 6
POTENTIAL JURISDICTIONAL FEATURES

A PORTION OF EAST HALF OF
SECTION 25, T.11N., R.9E., M.D.M.
BEING PARCEL B OF PM 51/83
EL DORADO COUNTY STATE OF CALIFORNIA

JUNE 2020
FOR: JOMESCBO TRUST
APN: 105-190-042

0 200 400 600
SCALE 1"=200'

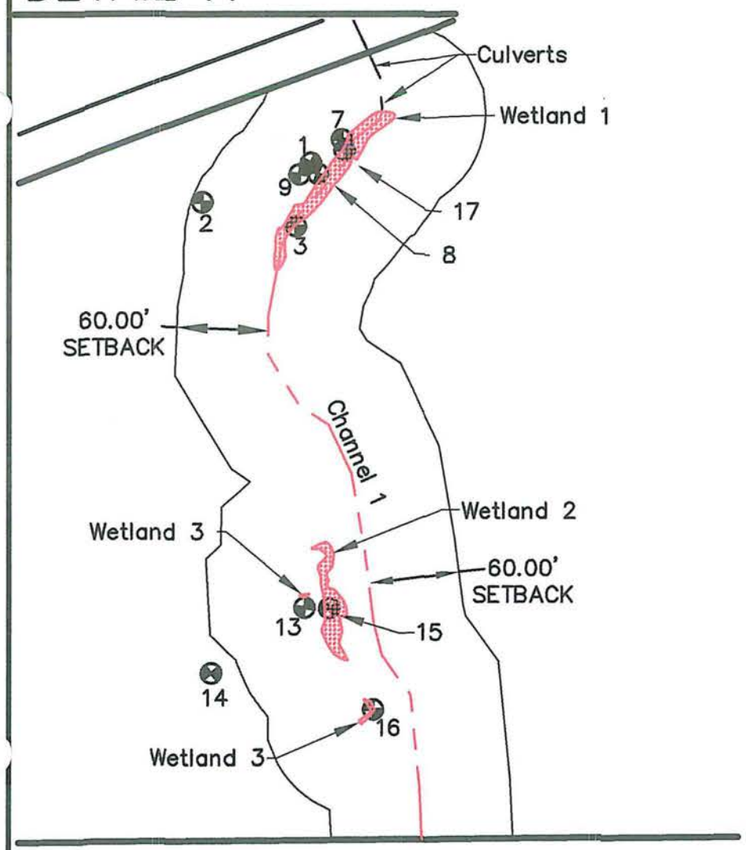
N

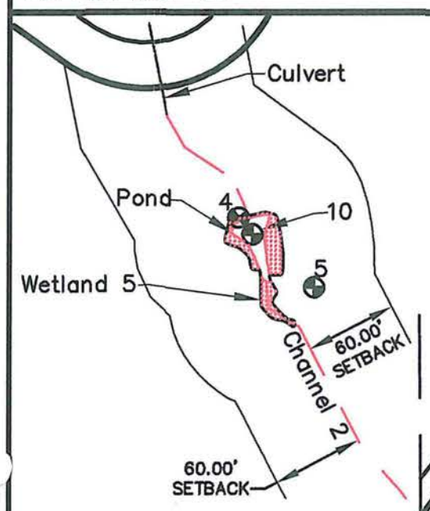
WATERS

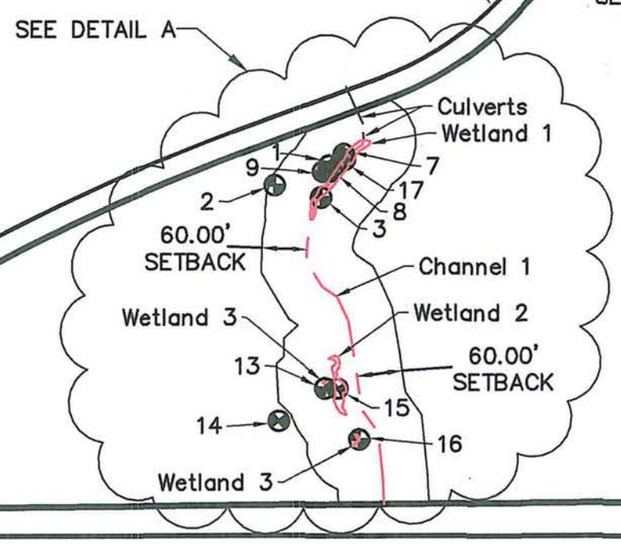
WATER ID	CHANNEL LENGTH (ft)	AVERAGE FLOW-LINE WIDTH (ft)	AREA (ft^2)	AREA (acres)
Channel 1	534	5	2670	0.061
Channel 2	545	4	2180	0.05
Channel 3	202	2	404	0.009
Pond	n/a	n/a	522	0.012
TOTAL WATERS			5776	0.13

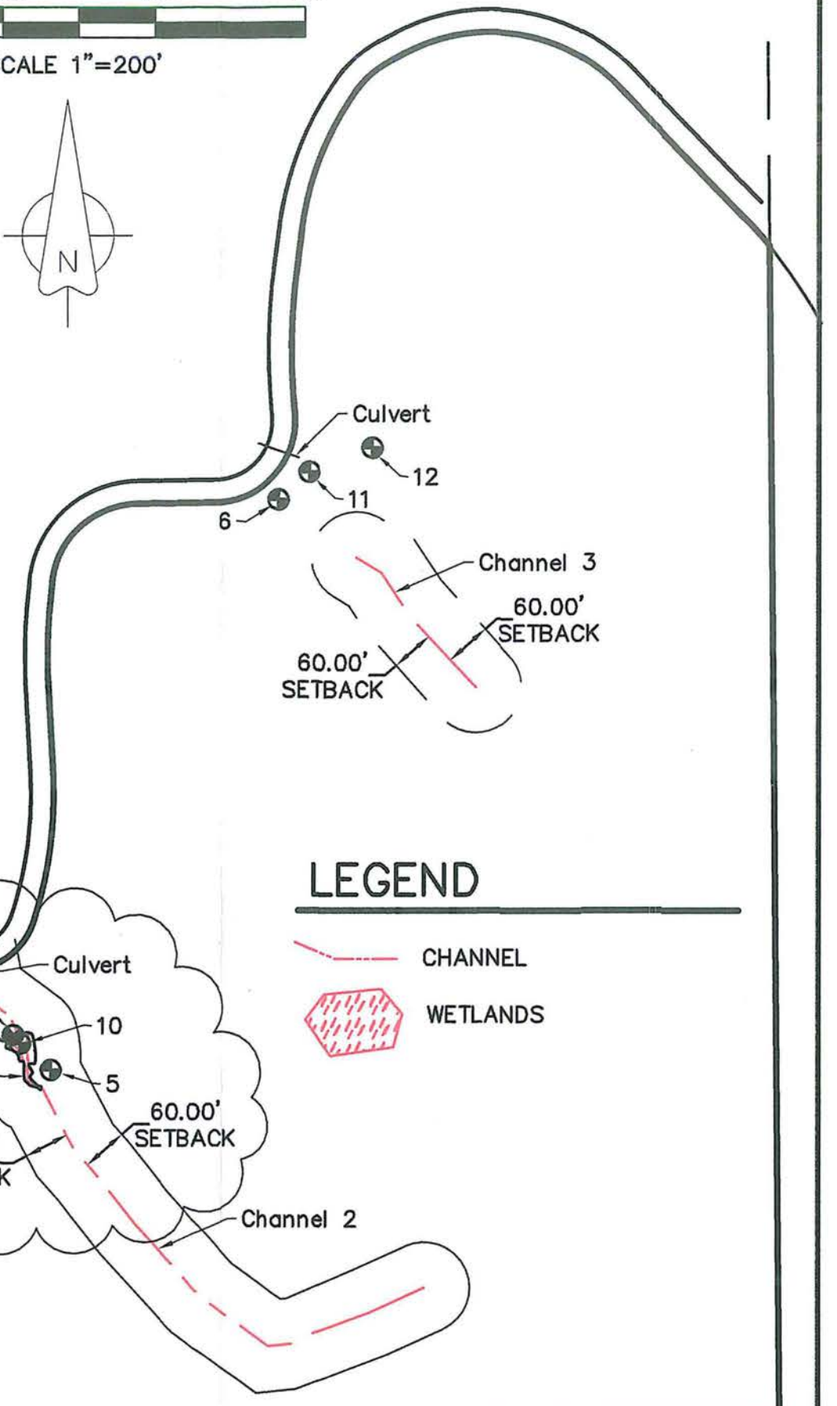
WETLANDS

WATER ID		AREA (ft^2)	AREA (acres)
Wetland 1		1174	0.027
Wetland 2		687	0.016
Wetland 3		8	0.0002
Wetland 4		46	0.001
Wetland 5		1380	0.032
TOTAL WETLANDS		3295	0.08
POTENTIAL JURISDICTIONAL TOTALS		9071	0.21









℄ THOMPSON HILL RD

LEGEND

CHANNEL

WETLANDS

VI. Delineation Results

The project site has four waters and five wetlands (Figure 6). The total potential jurisdictional area on the project site, shown in Table 1, is 9071 ft.^{2} (0.21 Ac.).

A. Waters

Channel 1 carries water northerly approximately 534 feet from the south boundary of the project site to the project's north boundary at Thompson Hill Road. Total area of Channel 1 is about 2670 ft.^{2} (0.061 Acres). Channel 2 carries water about 545 feet northerly from its origin on the project site, through a pond, then to the property's north boundary at the road. Total area of the Channel 2 is about 545 ft.^{2} (0.05 Acre), and the area of the pond is about 522 ft.^{2} Channel 3 is a disjunct channel, consisting of two parts separated by a dirt road. Channel 3 carries storm water northerly about 202 ft.^{2} from a hill slope to a broad flat area near the property's north boundary at Thompson Hill Road. Total area of Channel 3 is approximately 404 ft.^{2} (0.009 Acre). Total area of waters on the project site is approximately 5776 ft.^{2} (0.13 acres).

Figure 7. Channel 1.

Figure 8. The pond on Channel 2.

B. Wetlands

Five small wetlands were found on the project site. Wetlands 1 through 4 are located within Channel 1 or at the base of a slope beside the channel. The wetlands range in size from 8 ft.^{2} to 1174 ft.^{2} Wetland 5 surrounds the pond on Channel 2. Total area of wetlands on the project site is approximately 3295 ft.^{2} (0.08 acres).

Figure 9. Wetland 1.

Figure 10. Wetland 2.

Figure 11. Wetland 5.

Table 1. Summary of waters and wetlands.

WATERS				
Water ID	**Channel Length (ft)**	**Average Flow-line Width (ft)**	**Area (ft^2)**	**Area (acres)**
Channel 1	534	5	2670	0.061
Channel 2	545	4	2180	0.05
Channel 3	202	2	404	0.009
Pond	n/a	n/a	522	0.012
TOTAL WATERS			**5776**	**0.13**
WETLANDS				
Wetland ID			**Area (ft^2)**	**Area (acres)**
Wetland 1			1174	0.027
Wetland 2			687	0.016
Wetland 3			8	0.0002
Wetland 4			46	0.001
Wetland 5			1380	0.03
TOTAL WETLANDS			**3295**	**0.08**
POTENTIAL JURISDICTIONAL TOTALS			**9071**	**0.21**

VI. Permits

Disturbance of any jurisdictional features on this project could require one or more of the following permits:

- A Clean Water Act, Section 404 permit from the U.S. Army Corps of Engineers.
- A Water Quality Certification, Section 401, permit from the Regional Water Quality Control Board.
- A 1601-1603 Streambed Alteration Agreement from the California Department of Fish and Game.

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Appendix A.

Wetland Determination Data Forms
Arid West Region

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 20, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 1

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside intermittent creek Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR): C Lat: 38° 46' 25.22" Long: 120° 55' 14.81" Datum: NAD 84

Soil Map Unit Name: Serpentine Rock Land NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection (September through February) was less than 60% of average, and the two months prior to data collection (January and February) was 25% to 34% of average (NRCS: agacis.rrc-acis.org??fips=06017, stations 3.7 SW and 0.9 N of Placerville). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Bromus hordeaceus	70	Yes	FACU
2. Centaurea solstitialis	20	Yes	UPL
3. Festuca perennis	10	No	FAC
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	5YR 3/2	70					Rocky loam	20% coarse rock
2-3	5YR 4/2	59					Rocky loam	30% coarse rock
	5 YR 2.5/2	10	5YR 4/6	1	C	M		
3-10	5YR 2.5/2	60	5YR 4/6	1	C	M	Rocky clay	40% coarse rock
11	Bottom of hole	at	rocks					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 11

Hydric Soil Present? Yes ☐ No ☑

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 20, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 2

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 6

Subregion (LRR): C Lat: 38° 46' 24.97" Long: 120° 55' 15.71" Datum: NAD 84

Soil Map Unit Name: Serpentine Rock Land NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection (September through February) was less than 60% of average, and the two months prior to data collection (January and February) was 25% to 34% of average (NRCS: agacis.rrc-acis.org??fips=06017, stations 3.7 SW and 0.9 N of Placerville). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Quercus durata	2	Yes	UPL
2.			
3.			
4.			
5.			
Total Cover:	2		
Herb Stratum			
1. Bromus hordeaceus	44	Yes	FACU
2. Leptosiphon bicolor	40	Yes	UPL
3. Centaurea solstitialis	6	No	UPL
4. Briza minor	5	No	FAC
5. Hypochaeris radicata	4	No	FACU
6. Vicia hirsuta	1	No	UPL
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-11	5YR 3/3	40					Rocky loam	60% coarse rock
11	Bottom of hole at	rocks						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 11

Hydric Soil Present? Yes ☐ No ☑

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 20, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 3

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowand beside intermittent creek Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR): C Lat: 38° 46' 24.80" Long: 120° 55' 14.94" Datum: NAD 84

Soil Map Unit Name: Serpentine Rock Land NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection (September through February) was less than 60% of average, and the two months prior to data collection (January and February) rainfall was 25% to 34% of average (NRCS: agacis.rrc-acis.org??fips=06017, stations 3.7 SW and 0.9 N of Placerville). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Bromus hordeaceus	70	Yes	FACU
2. Festuca perennis	20	Yes	FAC
3. Rumex conglomeratus	10	No	FACW
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	80 (A)		300 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-6	5YR 2.5/2	75	7.5YR 2.5/1	1	C	M	Clay-loam	24% coarse rock
6-12	5YR 2.5/2	70	7.5YR 2.5/1	2	C	M	Rocky loam	28% coarse rock
12	Bottom of hole	at	rock					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 12

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 20, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 4

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 8

Subregion (LRR): C Lat: 38° 46' 25.83" Long: 120° 55' 02.86" Datum: NAD 84

Soil Map Unit Name: Auburn very rocky silt loam NWI classification: PUB3-B

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? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☑	No ☐	Is the Sampled Area within a Wetland? Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks:

Rainfall for the current wet season prior to data collection (September through February) was less than 60% of average, and the two months prior to data collection (January and February) rainfall was 25% to 34% of average (NRCS: agacis.rrc-acis.org??fips=06017, stations 3.7 SW and 0.9 N of Placerville). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Festuca perennis	70	Yes	FAC
2. Rumex conglomeratus	30	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

☑ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

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

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-4	5YR 3/1	98	2.5YR 2.5/1	2	C	M	loamy sand	
4-8	5YR 3/4	85	5YR 4/2	15	D	M	Sandy	
8	Under water							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Water Table Present? Yes ☑ No ☐ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): 6

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 20, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 5

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 10

Subregion (LRR): C Lat: 38° 46' 25.37" Long: 120° 55' 25.37" Datum: NAD 84

Soil Map Unit Name: Auburn very rocky silt loam NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection (September through February) was less than 60% of average, and the two months prior to data collection (January and February) rainfall was 25% to 34% of average (NRCS: agacis.rrc-acis.org??fips=06017, stations 3.7 SW and 0.9 N of Placerville). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cercis occidentalis	5	Yes	UPL
2.			
3.			
4.			
Total Cover:	5		
Sapling/Shrub Stratum			
1. Pinus sabiniana	10	Yes	UPL
2.			
3.			
4.			
5.			
Total Cover:	10		
Herb Stratum			
1. Centaurea solstitialis	40	Yes	UPL
2. Hypochaeris radicata	40	Yes	FACU
3. Plectritis ciliosa	5	No	FACU
4. Elymus glaucus	3	No	FACU
5. Erodium cicutarium	12	No	UPL
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-11	5YR 4/4	70					rocky loam	30% coarse rock
11	Bottom of hole	at	rock					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 11

Hydric Soil Present? Yes ☐ No ☑

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 20, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 6

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 9

Subregion (LRR): C Lat: 38° 46' 32.77" Long: 120° 54' 58.33" Datum: NAD 84

Soil Map Unit Name: Boomer very rocky loam NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection (September through February) was less than 60% of average, and the two months prior to data collection (January and February) rainfall was 25% to 34% of average (NRCS: agacis.rrc-acis.org??fips=06017, stations 3.7 SW and 0.9 N of Placerville). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Bacharis pilulata	15	Yes	UPL
2. Toxicodendron diversilobum	10	Yes	FACU
3.			
4.			
5.			
Total Cover:	25		
Herb Stratum			
1. Centaurea solstitialis	15	No	UPL
2. Geranium molle	25	Yes	UPL
3. Stellaria media	20	Yes	FACU
4. Bromus tectorum	20	No	FACU
5. Bromus hordeaceus	15	No	UPL
6. Vicia hirsuta	5	No	UPL
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-4.5	5YR 3/3	50	5YR 8/3	10	C	M	rocky loam	See remarks, below.
	5YR 4/6	30						10% medium gravel
4.5-12	2.5YR 5/4	25						10% medium gravel
	2.5YR 4/4	65						
12	Bottom of hole	at	rocks					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 12

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Redox colors appear to be decomposed rocks. See Data Point 12 for comparison.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: March 27, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 7

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside ephemeral creek Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR): C Lat: 38° 46' 25.37" Long: 120° 55' 14.55" Datum: NAD 84

Soil Map Unit Name: Serpentine Rock Land NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season was 62% of average (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Bromus hordeaceus	98	Yes	FACU
2. Rumex conglomeratus	2	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	5YR 3/3	80	10R 2/1	5	C	M	Rocky loam	15% coarse gravel; many fine roots
3-11	7.5YR 3/3	70	7.5YR 5/6	15	C	M	Rocky loam	32% coarse rock
			10R 2/2	3	C	M		
11	Bottom of hole	at	rocks					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 11

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 27, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 8

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside intermittent creek Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR): C Lat: 38° 46' 25.15" Long: 120° 55' 25.15" Datum: NAD 84

Soil Map Unit Name: Serpentine Rock Land NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season 62% of average (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Bromus hordeaceus	85	Yes	FACU
2. Elymus caput-medusae	15	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4.5	5YR 3/3	57	5YR 5/8	20	C	M	Sandy loam	20% coarse gravel
			2.5YR 3/1	3	C	M		
4.5-5.5	7.5YR4/3						Clay	
5.5-10	2.5YR 3/2	90	5YR 5/8	5	C	M	Clay- loam	5% coarse gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 10

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 27, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 9

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside intermittent creek Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR): C Lat: 38° 46' 25.14" Long: 120° 55' 14.91" Datum: NAD 84

Soil Map Unit Name: Serpentine Rock Land NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season was 62% of average (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Bromus hordeaceus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 9

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	5YR 4/3	68	5YR 5/4	2	C	M	Rocky loam	30% coarse rock
6-11	2.5YR 6/2	78	10R 4/8	2	C	M	Clay	20% coarse rock
11	Bottom of hole	at rock						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 11

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 27, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 10

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Dry bottom of pond Local relief (concave, convex, none): Concave Slope (%): 7

Subregion (LRR): C Lat: 38° 46' 25.72" Long: 120° 55' 02.75" Datum: NAD 84

Soil Map Unit Name: Auburn very rocky silt loam NWI classification: PUB-3

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? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☑	No ☐	Is the Sampled Area within a Wetland? Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks:

Rainfall for the current wet season was 62% of average (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Juncus balticus	7	Yes	FACW
2. Geranium molle	1	No	UPL
3. Juncus bufonius	6	Yes	FACW
4. Rumex conglomeratus	6	Yes	FACW
5. Festuca perennis	10	Yes	FAC
6.			
7.			
8.			
Total Cover:	30		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 60

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index worksheet:

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 =

Hydrophytic Vegetation Indicators:

☑ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

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

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: 10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	7.5YR 4/3	100					loamy clay	
1-5	2.5YR 2.5/2	65	2.5YR 2.5/1	30	C	M	loamy clay	
			7.5YR 5/5	5	C	M	loamy clay	
5-12	7.5YR 3/2	96	7.5YR 6/8	4	C	M		
12	Bottom of hole	at	rocks					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 12

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 27, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 11

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Base of hillslope Local relief (concave, convex, none): None Slope (%): 4

Subregion (LRR): C Lat: 38° 46' 33.12" Long: 120° 54' 57.81" Datum: NAD 84

Soil Map Unit Name: Boomer very rocky loam NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection was 62% of average (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Baccharis pilularis	5	Yes	UPL
2.			
3.			
4.			
5.			
Total Cover: 5			
Herb Stratum			
1. Bromus hordeaceus	95	Yes	UPL
2. Geranium molle	5	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover: 100			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5YR 4/4	60					rocky loam	15% coarse rock
	7.5YR 4/3	25						
2-11	5YR 4/6	55	5YR 4/1	5			rocky loam	20% coarse rock
	5YR 6/6	15	7.5YR 6/8	5				
11	Bottom of hole	at	rocks					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 11

Hydric Soil Present? Yes ☑ No ☐

Remarks:

The colors in the Redox Features column are rock fragments, not concentrations. See Data Sheet 12 for comparison.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 27, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 12

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 16

Subregion (LRR): C Lat: 3 46' 43"8 Long: 120° 54' 56.75" Datum: NAD 84

Soil Map Unit Name: Boomer very rocky loam NWI classification:

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? No Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

Rainfall for the current wet season prior to data collection was 62% of average (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Baccharis pilularis	5	Yes	UPL
2. Toxicodendron diversilobum	15	Yes	FACU
3. Ceanothus cuneatus	2	No	UPL
4.			
5.			
Total Cover:	22		
Herb Stratum			
1. Bromus hordeaceus	45	Yes	UPL
2. Sanicula bipinnata	4	No	UPL
3. Ranunculus hebecarpus	3	No	UPL
4. Trifolium dubium	2	No	UPL
5. Leptosiphon bicolor	1	No	UPL
6.			
7.			
8.			
Total Cover:	55		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 45 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5YR 4/4	45					rocky loam	
	7.5YR 3/1	15						Decomposing rock; flaky, schist-like
	7.5YR 5/6 & 5/8	10						Decomposing rock, granite-like
	10R 4/8	30						Rock
10	Bottom of hole	at	rocks					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 10

Hydric Soil Present? Yes ☐ No ☑

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 30, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 13

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Base of slope beside creekbed Local relief (concave, convex, none): Concave Slope (%): 7

Subregion (LRR): C Lat: 38° 46' 22.32" Long: 120° 55' 14.90 Datum: NAD 84

Soil Map Unit Name: Serpentine rock land NWI classification:

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

Are Vegetation ☐, Soil ☑, or Hydrology ☐ significantly disturbed? Yes Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks:

The land was mechanically cleared of vegetation and soil was scraped about two years prior to data collection. Dozer tracks remain visible. Rainfall for the current wet season was less than 62% of average, (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Frangula californica	3	Yes	UPL
2.			
3.			
4.			
5.			
Total Cover:	3		
Herb Stratum			
1. Erythranthe guttata	20	Yes	OBL
2. Claytonia parviflora	10	No	FACU
3. Acmispon americanus	9	No	UPL
4. Leptosiphon bicolor	8	No	UPL
5. Aira caryophyllea	10	No	FACU
6.			
7.			
8.			
Total Cover:	57		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	20	x 4 =	80
UPL species	20	x 5 =	100
Column Totals:	60 (A)		200 (B)

Prevalence Index = B/A = 3.3

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	5YR 4/4	98	5YR 2.5/1	2	C		Clay-loam	
3-5	5YR 3/4	93	5YR 2.5/2	4	C	M		
			5YR 4/6	3	C	M		
5-12	5YR 3/3	92	2.5YR 4/6	5	C	M		
			5YR 3/1	3	C	M		
12	Bottom of hole							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Position of data collection was at base of slope and beside intermittent creek.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 30, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 14

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside ephemeral creek Local relief (concave, convex, none): Concave Slope (%): 7

Subregion (LRR): C Lat: 38° 46' 21" Long: 120° 55' 15.69" Datum: NAD 84

Soil Map Unit Name: Serpentine rock land NWI classification:

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

Are Vegetation ☐, Soil ☑, or Hydrology ☐ significantly disturbed? Yes Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☐	No ☑	Is the Sampled Area within a Wetland? Yes ☐ No ☑
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks:

The land was mechanically cleared of vegetation and soil was scraped about two years prior to data collection. Dozer tracks remain visible. Rainfall for the current wet season was 62% of average, (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus sabiniana	5	Yes	UPL
2.			
3.			
4.			
Total Cover:	5		
Sapling/Shrub Stratum			
1. Frangula californica	2	Yes	UPL
2. Quercus durata	4	Yes	UPL
3.			
4.			
5.			
Total Cover:	6		
Herb Stratum			
1. Hypochaeris radicata	30	Yes	FACU
2. Claytonia perfoliata	20	Yes	FAC
3. Scandix pecten-verenis	8	No	UPL
4. Sanicula bipinnata	6	No	UPL
5. Trifolium hirtum	6	No	UPL
6. Bromus hordeaceus	5	No	FACU
7. Lactuca serriola	4	No	FACU
8. Cirsium vulgare	1	No	FACU
Total Cover:	80		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species	20	x 3 =	60
FACU species	40	x 4 =	160
UPL species	32	x 5 =	160
Column Totals:	92 (A)		380 (B)

Prevalence Index = B/A = 4.13

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks:

SOIL

Sampling Point: 14

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 3/3	80	7.5YR 3/1	15	C	M	Loam	7.5YR 3/1 may be charcoal
12	Bottom of hole							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 30, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 15

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside intermittent creek Local relief (concave, convex, none): Concave Slope (%): 7

Subregion (LRR): C Lat: 38° 46' 22.31" Long: 120° 55' 14.70" Datum: NAD 84

Soil Map Unit Name: Serpentine rock land NWI classification: R4SB2

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? Yes Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☑	No ☐	Is the Sampled Area within a Wetland? Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks:

The land was mechanically cleared of vegetation and soil was scraped about two years prior to data collection. Dozer tracks remain visible. Rainfall for the current wet season was 62% of average, (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Claytonia parviflora	45	Yes	FACU
2. Erythranthe guttata	35	Yes	OBL
3. Acmispon americanus	10	No	UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	90		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	45	x 4 =	180
UPL species	10	x 5 =	50
Column Totals:	90 (A)		(B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: 15

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2.5	5YR 4/4	80	5YR 3/1	20	C	M	Clay loam	
2.5-7	5YR 4/4	96	5YR 2.5/1	2	C	M		
			10R 4/6	2	C	M		
7-12	5YR 3/4	98	5YR 2.5/2	2	C	M		
12	Bottom of hole							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Data was collected at the base of a slope beside an intermittent creek.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: APN 105-190-042-000, Thompson Hill Road City/County: El Dorado County Sampling Date: April 30, 2020

Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 16

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Lowland beside ephemeral creek Local relief (concave, convex, none): Concave Slope (%): 7

Subregion (LRR): C Lat: 38° 46' 21.65" Long: 120° 55' 14.34" Datum: NAD 84

Soil Map Unit Name: Serpentine rock land NWI classification: R4SB-2

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? Yes Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☑	No ☐	Is the Sampled Area within a Wetland? Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks:

The land was mechanically cleared of vegetation and soil was scraped about two years prior to data collection. Dozer tracks remain visible. Rainfall for the current wet season was 62% of average, (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Claytonia parviflora	40	Yes	FACU
2. Erythranthe guttata	30	Yes	OBL
3. Acmispon americanus	5	No	UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	75		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	75 (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: 16

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	5YR 3/1	69	5YR 6/4	1	C	M	Rocky loam	10% coarse gravel and rock
			5YR 3/1	20	C	M		
3-8	5YR 4/3	60	5YR 5/6	10	C	M		10% coarse gravel & rock
			5YR 3/1	20	C	M		
8-12	5YR 4/4	85	5YR 3/1	5	C	M		5% coarse gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Data was collected at the base of a slope beside an intermittent creek.

WETLAND DETERMINATION DATA FORM – Arid West Region

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Applicant/Owner: Jomescbo Family Trust State: California Sampling Point: 17

Investigator(s): Ruth Willson Section, Township, Range: Section 27, T. 11 N., R. 9 E., M.D.M.

Landform (hillslope, terrace, etc.): Intermittent creekbed Local relief (concave, convex, none): Concave Slope (%): 4

Subregion (LRR): C Lat: 38° 46' 25.29" Long: 120° 55' 14.53" Datum: NAD 84

Soil Map Unit Name: Serpentine rock land NWI classification: R4SB-2

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? Yes Are "Normal Circumstances" present? Yes ☑ No ☐

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

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

Hydrophytic Vegetation Present?	Yes ☑	No ☐	Is the Sampled Area within a Wetland? Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks:

The land was mechanically cleared of vegetation and soil was scraped about two years prior to data collection. Dozer tracks remain visible. Rainfall for the current wet season was 62% of average, (NRCS: agacis.rrc-acis.org). Soils are derived from red parent material.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Festuca perennis	90	Yes	FAC
2. Bromus hordeaseus	3	No	FACU
3. Centaure solstitialis	2	No	UPL
4. Erianthe guttata	5	No	OBL
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species		x 2 =	
FAC species	90	x 3 =	270
FACU species	3	x 4 =	12
UPL species	2	x 5 =	10
Column Totals:	100 (A)		297 (B)

Prevalence Index = B/A = 2.97

Hydrophytic Vegetation Indicators:

☑ Dominance Test is >50%

☑ Prevalence Index is ≤3.0[1]

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

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: 17

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	2.5YR 3/2	30					Rocky loam	70% coarse gravel & rock, fine roots
2-6	5YR 3/2	50	2.5YR 4/6	3	C	M	rocky loam	50% coarse gravel and rock
6-11	5YR 2.5/2	70	2.5YR 2.5/1	10	C	M		17% coarse gravel & rock
			2.5YR 5/8	3	C	M		
11	Bottom of hole							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Data was collected within the floodplain of an intermittent creek.

Appendix B

Plant Species Found on the Project Site

April 18, 2016

April 19, May 17, and June 7, 2017

May 15, 2020

Plant Species Found on the Project Site
April 18, 2016; April 19, May 17 & June 7, 2017; and May 15, 2020

Adoxaceae
Sambucus nigra L. ssp. *caerulea* (Raf.) Bolli, **Blue elderberry**

Alliaceae
Allium peninsulare Greene var. *peninsulare* **Peninsular Onion**

Anacardiaceae
Toxicodendron diversiloba (Torrey & A. Gray) E. Greene, **Western poison-oak**

Aristolochiaceae
Aristolochia californica Torr., **California pipevine**

Apiaceae
Daucus carota L., **Wild carrot, Queen Anne's Lace**
Daucus pusillus Michx., **American wild carrot**
Sanicula sp., **Sanicle**
Scandix pecten-veneris L., **Venus' needle**
Senecio aronicoides DC., **Rayless ragwort**
Torilis arvensis (Huds.) Link, **Tall sock-destroyer**

Apocynaceae
Asclepias cordifolia (Benth) Jeps., **Purple milkweed**

Asteraceae
Achillea millefolium L., **Yarrow**
Agoseris heterophylla (Nutt.) Greene var. *heterophylla*, **Annual mountain dandelion**
Artemisia douglasiana Besser. **Mugwort**
Baccharis pilularis DC., **Coyote brush**
Carduus pycnocephalus L., **Italian plumeless thistle**
Centaurea solstitialis L., **Yellow star-thistle**
Chondrilla juncea L., **Skeleton weed**
Cirsium vulgare (Savi) Ten., **Bull thistle**
Ericameria arborescens (A. Gray) Greene, **Golden fleece**
Eriophyllum lanatum (Pursh.) J.Forbes var. *achilleoides* (DC.) Jeps. **Common woolly sunflower**
Grindelia camporum Greene, **Gumplant**
Hesperevax acaulis (Kellogg) Greene, **Dwarf evax**
Hypochaeris glabra L., **Smooth cat's-ear**
Hypochaeris radicata L. **Hairy cat's-ear**
Lactuca serriola L., **Prickly lettuce**
Leontodon saxatilis Lam., **Hawkbit**
Logfia filaginoides (Hook. & Arn.) Morefield, **California cottonrose**
Madia elegans D. Don, **Common madia**
Madia exigua (Sm.) A. Gray, **Thread-stem madia**
Solidago sp., **Goldenrod**
Sonchus asper (L.) Hill subsp. *asper*, **Prickly sow thistle**

Asteraceae (continued)
Taraxicom sp., **Dandelion**
Tragopogon dubius Scop. **Goat's beard**
Wyethia angustifolia (DC.) Nutt., **Narrow-leaf mule-ears**
Wyethia helenioides (DC.) Nutt., **Gray mule-ears**

Berberidaceae
Berberis aquifolium Pursh., **Oregon-grape**

Betulaceae
Alnus rhombifolia Nutt., **White alder**

Boraginaceae
Amsinckia menziesii (Lehm.) A. Nelson & J.F. Macbr., **Small-flowered fiddleneck**
Eriodictyon californicum (Hook. & Arn.) Torr., **California Yerba Santa**
Nemophila heterophylla Fisch. & C.A. Mey., **White nemophila**
Plagiobothrys tenellus (Hook.) A.Gray, **Pacific popcornflower**

Brassicaceae
Brassica nigra (L.) W.D.J. Koch, **Black mustard**
Capsella bursa-pastoris (L.) Medik., **Shepherd's purse**
Lepidium nitidum Nutt., **Shining Peppergrass**
Nasturtium officinale W.T. Aiton, **Water cress**

Caprifoliaceae
Lonicera hispidula (indl.) Torr. & A. Gray, **California honeysuckle**

Caryophyllaceae
Cerastium arvense L., **Field mouse-ear chickweed**
Cerastium glomeratum Thuill., **Sticky mouse-ear chickweed**
Stellaria media (L.) Vill., **Common chickweed**

Convolvulaceae
Calystegia occidentalis ssp. *fulcrata* (A.Gray) Brummitt, **Chaparral false-bindweed**

Cucurbitaceae
Marah fabacea (Naudin) Greene, **California man-root**

Dryopteridaceae
Dryopteris arguta (Kaulf.) Maxon, **Wood fern**

Ericaceae
Arctostaphylos viscida C. Parry, **White-leaf manzanita**

Euphorbiaceae
Croton setiger Hook, **Dove weed**

Fabaceae
Acmispon americanus (Nutt.) Rydb. var. *americanus*
Acmispon brachycarpus (Benth.) D.D. Sokoloff, **Foothill Deervetch**
Acmispon parviflorus (Benth.) D.D. Sokoloff, **Smallflower lotus**
Cercis occidentalis A.Gray, **Western redbud**
Cytisus scoparius (L.) Link, **Scotch broom**
Lathyrus sulphureus A. Gray var. *sulphureus*, **Sulphur Pea, Snub Pea**
Lupinus albifrons Benth, **Silver lupine**
Lupinus bicolor Lindl., **Bicolor lupine**
Lupinus nanus Benth., **Sky lupine**
Trifolium ciliolatum Benth., **Foothill clover**
Trifolium dubium Sibth., **Little hop clover**
Trifolium hirtum All., **Rose clover**
Trifolium subterraneum L., **Subterranean clover**
Vicia sp., **Vetch**

Fagaceae
Quercus douglasii Hook & Arn., **Blue oak**
Quercus kelloggii Newb., **California black oak**
Quercus durata Jeps. var. *durata*, **Leather oak**
Quercus wislizeni A. DC., **Interior live oak**

Geraniaceae
Erodium sp., **Filaree**
Geranium dissectum L., **Cutleaf geranium**
Geranium molle L., **Woodland geranium**

Hypericaceae
Hypericum perforatum L. subsp. *perforatum*, **Klamathweed**

Iridaceae
Sisyrinchium bellum S. Watson, **Western blue-eyed grass**

Juncaceae
Juncus bufonius L. var. *bufonius*, **Toad rush**
Luzula comosa E. Mey. var. *comosa*, **Hairy wood-rush**

Lamiaceae
Scutellaria californica A.Gray, **California skullcap**

Liliaceae
Calochortus albus (Benth.) Douglas ex Benth, **Fairy lantern**
Calochortus monophyllus (Lindl.) Lem., **Yellow star-tulip**
Chlorogalum pomeridianum (DC.) Kunth var. *pomeridianum*, **Common soaproot**

Dichelostemma capitatum (Benth.) Alph. Wood, **Blue dicks**

Liliaceae (continued)
Dichelostemma volubile (Kellogg) A. Heller, **Twining Brodiaea**
Triteleia ixioides (W.T. Aiton) Greene ssp. *ixioides*, **Golden brodiaea**
Triteleia laxa Benth., **Ithuriel's spear**

Linaceae
Linum bienne Mill., **Narrow-leaf flax**

Myrsinaceae
Lysimachia arvensis (L.) U. Manns & Anderb., **Scarlet pimpernel**

Orobanchaceae
Castilleja attenuata (A. Gray) T.I. Chuang & Heckard, **Narrow-leaved owl clover**
Castilleja foliolosa Hook. & Arn., **Wooly paintbrush**
Castilleja lacera (Benth.) T.I. Chuang & Heckard, **Cutleaf Owl's Clover**

Montiaceae
Claytonia exigua Torr. & A. Gray ssp. *exigua*, **Little Spring Beauty**
Claytonia parviflora Hook. subsp. *parviflora*, **Miner's lettuce**

Onagraceae
Clarkia purpurea ssp. *quadrivulnera* (Lindl.) H.Lewis & M. Lewis, **Fourspot**
Epilobium minutum Lindl., **Little willowherb**

Orobanchaceae
Castilleja lineariloba (Benth) T.I. Chuang & Heckard, **Pale owl's clover**
Cordylanthus pilosus A.Gray ssp. *hansenii* (Ferris) T.I. Chuang & Heckard **Hansen's bird-beak**

Papaveraceae
Eschscholzia californica Cham. **California poppy**
Eschscholzia lobbii Greene, **Frying pans**

Phrymaceae
Erythranthe guttata (DC), G.L. Nesom **Seep Monkeyflower**

Pinaceae
Pinus ponderosa Lawson & C. Lawson
Pinus sabiniana Douglas, **Gray or foothill pine**

Plantaginaceae
Keckiella breviflora (Lindl.) Straw var. *breviflora* **Beardtongue**
Kickxia elatine (L.) Dumort. **Fluellen**
Plantago erecta E. Morris, **Foothill plantain**
Plantago lanceolata L., **Italian plantain**

Poaceae
Aegilops triuncialis L., **Barbed goatgrass**
Aira caryophyllea L., **Silver hair grass**
Avena sp., **Wild oat**
Briza minor L., **Annual quaking grass**
Bromus hordeaceus L., **Soft chess**
Bromus madritensis L., **Madrid brome**
Bromus sterilis L., **Poverty brome**
Bromus tectorum L., **Cheat grass**
Cynosurus echinatus L., **Hedgehog dogtail**
Elymus caput-medusae (L.) Nevski, **Medusa head**
Elymus glaucus Buckley, **Blue wildrye**
Festuca bromoides L., **Brome fescue**
Festuca perennis (L.) Columbus & J.P.Sm., **Ryegrass**
Gastridium phleoides (Nees & Meyen) C.E. Hubb. **Nit grass**
Hordeum sp., **Barley**
Melica californica Scribn., **California melic**
Melica imperfecta Trin., **Little California Melica**
Phalaris minor Retz., **Little-seeded canary grass**
Poa pratensis L. subsp. *pratensis*, **Kentucky bluegrass**
Polypogon monspeliensis (L.) Desf., **Annual beard grass**
Vulpia myuros L, **Rat's-tail fescue**

Polemoniaceae
Leptosiphon bicolor Nutt., **True babystars**
Leptosiphon montanus (Greene) J.M. Porter & L.A. Johnson, **Mustang clover**

Polygalaceae
Polygala cornuta Kellogg var. *cornuta*, **Milkwort**

Polygonaceae
Rumex acetosella L., **Sheep sorrel**
Rumex conglomeratus Murray, **Clustered dock**
Rumex crispus L., **Curly dock**

Primulaceae
Anagallis arvensis L., **Scarlet pimpernel**

Pteridaceae
Adiantum capillus-veneris L., **Southern maidenhair**
Pentagramma pallida (Weath.) Yatsk. et al., **Silverback fern**

Ranunculaceae
Clematis lasiantha Nutt., **Chaparral clematis**
Ranunculus arvensis L., **Corn buttercup**
Ranunculus canus Benth. var. *canus*, **Buttercup**
Ranunculus hebecarpus Hook. & Arn. **Delicate buttercup**

Rhamnaceae
Ceanothus cuneatus (Hook.) Nutt., var. *cuneatus* **Buck brush**
Ceanothus integerrimus Hook. & Arn, **Deer brush**
Ceanothus palmeri Trel., **Deer brush**
Frangula californica (Eschsch.) A. Gray, **California coffeeberry**
Frangula californica (Eschsch.) A. Gray ssp. *tomentella* (Benth.) Kartesz & Gandhi **Hoary coffeeberry**
Rhamnus ilicifolia Kellogg, **Holly-leaf redberry**

Rosaceae
Adenostoma fasciculatum Hook. & Arn., **Chamise**
Drymocallis glandulosa (Lindl.) Rydb., **Sticky Cinquefoil**
Heteromeles arbutifolia (Lindley) Roemer, **Toyon**
Rubus armeniacus Focke **Himalayan blackberry**

Rubiaceae
Galium aparine L., **Goose grass**
Galium bolanderi A. Gray, **Bolander's bedstraw**
Galium parisiense L. **Wall bedstraw**
Galium porrigens Dempster, **Climbing bedstraw**
Sherardia arvensis L., **Field madder**

Sapindaceae
Aesculus californica (Spach) Nutt. **California buckeye**

Saxifragaceae
Lithophragma bolanderi A. Gray; **Woodland star**

Scrophulariaceae
Scrophularia californica Cham. & Schltdl., **California figwort**
Verbascum thapsus L., **Wooly mullein**

Solanaceae
Solanum xanti A. Gray, **Chaparral nightshade**

Themidaceae
Dichelostemma volubile (Kellogg) A. Heller, **Twining Brodiaea**
Triteleia hyacinthina (Lindl.) Greene, **White brodiaea**
Triteleia ixioides subsp. *scabra* (Greene) L.W. Lenz, **Golden brodiaea**
Triteleia laxa Benth., **Ithuriel's spear**

Valerianaceae
Plectritis ciliosa (Greene) Jeps., **Long-spurred plectritis**
Plectritis macrocera Torr. & A.Gray, **White plectritis**

Viscaceae
Phoradendron villosum (Nutt.) Nutt., **Oak mistletoe**