

MITIGATED NEGATIVE DECLARATION

FILE: TM14-1523

PROJECT NAME: Rancheria Court Tanis Split

NAME OF APPLICANT: Raymond Tanis

ASSESSOR'S PARCEL NOS.: 319-330-27

SECTION: 30 T: 10N R: 10E

LOCATION: Northeast side of Rancheria Court approximately 900 feet east of the intersection with Rancheria Drive in the Shingle Springs Area.

- GENERAL PLAN AMENDMENT:** **FROM:** **TO:**

- REZONING:** **FROM:** **TO:**

- TENTATIVE PARCEL MAP** **SUBDIVISION TO SPLIT 16.645 ACRES INTO 2 LOTS**
SUBDIVISION (NAME): Rancheria Court Tannis Split

- 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 based on the Initial Study, conditions have been added to the project to avoid or mitigate to a point of insignificance the potentially significant effects of the project. It has been determined that the project will not have a significant impact on the environment. Based on this finding, Planning Services hereby prepares this MITIGATED NEGATIVE DECLARATION. A period of thirty (30) 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 EL DORADO COUNTY. A copy of the project specifications is on file at El Dorado County Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Mitigated Negative Declaration was adopted by the Zoning Administrator on November , 2016.

Executive Secretary



**EL DORADO COUNTY PLANNING SERVICES
2850 FAIRLANE COURT
PLACERVILLE, CA 95667**

**INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM**

Project Title: TM14-1523/Rancheria Court Tanis Split

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

Contact Person: Rob Peters, Associate Planner

Phone Number: (530) 621-5355

Owner's Name and Address: Raymond Tanis, 3069 Rancheria Court, Shingle Springs, CA 95682

Applicant's Name and Address: Raymond Tanis, 3069 Rancheria Court, Shingle Springs, CA 95682

Project Engineer's Name and Address: Northern California Geomatics, Brendan Williams, 1044 Diamante Robles Court, Diamond Springs, CA 95619

Project Location: On the northeast side of Rancheria Court approximately 900 feet east of the intersection with Rancheria Drive in the Shingle Springs Area.

Assessor's Parcel Number: 319-330-27

Acres: 16.645 acres

Sections: 30 **Township:** 10N **Range:** 10E

General Plan Designation: Low-Density Residential – Important Biological Corridor (LDR-IBC)

Zoning: Residential Estate Five-Acre (RE-5)

Description of Project: The Tentative Subdivision Map would create two residential lots, approximately 11.535 acres and 5.11 acres in size, from a 16.645 acre site. The existing residential dwelling would remain on proposed Lot 2 and would be served by an existing well and an existing on-site septic wastewater system. The future residential dwelling on proposed Lot 1 would be served by an existing well and future on-site septic wastewater system. The project would result in the removal of oak canopy for proposed on- and off-site grading for road improvements, and for future residential development on proposed Lot 1. Access to the proposed lots would be from Rancheria Court, an existing private road that would require improvements. The application includes a request for two design waivers to the County Design Improvements Standards Manual (DISM), including: a) modification of Standard Plan 101C allowing the existing Rancheria Court roadway to be unmodified; and b) modification of Standard Plan 101C allowing the roadway width passing through Lot 2 to be reduced from an 18-foot width to a 12-foot width. Off-site access improvements to Rancheria Court would require roadway widening to Standard Plan 101C with a portion to be left unmodified, and roadway turnouts on each side of the unmodified section. On-site access improvements to Rancheria Court would consist of roadway widening to Standard Plan 101C on proposed Lot 2 up to the existing driveway that serves the existing residence and a 12-foot wide roadway with 1-foot shoulders thereafter terminating at a hammerhead turnaround for access to proposed Lot 1.

Surrounding Land Uses and Setting:

	Zoning	General Plan	Land Use/Improvements
Site	RE-5	LDR-IBC	Residential/Residential Dwellings and Accessory Structures
North	RE-5	LDR-IBC	Undeveloped Residential Lots
South	RE-5	LDR-IBC	Residential/Residential Dwellings and Accessory Structures
East	RE-5	LDR-IBC	Residential/Residential Dwellings and Accessory Structures
West	RE-5	LDR-IBC	Residential/Residential Dwellings and Accessory Structures

Briefly describe the environmental setting: The project site consists of 16.645 acres and is located at an elevation of approximately 1,300 feet above mean sea level. The site contains an existing residential dwelling with accessory structures and related improvements accessed by an existing gravel driveway off of Rancheria Court, a private gravel road. A 15-foot wide PG&E easement runs east to west along the southern property line. The dominant vegetative community is interior live oak woodland with understory shrubs and grasses. One Elderberry Bush (*Sambucus Mexicana*) was identified along the eastern border of proposed Lot 1. Approximately 0.065 acres of potential on-site jurisdictional waters and wetlands of the U.S. exist within proposed Lot 1. The site contains two knolls that have slopes in excess of 30 percent. The off-site access roadway to the site is graveled and crosses two drainages. One of the drainages forms temporary ponds on each side of the roadway.

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

1. Diamond Springs/El Dorado Fire Protection District
2. Community Development Agency – Transportation Division
3. El Dorado County Air Quality Management District
4. Community Development Agency – Development Services Division
5. Community Development Agency – Environmental Management Division
6. El Dorado County Surveyor's Office

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.

Signature: *for Rob Peters* Date: 10/10/16

Printed Name: Rob Peters, Associate Planner For: El Dorado County

Signature: *Tiffany Schmid* Date: 10/10/16

Printed Name: Tiffany Schmid, Principal Planner For: El Dorado County

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 project would allow subdivision of a 16.645 acre site creating two lots of 11.535 acres and 5.11 acres in size.

Project Description

The Tentative Subdivision Map would create two parcels, approximately 11.535 acres and 5.11 acres in size, from a 16.645 acre site (Attachment 3). The existing residential dwelling would remain on proposed Lot 2 and would be served by an existing well and an existing on-site septic wastewater system. The future residential dwelling on proposed Lot 1 would be served by an on-site well and an on-site septic wastewater system. The project would result in the removal of oak canopy for proposed on- and off-site grading for road improvements, and for future residential development on proposed Lot 1. Access to the proposed lots would be from Rancheria Court, an existing private road that would require improvements. The application includes a request for two design waivers to the DISM, including: a) modification of Standard Plan 101C allowing the Rancheria Court roadway to be unmodified; and b) modification of Standard Plan 101C allowing the roadway width passing through Lot 2 to be reduced to a 12-foot width. Off-site access improvements to Rancheria Court would require roadway widening to Standard Plan 101C with a portion to be left unmodified, and roadway turnouts on each side of the unmodified section. On-site access improvements to Rancheria Court would consist of roadway widening to Standard Plan 101C on proposed Lot 2 up to the existing driveway that serves the existing residence and a 12-foot wide roadway with 1-foot shoulders thereafter terminating at a hammerhead turnaround for access to proposed Lot 1.

Project Location and Surrounding Land Uses

The project site is located on the northeast side of Rancheria Court approximately 900 feet east of the intersection with Rancheria Drive in the Shingle Springs Area (Attachment 1). The site is in a rural region and is within an Important Biological Corridor. The surrounding land uses are mainly residential, some of which are vacant land (Attachment 2).

Project Characteristics

1. Transportation/Circulation/Parking

Access to the proposed lots would be from Rancheria Court, an existing private road that would require improvements. The application includes a request for two design waivers to the DISM, including: a) modification of Standard Plan 101C allowing Rancheria Court roadway to be unmodified; and b) modification of Standard Plan 101C allowing the roadway width passing through Lot 2 to be reduced to a 12-foot width. Off-site access improvements to Rancheria Court would require roadway widening to Standard Plan 101C with a portion to be left unmodified, and roadway turnouts on each side of the unmodified section. On-site access improvements to Rancheria Court would consist of roadway widening to Standard Plan 101C on proposed Lot 2 up to the existing driveway that serves the existing residence and a 12-foot wide roadway with 1-foot shoulders thereafter terminating at a hammerhead turnaround for access to proposed Lot 1.

2. Utilities and Infrastructure

The existing residence on proposed Lot 2 would be served by an existing well and an existing on-site septic wastewater system. The future residential dwelling on proposed Lot 1 would be served by an on-site well and an on-site septic wastewater system. With creation of two lots, a second residential dwelling unit could be constructed on each lot. If a second dwelling unit were constructed, the project would be required to provide a safe and reliable water source and adequate septic wastewater system at the time of building permit application.

3. Construction Considerations

Residential development of proposed Lot 1 is possible as a result of this parcel map. Any future construction activities, such as additional dwelling units, would be completed in conformance with the County of El Dorado development policies and regulations, and subject to all applicable permits.

Project Schedule and Approvals

This Initial Study is being circulated for public and agency review for a 30-day period. Written comments on the Initial Study should be submitted to the County 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 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. <i>Would the project:</i>				
	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 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,b. **Scenic Vista and Scenic Resource:** The project site is located in a rural region surrounded by single dwelling residences and vacant lands. 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 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 many trees in 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.

There is the potential for an additional residence on proposed Lot 1 and added accessory dwelling units on each of the sites, which is allowed on all lots zoned for single dwelling residential use. Due to the forested landscape surrounding the property, added units would be out of the line-of-site from existing roads or properties. Any new structures would require permits for construction and would comply with the general plan and zoning code. Impacts would be less than significant.

c. **Visual Character:** Lot 2 contains a single dwelling and a new single dwelling unit can be constructed on proposed Lot 1. An accessory dwelling unit could also be added to each lot. Since the site is surrounded by other single dwelling residence on large rural lots. Access improvements to the existing access roads are required to accommodate the project, but have been designed to minimize the project impacts to existing slopes, trees, and potential off-site jurisdictional waters of the U.S. The proposed project would not degrade the visual character or quality of the site or surrounding area. The property would continue to provide the natural visual character and quality that currently exist. Impacts would be less than significant.

d. **Light and Glare:** The proposed project includes the potential for an additional single dwelling on proposed Lot 1, and potential for additional dwelling units to be developed in the future, which could produce minimal light and glare. All future development would be required to comply with requirements of Section 130.34 (Outdoor Lighting) of the El Dorado County Code of Ordinances and the Community Design Standards – Outdoor Lighting Standards, including the shielding of lights to avoid potential glare. Impacts would be less than significant.

FINDING: As conditioned and 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 4 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 4 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 4 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 (CAL FIRE) 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 project site is not zoned for agricultural use or located within an Agricultural District. Review of the soil data from the Important Farmland GIS map layer for EDC developed under the Farmland Mapping and Monitoring Program indicates that the project site contains soils identified as Other Land. The project would not result in a change to the in use from agriculture or convert farmland to another land use. There would be no impact.
- b. **Agricultural Uses:** The property is not located within a Williamson Act Contract, nor is it adjacent to lands under a contract. There would be no impact.
- 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. The project would not result in a change to the existing residential use of the site. There would be no impact.
- e. **Conversion of Prime Farmland or Forest Land:** The project would not result in conversion of existing lands designated by the General Plan as Agricultural and/or zoned for agricultural uses, nor is the site designated as TPZ or other forestland according to the General Plan and Zoning Ordinance. The project 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 to result from the project.

III. AIR QUALITY. <i>Would the project:</i>					
	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 10 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 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 Pollution Control District 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)	8-hour average: 6 parts per million (ppm)	1-hour average: 20 ppm
Particulate Matter (PM10):	Annual geometric mean: 30 µg/m ³	24-hour average: 50 µg/m ³
Particulate Matter (PM2.5):	Annual arithmetic mean: 15 µg/m ³	24-hour average: 65 µg/m ³
Ozone	8-hour average: 0.12 ppm	1-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, APCD 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 Pollution Control District (APCD) 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 82lbs/day (Table 3.2);

- Emissions of PM₁₀, CO, SO₂ 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 1 in 1 million (10 in 1 million if best available control technology for toxics is used) or a non-cancer Hazard Index greater than 1. 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, NO_x, 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. Roadway improvements will require a grading permit and will undergo review to determine if any further actions or approvals are needed, including any measures for sediment control. 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. Therefore, the potential impacts of the project would be anticipated to be less than significant.
- b-c. **Air Quality Standards and Cumulative Impacts:** Minor roadway improvements are proposed as a part of the project. The project would result in the potential for additional residential development. 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 AQMD reviewed the application materials for this project and determined that by implementing typical conditions including Rule 215 (Architectural Coating) and 501 and 523 (New Paint Source), which are included in the list of recommended conditions, the project would have a less than significant impact. The conditions would be implemented, reviewed, and approved by the AQMD prior to, and concurrent with, any grading, improvement, or building permit approvals. With full review for consistency with General Plan Policies, impacts would be anticipated to 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 the single dwelling residences, during construction or following construction of improvements to access roads. There would be no impact.
- e. **Objectionable Odors:** Table 3-1 of the Guide to Air Quality Assessment (AQMD, 2002) does not list the proposed use of the parcels as a use known to create objectionable odors. The requested Parcel Map would not generate or produce objectionable odors as it would create residential lots with single dwelling residential uses and associated accessory uses. 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. Impacts would be less than significant.

IV. BIOLOGICAL RESOURCES. <i>Would the project:</i>				
	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, or regulations 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. CAL FIRE 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 *Biological Resources Report* prepared by Site Consulting Inc. dated April 2016 (Attachment 8) states that the project site contains potential habitat for three federal and/or state-listed species: Valley Elderberry Longhorn Beetle, California Red-legged Frog and Layne’s butterwort, and potential habitat was found for sixteen species of concern including nesting birds, raptors, or other protected migratory birds.

None of the federal and/or state-listed species were identified onsite. However, the project has the potential to impact potential habitat for the Valley Elderberry Longhorn Beetle consisting of one Elderberry Bush (*Sambucus Mexicana*), which was identified along the eastern border of proposed Lot 1. The project also has the potential to impact potential habitat for species of concern including nesting birds, raptors, or other protected migratory birds due to construction activities such as tree and vegetation removal, which are protected under the Migratory Bird Treaty Act.

With the following mitigation incorporated, this tentative subdivision map request would not have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, and regulations, or by the CDFW or USFWS, and impacts would be less than significant.

BIO-1: Listed Species: Impacts to potential habitat for the Valley Elderberry Longhorn Beetle habitat shall be mitigated through establishment of a 30-foot radius setback from the host plant. Use of herbicides and insecticide within the setback area shall be prohibited.

Monitoring Requirement: The applicant shall conduct all construction activities outside the 30-foot radius setback from the existing Elderberry Bush (*Sambucus Mexicana*) as identified on Figure 13 of the *Biological Resources Report* (Attachment 8) prepared by Site Consulting Inc. dated April 2016. The 30-foot radius shall be identified on the Final Map prior to recordation, and this mitigation measure and the associated 30-foot radius setback shall be noted on future grading and residential construction plans. Development Services Division shall verify the inclusion of this requirement on the Final Map, and future grading and residential construction plans.

Monitoring Responsibility: El Dorado County Development Services Division.

BIO-2: Species of concern: Pre-construction surveys for nesting birds, including raptors, conducted no more than 30 days prior to construction activities, are required if construction is scheduled during the normal nesting season (March 15 to 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, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures. No mitigation is required if tree removal and grading are not scheduled during normal nesting season.

Monitoring Requirement: The applicant shall conduct all construction activities outside the nesting season or perform a pre-construction survey and the necessary avoidance measures prior to initiation of construction activities. This mitigation measure shall be noted on the grading plans. If a pre-construction survey is required, the Development Services Division shall verify the completion of survey prior to issuance of grading permit.

Monitoring Responsibility: El Dorado County Development Services Division.

- b-c. **Riparian Habitat, Wetlands, and Potentially Jurisdictional Waters of the U.S.:** As described in the *Wetland Delineation Report* prepared by Site Consulting Inc., dated April 2016 (Attachment 9), the project site contains approximately 0.065 acres of potential on-site jurisdictional waters and wetlands of the U.S., and the proposed project access traverses two off-site drainages totaling approximately 0.27 acres of potential jurisdictional waters of the U.S. One of the drainages forms temporary ponds on each side of the roadway. No proposed development would impact these on- and off-site wetlands and waters. The off-site roadway, which requires improvements to meet Transportation and Fire District requirements, crosses two drainages that would be avoided by implementing design waivers and recommended conditions of approval that have been incorporated into the project design. Future ministerial residential development would be required to meet the minimum setback requirements outlined in 130.30.030.G of the County Zoning Ordinance. Impacts would be less than significant.
- d. **Migration Corridors:** Review of the Department of Fish and Wildlife Migratory Deer Herd Maps and General Plan DEIR Exhibit 5.12-7 indicates that there are no mapped critical deer migration corridors on the project site. Fencing or other barriers are not proposed as part of this project, but could result in the future as the individual lot is split into two lots. The project has the potential to impact raptors and other migratory birds and that was discussed earlier in Section "a" above. As conditioned, mitigated (BIO-2), and with adherence to County Code, impacts would be anticipated to be less than significant.
- e. **Local Biological Resource Policies:** Local protection of biological resources includes protection of rare plants, avoidance of riparian areas, and mitigation of impacted oak woodlands with the goal to preserve and protect sensitive natural resources within the County. The parcel is located within an Important Biological Corridor (-IBC) General Plan Overlay Land Use Designation and has been analyzed for conformity of the project with General Plan Policy 7.4.2.9 and guidelines for development within an IBC.

According to the *The Biological Resources Report* (Attachment 8) prepared by Site Consulting Inc. dated April 2016, and including Section VII the *Oak Tree Survey, Preservation and Replacement Plan*, oak woodland canopy coverage is 94.9 percent on Lot 1 and 91.6 percent on Lot 2, with the road easement containing 61.1 percent oak canopy coverage. General Plan Policy 7.4.4.4 requires 60 percent oak canopy retention for the proposed project lots and 70 percent canopy retention for the off-site roadway improvements. The project would result in impacts to oak woodland canopy resulting in the removal of approximately 0.88 acres of on- and off-site oak woodland canopy from on- and off-site grading and future residential construction activities. The project would result in oak canopy retention of 97% for Lot 1, 91.5 percent for Lot 2, and 83.3 percent for the off-site easement area.

With the following mitigation incorporated, this tentative subdivision map request would not have a substantial adverse effect on Local Biological Resource Policies, including those regarding the retention and mitigation of oak woodland canopy removal, and impacts would be less than significant.

BIO-3: Oak Woodlands: Oak woodland preservation and replacement shall be consistent with Section VII (Oak Tree Survey, Preservation and Replacement Plan) of the *Biological Resources Report* prepared by Site Consulting Inc. dated April 2016 (Attachment 8). The plan identifies appropriate oak woodland canopy preservation measures, and identifies replacement requirements for oak woodland canopy removal resulting from the proposed project. Removal of oak woodland canopy must be mitigated by replanting oaks at a 1-to-1 ratio of canopy removed to area revegetated. Using the standard of 200 saplings or 600 acorns per acre, the mitigation for proposed oak woodland canopy removal for Lot 1 would be 66 saplings or 198 acorns planted on

0.33 acres; for Lot 2 would be 80 saplings or 240 acorns on 0.4 acres; and for Rancheria Court would be 30 saplings or 90 acorns on 0.15 acres. Proposed mitigation areas shall be in substantial conformance with Figure 13 of the referenced study (Oak and Elderberry Mitigation Map).

Monitoring Requirement: All grading and construction activities will require compliance with the oak woodland preservation measures and replacement measures as described in Section VII (Oak Tree Survey, Preservation and Replacement Plan) of the *Biological Resources Report* prepared by Site Consulting Inc. dated April 2016 (Attachment 8). The applicant shall plant oak trees or acorns in compliance with said Report and the Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4. Planning Services shall verify the inclusion of this requirement prior to the issuance of grading and building permits.

Monitoring Responsibility: El Dorado County Development Services Division.

- f. **Adopted Plans:** This project, as designed, does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be less than significant impacts in this category.

FINDING: For this Biological Resources category, as conditioned, mitigated, and with adherence to County Codes and Policies, the thresholds of significance would not be anticipated to be exceeded and impacts to biological resources will be less than significant.

V. CULTURAL RESOURCES. <i>Would the project:</i>				
	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.** A record search was conducted by the California Historical Resources Information System, North Central Information Center, on June 9, 2014 (Hallam). The results indicated that there is a low potential for identifying prehistoric-period cultural resources and low potential for identifying historic-period cultural resources in the project area. Further archival and/or field study by a cultural resources professional was not recommended. Standard conditions of approval are recommended for any future development of the project site to protect sub-surface historical, cultural, or archeological sites or materials in the event that such materials are discovered during earth disturbances and grading activities on the site. Impacts would be less than significant.

d. **Human Remains.** During construction, there is some likelihood of human remain discovery. Recommended standard conditions of approval to address accidental discovery of human remains would apply during any grading activities. Impacts will be less than significant.

FINDING: No significant cultural resources have been identified on the project site. Standard conditions of approval would apply in the event of accidental discovery during any future construction. This project would be anticipated to have a less than significant impact within the Cultural Resources category.

VI. GEOLOGY AND SOILS. <i>Would the project:</i>				
	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:				
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) On June 10, 2016, the California Department of Conservation Division of Mines and Geology released Official Maps of Earthquake Fault Zones that included Alquist-Priolo fault zones in the Emerald Bay and Echo Lake Areas of Lake Tahoe (DOC, 2016a). The project is in the Shingle Springs area, which is not within either of the fault zone areas. There would be no impact.

ii) The potential for strong seismic ground shaking in the project area would be considered low 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. All structures would be built to meet the construction standards of the UBC for the appropriate seismic zone. Impacts would be less than significant.

iii) El Dorado County is considered an area with low potential for seismic-related ground failure, including liquefaction. There are no or liquefaction zones located within the project area (DOC, 2016b). As stated in Section i) above, there are two Alquist-Priolo fault zones identified in the Lake Tahoe area. However, the project site is not located within either of those fault zone areas. There would be no impact.

iv) The project site is not located within an area subject to landslides as shown on the California Geological Survey Landslide Inventory and Mapping Program (DOC, 2016c). 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.

a. **Soil Erosion:** For development proposals, all grading activities onsite would 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. Road improvements will require a grading permit from the Transportation Division. Any future construction would require similar review for compliance with the County SWPPP. Therefore, impacts would be less than significant.

b. **Geologic Hazards:** On June 10, 2016, the California Department of Conservation Division of Mines and Geology released Official Maps of Earthquake Fault Zones that included Alquist-Priolo fault zones in the

Emerald Bay and Echo Lake Areas of Lake Tahoe (DOC, 2016a). The project is located in the Shingle Springs area, which is not within either of the fault zone areas. 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 (DOC 2016b), and the project is not located within the California Landslide Inventory (DOC 2016c). Therefore, the project site is not considered to 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. All grading activities would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.

- c. **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 central portion of the County has a moderate expansiveness rating while the eastern and western portions have a low rating. Linear extensibility is used to determine the shrink-swell potential of soils. Any development 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. Impacts would be less than significant.
- d. **Septic Capability:** Proposed Lot 2 contains an existing septic wastewater system for the existing single dwelling and has identified a future repair area. Potential residential development on proposed Lot 1 would require a new septic wastewater system. An Individual Sewage Disposal Study for the tentative parcel map conducted by a Joe Norton, Professional Geologist, dated September 14, 2014 was submitted for the site. The report concluded that the proposed project meets applicable requirements for the proposed subdivision. The County Environmental Management Division reviewed the project related materials and has no objections or recommended conditions of approval for the project. Impacts would be less than significant.

VII. GREENHOUSE GAS EMISSIONS. <i>Would the project:</i>				
	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 (CO₂), methane (CH₄) and nitrous oxides (N₂O). The individual pollutant's ability to retain infrared radiation represents its "global warming potential" and is expressed in terms of CO₂ equivalents; therefore CO₂ is the benchmark having a global warming potential of 1. Methane has a global warming potential of 21 and thus has a 21 times greater global warming effect per metric ton of CH₄ than CO₂. Nitrous Oxide has a global warming potential of 310. Emissions are expressed in annual metric tons of CO₂ equivalent units of measure (i.e., MTCO₂e/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 CO₂ 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 CH₄ 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 N₂O 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 7%). The remaining sources are waste/landfill (approximately 3%) and agricultural (<1%).

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 CO₂ equivalent (MMTCO₂e) while 1990 levels were estimated at 427 MMTCO₂e. Setting 427 MMTCO₂e 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 ₂ e/yr OR 4.9 MT CO ₂ e/SP/yr
Stationary Sources	10,000 MTCO ₂ e/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 is a subdivision of an existing residential lot into two single-unit residential lots. The subdivision will necessitate road improvements, and will allow the addition of a single dwelling on proposed parcel 1, with the potential for two accessory dwellings. This 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. According to the SLOAPCD Screening Table, the applicable screening level is Single family housing (rural). The proposed project is a subdivision to create two single-family parcels. Based on this equivalency, the GHG emissions from this project are estimated at less than 1,150 metric tons/year, thus, no further analysis for GHG emissions impact is required. Therefore, 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 of three additional households, 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: The project would result in less than significant impacts to greenhouse gas emissions. For this Greenhouse Gas Emissions category, there would be no significant adverse environmental effect as a result of the project.

VIII. HAZARDS AND HAZARDOUS MATERIALS. <i>Would the project:</i>				
	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 Section 1.1307[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 5.0 or more percent of the applicable FCC exposure limits (47 CFR 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 CAL FIRE 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-b. **Hazardous Materials:** The 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 additional housing unit may produce small amounts of household cleaners or other hazardous materials on a small scale. The impact would be less than significant.
- c. **Hazardous Materials near Schools:** The project is not located near a school. There would be no impact.
- 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 Diamond Springs/El Dorado Fire Protection District (Fire District), the El Dorado County Transportation Division (TD), and California Department of Forestry and Fire Protection (CAL FIRE) for circulation. The proposed project would not impair implementation of any emergency response plan or emergency evacuation plan. The proposed access improvements have been reviewed by all of these agencies and recommended conditions have been incorporated into the project description and conditions of approval. Required project improvements will be built to the satisfaction of the Transportation Division, Fire District and CAL FIRE. Impacts would be less than significant.
- h. **Wildfire Hazards:** The project site is in an area of moderate hazard for wildland fire pursuant to Fire Hazard Severity Zones in State Responsibility Area Map adopted by CAL FIRE on November 7, 2007

(CAL FIRE, 2007). Implementation of the Fire District and CAL FIRE standards and recommended conditions of approval for the project would reduce the impacts of wildland fire to a less than significant level.

FINDING: The proposed project would not expose the area to hazards relating to the use, storage, transport, or disposal of hazardous materials, or to hazards related to proximity to aircraft and airstrips, conflicts with emergency plans, and exposure to wildfire hazards. For this Hazards and Hazardous Materials category, 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 1.0 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 3 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 this project. Road improvement activities will require a grading permit and will undergo review to determine if any further actions or approvals are needed, including any measures for soil and sediment control in compliance with the County SWPPP. 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 80-300 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. The two new parcels would be served by wells that are already in place. The project is not anticipated to affect potential groundwater supplies above pre-project levels. Impacts would be less than significant.
- c-f. **Drainage Patterns:** The site currently contains an existing graveled driveway and single dwelling and associated residential improvements. Approximately 0.065 acres of on-site potential jurisdictional waters and wetlands of the U.S exist within proposed Lot 1, outside of potential disturbance areas (Attachment 9). The off-site access roadway to the site is graveled and crosses two drainages that are potential jurisdictional waters of the U.S. One of the drainages forms temporary ponds on each side of the roadway. The application includes approval of a design waiver for modification to Standard Plan 101C with a portion to be left unmodified to avoid impacts to off-site drainages. The on- and off-site roadway improvements require a grading permit through the Transportation Division and would be required to address grading, erosion and sediment control for the recommended access improvements, and any future residential construction would require review by the Development Services Division. 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. 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). No dams which would result in potential hazards related to dam failures are located in the project area. The risk of exposure to seiche, tsunami, or mudflows would be remote. There would be no impacts.

FINDING: The proposed project would be required to address any potential erosion and sediment control. No significant hydrological impacts are expected with the development of the project either directly or indirectly. For this Hydrology and Water Quality category, impacts are anticipated to be less than significant.

X. LAND USE PLANNING. <i>Would the project:</i>				
	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 within the Rural Region of Shingle Springs. The project is surrounded by single dwelling residential lands on large lots. The project would not conflict with the existing land use pattern in the area or physically divide an established community. There would be no impact.
- b. **Land Use Consistency:** The parcel has an LDR land use designation and is a zoned RE-5. The LDR land use designation establishes areas for single-family residential development in a rural setting. In Rural Regions, this designation is to provide a transition from Community Regions and Rural Centers into the agricultural, timber, and more rural areas of the County. The site is in a rural region, in close proximity to the Rescue Rural Center. The maximum allowable density for this land use designation is one dwelling unit per 5.0 acres, and parcel size is to range from 5.0 to 10.0 acres. As a result of project approval, the parcels would be 5.786 and 6.663 acres in size. The proposed project would be consistent with the policies and objectives of the General Plan. There would be no impact.

- 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. There would be no impact.

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.

XI. MINERAL RESOURCES. <i>Would the project:</i>				
	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. <i>Would the project result in:</i>				
	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	

XII.NOISE. <i>Would the project result in:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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 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 60dBA 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 3dBA, or more; or
- Results in noise levels inconsistent with the performance standards contained in Table 6-1 through Table 6-5 in the El Dorado County General Plan and Zoning Ordinance Section 130.70.

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	Community	Rural	Community	Rural
Hourly L_{eq} , dB	55	50	50	45	45	40
Maximum level, dB	70	60	60	55	55	50

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

In Community areas the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

*Note: For the purposes of the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Control of noise from facilities of regulated public facilities is preempted by California Public Utilities Commission (CPUC) regulations. All other noise sources are subject to local regulations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, schools, hospitals, commercial land uses, other outdoor land use, etc.

- 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. The road improvements and potential construction of single dwellings would require the use of trucks, equipment, and the use of machinery for grading, which may result in short-term noise impacts to surrounding neighbors. These activities would be included in the grading permit from TD and building permits from Development Services and would be restricted to construction hours pursuant to the General Plan. There could be additional noise associated with the additional residential development. However, the project is not expected to generate noise levels exceeding the performance standards contained within Chapter 6 of the 2004 General Plan and Zoning Ordinance Section 130.37. The noise associated with the project would be less than significant.
- b. **Groundborne Shaking:** Future construction may generate short-term ground borne vibration or shaking events during project construction. Impacts are anticipated to be less than significant.
- c. **Permanent Noise Increases:** The project includes an existing single dwelling and potential for development of an additional single dwelling and additional secondary dwelling unit on each proposed lot. The long term noise associated with these additional homes would not be expected to exceed the noise standards contained in the General Plan or the Zoning Ordinance. Impacts would be less than significant.
- d. **Short Term Noise:** The project includes the potential construction of three new dwelling units and road improvements that would require the use of trucks, equipment, and machinery for grading, which may result in short-term noise impacts. These activities 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:** There are no airstrips or airports within the project vicinity. 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 either directly or indirectly. For this Noise category, the thresholds of significance would not be exceeded and impacts would be less than significant.

XIII. POPULATION AND HOUSING. <i>Would the project:</i>				
	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 proposed project would include two lots, one with an existing dwelling and one with the potential for a new single dwelling. If a second dwelling unit was constructed on each of the residential lots in the future, the populations could increase by up to 18 persons, assuming a maximum of 6 persons per home. This potential additional population would not be considered a significant population growth. Therefore, impacts would be less than significant.

b. **Housing Displacement:** The project would result in the creation of two residential lots. A single dwelling would remain on the site and the project creates the potential for additional residential dwellings. No existing housing stock would be displaced by the proposed project. There would be no impact.

c. **Replacement Housing:** The project would result in the creation of two residential lots. A single dwelling would remain on the site and the project creates the potential for additional residential dwellings. Therefore, no persons would be displaced by the proposed project. There would be no impact.

FINDING: The project would not displace housing. There would be no potential for a significant impact due to substantial growth either directly or indirectly. For this Population and Housing category, the thresholds of significance would not be anticipated to be exceeded and impacts would be less than significant.

XIV. PUBLIC SERVICES. <i>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:</i>				
	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 2 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 5 acres of developed parklands for every 1,000 residents; or
 - Be inconsistent with County adopted goals, objectives or policies.
- a. **Fire Protection:** The Diamond Springs/El Dorado Fire Protection District (Fire District) provides structural fire protection to the site, and CAL FIRE provides wildland fire protection to the site. Both the Fire District and CAL FIRE have recommended conditions of approval related to the project’s road design features for fire engine access, which were incorporated into the project design. If any additional dwellings

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.

- b. **Police Protection:** Police services would continue to be provided by the El Dorado County Sheriff's Department. For this project, there is potential for one new dwelling unit. This small addition would not substantially affect police protection capacity. Any eventual addition of one accessory second dwelling unit per parcel also would not severely increase demand for law enforcement protection. Impacts would be less than significant.
- c. **Schools:** As a result of project approval, potential new dwelling units constructed in the future could add a small number of additional students. Because of the small amount of potential residents at the site, the impact would be less than significant.
- d. **Parks.** As discussed in the 'Recreation' category below, the project would be required to pay park in-lieu fees prior to recording the final map pursuant to Section 120.12.090 of the El Dorado County Subdivisions Ordinance. Impacts would be less than significant.
- e. **Government Services.** There are no 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 occur or be accelerated?			X	
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 5 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 2 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 5 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.** For this project, there is potential for one new dwelling unit on Lot 1, and the addition of one accessory second dwelling unit per lot. The project would not increase the local population substantially, and therefore would not substantially increase the use of parks and recreational facilities. No parks or parkland dedication is proposed through this project. Payment of in-lieu fees prior to recording of final map, pursuant to Section 120.12.090 of the County Major Land Divisions Ordinance, is required and would be sufficient to ensure that impacts from possible new development 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. For this Recreation category, impacts would be less than significant.

XVI. TRANSPORTATION/TRAFFIC. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e. Result in inadequate emergency access?			X	
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				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

According to the transportation element of the County General Plan, Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions. Level of Service is defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council). There are some roadway segments that are excepted from these standards and are allowed to operate at LOS F, although none of these are located in the Lake Tahoe Basin. According to Policy TC-Xe, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:

- A. A two percent increase in traffic during a.m., p.m. peak hour, or daily
- B. The addition of 100 or more daily trips, or
- C. The addition of 10 or more trips during the a.m. or p.m. peak hour.

On June 7, 2016, voter-approved ballot Measure E modified General Plan Policies TC-Xa, TC-Xf, and TC-Xg, and identified implementation measures for said policies.

Discussion: The Transportation and Circulation Policies contained in the County General Plan establish a framework for review of thresholds of significance and identification of potential impacts of new development on the County's road system. These policies are enforced by the application of the Transportation Impact Study (TIS) Guidelines, the County Design and Improvements Standards Manual, and the County Encroachment Ordinance, with review of individual development projects by the Transportation and Long Range Planning Divisions of the Community Development Agency. A substantial adverse effect to traffic would occur if the implementation of the project would:

- Result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system;
 - Generate traffic volumes which cause violations of adopted level of service standards (project and cumulative); or
 - Result in or worsen Level of Service (LOS) F traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county as a result of a residential development project of 5 or more units.
- a. **Traffic Increases:** The existing lot containing the proposed project was created as part of a four-lot parcel map, Parcel Map 8-62. The parcel map was processed by the current project applicant, Raymond Tanis, and was tentatively approved as Tentative Parcel Map P75-0111 on July 7, 1975. The proposed project to create one additional lot constitutes a division of Lot A of Parcel Map 8-62 by the same applicant. This would result in the creation of a fifth lot and requires approval of a tentative subdivision map. The proposed project would not result in substantial traffic increases that would exceed the thresholds established by the General Plan. Access to the site would be provided by an improved Rancheria Court, a private road, and an on-site driveway for access to proposed Lot 1.

The application for the proposed project was received on December 15, 2014 and deemed complete on January 14, 2015. Section 66474.2 of the Subdivision Map Act provides that the review and approval of a Tentative Map should be conducted in accordance with the rules, regulations, policies, and standards in effect at the time that the application for the Tentative Map is deemed complete. As such, the project is not subject to the recent amendments to the General Plan affected through the voter-approved ballot Measure E, effective July 29, 2016.

- b. **Levels of Service Standards:** Comments concerning the proposed facility were received from the Transportation Division and do not indicate that the LOS would be significantly impacted by the proposed project. Although the new parcels would allow for up to three new dwelling units on the site, the LOS established by the County would not be exceeded by the project and the surrounding road circulation system would not be impacted. The impact would be less than significant.

The application for the proposed project was received on December 15, 2014 and deemed complete on January 14, 2015. Section 66474.2 of the Subdivision Map Act provides that the review and approval of a Tentative Map should be conducted in accordance with the rules, regulations, policies, and standards in effect at the time that the application for the Tentative Map is deemed complete. As such, the project is not subject to the recent amendments to the General Plan affected through the voter-approved ballot Measure E, effective July 29, 2016.

- c. **Air Traffic:** The site is not located adjacent to an airport or within an Airport Safety District. There would be no impact.
- d. **Design Hazards:** The project has been reviewed by TD for design features, such as sharp curves, dangerous intersection or incompatible uses that would increase hazards. Transportation supports modified design waivers for modifications to Standard Plan 101C of the DISM and has recommended approval of the project access as proposed and conditioned. The design and location of the project is not anticipated to create any significant hazards. The impact would be less than significant.
- e. **Emergency Access:** Access to the parcels would be from Rancheria Court, an existing, non-county-maintained road. The project was reviewed by the TD, the Fire District, and CAL FIRE to ensure that adequate access would be provided to meet Fire Safe standards and conform to the DISM. With the inclusion of the TD, Fire District, and CAL FIRE recommended conditions, impacts would be less than significant.
- f. **Alternative Transportation.** The project would not conflict with adopted plans, polices or programs relating to alternative transportation. There is no public transit, bicycle lanes or pedestrian paths at this property or along Rancheria Court. There would be no impact.

FINDING: The project would not exceed the thresholds for traffic identified within the General Plan. For this Transportation/Traffic category, the thresholds of significance would not be exceeded and impacts would be less than significant.

XVII. TRIBAL CULTURAL RESOURCES. <i>Would the project:</i>				
	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 Tribal Cultural Resource as defined in Section 21074?			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:

- b. 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
- c. 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. **Tribal Cultural Resources.** At the time that the Tentative Subdivision Map application was deemed complete, no California Native American Tribe had submitted a letter to the County requesting consultation under AB52 on projects within the County's jurisdiction. Further, a record search was conducted by the California Historical Resources Information System, North Central Information Center, on June 9, 2014 (Hallam). The results indicated that there is a low potential for identifying prehistoric-period cultural resources and low potential for identifying historic-period cultural resources in the project area. Further archival and/or field study by a cultural resources professional was not recommended. Standard conditions of approval are recommended for any future development of the project site to protect sub-surface historical, cultural, or archeological sites or

materials in the event that such materials are discovered during earth disturbances and grading activities on the site. Impacts would be less than significant.

FINDING: No significant TCRs are known to exist on the project site. As a result, the proposed project would not cause a substantial adverse change to a TCR and impacts would be less than significant.

XVIII. UTILITIES AND SERVICE SYSTEMS. <i>Would the project:</i>				
	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 2 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 3-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 2.0-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 project does not require wastewater treatment as each lot will utilize separate, existing septic wastewater systems. The existing wastewater septic system will remain and future potential wastewater septic systems will be fully permitted and inspected at the construction phase. Environmental Management reviewed the application and had no comment on wastewater treatment requirements. The impact would be less than significant.
- b. **Construction of New Facilities:** The existing home would utilize the existing septic wastewater system and the potential residential dwelling on proposed Lot 1 will utilize a new septic wastewater system. Existing wells will be utilized for both of the resultant lots. Therefore, the project would include the addition of one residential septic wastewater system. Environmental Management reviewed the application and had no comment on the existing water and existing and future wastewater treatment requirements. 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 TD and Development Services Division standards, during the grading and building permit processes. The impact would be less than significant.
- d. **Sufficient Water Supply:** The project would be served by two existing residential wells. No further water supply is anticipated to be needed related to the subdivision of the project site. The Environmental Management Division reviewed the application and had no comment on the existing water supply requirements. Therefore, impacts would be less than significant.
- e. **Adequate Wastewater Capacity:** The project does not require wastewater treatment as each lot would have individual on-site septic wastewater systems. There would be no impact.
- 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 additional solid waste, and any 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. For this Utilities and Service Systems category, the thresholds of significance would not be exceeded.

XIX. 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 when using thresholds pre-established as benchmarks. These benchmarks are established by General Plan Policies, the Grading and Drainage Ordinances, and in Zoning Ordinance. As conditioned or mitigated, and with adherence to County permit requirements, 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, standards that would be implemented by any required project-specific on- and off-site improvements, and incorporated Mitigation Measures BIO-1, BIO-2, and BIO-3.

- 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, types of activities proposed, and site-specific environmental conditions, 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, tribal cultural resources, 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 with 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 include minor 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.

INITIAL STUDY ATTACHMENTS

Attachment 1	Location Map
Attachment 2	Aerial Map
Attachment 3	Tentative Subdivision Map
Attachment 4	Slope Map
Attachment 5	Onsite Preliminary Grading Plan
Attachment 6	Offsite Preliminary Grading Plan
Attachment 7	Tree Canopy Map
Attachment 8	Biological Resources Report
Attachment 9	Wetland Delineation Report
Attachment 10	Mitigation Monitoring and Reporting Program

SUPPORTING INFORMATION SOURCE LIST

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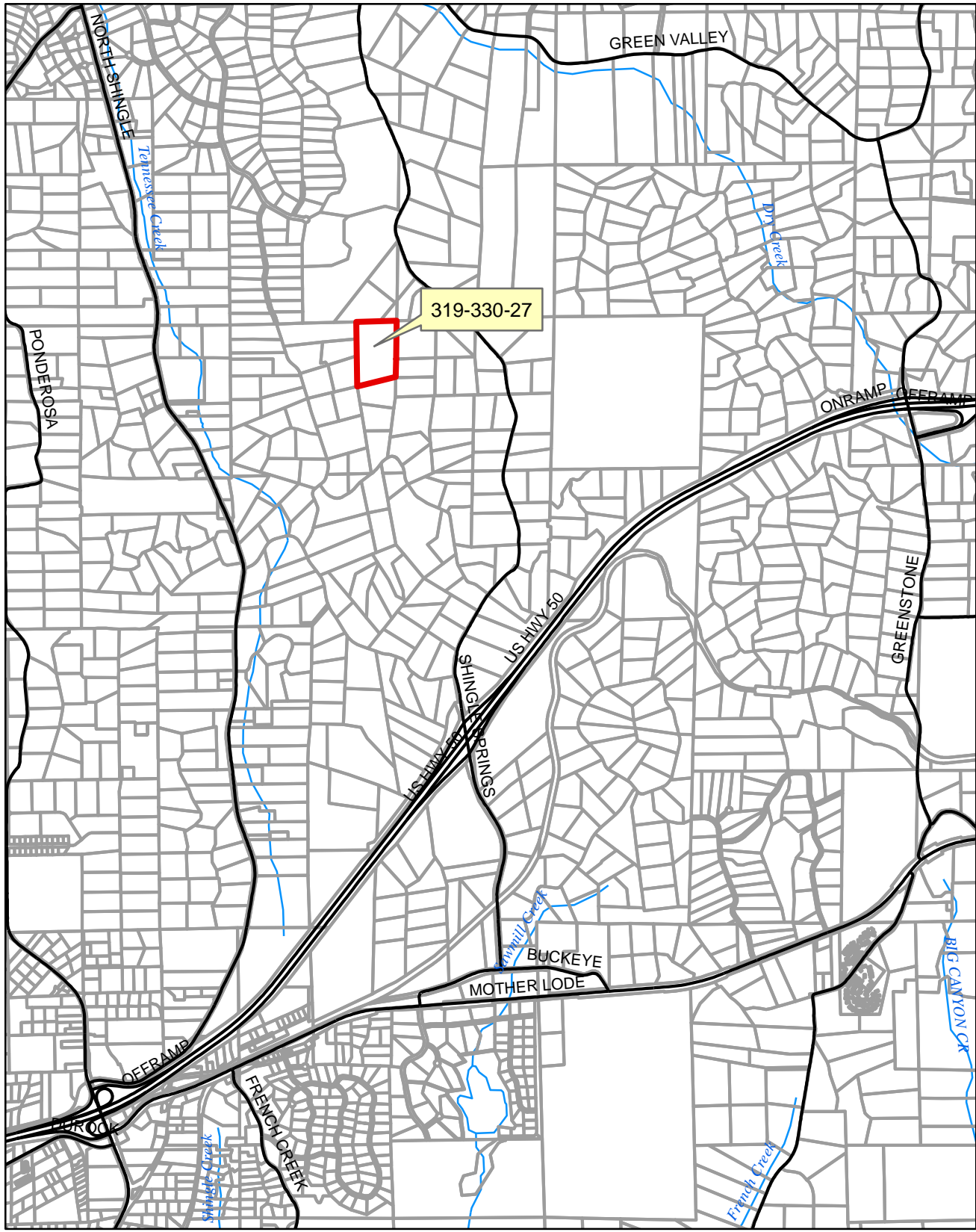
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File No. TM14-1523
Location Map
Attachment 1

-  Project Parcel
-  Parcels
-  Roads



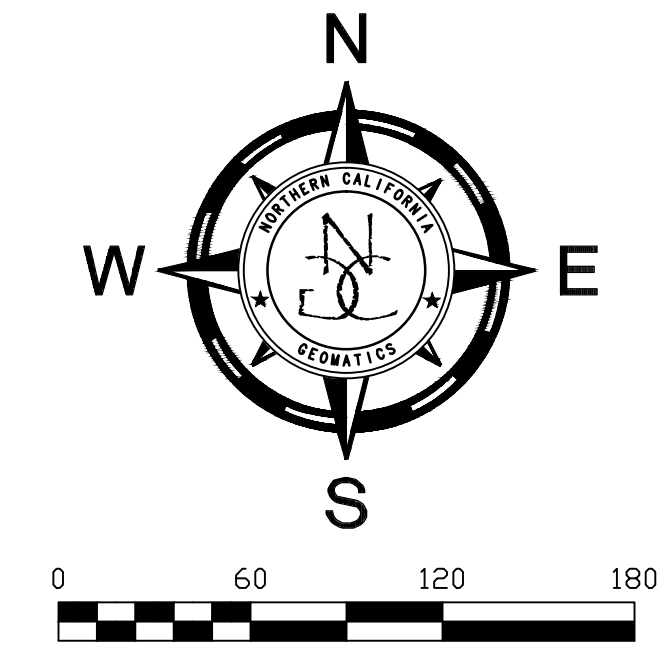


Tentative Subdivision Map

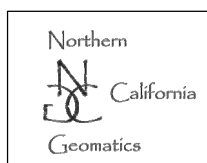
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 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.
 COUNTY of EL DORADO STATE of CALIFORNIA
 AUGUST, 2016 1"=60'
 SHEET 1 of 1

LEGEND

○	DIMENSION POINT, NOTHING FOUND OR SET
⊙	EXISTING WELL
⊕	EXISTING JOINT POLE
⊗	EXISTING GUY ANCHOR
—	BOUNDARY LINE
---	PROPOSED LOT LINE
- - -	ADJACENT LOT LINE
- · - · -	EASEMENT LINE
- · - · - · - · -	DITCH DRAINAGE LINE
— x — x —	FIELD FENCE
○	TREE CANOPY
AREAS OF 30% SLOPE OR GREATER	
EP	EDGE OF PAVEMENT
PCL	PARCEL
PM	PARCEL MAP
SUBD	SUBDIVISION
(E)	EXISTING
(P)	PROPOSED

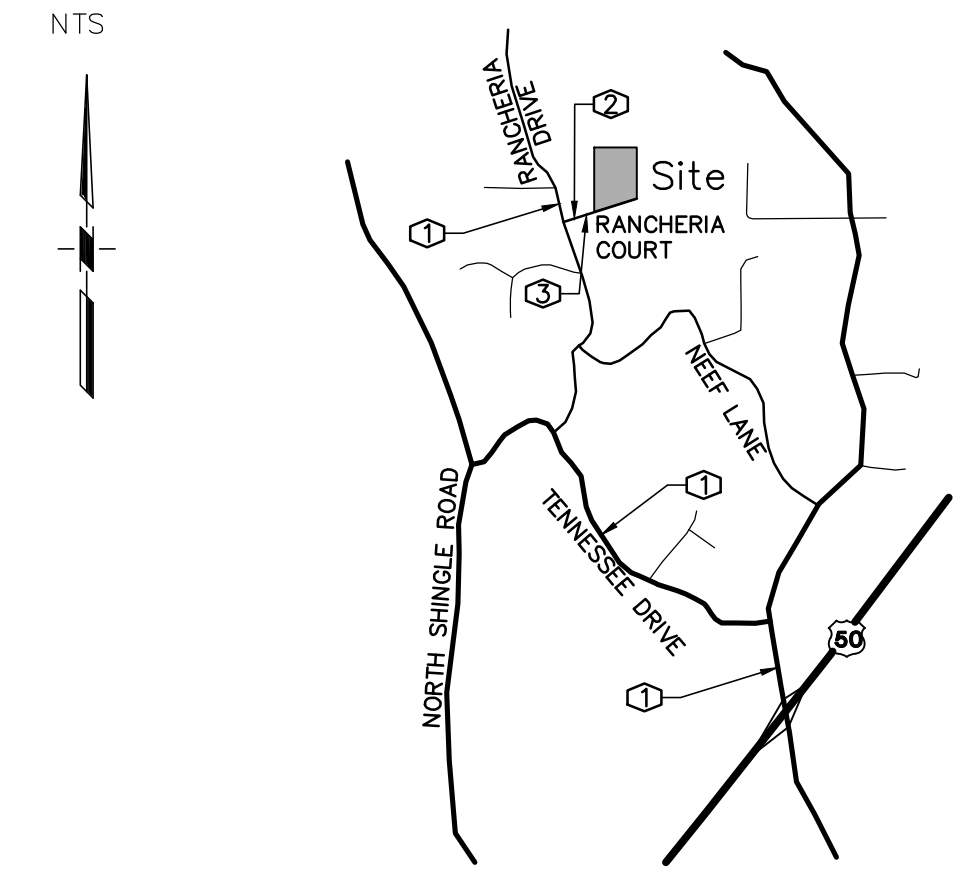


OWNER / APPLICANT: RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

MAP PREPARED BY:  1044 DIAMANTE ROBLES CT.
 DIAMOND SPRINGS, CA 95619
 (530) 957-0293

SCALE OF MAP:	1"=60'
CONTOUR INTERVAL:	1'
SOURCE OF TOPOGRAPHY:	AERIAL SURVEY
SECTION, TOWNSHIP, RANGE	SECTION 30, T. 10 N., R. 10 E
ASSESSOR'S PARCEL NO.	319-330-27
PRESENT ZONING:	RE 5
PROPOSED ZONING:	RE 5
TOTAL PARCEL AREA:	16.646 ACRES
TOTAL NUMBER OF PARCELS:	2
MINIMUM PARCEL AREA:	5.11 ACRES
WATER SUPPLY:	WELL
SEWAGE DISPOSAL:	SEPTIC
STRUCTURAL FIRE PROTECTION:	DIAMOND SPRINGS FPD
DATE OF PREPARATION:	DECEMBER, 2014

VICINITY MAP



VICINITY MAP REFERENCE

- ① 60' ROAD RIGHT OF WAY PER PM 1-163
- ② 50' WIDE NON-EXCLUSIVE ROAD AND P.U.E. PER PM 8-62
- ③ 60' WIDE NON-EXCLUSIVE ROAD AND P.U.E. PER PM 12-71, 1406 OR 552 AND 1406 OR 553

ZONING ADMINISTRATOR: _____

APPROVAL / DENIAL DATE: _____

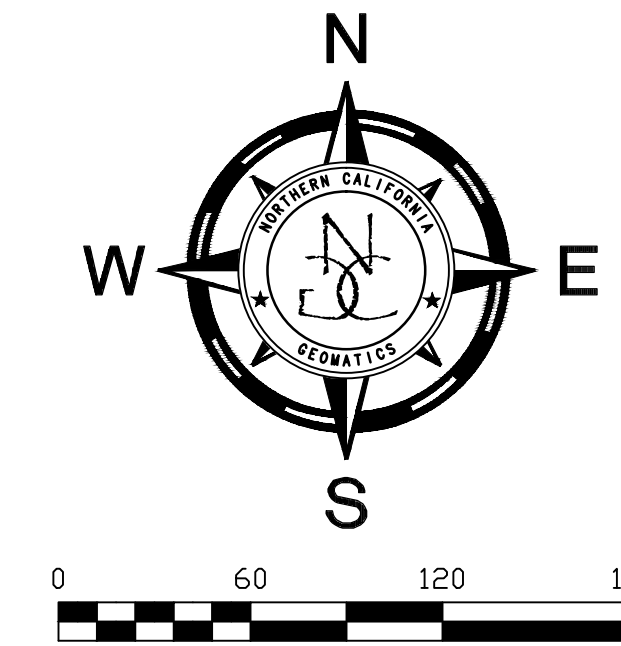
BOARD OF SUPERVISORS: _____

APPROVAL / DENIAL DATE: _____

EXISTING ASSESSORS PARCEL NUMBER: 319-330-27

Tentative Subdivision Map

RANCHERIA COURT – TANIS JOB# 1102014
 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.
 COUNTY of EL DORADO STATE of CALIFORNIA
 AUGUST, 2016 1"=60'
 SHEET 1 of 1



LEGEND

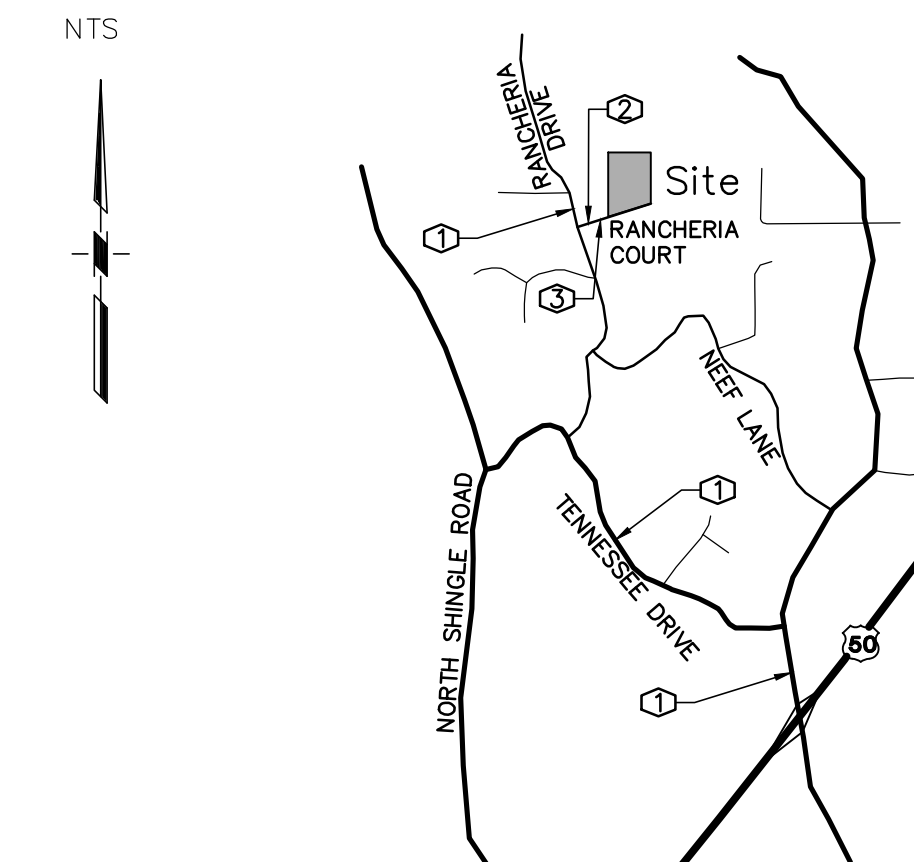
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- EXISTING WELL
- EXISTING JOINT POLE
- EXISTING GUY ANCHOR
- BOUNDARY LINE
- PROPOSED LOT LINE
- ADJACENT LOT LINE
- EASEMENT LINE
- DITCH DRAINAGE LINE
- FIELD FENCE
- TREE CANOPY
- AREAS OF 30% SLOPE OR GREATER
- EP
- PCL
- PM
- SUBD
- (E)
- (P)

OWNER / APPLICANT: RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

MAP PREPARED BY: 1044 DIAMANTE ROBLES CT.
 DIAMOND SPRINGS, CA 95619
 (530) 957-0293

SCALE OF MAP: 1"=60'
 CONTOUR INTERVAL: 1'
 SOURCE OF TOPOGRAPHY: AERIAL SURVEY
 SECTION, TOWNSHIP, RANGE: SECTION 30, T. 10 N., R. 10 E
 ASSESSOR'S PARCEL NO.: 319-330-27
 PRESENT ZONING: RE 5
 PROPOSED ZONING: RE 5
 TOTAL PARCEL AREA: 16.646 ACRES
 TOTAL NUMBER OF PARCELS: 2
 MINIMUM PARCEL AREA: 5.11 ACRES
 WATER SUPPLY: WELL
 SEWAGE DISPOSAL: SEPTIC
 STRUCTURAL FIRE PROTECTION: DIAMOND SPRINGS FPD
 DATE OF PREPARATION: DECEMBER, 2014

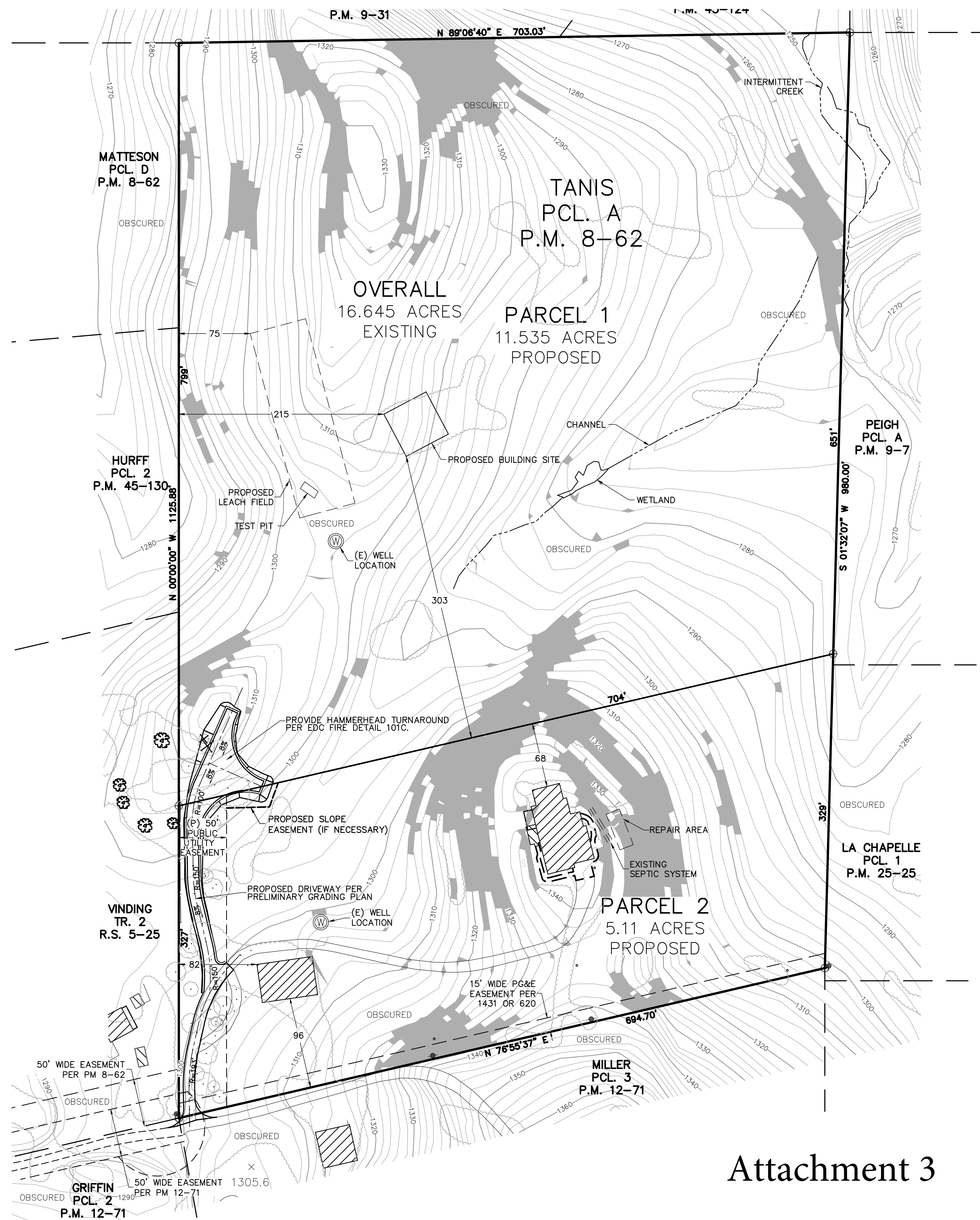
VICINITY MAP



VICINITY MAP REFERENCE

- ① 60' ROAD RIGHT OF WAY PER PM 1-163
- ② 50' WIDE NON-EXCLUSIVE ROAD AND P.U.E. PER PM 8-62
- ③ 60' WIDE NON-EXCLUSIVE ROAD AND P.U.E. PER PM 12-71, 1406 OR 552 AND 1406 OR 553

ZONING ADMINISTRATOR: _____
 APPROVAL / DENIAL DATE: _____
 BOARD OF SUPERVISORS: _____
 APPROVAL / DENIAL DATE: _____

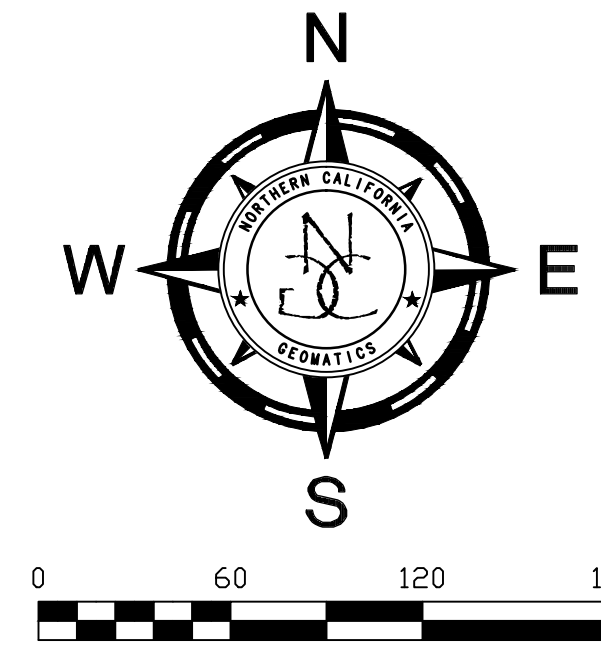


Attachment 3


Tentative Subdivision Map

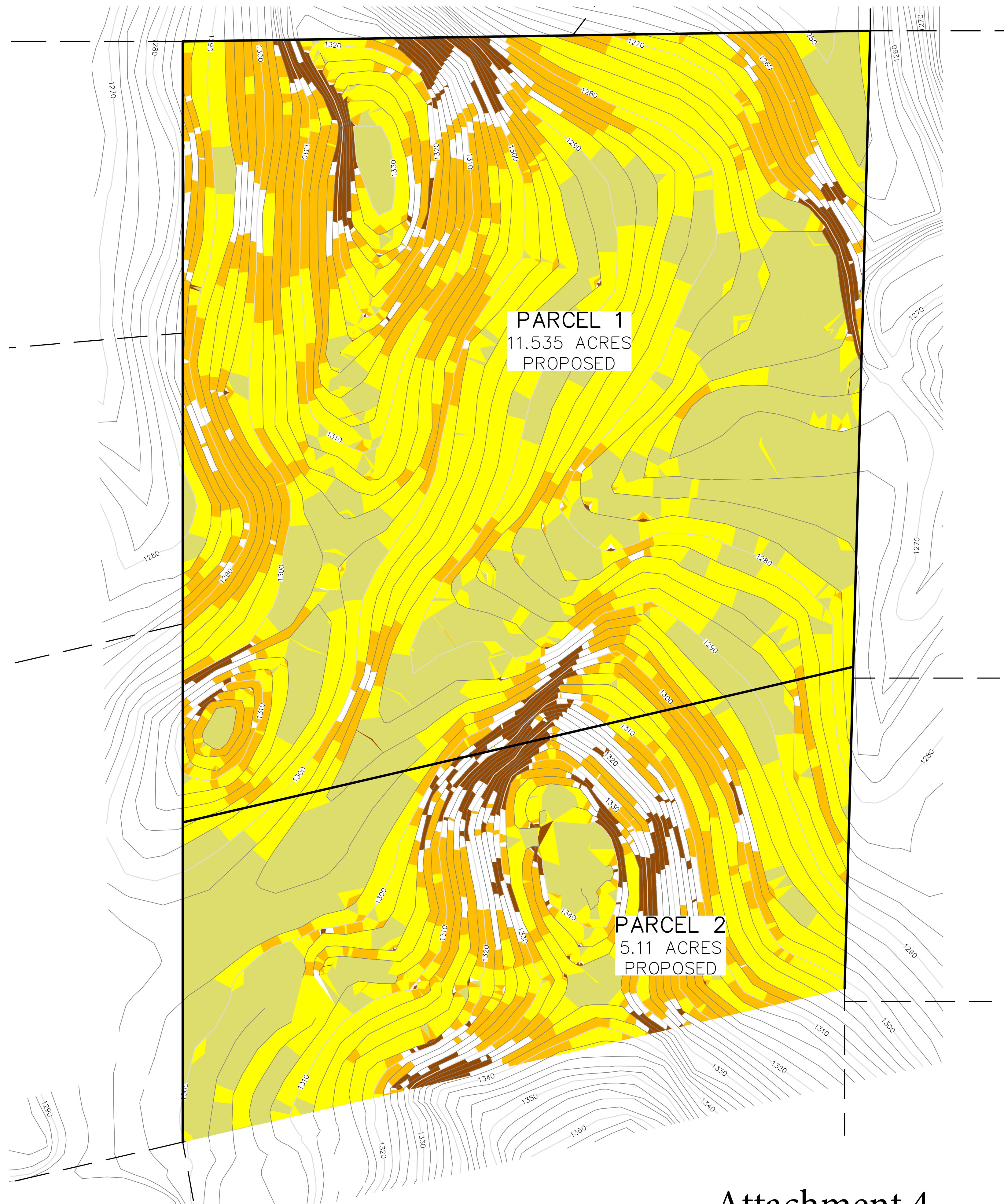
Slope Map

RANCHERIA COURT – TANIS JOB# 1102014
 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.
 COUNTY of EL DORADO STATE of CALIFORNIA
 AUGUST, 2016 1"=60'
 SHEET 1 of 1



OWNER / APPLICANT: RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

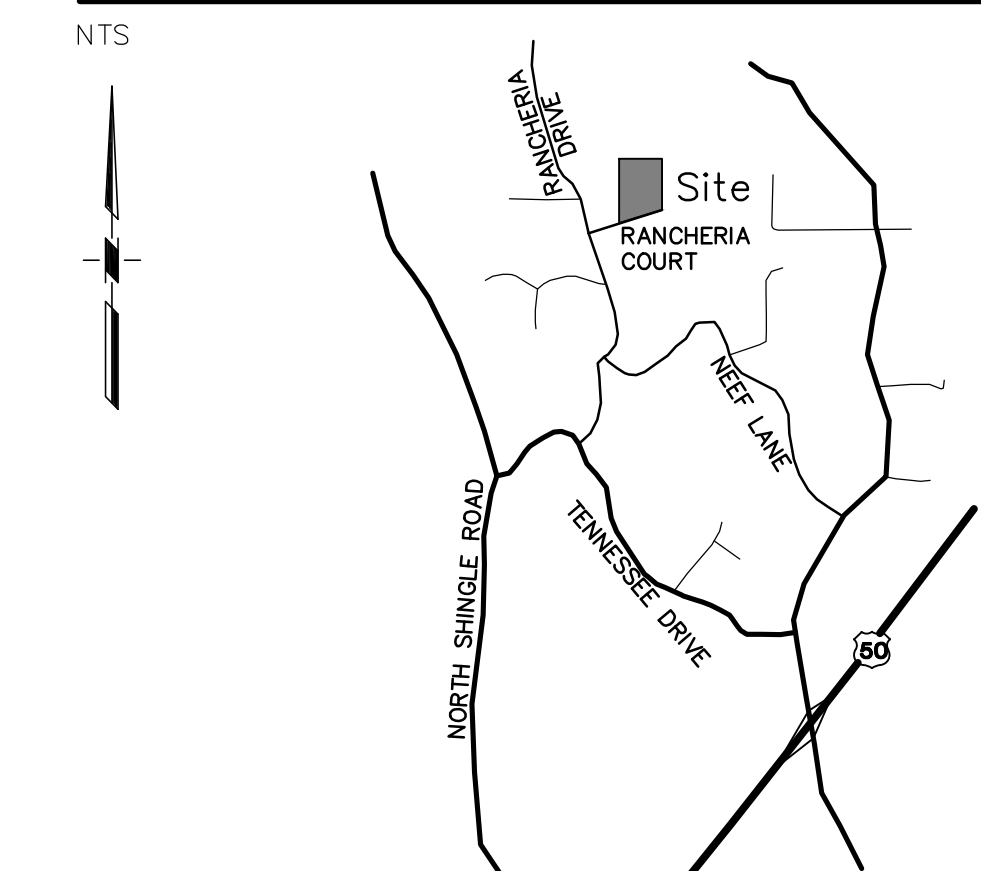
MAP PREPARED BY:  1044 DIAMANTE ROBLES CT.
 DIAMOND SPRINGS, CA 95619
 (530) 957-0293



SLOPE ZONE LEGEND

COLOR	ZONE	RANGE	AREA S.F.	ACRES	% OF TOTAL
Light Green	1	0-10%	202801.3	4.656	27.97
Yellow	2	11-20%	302504.6	6.945	41.72
Orange	3	21-29%	147240.5	3.380	20.31
White	4	30-39%	47161.1	1.083	6.50
Brown	5	>40%	25388.3	0.583	3.5

VICINITY MAP



Attachment 4

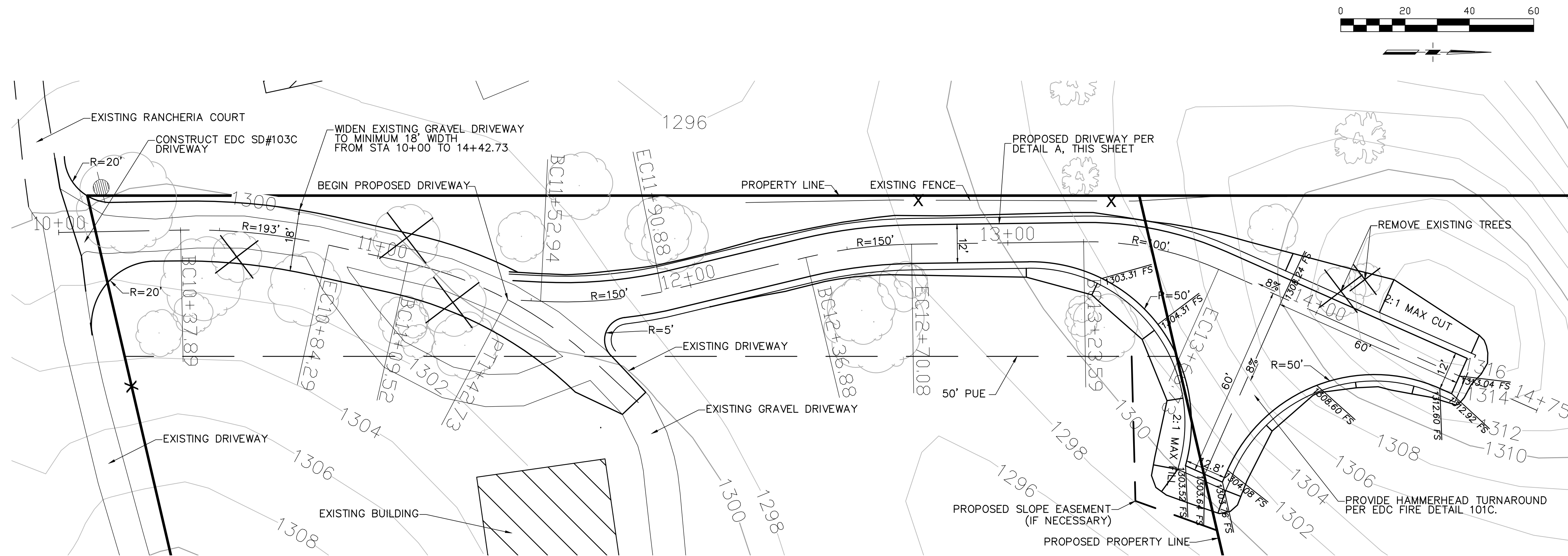
Tentative Subdivision Map

Onsite Preliminary Grading Plan

RANCHERIA COURT – TANIS JOB# 201401
 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.
 COUNTY of EL DORADO STATE of CALIFORNIA
 AUGUST, 2016 1"=20'
 SHEET 1 of 1

OWNER: RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

PREPARED BY: MICHAEL HAUGE, P.E.
 3157 CAVU HILL ROAD
 SHINGLE SPRINGS, CA 95682
 (530) 626-2038



NOTES

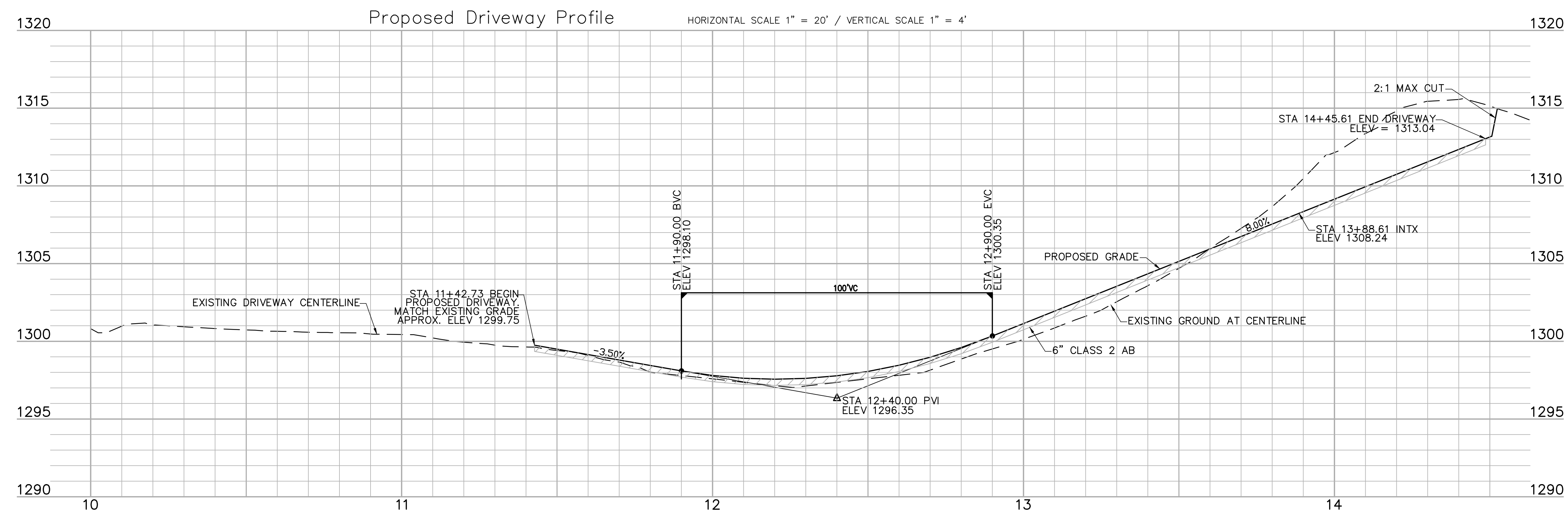
- 1) THE ROAD SHOWN HEREON IS TO BE CONSTRUCTED IN COMPLIANCE WITH EL DORADO COUNTY STANDARDS.
- 2) UPON APPROVAL OF THE TENTATIVE MAP DETERMINATION WILL BE MADE AS TO THE NEED FOR ROCK LINE DITCHES AND OR ENERGY DISSIPATORS. IF SUCH ARE DEEMED NECESSARY THEY SHALL BE DESIGNED AND INSTALLED PER EL DORADO COUNTY STANDARDS.
- 3) PROVIDE 15 FT UNOBSTRUCTED VERTICAL CLEARANCE ALONG ENTIRE LENGTH OF PROPOSED DRIVEWAY. AND HAMMERHEAD TURNAROUND.

LEGEND

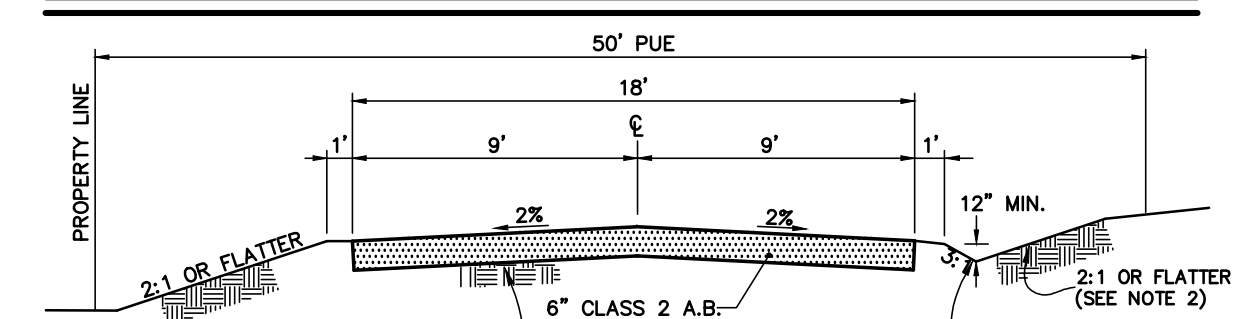
⊙	DIMENSION POINT ONLY
⊕	FIRE HYDRANT PROPOSED WATER
⊗	SEPTIC TANK
⊙	LEACH SYSTEM VENTS
⊕	OVERHEAD UTILITY POLE
(E)	EXISTING
(P)	PROPOSED

ABBREVIATIONS

AB	AGGREGATE BASE
BC	BEGIN CURVE
BVC	BEGIN VERTICAL CURVE
EC	END CURVE
ELEV	ELEVATION
EDC	EL DORADO COUNTY
EVC	END VERTICAL CURVE
FS	FINISHED SURFACE
INTX	INTERSECTION
MAX	MAXIMUM
PT	POINT TANGENT
PUE	PUBLIC UTILITIES EASEMENT
PVI	POINT VERTICAL INTERSECTION
R	RADIUS
SD#	STANDARD DRAWING NUMBER
STA	STATION
VC	VERTICAL CURVE



DETAIL A – DRIVEWAY SECTION

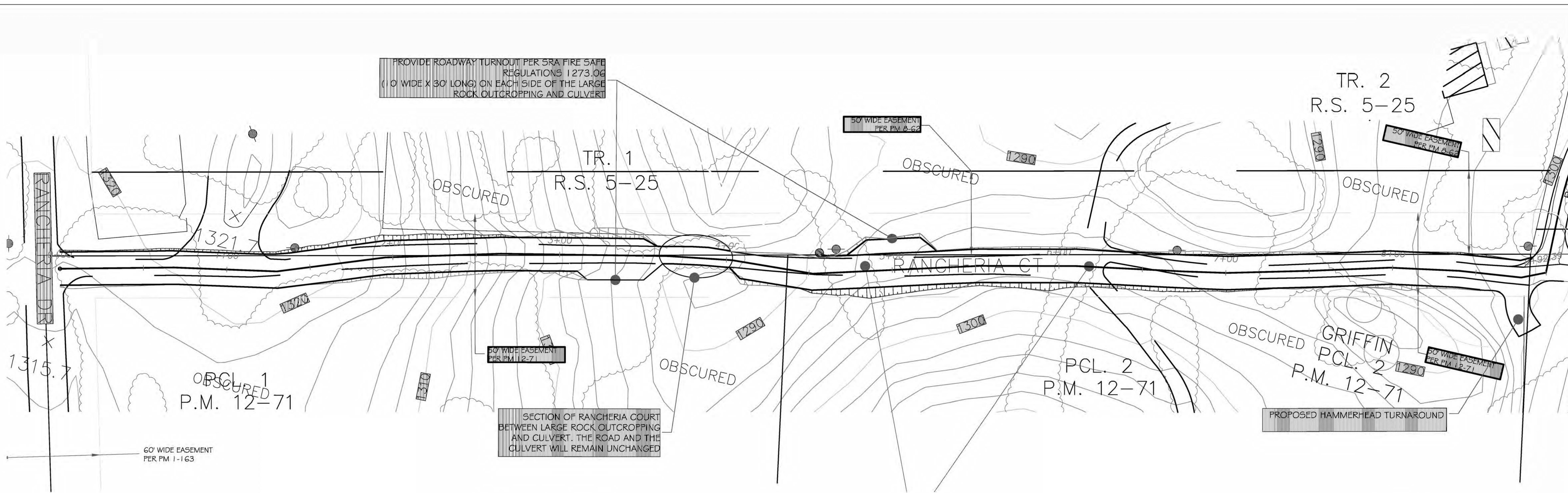


IN EXISTING CUT AREAS THE TOP 6" OF SUBGRADE TO BE SCARIFIED AND RECOMPACTED TO 95% RELATIVE COMPACTION. SLOPES OVER 10:1 TO BE KEYED WHEN PLACING EMBANKMENT FILL.

ROADSIDE DITCHES MAY NEED TO BE PROTECTED FROM EROSION AND INCREASED IN CAPACITY AS DETERMINED BY VELOCITY STUDIES.

- 1) EMBANKMENT SHALL BE COMPACTED TO 90% (C.T.M. 231F OR A.S.T.M. 1556) THE TOP 6" OF NATIVE SUBGRADE WILL BE COMPACTED TO 95% AS WELL AS CLASS II AGGREGATE BASE AND SUBBASE.
- 2) CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL.

PROVIDE ROADWAY TURNOUT PER SRA FIRE SAFE REGULATIONS 1273.06 (10' WIDE X 30' LONG) ON EACH SIDE OF THE LARGE ROCK OUTCROPPING AND CULVERT



60' WIDE EASEMENT PER PM 1-163

SECTION OF RANCHERIA COURT BETWEEN LARGE ROCK OUTCROPPING AND CULVERT. THE ROAD AND THE CULVERT WILL REMAIN UNCHANGED

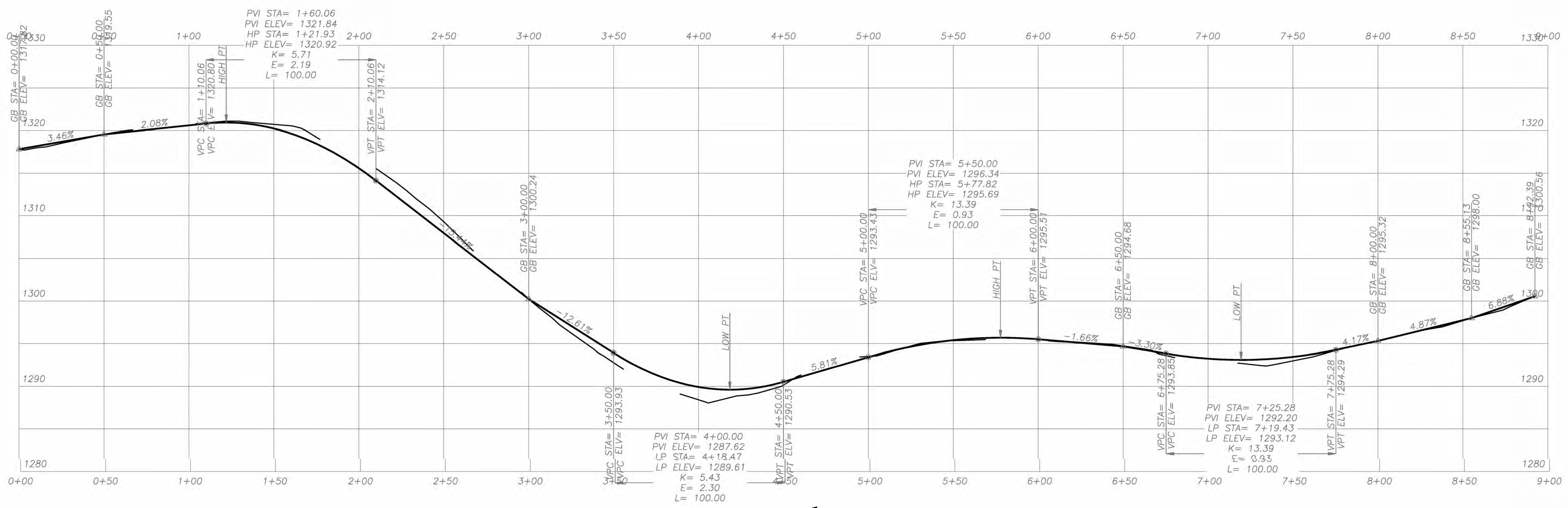
PROPOSED HAMMERHEAD TURNAROUND



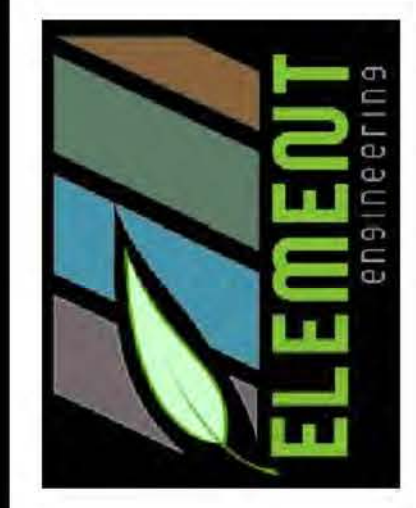
CIVIL ENGINEER:
Andrew Hammond
ANDREW HAMMOND
PROFESSIONAL ENGINEER

1/30/2016
 DATE

ROAD GRADING PLAN



DATE:	
REVISIONS:	



ROAD GRADING FOR:
RANCHERIA COURT - TANIS
 3069 RANCHERIA CT
 SHINGLE SPRINGS, CA 95682

SCALE: 1"=30'
DRAWN: AMH
CHECKED: AMH
DATE: 1/30/16
NOTES:

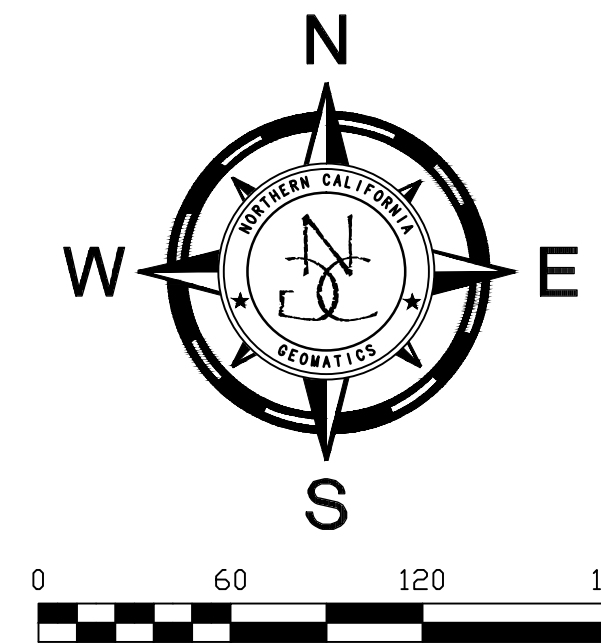
SHEET
C3

Attachment 6

Tentative Subdivision Map

Tree Canopy Map

RANCHERIA COURT – TANIS JOB# 1102014
 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.
 COUNTY of EL DORADO STATE of CALIFORNIA
 AUGUST, 2016 SHEET 1 of 1
 1"=60'



OWNER / APPLICANT: RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

MAP PREPARED BY: [] 1044 DIAMANTE ROBLES CT.
 DIAMOND SPRINGS, CA 95619
 (530) 957-0293

CANOPY COVER STANDARD

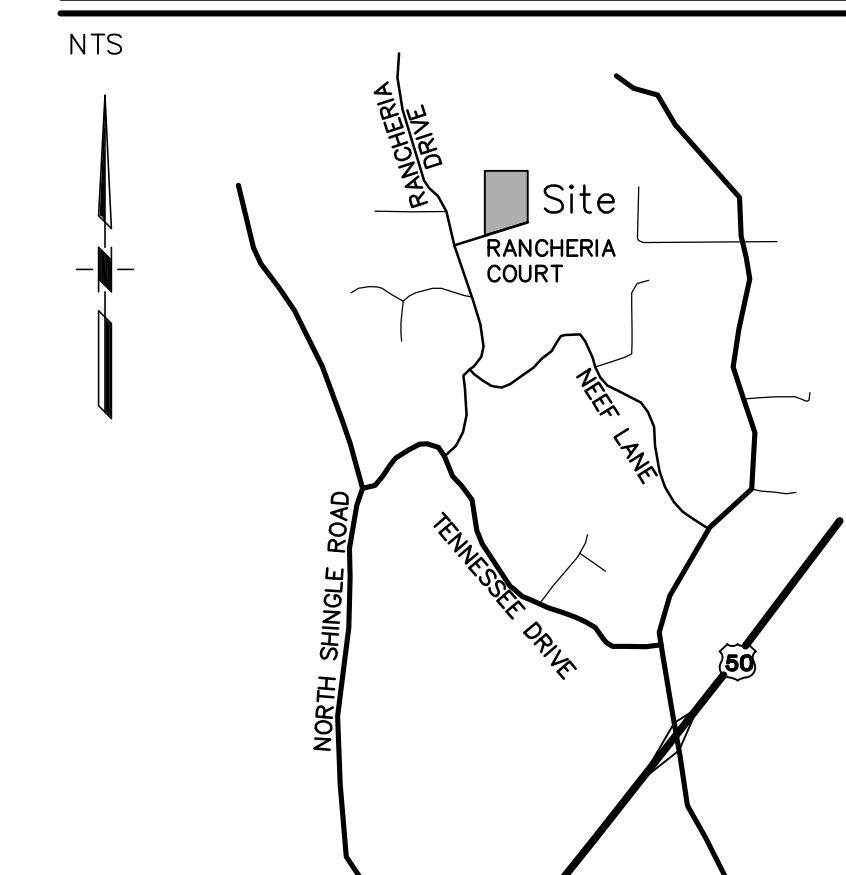
EXISTING CANOPY COVERAGE	PERCENT OF CANOPY COVER TO RETAIN
80 - 100 PERCENT	60 % OF (E) CANOPY
60 - 79 PERCENT	70 % OF (E) CANOPY
40 - 59 PERCENT	80 % OF (E) CANOPY
20 - 39 PERCENT	85 % OF (E) CANOPY
19 PERCENT OR LESS	90 % OF (E) CANOPY

* SEE BIOLOGICAL RESOURCES REPORT DATED
 NOVEMBER 2014 FOR DETAILED REPORT

SUMMARY

SITE AREA = 723096 SQ. FT.
 EXISTING TREE CANOPY AREA = 678853 SQ. FT.
 EXISTING CANOPY COVERAGE = 93.9%
 CANOPY AREA TO BE REMOVED = 42254 SQ. FT.
 PERCENT OF CANOPY COVER RETAINED = 94.2%

VICINITY MAP



TREE NO.	COMMON NAME	DBH in.	DRIP RADIUS ft.
100	BLUE OAK	25	26
101	BLUE OAK	11	18
102	BLUE OAK	25	35
103	LIVE OAK	18	10
104	BLUE OAK	13	12
105	BLUE OAK	28	25
106	BLUE OAK	16	24
107	BLUE OAK	22	23
108	BLUE OAK	19	27
109	BLUE OAK	8.5	12
110	BLUE OAK	8	9
111*	BLUE OAK	15,17	28
112	BLUE OAK	17	25
113	BLUE OAK	9	12
114	BLUE OAK	19	25
115*	BLUE OAK	7,10	21
116	BLUE OAK	12.5	25
117*	LIVE OAK	19,26,17	32
118	BLUE OAK	18	30
119	BLUE OAK	22	34
120*	LIVE OAK	12,12,14	38
121	LIVE OAK	11	31
122	LIVE OAK	7	17
123*	LIVE OAK	13,25,8	26
124*	LIVE OAK	15,11	27
125*	LIVE OAK	12,11	22
126	BLUE OAK	11	14
127	BLUE OAK	14	25
128	BLUE OAK	15	19
129*	BLUE OAK	11,12	22
130*	LIVE OAK	10,6,12	21
131*	LIVE OAK	11,12,14, 8,4,4,6,3	34
132	LIVE OAK	10	32
133*	LIVE OAK	14,15,10, 11,13,14	37
134	LIVE OAK	10	8
135*	BLUE OAK	10,8,9	25
136	BLUE OAK	9	7
137*	BLACK OAK	11,22	28
138*	LIVE OAK	5,6,6, 8,8,8	26
139	BLACK OAK	16	18
140	VALLEY OAK	9	23
141	LIVE OAK	11	12
142*	LIVE OAK	8,5,2	18
143*	BLUE OAK	8,6,4	28
144*	BLACK OAK	8,11,11, 11,12	40
145*	BLACK OAK	13,13,13, 15,9,11	34
146*	BLUE OAK	9,16,9	26
147*	BLACK OAK	11,12,12, 13,14	23
148	LIVE OAK	7	17
149*	BLACK OAK	15,11,8, 12,18	30
150*	BLACK OAK	11,12,13	38
151*	LIVE OAK	8,9,12,11, 8,11,10	37
152*	BLACK OAK	8,8,5	15
153	LIVE OAK	9	26
154*	BLACK OAK	6,7,7,9, 9,9,12	28
155*	BLACK OAK	12,13,15	22
156*	LIVE OAK	7,7	18
157*	BLACK OAK	9,13	15
158*	BLACK OAK	8,8,9,11,9, 10,12,15	30
159*	BLACK OAK	14,13,13	19
160	VALLEY OAK	14	19
161	LIVE OAK	6	13
162	LIVE OAK	6	18
163*	LIVE OAK	12,22	20
164*	LIVE OAK	16,9,8	27
165*	LIVE OAK	12,10,7	19

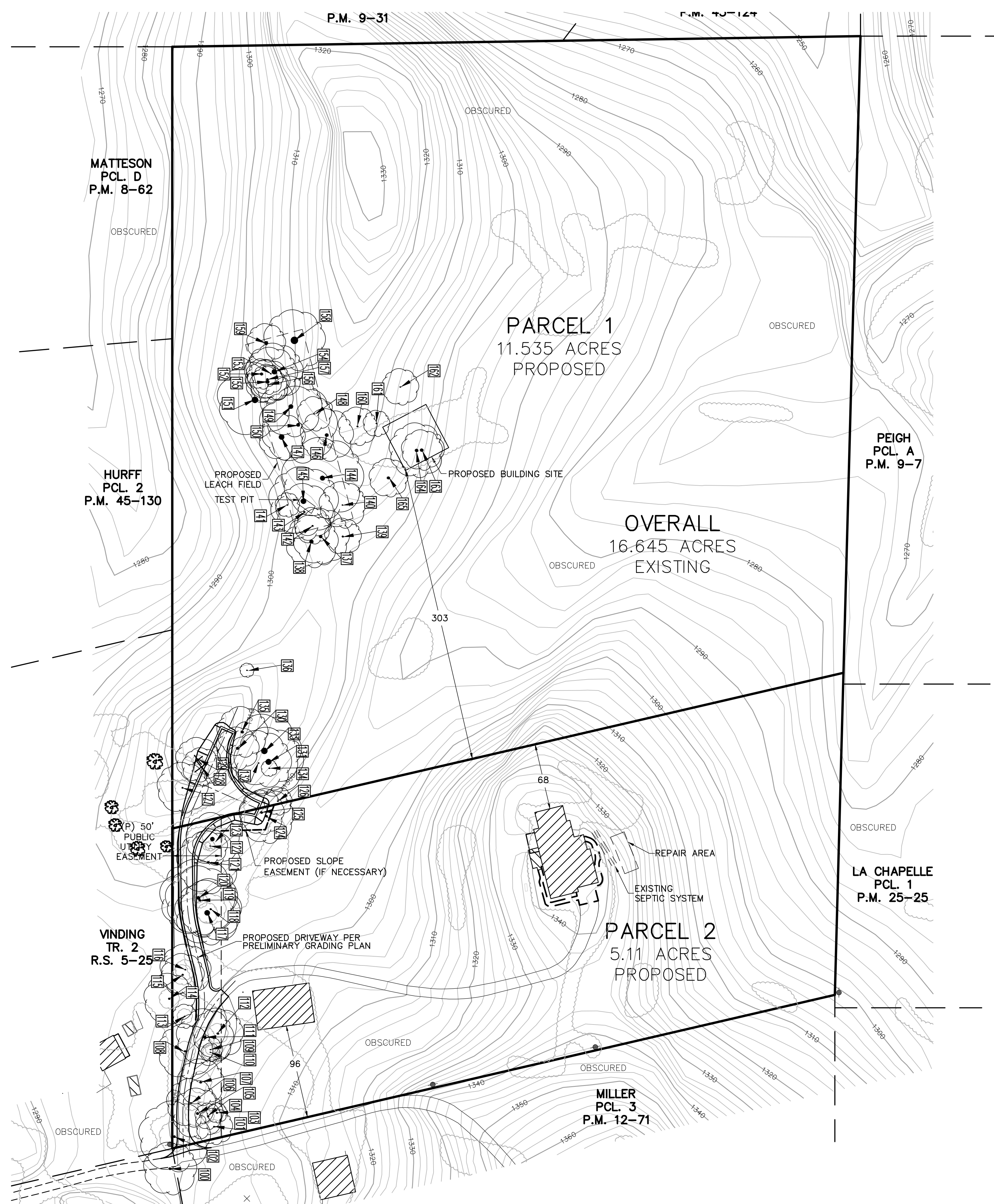
* MULTI-TRUNK TREE, SEE APPENDIX F FOR ACCUMULATIVE DIAMETER

◻ TREE TO BE REMOVED

◼ TREE TO REMAIN, >25% ROOT DISTURBANCE COUNTED AS CANOPY REMOVED

LEGEND

- OAK TREE TO BE REMOVED
- ◉ OAK TREE TO REMAIN
- Ⓜ TREE NUMBER



Biological Resources Report
including
Special-Status Species Survey
and
Oak Tree Survey, Preservation and Replacement Plan
for
Assessor' Parcel Number 319-330-27
Shingle Springs, 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
Ray Tanis
(530) 672-6266

April 2016

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- A. U.S. Fish and Wildlife Service Endangered and Threatened Species list, Shingle Springs USGS Quad
- B. California Natural Diversity Database Report of Special-Status Species Occurrences within the Shingle Springs and Surrounding USGS Quads
- C. California Native Plant Society On-line Inventory of Rare and Endangered Plants, Shingle Springs and Surrounding USGS Quads
- D. Evaluation of Special-Status Species with Known Occurrences in Shingle Springs and Surrounding USGS Quads
- E. Plant Species Found on the Project Site, August 1 & 2, 2014; July 23, 2015 and March 17, 2016
- F. Oak Tree Assessments
- G. Oak Canopy Site Assessment Report

I. Report Summary

A. Special-Status Species

1. State and/or Federal-Listed Species

Potential habitat was found on the project site for three federal and/or state-listed species: Valley Elderberry Longhorn Beetle, California Red-legged Frog and Layne's butterwort (Table 1).

Table 1. Federal and/or state-listed species having potential habitat on the project site.

Special-Status Species	Common Name	Legal Status ¹ Federal/ State	Species Found On Site?	Habitat Quality	Suggested Mitigation
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	E / —	No	Marginal	See Subsection C., below.
<i>Rana draytonii</i>	California red-legged frog	T / —	No	Marginal	None required
<i>Packera layneae</i>	Layne's butterwort	T / R	No	Suitable but limited	None required

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

2. Species of Concern

Potential habitat was found for sixteen species of concern; see Table 3, page 19, for more details.

B. Oak Canopy

Oak woodland canopy coverage is 94.9 percent on Parcel 1 and 91.6 percent on Parcel 2. El Dorado County requires 60% oak canopy retention (40% removal allowance) for parcels having more than 80% oak canopy coverage. Proposed oak canopy retention is 97% for Parcel 1 (3% removal) and 91.5% for Parcel 2 (8.5% removal), well-within canopy retention requirements.

Offsite oak canopy will be removed to widen Rancheria Court. The road easement contains 61.1 percent oak canopy coverage, which requires 70% canopy retention (30% removal allowance). Proposed oak canopy retention is 83.3% (15.7% removal).

C. Suggested Mitigation

Listed species: Suggested mitigation for Valley Elderberry Longhorn Beetle habitat is establishment of a 30-foot radius setback from the host plant. Use of herbicides and insecticides within the setback area should be prohibited. Mitigation is not needed for California red-legged frog because the site has only marginal upland dispersal habitat, not suitable breeding habitat. Layne's butterwort, endemic to gabbro and serpentine soils, was not found on-site; thus, no mitigation is needed for the species.

Species of concern: Pre-construction surveys for nesting birds, including raptors, conducted no more than 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 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.

Oak woodlands: According to current El Dorado County standards, oak canopy removal must be mitigated by replanting oaks at a 1-to-1 ratio of area of canopy removed to area revegetated. Using the standard of 200 saplings or 600 acorns planted per acre, the mitigation for proposed oak removal for Parcel 1: 66 saplings or 198 acorns planted on 0.33 acre; for Parcel 2: 80 saplings or 240 acorns on 0.4 acres; and for Rancheria Court: 30 saplings or 90 acorns on 0.15 acre. Total oak mitigation for the project is 176 saplings or 528 acorns planted on 0.88 acre.

II. Introduction

A. Purpose of Report

A biological resources study was conducted on the project site, Assessor's Parcel Number 319-330-27 (Figure 1), in order to determine the suitability of its habitat to support state- or federal-listed special-status wildlife and plant species, and to evaluate oak woodlands found on-site. The site is within an Important Biological Corridor (IBC) and Rare Plant Mitigation Area 1; therefore, the report will analyze the project's compliance with County policies pertaining to those overlays.

The project would remove oak canopy for road construction, a dwelling and a septic system. The report will enumerate the existing oak canopy and identify oaks proposed for removal. Oak tree preservation and replacement recommendations will be outlined.

B. Project Location and Description

The project site, 16.65 acres in size, is located in the northeast quarter of the northwest quarter of Section 30, Township 10 North, Range 10 East, M.D.M. (Figure 2), being Parcel A of PM 8-62, at 3069 Rancheria Court, Shingle Springs, CA. The proposed project would subdivide the parcel into two single-family residential lots, one being 5.1 acres and the other being 11.5 acres in size (Figure 3). Rancheria Court will be widened to bring it into compliance with fire codes (Figure 4).

The Tanis property has a General Plan designation of Low-Density Residential with RE-5 zoning, and lies within an Important Biological Corridor and Rare Plant Mitigation Area 1. The parcel is bounded on all sides by single-family residential lots varying in size from 1.0 to 10.6 acres.

C. Property Owner and Project Manager

Property Owner
Ray Tanis
3069 Rancheria Ct.
Shingle Springs, CA 95682

Project Manager
Brendan Williams
Northern California Geomatics
Phone: 530-957-0293

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.

Figure 1. Assessor's map.

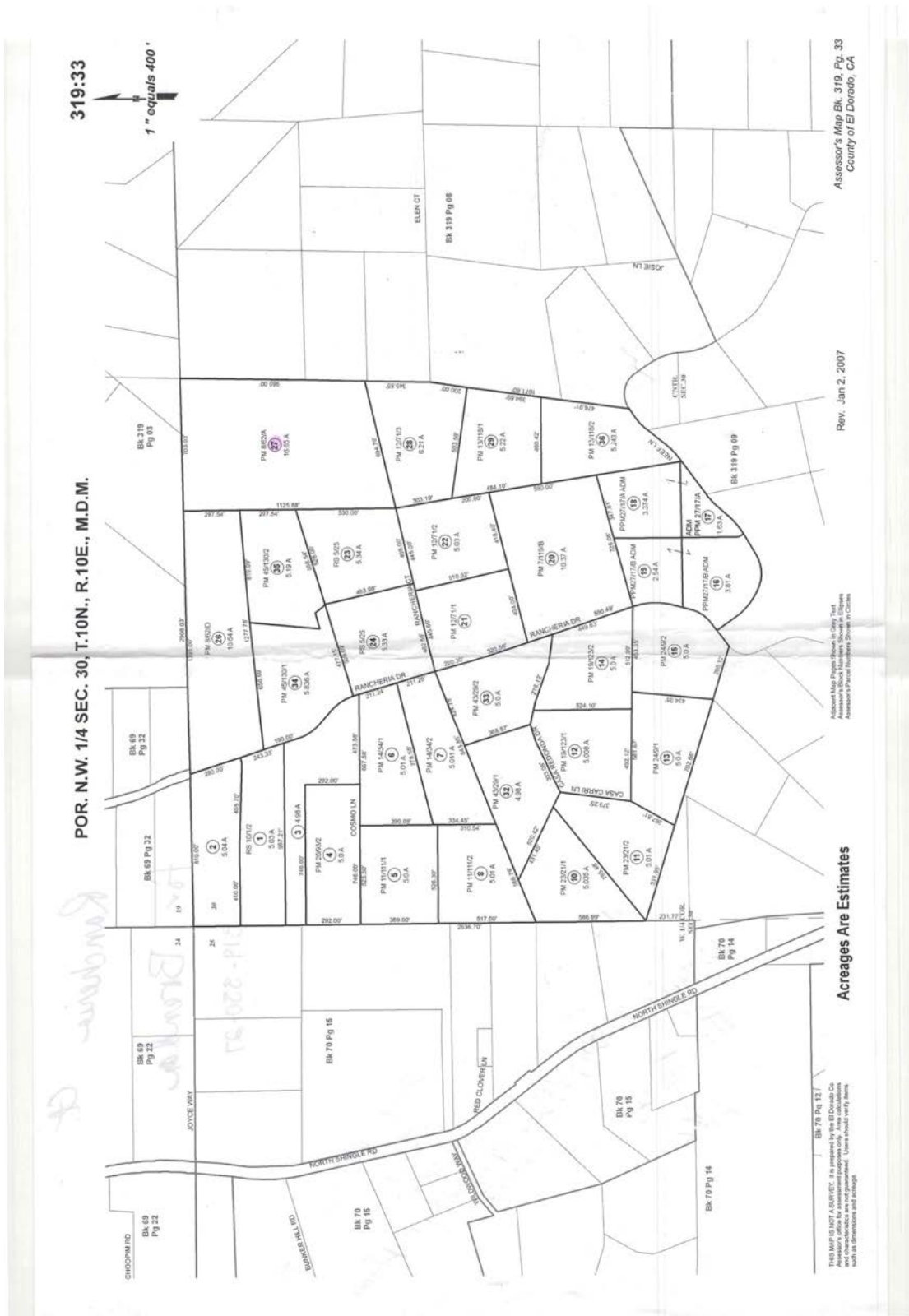


Figure 2. USGS Topographic map.

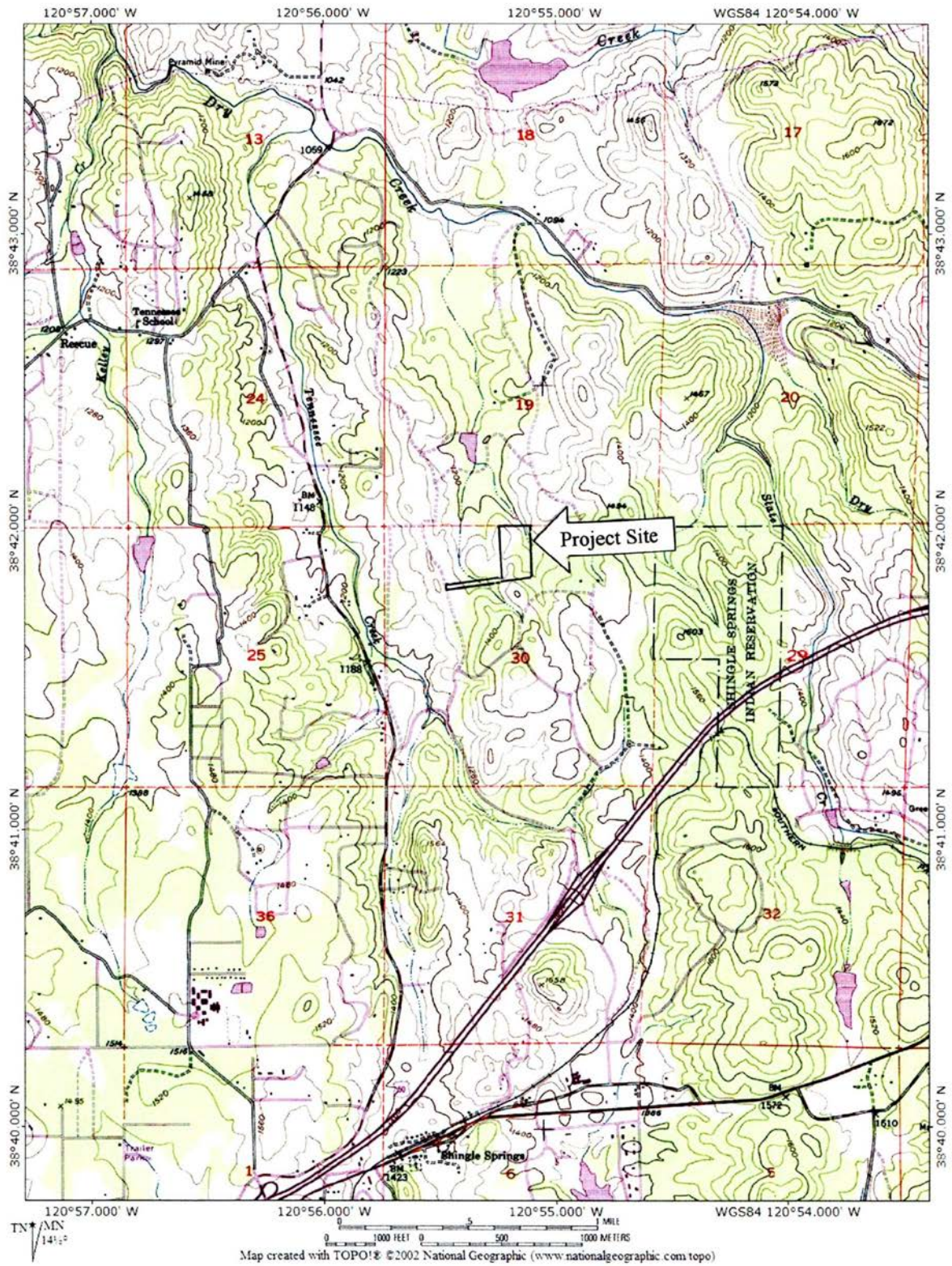
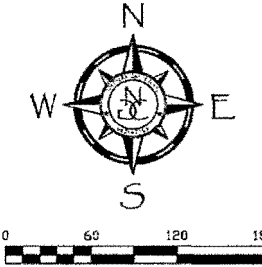


Figure 3. Tentative Parcel Map.


Tentative Parcel Map

RANCHERIA COURT - TANIS JOB# 1102014
 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.

COUNTY of EL DORADO STATE of CALIFORNIA
 SEPTEMBER, 2014 1"=60'
 SHEET 1 of 1



OWNER / APPLICANT: RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

MAP PREPARED BY:  1044 DIAMANTE ROBLES CT.
 DIAMOND SPRINGS, CA 95619
 (530) 957-0293

SCALE OF MAP: 1"=60'
 CONTOUR INTERVAL: 1'
 SOURCE OF TOPOGRAPHY: AERIAL SURVEY
 SECTION, TOWNSHIP, RANGE: SECTION 30, T. 10 N., R. 10 E
 ASSESSOR'S PARCEL NO.: 319-330-27
 PRESENT ZONING: RE 5
 PROPOSED ZONING: RE 5
 TOTAL PARCEL AREA: 16.646 ACRES
 TOTAL NUMBER OF PARCELS: 2
 MINIMUM PARCEL AREA: 5.0 ACRES
 WATER SUPPLY: WELL
 SEWAGE DISPOSAL: SEPTIC
 STRUCTURAL FIRE PROTECTION: DIAMOND SPRINGS FPD
 DATE OF PREPARATION: SEPTEMBER, 2014

VICINITY MAP

NTS



 Site

ZONING ADMINISTRATOR: _____
 APPROVAL / DENIAL DATE: _____
 BOARD OF SUPERVISORS: _____
 APPROVAL / DENIAL DATE: _____

NOTES

1) ??

LEGEND

○	DIMENSION POINT ONLY
⋮	FIRE HYDRANT PROPOSED WATER
⊙	SEPTIC TANK
⊙	LEACH SYSTEM VENTS
⊙	OVERHEAD UTILITY POLE
(E)	EXISTING
(P)	PROPOSED

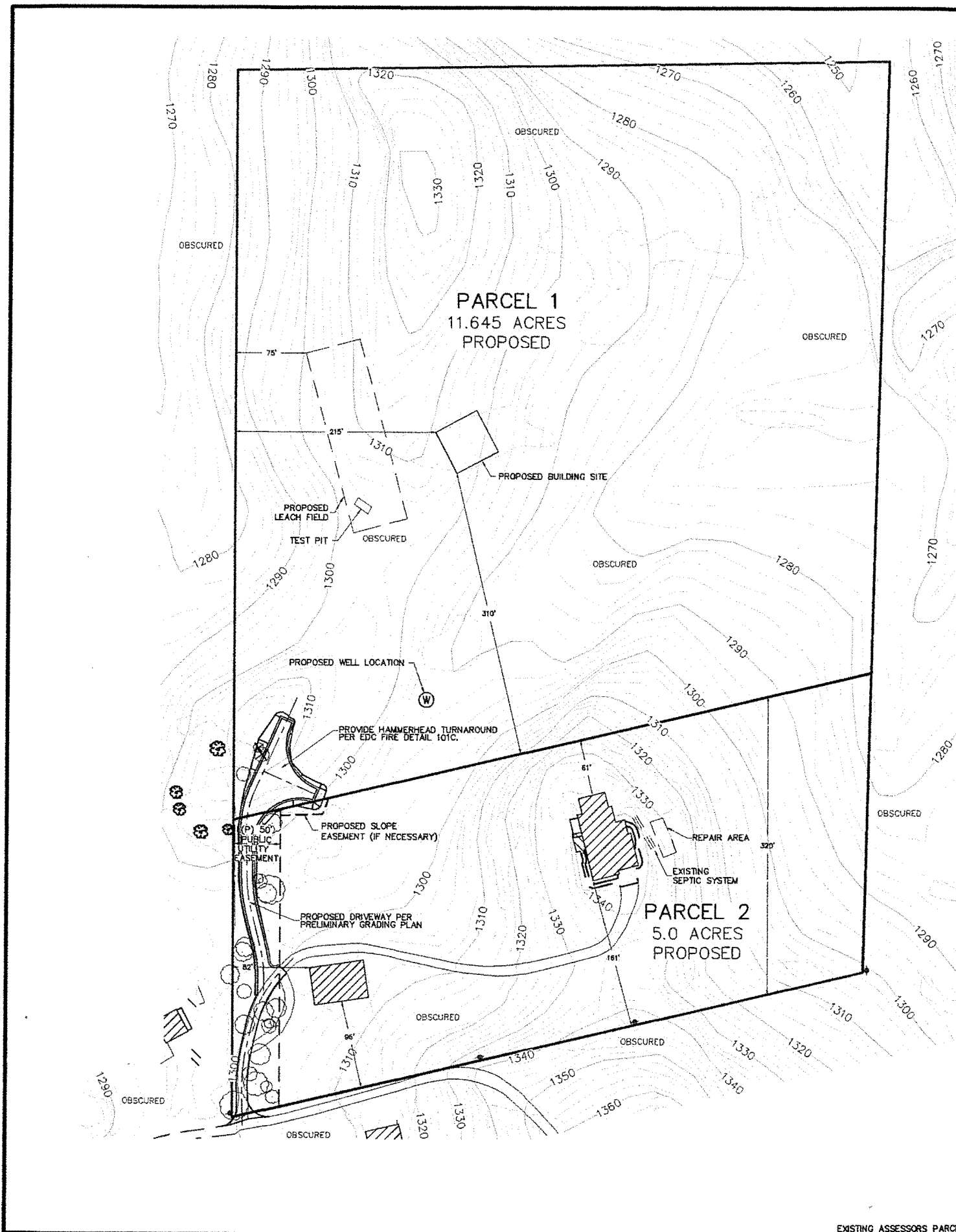
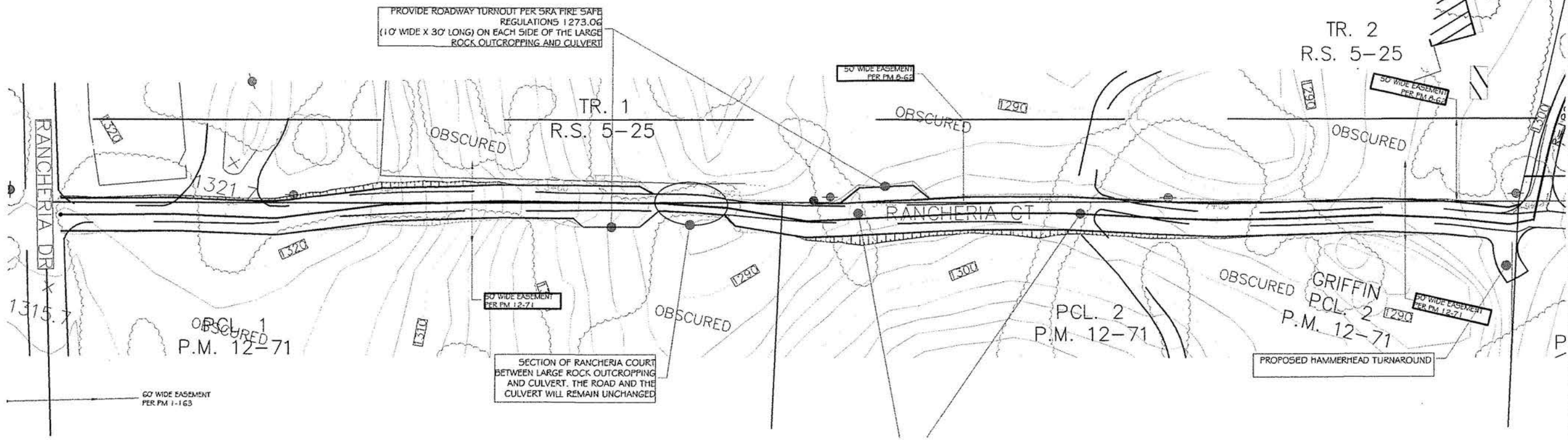


Figure 4. Rancheria Ct grading plan.



CIVIL ENGINEER:

Andrew Hammond

ANDREW HAMMOND
PROFESSIONAL ENGINEER

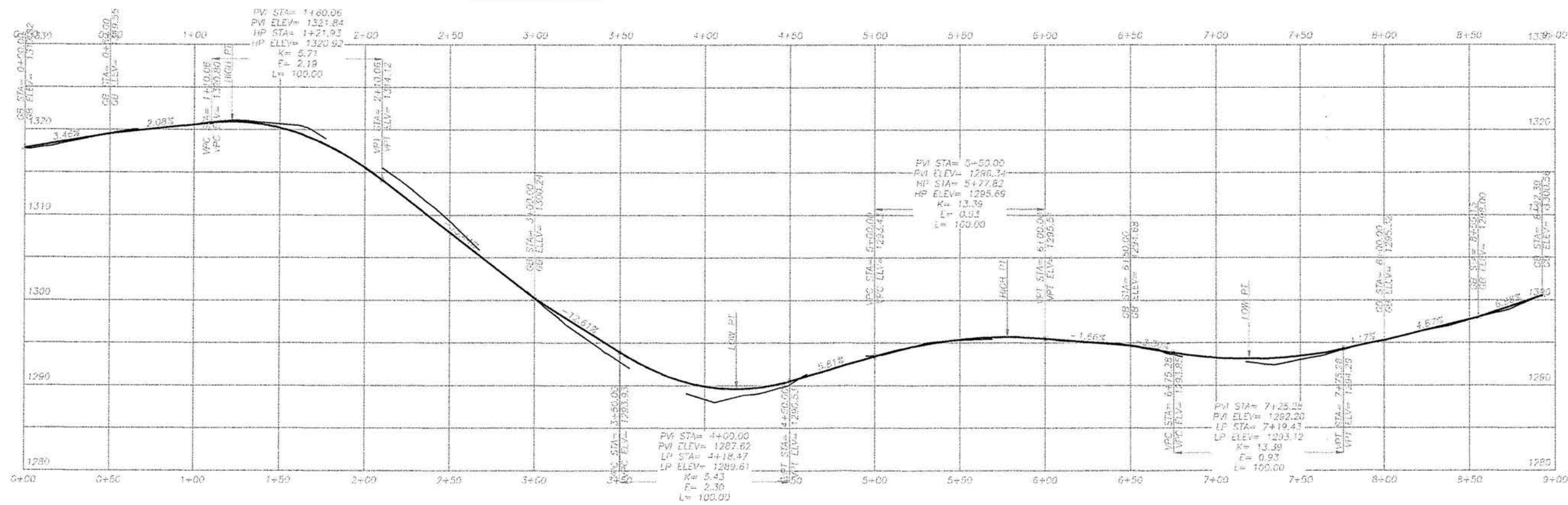
1/30/2016

DATE

ROAD GRADING PLAN



1:30



DATE: _____

REVISIONS:



ROAD GRADING FOR:
RANCHERIA COURT - TANIS
3069 RANCHERIA CT
SHINGLE SPRINGS, CA 95682

SCALE: 1"=30'

DRAWN: AMH

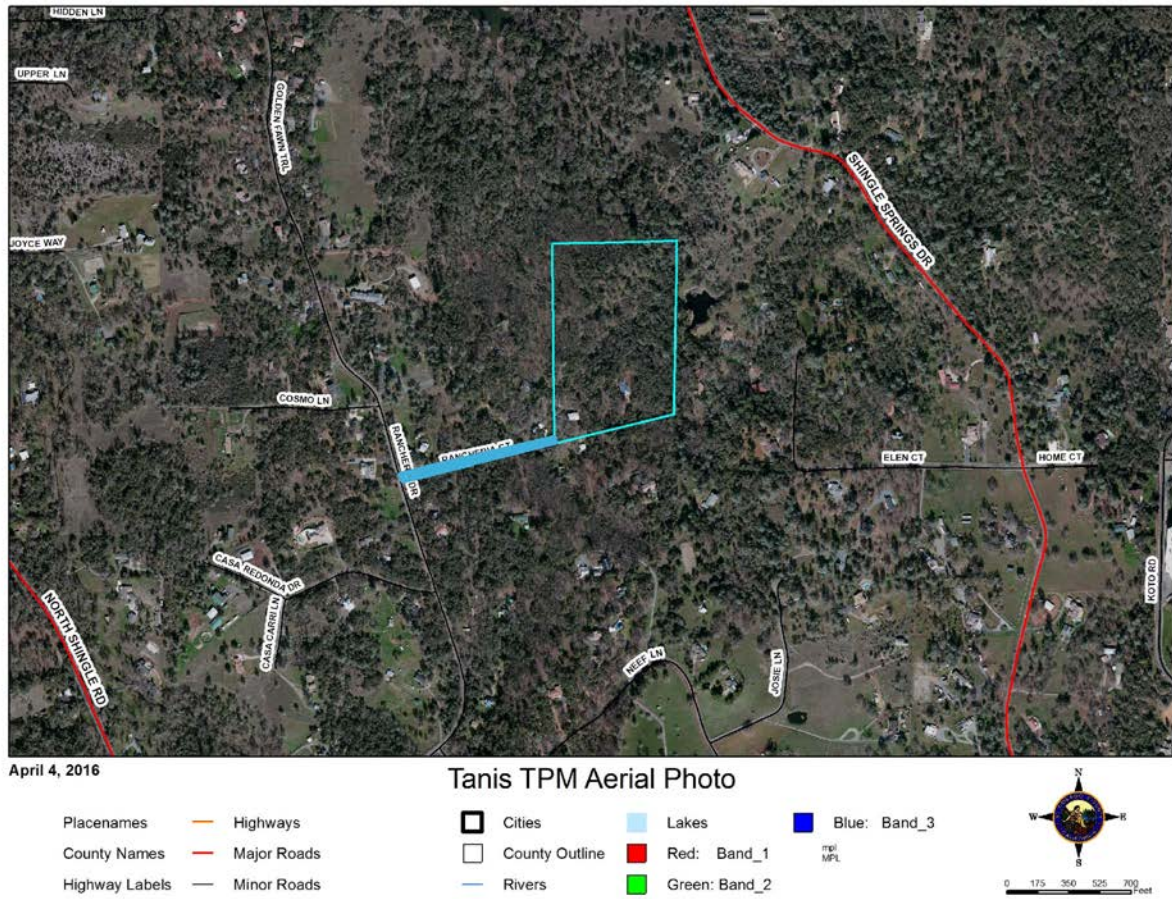
CHECKED: AMH

DATE: 1/30/16

NOTES:

SHEET
C3

Figure 5. Aerial photograph of the project site*



*Photo from El Dorado County Got Net.

III. Evaluation Methods

A. Field Surveys

The project site was searched for special-status plants during field surveys conducted August 1 and 2, 2014, July 23, 2015 and March 17, 2016 by Ruth Willson. The locations of special habitats were mapped using a sub-meter GPS unit. Plants were identified in the field whenever possible; samples of unknown plants were taken with identification achieved in the office through the use of Baldwin (2012) and Jepson Flora Project (2013, et seq.). Vegetation communities were identified in the field.

The locations of oak trees within or near proposed construction areas were mapped September 29 and October 1, 2014, and March 15, 2016 utilizing a submeter GPS unit. The trunk diameter at breast height (dbh) of each tree was measured with a dbh tape, and its drip radius was measured from the center of the trunk to the tip of its longest branch. The health of each tree was also evaluated (Appendix F).

B. Literature Search

The U.S. Fish and Wildlife Service (USFWS) Official Species List, dated April 1, 2016, (Appendix A), served as the main source of data on federal-listed special-status species that could be affected by the project. A report of known occurrences of special-status plant species in the Shingle Springs and eight surrounding USGS Quads, updated February 28, 2016, was obtained from the California Natural Diversity Database (Appendix B). Other current lists reviewed include the California Department of Fish and Wildlife (CDFW) publications: *State & Federally Listed Endangered & Threatened Animals of California*; *Special Animals List*; *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*, for Shingle Springs and surrounding USGS Quads, dated March 23, 2016 (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).

D. Oak Canopy Determination

The oak canopy coverage on the project site was measured on an aerial photo within a Computer Aided Drafting (CAD) program.

E. Canopy Removal Calculations

The location and canopy area of each tree measured in the field was entered into a CAD program. The canopy of trees to be removed oftentimes overlap the canopy of trees to remain, so canopy removal could not be calculated simply by adding together the drip-area of trees to be removed. To alleviate the problem, the total canopy to be removed was outlined and measured within the CAD program.

F. Conservation Recommendations for Species of Concern

Conservation recommendations are included in this report to suggest ways to aid species of concern that are not protected by law. They are not necessarily mitigation measures to be listed as conditions of approval for the project.

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). Excepted 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 (CEQA)

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 3503 states, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto,” Section 3503.5 states, “It is unlawful to take, possess, or destroy any birds in the orders 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,” and Section 3513 states, “ It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted 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.
2. Option 1.b. of this Section shall apply only to properties greater than five (5) acres in area.

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).”

4. El Dorado County Oak Woodland Policy

The El Dorado County Oak Woodland Policy is currently found within *Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A)*, adopted November 9, 2006, Amended October 12, 2007. The Policy sets tree retention standards, depending upon existing canopy cover (Table 2), and applies to parcels over an acre that have at least one percent total canopy cover by oak woodlands, or less than an acre having at least ten percent canopy cover. If the oak canopy removed is within the retention standards set forth in Option A of Policy 7.4.4.4, the applicant may mitigate for the loss by planting on-site the area of oak canopy removed, at a 1:1 canopy surface area ratio, and at a density of 200 saplings per acre. Acorns may be planted instead of saplings, at a ratio of three acorns per sapling.

Table 2. Oak canopy retention standards.

Percent Existing Canopy Cover	Percent Canopy Cover to be Retained
80-100	60
60-79	70
40-59	80
20-39	85
10-19	90
1-9 for parcels > 1 acre	90

V. Topographic Features

A. Topography

The Tanis property lies between 1250 and 1380 feet (381 and 421 meters) elevation, encompassing two knolls and the drainage between them (Figures 2 and 3). The average slope gradient is fifteen percent, but it varies from eight to thirty percent. Access to the site is via Rancheria Court, which must be widened to satisfy State Fire Codes. Two drainages cross Rancheria Court, one of which forms temporary ponds on both sides of the road.

The drainage crossing the Tanis property forms a channel 290 feet east of the west property boundary of Parcel 1. The channel carries water northeasterly through a small wetland to an unnamed intermittent creek near the northeast corner of the project site. A pond within the intermittent creek is located offsite, immediately east of the project site (visible on Figure 6), and the on-site channel joins the creek below the pond's outlet. The intermittent creek carries water northwesterly about one-half mile to a second pond. Both drainages crossing Rancheria Court also flow into the second pond, and the intermittent creek from the second pond carries water northerly a little less than a mile to its confluence with Dry Creek. Dry Creek converges with Weber Creek about two miles further from said confluence, and Weber Creek converges with the South Fork American River about seven and one-half miles northwest of the project site.

B. Soils

The soils on the project site (Figure 6) are predominantly classified in the Auburn series: Auburn very rocky silt loam (AxD) and Auburn silt loam (AwD), with the remainder classified as Serpentine rock land (SaF). Auburn very rocky silt loam comprises about 97% of the property, Auburn silt loam, found along the eastern boundary, about 1%, and Serpentine rock land, found at the northeast corner, about 2% (NRCS 2016). Serpentine rock land is also found along the western portion of Rancheria Court.

Auburn soils are well-drained and are underlain by hard metamorphic rock at depths of 14 to 18 inches. Average annual rainfall is 20 to 40 inches and the frost-free season is 175 to 275 days. Serpentine soils are derived from highly resistant serpentine and other ultrabasic rock formations. Rock outcrops and stones make up 50-90 percent of the surface, and there is a thin soil mantle.

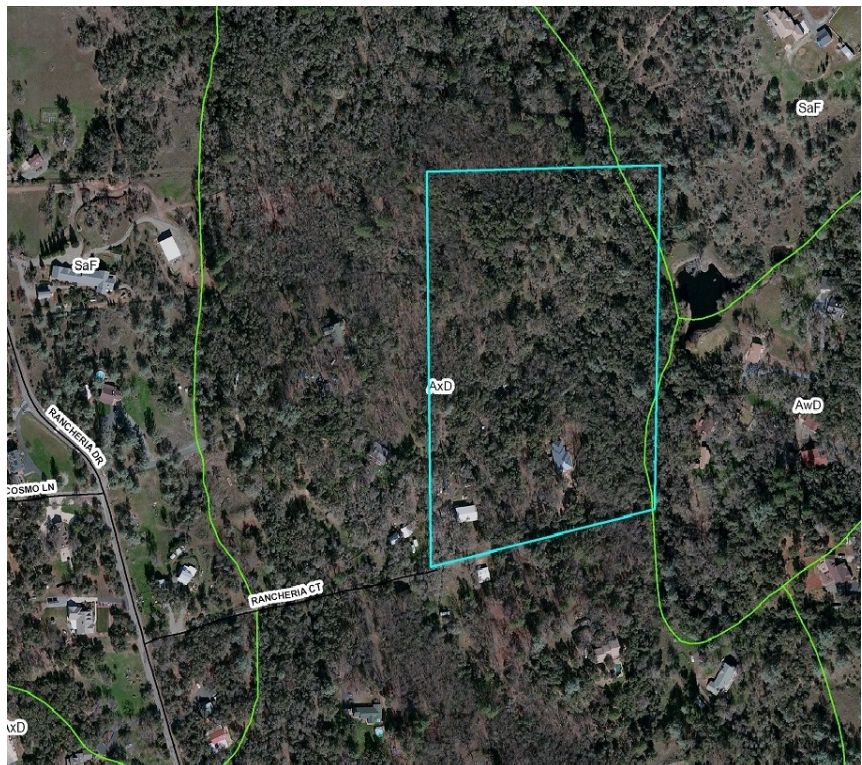


Figure 6. Soils map, generated by Got Net.

AxD = Auburn very rocky silt loam
AwD = Auburn silt loam
SaF = Serpentine Rock Land

VI. Biological Resources

A. Vegetation Community

The vegetation community on the Tanis property consists of interior live oak woodland¹ (Figure 7). The vegetation community may also be classified as *Quercus wislizeni* - *Quercus kelloggii* Forest Association (Klein et. al 2007). The most common oak species is interior live oak (*Quercus wislizeni*) followed by black oak (*Q. kelloggii*), blue oak (*Q. douglasiana*) and valley oak (*Q. lobata*). Other trees found on the property are California buckeye (*Aesculus californica*), Ponderosa pine (*Pinus ponderosa*) and gray or foothill pine (*Pinus sabiniana*). Common understory shrubs include Scotch broom (*Cytisus scoparius*), toyon (*Heteromeles arbutifolia*), western poison-oak (*Toxicodendron diversiloba*) and holly-leaf redberry (*Rhamnus ilicifolia*). Common herbs and grasses include Italian plantain (*Plantago lanceolata*), sanicle (*Sanicula* sp.), cat's-ear (*Hypochaeris* sp.), rose clover (*Trifolium hirtum*), Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), canary grass (*Phalaris minor*), barbed goatgrass (*Aegilops triuncialis*), and various bromes (*Bromus* sp.).

B. Wetlands and Waters

One ephemeral drainage channel and an intermittent creek (photo at right) were found on the Tanis property (Figure 8). A small wetland was found behind a very low dam within the ephemeral drainage channel. Potential jurisdictional area within the Tanis property is 2,814 square feet (0.065 Ac.).



Two ephemeral drainages flow through culverts beneath Rancheria Court. The westernmost channel (photo below, at left) averages eight feet wide within the road easement. The easternmost channel forms two temporary ponds upstream of the roads that cross them. All channels and ponds were dry during July and August site visits, but the ponds were full of water on March 16, 2016, after heavy rains during March. Seasonal Pond 2, north of Rancheria Court (photo below, at center), was dry after two weeks without rain, but Seasonal Pond 1, south of Rancheria Court, still held water at that time (photo below, at right). Potential jurisdictional area alongside Rancheria Court is 8,970 square feet (0.205 Ac.). Total potential jurisdictional area for the project site is 11,784 square feet (0.27 Ac.).



Seasonal Pond 2



Seasonal Pond 1

¹El Dorado County. 2004. El Dorado County General Plan, Attachment Two, El Dorado County Major Habitat Types.
APN 319-330-27
Shingle Springs, El Dorado County, California

Ruth Willson, Biologist
Site Consulting Inc. Biological Services

C. Hydrophytic Vegetation

Hydrophytic vegetation² was found within both the drainage and the intermittent creek on Parcel 1; no hydrophytic vegetation was found on Parcel 2. Obligate wetland plants³ were limited to three species: nutsedge (*Cyperus* sp.), spikerush (*Eleocharis* sp.) and hedge-nettle (*Stachys stricta*). One facultative wetland⁴ species, Western dock (*Rumex occidentalis*), was found, and four facultative⁵ species were found: mugwort (*Artemisia douglasiana*), Italian plantain (*Plantago lanceolata*), curly dock (*Rumex crispus*), and ryegrass (*Festuca perennis*). Five facultative upland⁶ species were found: bull thistle (*Cirsium vulgare*), foothill sedge (*Carex tumulicola*), valley oak (*Quercus lobata*), Bermuda grass (*Cynodon dactylon*) and Himalayan blackberry (*Rubus armeniacus*).

D. 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 other reptiles, not observed during field surveys, including, but not limited to, Common king snake (*Lampropeltis getula*), Gopher snake (*Pituophis catenifer*), Western skink (*Eumeces skiltonianus*), Sharp-tail snake (*Contia tenuis*), and Western rattlesnake (*Crotalus viridis*).

One amphibian, Pacific tree frog (*Pseudacris egilla*), was observed. The site has suitable habitat for at least two more amphibians: California newt (*Taricha torosa*), and Western toad (*Bufo boreas*).

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*), California ground squirrel (*Spermophilus beecheyi*), Western gray squirrel (*Sciurus griseus*), Eastern fox squirrel (*Sciurus niger*) and Botta's pocket gopher (*Thomomys bottae*). Not observed, but having suitable habitat on-site, are the following mammals, among others not listed: Deer mouse (*Peromyscus* sp.), Broad-footed mole (*Scapanus latimanus*), Raccoon (*Procyon lotor*), Ringtail (*Bassariscus astutus*), Long-tailed weasel (*Mustela frenata*), and Dusky-footed woodrat (*Neotoma fuscipes*).

Several bird species were found on or near the project site, including Scrub jay (*Aphelocoma coerulescens*), Steller's jay (*Cyanocitta stelleri*), California towhee (*Pipilo crissalis*), Spotted towhee (*Pipilo maculatus*), Turkey vulture (*Cathartes aura*), California quail (*Callipepla californica*), Oak titmouse (*Baeolophus inornatus*), Hutton's vireo (*Vireo huttoni*), Bushtit (*Psaltriparus minimus*), Acorn woodpecker (*Melanerpes formicivorus*), Northern flicker (*Colaptes auratus*), Yellow warbler (*Setophaga petechia*), Mourning dove (*Zenaida macroura*), House wren (*Troglodytes aedon*), Cooper's hawk (*Accipiter cooperii*), Red-shouldered hawk (*Buteo lineatus*), American robin (*Turdus migratorius*), Black phoebe (*Sayornis nigricans*), Hermit thrush (*Catharus guttatus*), White-breasted nuthatch (*Sitta carolinensis*) and Canada goose (*Branta canadensis*).

The site has suitable habitat for several bird species not observed during field surveys, including, but not limited to, the following: Black-headed grosbeak (*Pheucticus melanocephalus*), Bullock's oriole (*Icterus bullockii*), Anna's hummingbird (*Calypte anna*), Lewis' woodpecker (*Melanerpes lewis*), Nuttall's woodpecker (*Picoides nuttallii*), House finch (*Carpodacus mexicanus*), Tree swallow (*Tachycineta bicolor*), Dark-eyed junco (*Junco hyemalis*) and Yellow-rumped warbler (*Dendroica petechia*).

² Plants listed in the U.S. Army Corps of Engineers 2014 Arid West Region Wetland Plant List.

http://wetland_plants.usace.army.mil/

³ Obligate wetland plants (OBL) almost always occurs in wetlands (estimated probability > 99%)

Obligate upland (UPL). Occur almost always (est. probability > 99% in non-wetlands under natural conditions).

⁴ Facultative wetland plants (FACW) usually occur in wetlands (est. probability 67% – 99%), but occasionally found in non-wetlands (est. probability 1% – 33%).

⁵ Facultative (FAC). Equally likely to occur in wetlands (est. probability 34% – 66%) or non-wetlands.

⁶ Facultative upland (FACU). Usually occur in non-wetlands (est. probability 67% – 99%), but occasionally found in wetlands (est. probability 1% – 33%).

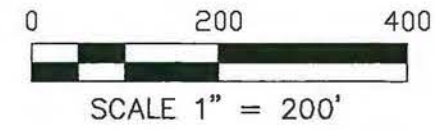
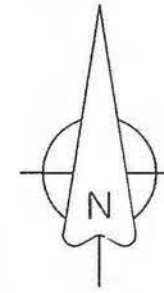
Figure 7. Vegetation community

FIGURE 7 VEGETATION COMMUNITY

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA

APRIL, 2016

APN: 319-330-27



LEGEND

-  OPEN AREA
-  OAK WOODLAND

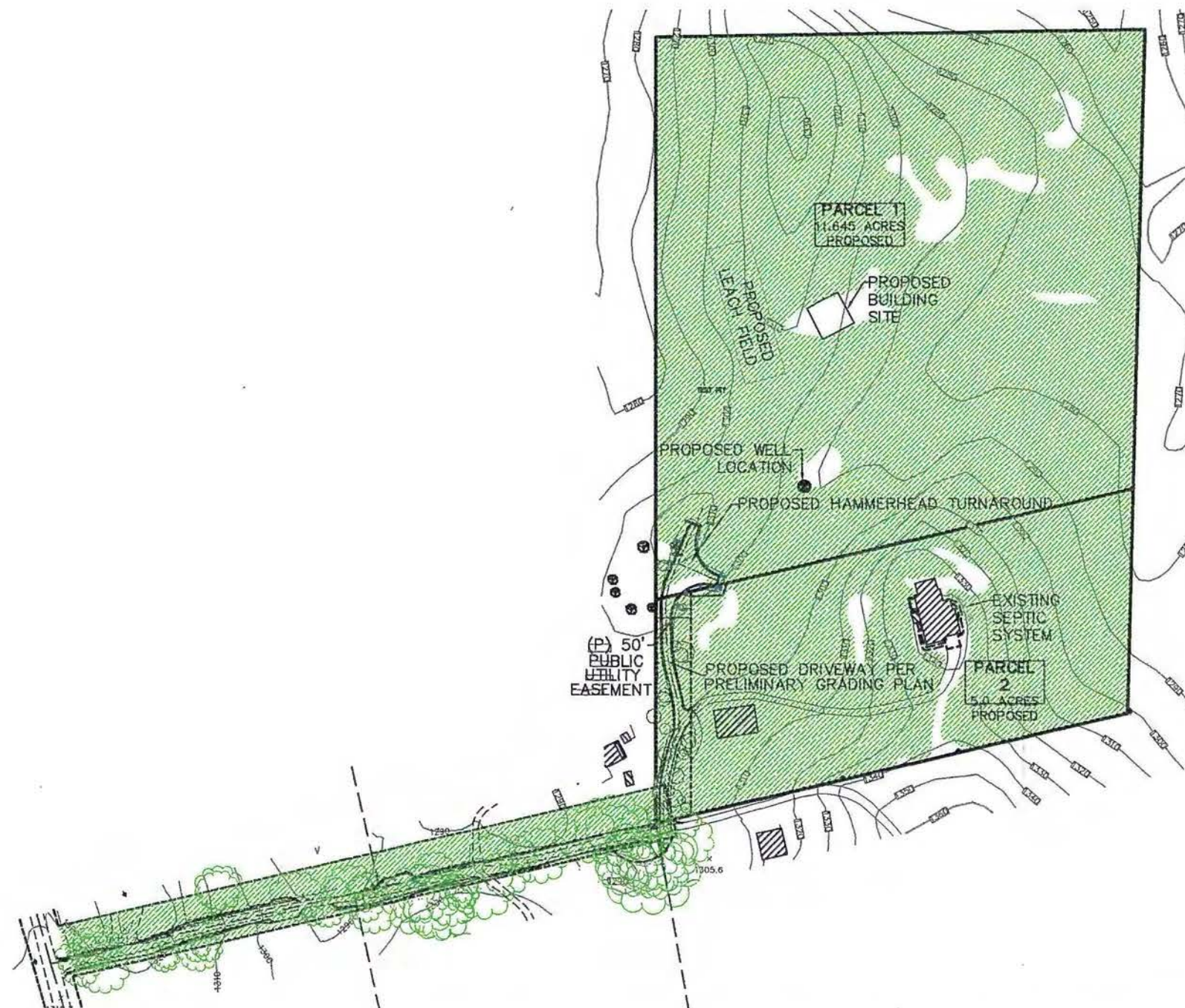






Figure 8. Important habitats, wetlands and waters

Table of waters and wetlands.

Tanis Parcel				
Channel ID	Channel Length (ft)	Average Flow-line Width (ft)	Area (ft ²)	Area (acres)
Channel 1A	156	5	780	0.018
Channel 1B	330	2	660	0.015
Channel 2A	135	5	675	0.016
Channel 2B	43	3	129	0.003
Wetland			570	0.013
Potential Onsite Jurisdictional Totals:			2,814	0.065
Rancheria Court				
Channel ID	Channel Length (ft)	Average Flow-line Width (ft)	Area (ft ²)	Area (acres)
Channel 3	46	8	368	0.008
Pond 1			2964	0.068
Pond 2			5638	0.129
Potential Offsite Jurisdictional Totals			8970	0.205
Total Potential Jurisdictional Area			11,784	0.27

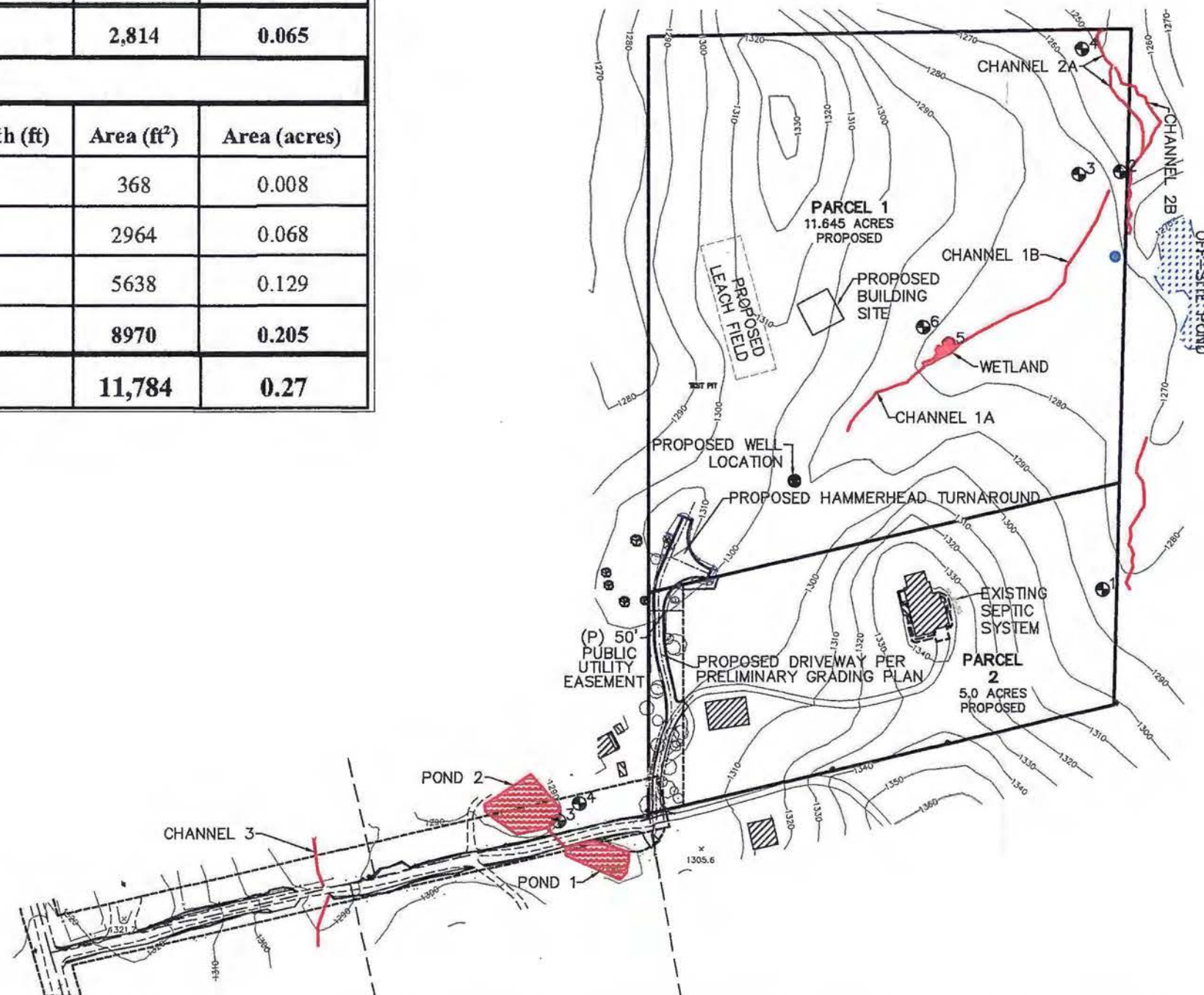
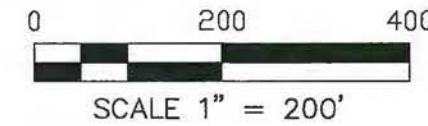
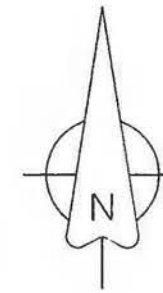
LEGEND

-  CHANNEL / INTERMITTENT CREEK
-  WETLAND
-  SEASONAL POND
-  ELDERBERRY

**FIGURE 8
IMPORTANT HABITATS,
WETLANDS AND WATERS**

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA
APRIL, 2016

APN: 319-330-27



3460 ANGEL LANE
PLACERVILLE, CA 95667

E. 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 Shingle Springs 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

Potential habitat was found on the project site for two federal-listed animals: Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) and California red-legged frog (*Rana draytonii*.) In addition, serpentine soils on-site are potential habitat for one state- and federal-listed plant species: Layne's butterwort (*Packera layneae*) (Table 3).

Potential habitat was found for sixteen species of concern, including two insects: Western bumble bee (*Bombus occidentalis*) and Cosumnes stripetail stonefly (*Cosumnoperla hypocrena*); one reptile: Coast horned lizard (*Phrynosoma blainvillii*); nine birds: Cooper's hawk (*Accipiter cooperii*), Oak titmouse (*Baeolophus inornatus*), Merlin (*Falco columbarius*), Fox sparrow (*Passerella iliaca*), Nuttall's woodpecker (*Picoides nuttallii*), Purple martin (*Progne subis*), Lawrence's goldfinch (*Spinus lawrencei*), Black-chinned sparrow (*Spizella atrogularis*) and Chipping sparrow (*Spizella passerina*); one mammal: Silver-haired bat (*Lasionycteris noctivagans*); and three plants: Jepson's onion (*Allium jepsonii*), Brandegee's clarkia (*Clarkia biloba ssp. brandegeae*) and Oval-leaved viburnum (*Viburnum ellipticum*). The suitability of the site to support each species is evaluated in Subsection 3, below.

Figure 9.

Map of CNDDDB Occurrences Near Tanis Project

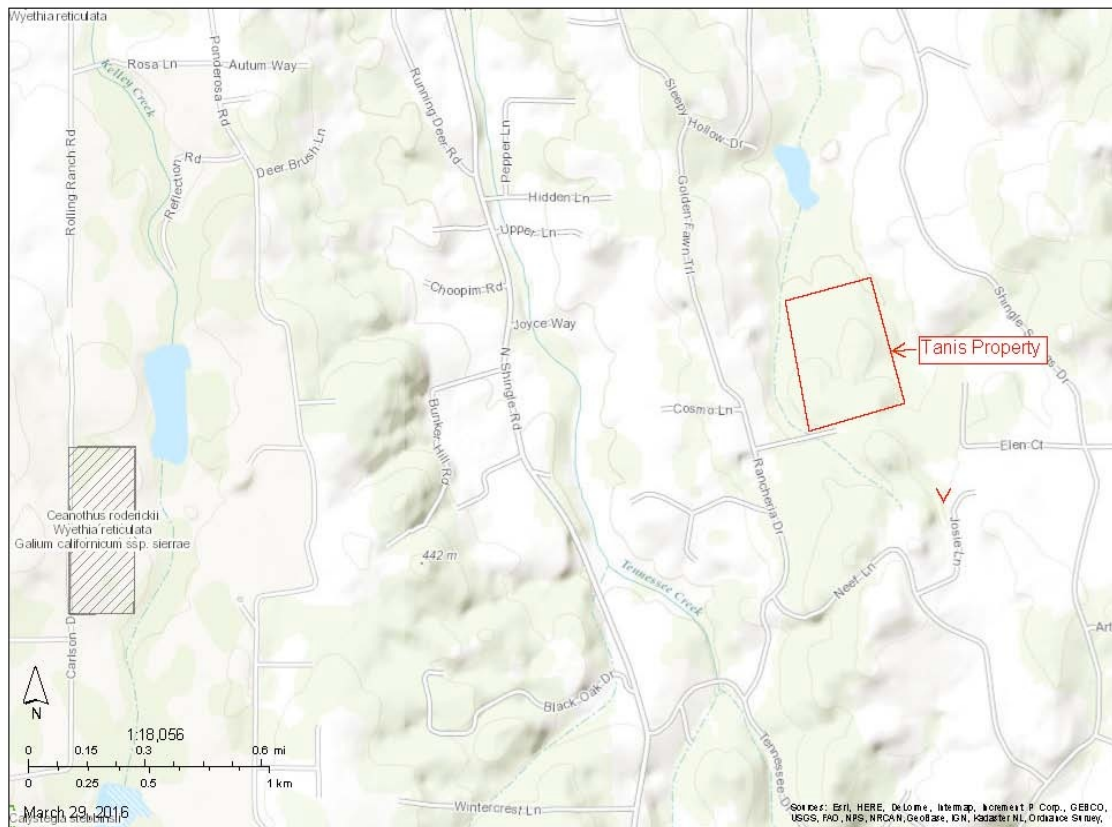


Table 3. Special-status species with potential habitat on the project site.

Special-status Species	Common Name	Legal Status ¹ Federal/ State	Other Lists	Habitat Quality	Species Found On Site?
Federal & State Listed Species					
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	T / —		Suitable	No
<i>Rana draytonii</i>	California red-legged frog	T / —		Marginal	No
<i>Packera layneae</i>	Layne's butterwort	T / R	1B.2 ²	Suitable	No
Species of Concern:					
Invertebrates: <i>Bombus occidentalis</i>	Western bumblebee	— / —	IUCN:VU ³	Suitable	No
<i>Cosumnoperla hypocrena</i>	Cosumnes stripetail stonefly	— / —		Suitable	No
Reptiles: <i>Phrynosoma blainvillii</i>	Coast horned lizard	— / —	SSC ⁴	Marginal	No
Birds: <i>Accipiter cooperii</i>	Cooper's hawk	— / —	IUCN:LC ⁵	Suitable	Yes
<i>Baeolophus inornatus</i>	Oak titmouse	— / —	BCC ⁶	Suitable	Yes
<i>Falco columbarius</i>	Merlin	— / —	IUCN:LC	Marginal	No
<i>Passerella iliaca</i>	Fox sparrow	— / —	IUCN:LC	Suitable	No
<i>Picoides nuttallii</i>	Nuttall's woodpecker	— / —	IUCN:LC	Marginal	No
<i>Progne subis</i>	Purple martin	— / —	SSC	Suitable	No
<i>Spinus lawrencei</i>	Lawrence's goldfinch	— / —	BCC	Suitable	No
<i>Spizella atrogularis</i>	Black-chinned sparrow	— / —	BCC	Marginal	No
<i>Spizella passerina</i>	Chipping sparrow	— / —	SSC	Marginal	No
Mammals: <i>Lasionycteris noctivagans</i>	Silver-haired bat	— / —	IUCN:LC	Suitable	No
Plants: <i>Allium jepsonii</i>	Jepson's onion	— / —	1B.2	Suitable	No
<i>Clarkia biloba ssp. brandegeae</i>	Brandegee's clarkia	— / —	4.2 ⁷	Marginal	No
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	— / —	2.3 ⁸	Suitable	No

¹E = Endangered; R = Rare; T = Threatened. ² California Native Plant Society (CNPS) list of Rare, Threatened or Endangered Plants in California and Elsewhere. ³International Union for Conservation of Nature List of Vulnerable Species. ⁴CA Dept. Fish & Wildlife (CDFW) Species of Special Concern. ⁵International Union for Conservation of Nature Species of Least Concern. ⁶U.S. Fish and Wildlife Service(USFWS) Birds of Conservation Concern. ⁷CNPS Plants of Limited Distribution, Not very threatened in California ⁸(CNPS) list of Rare, Threatened or Endangered Plants in California but More Common Elsewhere, Not very threatened in California.

3. Evaluation of Potential Habitat for Special-Status Species

a. Federal- and/or State-listed Species

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)

Specific habitat requirements: *Sambucus mexicana* shrubs having stems 1.0 inch or greater in diameter at ground level. (Barr 1991)

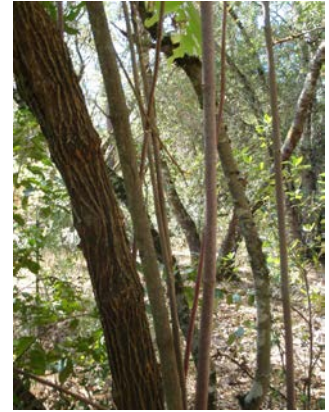
Range: Occurs only in the Central Valley of California. (CNDDDB 2016)

Nearest CNDDDB occurrence of record: Over eleven miles southwest of the project site, in Folsom. (BIOS 2016)

Habitat quality on site: Suitable, but limited to one *Sambucus mexicana* shrub on the project site; the host plant has six stems, half having 1.0 inch or greater diameter at ground level (photo at right, foreground). No larval exit holes were found.

Potential impacts: Disturbance of the host plant would adversely affect potential habitat for the species.

Suggested Mitigation: Preservation of the host plant with a 30-foot setback is recommended. Use of herbicides and insecticides within the setback area should be prohibited (Figures 8, 13).



California red-legged frog (*Rana draytonii*)

Specific habitat requirements: Quiet pools of streams, marshes and occasionally ponds. Prefers shorelines with extensive vegetation, especially areas with numerous cattails (*Typha* sp.) and overhanging willows (*Salix* sp.). Adults disperse up to 2 km. into upland areas during the rain season. (USFWS 2004). Eggs are deposited in permanent pools with emergent vegetation. Adults feed on insects, crustaceans and snails; larvae are mostly herbivorous (CWHR 2016). “Suitable habitat accessible to frog populations occurring within five miles (of known occurrences) should be presumed to be occupied by the species.”⁷

Range: Occurs west of the Sierra-Cascade crest and along the Coast ranges below 1200 m (3900 ft.) elevation. Uncommon in the Sierra-Cascade regions, uncommon to common elsewhere. (CWHR 2016)

Nearest CNDDDB occurrences of record: Approximately nine miles SW of the project, in the North Fork Cosumnes River. (BIOS 2016)

Habitat quality on site: Marginal upland dispersal area is found on the project site; project site lacks willow and tule thickets, which are preferred upland dispersal habitat for the species. Rodent burrows are present on-site, however, which might offer estivation habitat. Two ponds, one immediately east and another one-fourth mile north of the project site, offer potential breeding habitat for the species.

Potential impacts: Loss of marginal upland dispersal habitat when a new house is built.

Suggested Mitigation: As project site is within an Important Biological Corridor, increased setbacks from channels and wetlands (55 feet), and from waters (110 feet) is recommended.

Layne’s butterwort (*Packera layneae*)

Range: Foothills of Butte, El Dorado, Placer, Yuba and Tuolumne counties. (CNPS 2016)

Habitat on site: Marginal on serpentine soils at the northeast corner of the project site, unsuitable elsewhere.

Habitat requirements: Open rocky areas in chaparral on gabbro or serpentine soils (USFWS 2007), 200-1000 m (656-3280 ft.) elevation (CNDDDB 2016).

Nearest CNDDDB occurrence: Approximately 2 miles northwest of the project site. (BIOS 2016)

Habitat quality on site: Suitable only on a small serpentine rock outcrop near the northeast corner of the project site, marginal on the remaining serpentine soils (one-fourth acre at the northeast corner of the parcel; unsuitable on the remainder of the property).

Potential impacts: Layne’s butterwort was not found on the project site, so there will be no direct impact to the species. Furthermore, no construction activities are planned on the Serpentine soils found on-site

Suggested mitigation: None required.

⁷US Fish & Wildlife Service, Sacramento Office. 2010. Species Account: California Red-legged Frog *Rana draytonii*.

http://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/Documents/ca_red-legged_frog.pdf, accessed 3/29/2016.

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 2016)

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, bird nests or cavities in trees or under rocks. Only mated queens overwinter in self-dug cavities in soft earth; the rest of the colony dies. (Xerces Society 2016b)

Habitat quality on project site: Marginal. The project site is heavily wooded with relatively few flowering plants suitable for foraging by the species.

Nearest CNDDDB occurrence: Approximately nine miles NNW of the project site. (BIOS 2016)

Potential impacts: Construction of roads and buildings would eliminate potential nest sites for the species. Pesticide used and grazing could also be detrimental to the species.

Conservation recommendation: Planting flowering perennial plants, especially those listed above, would greatly improve potential habitat for the species.

Cosumnes spring stonefly (*Cosumnoperla hypocrena*)

Range: Known only from the Cosumnes River and American River drainages in El Dorado County. (CNDDDB 2016)

Habitat requirements: Intermittent streams. (CNDDDB 2016)

Habitat quality on project site: Suitable within the intermittent tributary to Dry Creek that crosses the northeast corner of the project site; unsuitable on the remainder of the parcel.

Nearest CNDDDB occurrence: Approximately six miles SE of the project site. (BIOS 2016)

Potential impacts: Disturbance of the intermittent creek would be detrimental to the species, but no disturbance is proposed near the intermittent creek on this property.

Conservation recommendation: A 55-foot setback from the intermittent tributary to Dry Creek is recommended. Use of insecticides within the setback area should be prohibited.

ii. Reptiles

California horned lizard (*Phrynosoma blainvillii*)

Specific habitat requirements: Found in open country with sandy areas such as flood plains, washes and loess deposits within habitats ranging from scattered shrubs to clearings in riparian woodlands, uniform chamise chaparral, and annual grassland with scattered shrubs. Feeds in open areas between shrubs, often near ant nests; consumes insects, especially ants. Active between April and October; breeds April and May. Burrows in loose substrate or uses small mammal burrows. (CWHR 2016)

Range: From Shasta County south along the edges of the Sacramento Valley into the South Coast Ranges, San Joaquin Valley and Sierra Nevada foothills to northern Los Angeles, Santa Barbara and Ventura counties. (CWHR 2016)

Nearest CNDDDB occurrence of record: Approximately 2 miles southeast of the project site. (BIOS 2016)

Habitat quality on project site: Marginal. Project has few open, sparsely-vegetated areas suitable for the species.

Suggested mitigation: None required.

iii. Birds

Cooper's hawk (*Accipiter cooperii*) nesting

Range: Breeding resident in most wooded portions of California between sea level and 2700 m (8860 ft.) elevation. (CWHR 2016)

Habitat requirements: Year-long resident found in areas with dense tree stands or patchy woodland habitats. Feeds on small birds, mammals, reptiles and amphibians. Nests in deciduous trees or conifers, usually near streams. (CWHR 2016)

Habitat quality on project site: Suitable throughout the project site.

Nearest CNDDDB occurrence: Near Lake Natoma, Sacramento County. (BIOS 2016)

Potential impacts: Construction during the nesting season could disrupt nesting hawks, if found on-site.

Suggested mitigation: Pre-construction surveys for nesting raptors, conducted no more than 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). If raptor nests are found on or immediately adjacent to the site, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures.

Oak titmouse (*Baeolophus inornatus*) nesting

Range: Found in suitable habitat, mostly encircling the San Joaquin Valley and on the west slope of the Sierra Nevada north to Shasta County. (CWHR 2016)

Habitat requirements: Associated with oaks in valley foothill and montane hardwood, valley foothill hardwood-conifer, and riparian habitats. Eats insects, spiders, berries, acorns, seeds. Nests in holes, cavities or nest box. Ventures into residential areas. (CWHR 2016)

Habitat quality on project site: Suitable throughout the project site.

Nearest CNDDDB occurrence: Tuolumne County. (BIOS 2016)

Potential impacts: Removal of oak trees with cavities during the nesting season could result in illegal "take" of the species.

Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more than 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

Merlin (*Falco columbarius*) wintering

Range: Occurs in most of the western half of California below 1500 m (4900 ft.) elevation. (CWHR 2016)

Habitat requirements: Winter migrant that utilizes coastlines, open grasslands, open 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. Feeds on small birds and mammals, and insects. (CWHR 2016)

Habitat quality on project site: Marginal. Vegetation on the project site is too dense to be ideal habitat for the species.

Nearest CNDDDB occurrence: Folsom. (BIOS 2016)

Potential impacts: Potential foraging habitat would be lost when structures are built.

Suggested mitigation: None required.

Fox sparrow (*Passerella iliaca*)

Range: Breeds in dense montane chaparral and brushy understory of other wooded, montane habitats. Winters in brushy habitats throughout California, except high mountains and deserts. (CWHR 2016)

Habitat requirements: Dense thickets in chaparral and brushy understories of a variety of wooded habitats. Prefers montane chaparral for breeding, dominated by manzanita, ceanothus, chinkapin, and riparian thickets of low willow, aspen, alder, wild rose. Nests on the ground or occasionally in low shrubs. (CWHR 2016)

Habitat quality on project site: Suitable winter habitat, marginal breeding habitat.

Nearest CNDDDB occurrence: None. (BIOS 2016)

Potential impacts: Potential foraging habitat would be lost when structures are built.

Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more than 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

Nuttall's woodpecker (*Picoides albolarvatus*) 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 2016).

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 2016)

Habitat quality on project site: Suitable foraging habitat throughout the site, marginal nesting habitat near the north and east boundaries, close to ponds located off-site.

Nearest CNDDDB occurrence: None. (BIOS 2016)

Potential impacts: Removal of oak trees will eliminate potential foraging sites for the species.

Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more than 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

Purple martin (*Progne subis*) nesting

Range: Found throughout the state except higher desert areas and the higher slopes of the Sierra Nevada. (CWHR 2016)

Habitat requirements: Inhabits open forests, woodlands and riparian areas in breeding season, and a variety of open habitats during migration, including grassland, wet meadow and fresh emergent wetland, usually near water. Feeds on insects captured in flight; occasionally forages on the ground. Nests in old woodpecker cavity; occasionally in man-made nesting box, under bridge or in culvert. (CWHR 2016)

Habitat quality on project site: Suitable throughout the project site.

Nearest CNDDDB occurrence: Rocklin, CA. (BIOS 2016)

Potential impacts: Removal of dead wood in trees with woodpecker cavities would have a detrimental potential impact on the species, as would other disturbances within oak woodland habitat found on-site.

Conservation recommendation: Preservation of at least three dead tree snags per acre is recommended.

Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more than 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

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 2016)

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. (CWHR 2016)

Habitat quality on project site: Suitable nesting and foraging habitat is found throughout the project site.

Nearest CNDDDB occurrence: Sutter Buttes. (BIOS 2016)

Potential impacts: Potential habitat will be lost when trees are removed for construction of a house and roads.

Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more than 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

Chipping sparrow (*Spizella passerina*) nesting

Range: A common migrant and summer visitor throughout most of California, excluding Central Valley, southern deserts, and alpine areas. Winters less commonly in Central Valley and southern California lowlands. (CWHR 2016)

Habitat requirements: Prefers open-wooded habitats with a sparse or low herbaceous layer and few shrubs, if any. Apparently requires trees for resting and singing, and prefers trees for nesting, foraging in nearby herbaceous and open shrub habitats. Usually nests in a conifer, but deciduous trees or shrubs are also used. (CWHR 2016)

Habitat quality on project site: Marginal. Woodland habitat on-site is densely-vegetated, both with trees and shrubs.

Nearest CNDDDB occurrence: None. (BIOS 2016)

Potential impacts: Removal of conifers or oaks would eliminate potential habitat for the species.

Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more than 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

iv. Mammals

Silver-haired bat (*Lasiurus noctivagus*)

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 known in Sacramento, Stanislaus, Monterey and Yolo counties. Known as a migrant throughout California. The species likely winters in Mexico. (CWHR 2016)

Habitat requirements: Summer habitats include coastal and montane coniferous forest, valley foothill woodlands, pinyon-juniper woodlands and valley foothill and montane riparian habitats below 9000 feet elevation. Feeds mainly on moths and other soft-bodied insects. 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 2016)

Habitat quality on project site: Suitable. Silver-haired bats are known to inhabit oak woodland near water as found on the project site.

Nearest CNDDDB occurrence: Chili Bar. (BIOS 2016)

Potential impacts: Removal of dead trees and snags would eliminate potential roosting and nursery sites for the species.

Conservation recommendation: Preservation of at least three dead tree snags per acre is recommended.

v. Plants

Jepson's onion (*Allium jepsonii*)

Range: Butte, El Dorado, Placer and Tuolumne counties. (CNPS 2016)

Habitat requirements: Chaparral, cismontane woodland or lower montane coniferous forest on serpentine or volcanic soils between 300 and 1320 meters elevation. (CNPS 2016)

Habitat quality on project site: Suitable but limited to serpentine soils found only at the northeast corner of the project site.

Nearest CNDDDB occurrence: About one mile NNE of the project site. (BIOS 2016)

Potential impacts: None expected. No development is proposed on serpentine soils found on-site.

Suggested mitigation: None required.

Brandegee's clarkia (*Clarkia biloba ssp. brandegeae*)

Range: Butte, El Dorado, Nevada, Placer, Sacramento, Sierra, Yuba Counties. (CNPS 2016)

Habitat requirements: Dry sites in chaparral, cismontane woodland, and lower montane coniferous forest, especially on roadcuts, 75-915 m elevation. (CNPS 2016)

Habitat quality on project site: Marginal. Project site lacks openings similar to roadcuts that are suitable for the species.

Nearest CNDDDB occurrence: About six miles southwest of the project site. (BIOS 2016)

Potential impacts: Brandegee's clarkia was not found on the project site, so there would be no direct impact on it. Development of new roadcuts could increase potential habitat for the species.

Suggested mitigation: None required.

Oval-leaved viburnum (*Viburnum ellipticum*)

Habitat requirements: Found in chaparral, cismontane woodland or lower montane coniferous forest between 215 and 1400 m (705-4600 ft.) elevation (CNPS 2016).

Range: Species is known from the following northern California counties: Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama; also Oregon and Washington states. (CNPS 2016)

Habitat on site: Suitable. Woodland vegetation community is present on-site.

Nearest CNDDDB occurrence: East of Placerville. The occurrence was last reported in 1909; thus is probably extirpated. Next-nearest occurrence is in the Auburn area of Placer County. (BIOS 2016)

Potential impacts: Oval-leaved viburnum was not found on the project site, so there are no direct impacts to the species.

Suggested mitigation: None required.

VII. Tree Survey, Preservation and Replacement Plan

A. Tree Survey

Surveys of oak trees on the project site were conducted August 1, 2014 and March 16, 2016. Trees along a random transect near the property boundaries were counted and identified to species (Table 4). The most common oak species is interior live oak (56.7%), followed by black oak (36.2%), blue oak (6.4%) and valley oak (0.7%). Another common tree species, California buckeye, was found growing beneath the oak canopy. Foothill pine and Ponderosa pine were minuscule components of the tree canopy.

Table 4. Oak species counted along a random line near the property perimeter.

	Interior Live Oak	Black Oak	Blue Oak	Valley Oak	Total Oaks
Total Trees Counted	80	51	9	1	141
Percent of Sampled Canopy	56.7	36.2	6.4	0.7	100

B. Project Impact

Sixty-five oaks with 7-inch dbh or larger were mapped near proposed construction areas (Figures 10, 11). Of those, forty-two oaks will be removed to accommodate road, dwelling and septic system construction (Table 5, Figure 12).

Table 5. Oak trees to be removed

Tree No.	2	3	4	5	6	14	23	27	28	30	32	33	47	102	105
dbh	11*	11	20*	20*	23	12	13	8	31*	22	13	34*	25	25	28
Tree No.	106	107	108	111	112	116	117	118	119	120	121	123	124	125	127
dbh	16	22	19	32*	17	13	62*	18	22	38*	11	46*	26*	23*	14
Tree No.	128	129	130	140	144	146	148	149	150	158	163	164	Total Trees to Remove		
dbh	15	23*	28*	9	53*	34*	7	64*	36*	82*	34*	29*			

* Multi-trunk tree; dbh shown is sum of dbh of all trunks. See Figures 10 and 11 for dbh of individual trunks for each tree.

1. Total Oak Canopy Cover

Oak woodland vegetation is found throughout the Tanis property (Figure 7), being 16.65 acres (725,274 ft²). The total oak canopy⁸, measured on an aerial photograph⁹ was 15.65 acres (681,524 ft²) which is 93.98 percent of the parcel and requires 60% oak canopy retention (40% oak canopy removal allowance). Oak canopy on Rancheria Court covers 61.1% of the easement area, requiring 70% canopy retention.

⁸ Oak canopy cover is defined in El Dorado County's "Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A)" as, "The area directly under the live branches of the oak trees, often defined as a percent of a given unit of land."

⁹ Aerial photo was taken by Synergy Mapping, Inc., dated 8/1/2014, and provided by Northern California Geomatics.

2. Proposed Oak Canopy Removal, Parcel 1

Twelve oaks, with trunk diameter at breast height (dbh) ranging from 9 to 82 inches,¹⁰ will be removed to accommodate road, house and septic system construction (Figures 10 and 12). The oak canopy on Parcel 1 is 475,412 ft² (10.9 acres), and the canopy to be removed is 14,344 ft² (0.33 Ac.), being 3 percent of the total oak canopy. As shown in Table 6, the proposed canopy removal is well within the 40 percent oak canopy removal allowance.

Table 6. Proposed oak canopy removal calculation, Parcel 1.

		Acreage	Square Feet	
1	Size of Parcel	11.5	500,940	
2	Total Oak Canopy	10.9	475,412	
3	Oak Canopy to be Removed	0.33	14,344	
4	Oak Canopy to be Retained	10.6	461,068	
5	Percent of Parcel with Existing Oak Canopy (line 2 ÷ line 1)	94.9		
6	Percent of Oak Canopy to be Removed (line 3 ÷ line 2)	3.0		
7	Percent of Oak Canopy to be Retained (line 4 ÷ line 2)	97.0		
8	Oak Canopy Retention Requirement	Percentage	Acres	Square Feet
		60	6.54	285,247
9	Oak Canopy Removal Allowance	40	4.36	190,165
10	Oak Canopy Removal Over Removal Allowance	None	None	

¹⁰The cumulative dbh of Tree 158 is 82 inches, comprised of eight trunks: 8, 8, 9, 9, 10, 11, 12, and 15 inches dbh.

3. Proposed Oak Canopy Removal, Parcel 2

Sixteen oaks, with trunk diameter at breast height (dbh) ranging from 12.5 to 62¹¹ inches, will be removed to accommodate road construction (Figures 10 and 12). The oak canopy on Parcel 2 is 203,441 ft² (4.7 acres), and the canopy to be removed is 17,383 ft² (0.4 Ac.), being 8.5 percent of the total oak canopy. As shown in Table 7, the proposed canopy removal is well within the 40 percent oak canopy removal allowance.

Table 7. Proposed oak canopy removal calculation, Parcel 2.

		Acreage	Square Feet	
1	Size of Parcel	5.1	222,156	
2	Total Oak Canopy	4.7	203,441	
3	Oak Canopy to be Removed	0.4	17,383	
4	Oak Canopy to be Retained	4.3	186,058	
5	Percent of Parcel with Existing Oak Canopy (line 2 ÷ line 1)	91.6		
6	Percent of Oak Canopy to be Removed (line 3 ÷ line 2)	8.5		
7	Percent of Oak Canopy to be Retained (line 4 ÷ line 2)	91.5		
8	Oak Canopy Retention Requirement	Percentage	Acres	Square Feet
		60	2.8	122,065
9	Oak Canopy Removal Allowance	40	1.9	81,376
10	Oak Canopy Removal Over Removal Allowance	None	None	

¹¹ The cumulative dbh of Tree 117 is 62 inches, comprised of three trunks, 17, 19 and 26 inches dbh.

4. Proposed Offsite Oak Canopy Removal (Rancheria Court)

Fourteen oaks, with trunk diameter at breast height ranging from 7.5 to thirty-four inches, will be removed to accommodate road improvements (Figures 11 and 12). Since most of the oaks to be removed are growing beneath oaks that will remain, net oak canopy removal will be 6428 ft² (0.15 Ac.). (Table 8)

Table 8. Proposed offsite oak canopy removal calculation, Rancheria Court.

		Acreage	Square Feet	
1	Size of Road Easement	1.54	67,065	
2	Total Oak Canopy	0.94	40,966	
3	Oak Canopy to be Removed	0.15	6,428	
4	Oak Canopy to be Retained	0.79	34,538	
5	Percent of Easement with Existing Oak Canopy (line 2 ÷ line 1)	61.1		
6	Percent of Oak Canopy to be Removed (line 3 ÷ line 2)	15.7		
7	Percent of Oak Canopy to be Retained (line 4 ÷ line 2)	84.3		
8	Oak Canopy Retention Requirement	Percentage	Acres	Square Feet
		70	0.66	28,676
9	Oak Canopy Removal Allowance	30	0.28	12,290
10	Oak Canopy Removal Over Removal Allowance	None	None	

5. Total Oak Canopy Impact

The total oak removal for the project is 0.88 acre (Table 9).

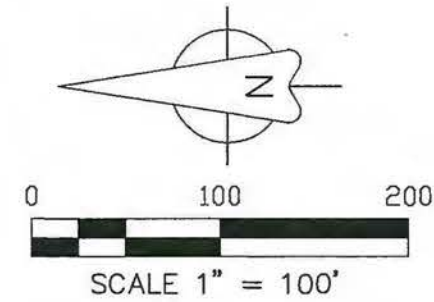
Table 9. Total oak canopy impact

	Oak Canopy Removal (Acreage)
Parcel 1	0.33
Parcel 2	0.40
Rancheria Court	0.15
Total	0.88



Figure 10. Oak tree map, Tanis property

FIGURE 10 OAK TREE MAP

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA
APRIL, 2016
APN: 319-330-27



LEGEND

-  OAK TREE
-  TREE NUMBER

TREE NO.	COMMON NAME	DBH in.	DRIP RADIUS ft.	TREE NO.	COMMON NAME	DBH in.	DRIP RADIUS ft.	TREE NO.	COMMON NAME	DBH in.	DRIP RADIUS ft.
100	BLUE OAK	25	26	144	BLACK OAK	8,11,11,11,12	40	154	BLACK OAK	6,7,7,9,9,9,12	28
101	BLUE OAK	11	18	145	BLACK OAK	13,13,13,15,9,11	34	155	BLACK OAK	12,13,15	22
102*	BLUE OAK	25	35	146*	BLUE OAK	9,16,9	26	156	LIVE OAK	7,7	18
103	LIVE OAK	18	10	147	BLACK OAK	11,12,12,13,14	23	157	BLACK OAK	9,13	15
104	BLUE OAK	13	12	148*	LIVE OAK	7	17	158*	BLACK OAK	8,8,9,11,9,10,12,15	30
105*	BLUE OAK	28	25	149*	BLACK OAK	15,11,8,12,18	30	159	BLACK OAK	14,13,13	19
106*	BLUE OAK	16	24	150*	BLACK OAK	11,12,13	38	160	VALLEY OAK	14	19
107*	BLUE OAK	22	23	151	LIVE OAK	8,9,12,11,8,11,10	37	161	LIVE OAK	6	13
108*	BLUE OAK	19	27	152	BLACK OAK	8,8,8,5	15	162	LIVE OAK	6	18
109	BLUE OAK	8.5	12	153	LIVE OAK	9	26	163*	LIVE OAK	12,22	20
110	BLUE OAK	8	9					164*	LIVE OAK	16,9,8	27
111*	BLUE OAK	15,17	28					165	LIVE OAK	12,10,7	19
112*	BLUE OAK	17	25								
113	BLUE OAK	9	12								
114	BLUE OAK	19	25								
115	BLUE OAK	7,10	21								
116*	BLUE OAK	12.5	25								
117*	LIVE OAK	19,26,17	32								
118*	BLUE OAK	18	30								
119*	BLUE OAK	22	34								
120*	LIVE OAK	12,12,14	38								
121*	LIVE OAK	11	31								
122	LIVE OAK	7	17								
123*	LIVE OAK	13,25,8	26								
124*	LIVE OAK	15,11	27								
125*	LIVE OAK	12,11	22								
126	BLUE OAK	11	14								
127*	BLUE OAK	14	25								
128*	BLUE OAK	15	19								
129*	BLUE OAK	11,12	22								
130*	LIVE OAK	10,6,12	21								
131	LIVE OAK	11,12,14,8,4,4,6,3	34								
132	LIVE OAK	10	32								
133	LIVE OAK	14,15,10,11,13,14	37								
134	LIVE OAK	10	8								
135	BLUE OAK	10,8,9	25								
136	BLUE OAK	9	7								
137	BLACK OAK	11,22	28								
138	LIVE OAK	5,6,6,8,8,8	26								
139	BLACK OAK	16	18								
140*	VALLEY OAK	9	23								
141	LIVE OAK	11	12								
142	LIVE OAK	8,5,2	18								
143	BLUE OAK	6,6,4	28								

*TREE TO BE REMOVED

NOTE:
FOR MULTI-TRUNK TREE, SEE APPENDIX F
FOR ACCUMULATIVE DIAMETER



3460 ANGEL LANE
PLACERVILLE, CA 95667

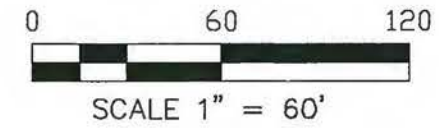
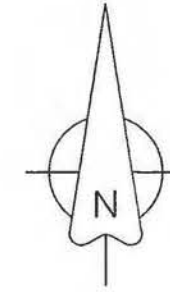


Figure 11. Oak tree map, Rancheria Ct



FIGURE 11 OAK TREE MAP, RANCHERIA COURT

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA
APRIL, 2016

APN: 319-330-27



LEGEND

-  OAK TREE
-  TREE NUMBER

TREE NO.	COMMON NAME	DBH in.	DRIP RADIUS ft.	TREE NO.	COMMON NAME	DBH in.	DRIP RADIUS ft.
1	LIVE OAK	11.5+11.5	22	30*	LIVE OAK	22	23
2*	LIVE OAK	5+6	17	31	BLACK OAK	13	17
3*	LIVE OAK	11	16	32*	LIVE OAK	13	13
4*	LIVE OAK	14+6	16	33*	VALLEY OAK	16+18	27
5*	LIVE OAK	10+10	15	34	BLACK OAK	21+13	30
6*	BLUE OAK	22.5	18	35	LIVE OAK	11	14
7	BLUE OAK	14	24	36	LIVE OAK	12+9	16
8	LIVE OAK	9+9.5	15	37	LIVE OAK	12	18
9	LIVE OAK	8	11	38	BLACK OAK	10+7	21
10	LIVE OAK	8+7	19	39	LIVE OAK	17	30
11	LIVE OAK	8+8	11	40	LIVE OAK	16+11	33
12	LIVE OAK	7	9	41	LIVE OAK	11+9	23
13	LIVE OAK	9+4+5	13	42	LIVE OAK	9+9	35
14*	BLUE OAK	12	6	43	LIVE OAK	12	21
15	LIVE OAK	12+13	19	44	LIVE OAK	14+16	28
16	LIVE OAK	9+14	22	45	BLUE OAK	32	35
17	BLUE OAK	15	24	46	BLUE OAK	17	25
18	LIVE OAK	10	10	47*	BLUE OAK	25	25
19	LIVE OAK	10+7	15	48	BLUE OAK	12	15
20	LIVE OAK	15+11	10	49	BLUE OAK	20	25
21	BLUE OAK	21	25	50	BLUE OAK	16	29
22	LIVE OAK	12	11	51	LIVE OAK	15	22
23*	LIVE OAK	13	18	52	LIVE OAK	10	23
24*	DEAD	---	---	53	BLUE OAK	18	26
25	LIVE OAK	8	15	54	LIVE OAK	5+4	11
26	LIVE OAK	9+10+ 11+21	21	55	BLUE OAK	14	26
27*	LIVE OAK	7.5	10	56	BLUE OAK	15	31
28*	LIVE OAK	5+9+ 8+9	18	57	BLUE OAK	25	47
29	BLACK OAK	21	22	58	BLUE OAK	21	28

* TREE TO BE REMOVED

NOTE:
FOR MULTI-TRUNK TREE, SEE APPENDIX F
FOR ACCUMULATIVE DIAMETER

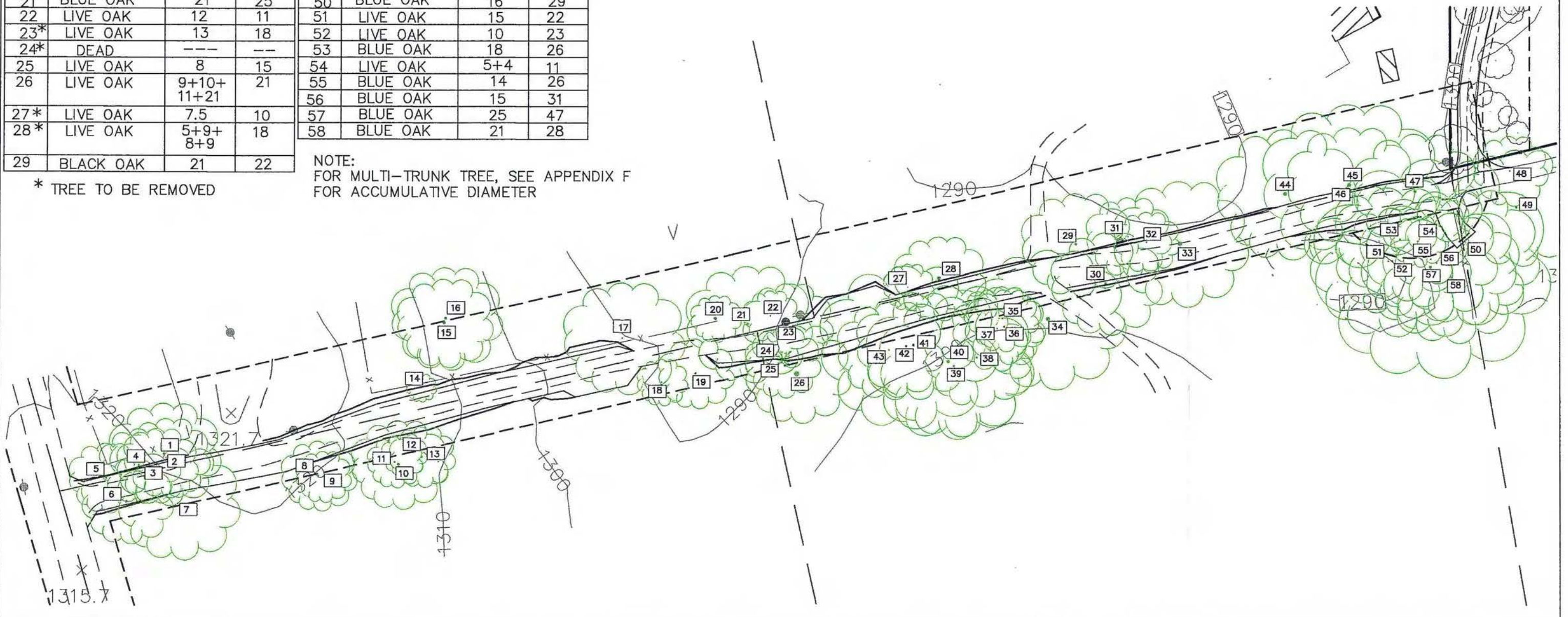




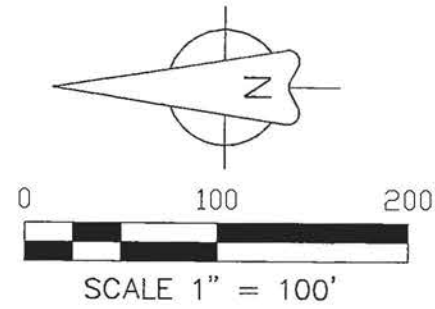
Figure 12. Proposed oak canopy removal.

FIGURE 12 PROPOSED OAK CANOPY REMOVAL

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA
APRIL, 2016
APN: 319-330-27

LEGEND

-  OAK TREE TO BE REMOVED
-  OAK TREE TO REMAIN



	PARCEL 1	PARCEL 2	RANCHERIA COURT
OAK CANOPY REMOVAL (ACRES)	0.33 ac.	0.40 ac.	0.15 ac.
PERCENT OF TOTAL OAK CANOPY	3.0%	8.5%	15.7%



C. Tree Preservation

1. General Plan Policy 7.4.4.4

Policy 7.4.4.4 contains provisions to protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products and aesthetic values. Policy 7.4.4.4, Option A, requires oak canopy to be retained within development projects, with the percentage of retention dependent upon total oak canopy cover of the project.

The total oak canopy covers 93.98 % of the Tanis parcel, which requires 60% oak tree retention under Policy 7.4.4.4, Option A. The proposed removal for Parcel 1 is 3.0% of its total oak canopy (97% retention), and the removal for Parcel 2 is 8.5% (91.5% retention). Similarly, the total oak canopy on the Rancheria Court easement is 61.1%, which requires 70% retention. Oak canopy removal is 15.7% (84.3% retention). Clearly, Option A requirements will not be exceeded on the project site (Tables 6, 7 and 8).

2. General Plan Policy 7.4.4.5, Oak Tree Corridor Retention

Policy 7.4.4.5 requires retention of a corridor of oak trees around removed trees, maintaining continuity between all portions of the stand. The retained corridor shall have a tree density equal to the density of the stand.

An unbroken corridor of oak trees surrounds the trees to be removed, and the tree density will remain the same in the retained corridor. The project will not disrupt an oak tree corridor.

3. General Plan Policy 2.2.2.1

a. Safeguarding Trees During Construction

General Plan Policy 2.2.2.1 of the Biological Resources Study and Important Habitat Mitigation Program Guidelines, adopted November 9, 2006, has sixteen conditions for safeguarding trees during construction.

1. All oak trees over eight inches dbh in the construction area are required to be inventoried as to size and location on the site.

Sixty-two oaks eight inches dbh or larger were found in or near the construction zone (Figures 10 and 11). The oaks include 21 interior live oaks, 26 blue oaks, 13 black oaks and two valley oaks (Table 10).

Table 10. Oak trees over eight inches dbh within or near the construction zone.

	Tree Size (dbh, inches)																	
	8	9	10	11	13	14	15	16	17	18	19	22	23	25	26	27	28	29
Live Oak			3	2		1	1			1			1		1		1	1
Blue Oak	1	3		2	2	1	1	2	2	1	2	2	1	2		1	1	
Black Oak								1				1						1
Valley Oak						1												
	Tree Size (dbh, inches)																	
	32	33	34	36	38	40	41	46	53	59	62	64	69	74	77	82	Total	
Live oak		1	1		1		1	1			2		1		1		21	
Blue oak	1		1														26	
Black oak		1		1		2			1	1	1	1		1		1	13	
Valley oak				1													2	

2 a. Grading, cutting or filling within the tree root zone or within a five foot distance of the tree root zone of an oak to be preserved shall be supervised by a Certified Arborist/qualified professional.

Forty-eight oak trees will be retained that will have soil disturbance of no more than 25% of the tree root zone (Table 11), and eleven more are within five feet of the tree root zone (Table 12). It is recommended that the project owners monitor those trees for stress (excessive leaf fall, wilting, dieback, etc.), particularly during the dry season. If signs of stress are found, it is recommended that supplemental deep irrigation be provided once monthly during July, August and September for three years after construction. See Item 11, below, for further recommendations.

Table 11. Oak trees to be retained with 1% to 25% construction disturbance within the tree root zone.

Tree No.	34	35	36	37	39	40	41	42	43	44	45	46	48
% Root Zone Disturbance	5	20	10	10	5	10	20	20	25	25	25	25	5
Tree No.	49	50	51	53	55	56	57	58	100	109	110	113	115
% Root Zone Disturbance	5	10	5	10	2	15	5	10	20	10	2	5	20
Tree No.	122	126	131	132	133	135	137	138	139	141	142	143	145
% Root Zone Disturbance	25	5	2	5	5	15	25	20	5	1	5	10	20
Tree No.	147	151	154	156	157	159	160	161	165	Total 48 Trees			
% Root Zone Disturbance	2	1	25	2	5	15	15	5	1				

Table 12. Oak trees within five feet of the construction zone.

Tree Number	11	12	13	19	38	52	54	101	114	152	153
-------------	----	----	----	----	----	----	----	-----	-----	-----	-----

2 b. Grading, cutting or filling beyond five feet but within twenty feet of oak trees 6-inches dbh or greater will be monitored by an independent professional.

Five trees were found beyond five feet but within twenty feet of the construction site (Table 13). It is recommended those trees be monitored for stress, particularly during the dry season, and supplemental irrigation be provided once monthly from July through September for three years if signs of stress are found.

Table 13. Oak trees six to twenty feet from the construction zone.

Tree No.	15	16	103	104	162
----------	----	----	-----	-----	-----

3. Damage to any protected tree during construction shall be reported to Planning Services. The property owner shall be responsible for correcting any damage to protected trees on the property in a manner specified by a Certified Arborist/qualified professional.

4. No oil, gasoline, chemicals or other construction materials or equipment will be stored within any oak tree root zone.

- 5. Drains shall be installed to direct water run-off away from oak tree root zones.**
- 6. Wires, signs and similar items shall not be attached to protected trees.**
- 7. The existing ground surface within the tree root zone of protected trees shall not be cut, filled, compacted or parged. No soil shall be stored or filled within the root zone of oaks.**

See No. 2 (above) and No. 11 (below) for Arborist's recommendations for trees to be retained that are near the construction site.

8. No paint thinner, paint, plaster or other liquid or solid excess or waste construction material or waste water will be dumped between the tree root zone and the base of protected trees, or uphill from protected trees where such substance might reach the roots through leaching.

9. A minimum four-foot tall temporary orange standard tree protection fence will be installed five feet beyond the dripline of protected oaks, and shall be maintained until construction is complete.

10. When cuts are made near roots of protected trees, appropriate measures will be taken to prevent exposed soil from drying out.

11. Any cuts within root zones of retained trees will be made before grading and shall utilize methods that would make clean cuts to roots, such as vibrating knives, rock saws, narrow trenchers with sharp blades or hand tools. Root disturbances shall not be accomplished by rough grading equipment such as excavators, bulldozers, graders or backhoes. All excavation activities within the root zone of retained oaks shall be under the direction and supervision of a Certified Arborist or qualified professional.

When oak roots are disturbed, it is recommended that any frayed ends of the exposed roots be pruned with hand equipment to the nearest healthy root junction.

12. No building materials, vehicles or equipment shall be parked or stored within the tree root zone of any protected tree during development.

13. No metal stakes will be driven into tree trunks, stems or the tree root zone of protected trees for any purpose other than to support the tree.

14. No open flames will be allowed within fifteen feet of the foliar canopy or trunk of a protected tree.

15. No trenching will be allowed within the root zone of protected oaks, except as allowed in No. 11, above. If it is absolutely necessary to install underground utilities within the root zone of protected trees, the trench shall be either bored or drilled unless a Certified Arborist/qualified professional determines that the trenching will not endanger protected trees.

16. No paving shall be installed within the root zone of protected trees. Only porous materials shall be installed beneath protected trees.

b. Safeguarding Trees After Construction

It is recommended that the project owners monitor trees having construction-related root disturbances for stress (excessive leaf fall, wilting, dieback, etc.), particularly during the dry season. If signs of stress are found, it is recommended that supplemental deep irrigation be provided once monthly during July, August and September for three years after construction. Supplemental irrigation is especially important for trees having more than 25% root zone disturbances, if those trees are retained.

Landscaping beneath oak trees should be limited to drought resistant plants or mulch materials such as wood chips. All landscaping should be kept at least five feet away from the trunk of oaks.

D. Tree Replacement Plan

1. Revegetation

County standards require a 1:1 ratio between canopy removal area and mitigation area. Replacement standards require 200 trees (or 600 acorns) per acre with a survival rate of 90 percent after ten years. Mitigation calculations for trees proposed to be removed from Parcel 1 are shown in Table 14, calculations for Parcel 2 are shown in Table 15, and calculations for Rancheria Court are shown on Table 16.

Non-vegetated areas suitable for oak mitigation planting were measured on the aerial photo provided by Northern California Geomatics. The Tanis parcel has enough open space to accommodate the 0.88 acre required mitigation area, but the openings are scattered throughout both parcels ¹² (Figure 13). Mitigation trees will be marked by protective tree collars and/or flagging for the duration of the mitigation period.

Table 14. Oak canopy replacement calculations for proposed oak removal, Parcel 1.

1	Oak Canopy to be Removed	14,344 ft ² 0.33 acres	Open area suitable for mitigation: 0.684 Acres
2	Mitigation Plants (line 1 acreage x 200 trees/acre) = # saplings; 3 x saplings = # acorns	66 saplings	OR 198 acorns

Table 15. Oak canopy replacement calculations for proposed oak removal, Parcel 2.

1	Oak Canopy to be Removed	17,383 ft ² 0.4 acres	Open area suitable for mitigation: 0.379 Acres
2	Mitigation Plants (line 1 acreage x 200 trees/acre) = # saplings; 3 x saplings = # acorns	80 saplings	OR 240 acorns

Table 16. Oak canopy replacement calculations for proposed oak removal, Rancheria Court

1	Oak Canopy to be Removed	6,428 ft ² 0.15 acres	Mitigation oaks will be placed on Parcel 1
2	Mitigation Plants (line 1 acreage x 200 trees/acre) = # saplings; 3 x saplings = # acorns	30 saplings	OR 90 acorns

It is recommended that a mixture of interior live oaks, blue oaks and black oaks be planted for mitigation. If black oaks are planted, they should be placed slightly beneath or immediately north of the canopy of an existing tree, as young black oaks require shade for establishment.

Planting should follow the guidelines found in *How to Grow California Oaks*¹³. Saplings should be planted with the top of their root flare at ground level and should be protected from sun-scald and browsing animals by tree protection collars. Ground around the trees should be mulched to control weeds,

¹² Area on Parcel 1 = 0.684 acre, area on Parcel 2 = 0.379 acre; total mitigation area available = 1.063 acres.

¹³ McCreary, D. 1995. *How to Grow California Oaks*. University of California Agriculture and Natural Resources Publication 21540.

and supplemental irrigation should be provided every two to four weeks during June, July, August and September (or as needed during an unusually dry winter) the first two years after planting.

Acorns should be collected from trees on or adjacent to the project site. Only acorns lacking evidence of insect infestation must be planted, ie. reject any that are very small, cracked, have insect exit holes or feel light and hollow. Acorns should be planted about one-half inch deep in soil that has been loosened to 6 inches or more depth. Acorns should be covered with 1-2 inches of natural fiber mulch (wood or bark chips, straw, etc.), and planting sites/seedlings protected with tree collars to protect them from animals. Supplemental irrigation is not needed for acorns. Further details about collection, planting and storage of acorns may be found in *How to Grow California Oaks*.

2. Monitoring and Reporting

Item 2.2.3.1 of the El Dorado County *Biological Resources Study and Important Habitat Mitigation Program Guidelines, Adopted November 9, 2006* outlines simplified reporting requirements for existing lots utilizing on-site replacement mitigation. The current owner intends to retain ownership of Parcel 2, and the Tanis family intends to purchase Parcel 1. It is, therefore, recommended that the simplified reporting plan be utilized for this project, as outlined below.

- A. The monitoring period shall be ten years (15 years for acorns);
- B. The applicants shall self-monitor their replantings annually;
- C. The applicant shall report, in writing, to the County at year ten on the condition of the trees and number of failures;
- D. If the failure rate of the replacement planting exceeds 10 percent of the replanted trees, then replanting of those trees that have not survived is required at the conclusion of the 10 year (or 15 year for acorns) monitoring period. Evidence of replanting shall be provided to the County. No further monitoring shall then be required.
- E. The monitoring requirements shall be placed into a standard "Notice of Restriction" or similar County approved document and recorded on the title of the subject property. Once the 10 year (or 15 year) monitoring period has been successfully completed, the County shall record a release of the Notice of Restriction.

If self-monitoring is not permitted, a qualified professional would be required to monitor the mitigation trees. Item 2.2.3.2 of *Biological Resources Study and Important Habitat Mitigation Program Guidelines, Adopted November 9, 2006* outlines reporting requirements.

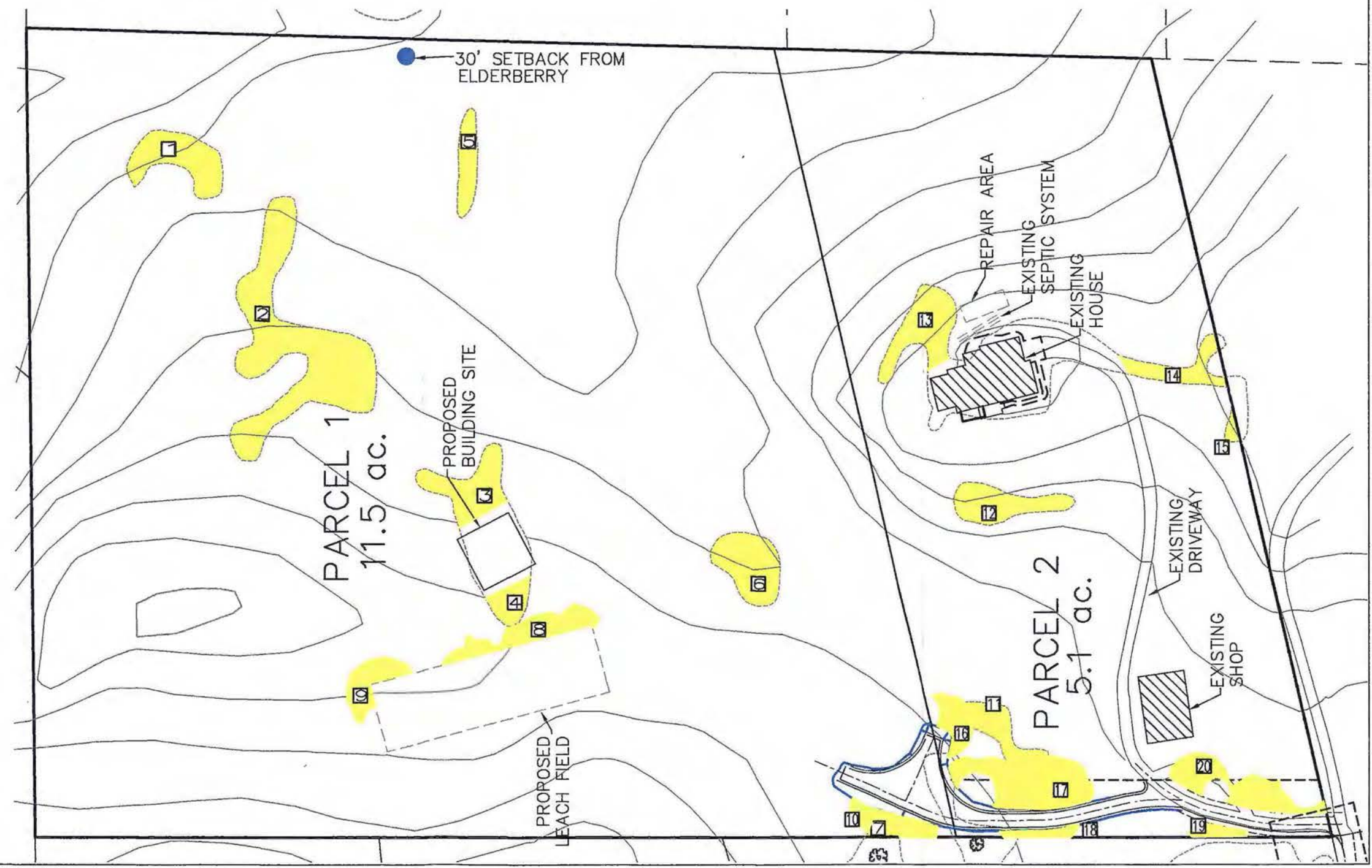
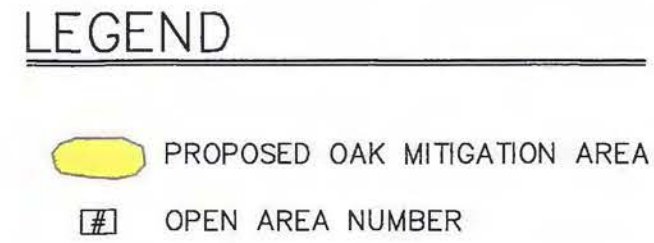
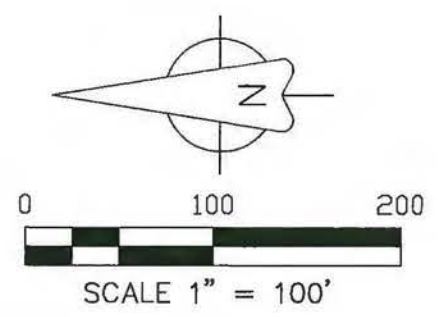
Figure 13. Proposed Oak Mitigation Areas

FIGURE 13 OAK AND ELDERBERRY MITIGATION MAP

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA
APRIL 2016
APN: 319-330-27

AREA NO.	PARCEL NO.	AREA sq. ft.	AREA ACRES
1	1	2,818	0.065
2	1	10,480	0.241
3	1	6,892	0.158
4	1	942	0.022
5	1	1,324	0.030
6	1	2,740	0.063
7	1	493	0.011
8	1	1,337	0.031
9	1	1,918	0.044
10	1	869	0.020
SUBTOTAL PARCEL 1		29,813	0.684
11	2	2,079	0.048
12	2	2,276	0.052
13	2	2,821	0.065
14	2	1,523	0.035
15	2	239	0.005
16	2	772	0.018
17	2	3,523	0.081
18	2	348	0.008
19	2	463	0.011
20	2	2,469	0.057
SUBTOTAL PARCEL 2		16,513	0.379
TOTAL		46,362	1.063

REQUIRED OAK MITIGATION AREA = 0.88 Ac.



VIII. Important Biological Corridor Evaluation

The project site was evaluated for conformity of the project to El Dorado County General Plan Policy 7.4.2.9 guidelines for development within an Important Biological Corridor (IBC). A point-by-point consideration of the guidelines follows.

- **Increased minimum parcel size**

The proposed minimum parcel size is 5.1 acres, which is larger than the minimum required for RE-5 zoning, and larger than two of the adjacent parcels.

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

Oak canopy removal will be limited to 5.2% for Parcel 1 and 8.5% for Parcel 2. Policy 7.4.4.4. would allow 40% removal of oak canopy for this project.

- **Lower thresholds for grading permits**

The main roads are already in place for this project. The existing driveway will be widened and extended, and only one house pad and septic area will be added.

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

The project will have no impact upon wetlands or riparian habitat.

- **Increased riparian corridor and wetland setbacks.**

The county standard set-back from intermittent streams and wetlands is 50 feet; increased setbacks to 55 feet is recommended.

- **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)**

No rare plants were found on the property.

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

No non-oak or sensitive plant communities will be disturbed by the project.

- **Building permits discretionary or some other type of “site review” to ensure that canopy is retained**

This Biological Resources report is being submitted in partial fulfillment of this requirement.

- **More stringent standards for lot coverage, floor area ratio (FAR) and building height**

No additional structures are planned for Parcel 2; Parcel 1 will have a single-family residence placed on an 11.5 acre lot.

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

It is recommended that fences be limited to those that would not restrict wildlife movement, except fences immediately adjacent to barns or homes for the purposes of protecting livestock, crops or landscaping.

IV. Report Certification

I hereby certify that the statements furnished above and in the attached exhibits, if any, present the data and information required for this Arborist Report, and that the facts, statements and information presented herein are true and correct to the best of my knowledge and belief.

Ruth Willson
ISA Certified Arborist WE 8335A
Expiration Date June 30, 2017

Date

X. References

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APPENDIX A

**United States Fish and Wildlife Service
Official Species List
Consultation Code: 08ESMF00-2016-SLI-1176
Event Code: 08ESMF00-2016-E-02561
April 01, 2016**



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
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2016-SLI-1176

April 01, 2016

Event Code: 08ESMF00-2016-E-02561

Project Name: Tanis Tentative Parcel Map

Subject: 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



United States Department of Interior
Fish and Wildlife Service

Project name: Tanis Tentative Parcel Map

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2016-SLI-1176

Event Code: 08ESMF00-2016-E-02561

Project Type: ** OTHER **

Project Name: Tanis Tentative Parcel Map

Project Description: Subdivide 16-acre parcel into two parcels.

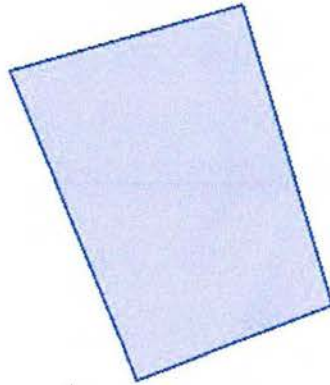
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Tanis Tentative Parcel Map

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-120.92134237289429 38.69713304668878, -120.91846704483034 38.69798713303491, -120.91979742050171 38.701436868203025, -120.92320919036864 38.7006832994827, -120.92134237289429 38.69713304668878)))

Project Counties: El Dorado, CA



United States Department of Interior
Fish and Wildlife Service

Project name: Tanis Tentative Parcel Map

Endangered Species Act Species List

There are a total of 8 threatened or endangered species on your 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. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog (<i>Rana draytonii</i>) Population: Entire	Threatened	Final designated	
Fishes			
Delta smelt (<i>Hypomesus transpacificus</i>) Population: Entire	Threatened	Final designated	
steelhead (<i>Oncorhynchus (=salmo) mykiss</i>) Population: Northern California DPS	Threatened	Final designated	
Flowering Plants			
El Dorado bedstraw (<i>Galium californicum ssp. sierrae</i>)	Endangered		
Layne's butterweed (<i>Senecio layneae</i>)	Threatened		
Pine Hill ceanothus (<i>Ceanothus roderickii</i>)	Endangered		
Pine Hill flannelbush (<i>Fremontodendron californicum ssp.</i>)	Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Tanis Tentative Parcel Map

<i>decumbens)</i>			
Stebbins' morning-glory (<i>Calystegia stebbinsii</i>)	Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Tanis Tentative Parcel Map

Critical habitats that lie within your project area

There are no critical habitats within your project area.

APPENDIX B

**California Department of Fish and Game
Natural Diversity Database RareFind 5 Report
Shingle Springs and Surrounding USGS Quads
updated February 28, 2016**



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad is (Clarksville (3812161) or Coloma (3812078) or Fiddletown (3812057) or Folsom SE (3812151) or Garden Valley (3812077) or Latrobe (3812058) or Pilot Hill (3812171) or Placerville (3812067) or Shingle Springs (3812068))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter gentilis</i> northern goshawk	ABNKC12060	None	None	G5	S3	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
<i>Allium jepsonii</i> Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arctostaphylos nissenana</i> Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Banksula californica</i> Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
<i>Calystegia vanzuukiae</i> Van Zuurk's morning-glory	PDCON040Q0	None	None	G2Q	S2	1B.3
<i>Carex cyrtostachya</i> Sierra arching sedge	PMCYP03M00	None	None	G2G3	S2S3	1B.2
<i>Ceanothus roderickii</i> Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	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
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	G2	S2	1B.2
Clarkia biloba ssp. brandegeeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Cosumnoperla hypocreana Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Crocانthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2Q	S2	3.2
Desmocercus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S2	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Oncorhynchus mykiss irideus steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pekania pennanti fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rana boylei foothill yellow-legged frog	AAABH01050	None	None	G3	S3	SSC



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
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Thamnophis gigas</i> giant garter snake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<i>Wyethia reticulata</i> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 46

APPENDIX C

California Native Plant Society
On-line Inventory of Rare and Endangered Plants
Shingle Springs and Surrounding USGS Quads
March 23, 2016

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 53 items - Wed, Mar. 23, 2016 23:19 ET c











- During each visit, we provide you with an empty "Plant Press" for collecting items of interest.
- Several report formats are available. Use the CSV and XML options to download raw data.

Reformat list as: Standard List - with Plant Press controls ▼

DELETE unchecked items check all check none

open	save	scientific	common	family	CNPS
	✓	<u>Allium jepsonii</u>	Jepson's onion	Alliaceae	List 1B.2
	✓	<u>Allium sanbornii</u> var. <u>congdonii</u>	Congdon's onion	Alliaceae	List 4.3
	✓	<u>Allium sanbornii</u> var. <u>sanbornii</u>	Sanborn's onion	Alliaceae	List 4.2
	✓	<u>Arctostaphylos mewukka</u> ssp. <u>truei</u>	True's manzanita	Ericaceae	List 4.2
	✓	<u>Arctostaphylos myrtifolia</u>	lone manzanita	Ericaceae	List 1B.2
	✓	<u>Arctostaphylos nissenana</u>	Nissenan manzanita	Ericaceae	List 1B.2
	✓	<u>Astragalus pauperculus</u>	depauperate milk-vetch	Fabaceae	List 4.3
	✓	<u>Balsamorhiza macrolepis</u>	big-scale balsamroot	Asteraceae	List 1B.2
	✓	<u>Bryum chryseum</u>	brassy bryum	Bryaceae	List 4.3
	✓	<u>Calystegia stebbinsii</u>	Stebbins' morning-glory	Convolvulaceae	List 1B.1
	✓	<u>Calystegia vanzuukiae</u>	Van Zuuk's morning-glory	Convolvulaceae	List 1B.3
	✓	<u>Cardamine pachystigma</u> var. <u>dissectifolia</u>	dissected-leaved toothwort	Brassicaceae	List 1B.2
	✓	<u>Ceanothus roderickii</u>	Pine Hill ceanothus	Rhamnaceae	List 1B.1
	✓	<u>Chlorogalum grandiflorum</u>	Red Hills soaproot	Agavaceae	List 1B.2
	✓	<u>Clarkia biloba</u> ssp. <u>brandegeae</u>	Brandegee's clarkia	Onagraceae	List 4.2
	✓	<u>Clarkia virgata</u>	Sierra clarkia	Onagraceae	List 4.3
	✓	<u>Claytonia parviflora</u> ssp. <u>grandiflora</u>	streambank spring beauty	Montiaceae	List 4.2
	✓	<u>Crocantemum suffrutescens</u>	Bisbee Peak rush-rose	Cistaceae	List 3.2
	✓	<u>Downingia pusilla</u>	dwarf downingia	Campanulaceae	List 2B.2
	✓	<u>Erigeron miser</u>	starved daisy	Asteraceae	List 1B.3
	✓	<u>Erigeron petrophilus</u> var. <u>sierrensis</u>	northern Sierra daisy	Asteraceae	List 4.3
	✓	<u>Eriogonum tripodum</u>	tripod buckwheat	Polygonaceae	List

					4.2
	✓	<u>Eryngium pinnatisectum</u>	Tuolumne button-celery	Apiaceae	List 1B.2
	✓	<u>Fremontodendron decumbens</u>	Pine Hill flannelbush	Malvaceae	List 1B.2
	✓	<u>Fritillaria agrestis</u>	stinkbells	Liliaceae	List 4.2
	✓	<u>Fritillaria eastwoodiae</u>	Butte County fritillary	Liliaceae	List 3.2
	✓	<u>Galium californicum</u> ssp. <u>sierrae</u>	El Dorado bedstraw	Rubiaceae	List 1B.2
	✓	<u>Githopsis pulchella</u> ssp. <u>serpentinicola</u>	serpentine bluecup	Campanulaceae	List 4.3
	✓	<u>Hesperis caulescens</u>	hogwallow starfish	Asteraceae	List 4.2
	✓	<u>Horkelia parryi</u>	Parry's horkelia	Rosaceae	List 1B.2
	✓	<u>Jepsonia heterandra</u>	foothill jepsonia	Saxifragaceae	List 4.3
	✓	<u>Juncus leiospermus</u> var. <u>leiospermus</u>	Red Bluff dwarf rush	Juncaceae	List 1B.1
	✓	<u>Juncus luciensis</u>	Santa Lucia dwarf rush	Juncaceae	List 1B.2
	✓	<u>Lathyrus sulphureus</u> var. <u>argillaceus</u>	dubious pea	Fabaceae	List 3
	✓	<u>Lilium humboldtii</u> ssp. <u>humboldtii</u>	Humboldt lily	Liliaceae	List 4.2
	✓	<u>Microseris sylvatica</u>	sylvan microseris	Asteraceae	List 4.2
	✓	<u>Mielichhoferia elongata</u>	elongate copper moss	Mielichhoferiaceae	List 4.3
	✓	<u>Mimulus inconspicuus</u>	small-flowered monkeyflower	Phrymaceae	List 4.3
	✓	<u>Mimulus laciniatus</u>	cut-leaved monkeyflower	Phrymaceae	List 4.3
	✓	<u>Monardella candicans</u>	Sierra monardella	Lamiaceae	List 4.3
	✓	<u>Myrica hartwegii</u>	Sierra sweet bay	Myricaceae	List 4.3
	✓	<u>Navarretia eriocephala</u>	hoary navarretia	Polemoniaceae	List 4.3
	✓	<u>Navarretia nigelliformis</u> ssp. <u>nigelliformis</u>	adobe navarretia	Polemoniaceae	List 4.2
	✓	<u>Navarretia subuligera</u>	awl-leaved navarretia	Polemoniaceae	List 4.3
	✓	<u>Ophioglossum californicum</u>	California adder's-tongue	Ophioglossaceae	List 4.2
	✓	<u>Packera layneae</u>	Layne's ragwort	Asteraceae	List 1B.2
	✓	<u>Perideridia bacigalupii</u>	Bacigalupi's yampah	Apiaceae	List 4.2
	✓	<u>Piperia leptopetala</u>	narrow-petaled rein orchid	Orchidaceae	List 4.3
					List

	<input checked="" type="checkbox"/>	<u>Piperia michaelii</u> 	Michael's rein orchid	Orchidaceae	4.2
	<input checked="" type="checkbox"/>	<u>Sagittaria sanfordii</u> 	Sanford's arrowhead	Alismataceae	List 1B.2
	<input checked="" type="checkbox"/>	<u>Sphenopholis obtusata</u> 	prairie wedge grass	Poaceae	List 2B.2
	<input checked="" type="checkbox"/>	<u>Viburnum ellipticum</u> 	oval-leaved viburnum	Adoxaceae	List 2B.3
	<input checked="" type="checkbox"/>	<u>Wyethia reticulata</u> 	El Dorado County mule ears	Asteraceae	List 1B.2

DELETE unchecked items check all check none

APPENDIX D

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

Notations and Symbols

Species printed in bold 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

CNDDDB Ranks are shorthand formulas compiled by the California Natural Diversity Database 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

SNR = NatureServe Subnational Conservation Status Rank: Unranked

G1G3 = 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

Abbreviations

CDFW = California Department of Fish and Wildlife

SSC = CDFW Species of Special Concern

CNDDDB = California Natural Diversity Database

CNPS = California Native Plant Society

1B = CNPS list of rare, threatened or endangered plants in California and elsewhere

2 = CNPS list of rare, threatened or endangered plants in California, but more common elsewhere

3 = CNPS review list of plants with limited distribution information or problematic taxonomy

4 = Plants of Limited Distribution; a watch list

.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)

CWHR = California Department of Fish and Wildlife's California Wildlife Habitat Relations

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

WL = 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)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<u>Invertebrates</u>				
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	— / —	G2 S2	Forages on vernal pool <i>Blennosperma</i> plants. Nests in uplands surrounding vernal pools. (CNDDDB 2016)	No. Project site has no vernal pool habitat and no <i>Blennosperma</i> plants.
<i>Banksula californica</i> Alabaster cave harvestman	— / —	GH SH	Known only from Alabaster Cave, 5.5 miles west of Pilot Hill alongside Rattlesnake Bar Road. (CNDDDB 2016)	No. Project site has no cave habitat.
<i>Bombus occidentalis</i> Western bumble bee	— / — IUCN:VU	G2G3 S1	Nests in abandoned rodent burrows; overwinters in holes in the ground dug by gravid queens. Generalist forager. (USFS, BLM 2010)	Yes. See text for further discussion.
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	E / —	G1 S1	Large, cool-water vernal pools with moderately turbid water (USFWS 2008). Endemic to grasslands in northern two-thirds of Central Valley (CNDDDB 2016).	No. Project site has no vernal pool habitat.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	T / —	G3 S3	Vernal pools in grasslands of the Central Valley, Central Coast Ranges and South Coast Mountains. (CNDDDB 2016)	No. Project site has no vernal pool habitat.
<i>Cosumnoperla hypocrenea</i> Cosumnes stripetail stonefly	— / —	G2 S2	Found in intermittent streams on western slope of central Sierra Nevada foothills in American and Cosumnes River basins. (CNDDDB 2016)	Yes. See text for further discussion.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	T / —	G3T2 S2	Elderberry shrubs (<i>Sambucus</i> species), are the host plants of the beetles (USFWS 1999). Prefers stressed hosts with 2-8 inch diameter trunks (CNDDDB 2016)	Yes. See text for further discussion.
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	— / —	G2? S2?	Sacramento/San Joaquin flowing and standing waters (vernal pools and seasonal wetlands). Larvae are aquatic, probably predaceous, and adults are probably scavengers. (CNDDDB 2016)	No. Project site has no suitable seasonal wetlands or vernal pools
<i>Lepidurus packardi</i> Vernal pool tadpole shrimp	E / —	G3 S2S3	Found in vernal pools in the Sacramento Valley and San Francisco Bay area. (USFWS 2016)	No. The project site has no vernal pools.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Fish				
<i>Hypomesus transpacificus</i> Delta smelt	T / E	G1 S1	Sacramento-San Juaquin river delta including side channels and sloughs. (McGinnis 1984)	No. Project site has no perennial streams.
<i>Mylopharodon conocephalus</i> Hardhead	— / — SSC	G3 S3	Low to mid-elevation streams in the Sacramento-San Joaquin drainage having clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. (CNDDDB 2016)	No. Project site has no perennial streams.
<i>Oncorhynchus (=Salmo) clarki henshawi</i> Lahontan cutthroat trout	T / —	G4T3 S2	Mountain streams with mean July air temperatures not exceeding 18°C (Dunham et. al 1999)	No. Project site has no perennial streams.
<i>Oncorhynchus mykiss irideus</i> Central Valley DPS steelhead	T / —	G5T2T3 S2S3	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (McGinnis 1984)	No. Project site has no perennial streams.
<i>Oncorhynchus tsawaytscha</i> Winter-run chinook salmon, Sacramento River	E / E	G5 S1	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (McGinnis 1984)	No. Project site has no perennial streams.
<i>Oncorhynchus tsawaytscha</i> Central Valley spring-run chinook salmon	T / T	G5 S1	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (McGinnis 1984)	No. Project site has no perennial streams.
Amphibians				
<i>Ambystoma californiense</i> central population California tiger salamander	T / T SSC	G2G3 S2S3	Grasslands, oak savannah, edges of mixed woodland up to 1054 meters elevation. Breeds in temporary pools in rainy season; lives in rodent or ground squirrel burrows remainder of year. (CNDDDB 2016)	No. Project site is not within the known range of the species. Nearest CNDDDB occurrence is south of Rancho Murieta.
<i>Anaxyrus canorus</i> Yosemite toad	T / — SSC	G2G3 S2S3	Wet meadows in the central high Sierra at elevations from 6400 ft to 11,320 ft. (CNDDDB 2016)	No. Project site is too low in elevation for the species.
<i>Rana boylei</i> Foothill yellow-legged frog	— / — SSC	G3 S3	Found in or near perennial, rocky streams in a variety of habitats from sea level to 1940 m (6370 ft) elevation. (CWHR 2016)	No. Project site has no perennial streams.
<i>Rana draytonii</i> California red-legged frog Also critical habitat	T / — SSC	G2G3 S2S3	Lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. (CNDDDB 2016)	Yes. See text for further discussion. Project site is not within critical habitat designated for the species.
<i>Rana muscosa</i> Mountain yellow-legged frog	E / E	G1 S1	Aquatic habitats 1370 m (4500 ft) to over 3650 m (11980 ft) elevation in Sierra Nevada mountains south of a ridge dividing middle and south forks of the Kings River. (CWHR 2016)	No. Project site is out of the range of the species.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	E / T	G1 S1	Aquatic habitats 1370 m (4500 ft) to over 3650 m (11980 ft) elevation in Sierra Nevada mountains north of a ridge dividing middle and south forks of the Kings River. (CWHR 2016)	No. Project site is too low in elevation for the species.
Reptiles				
<i>Emys marmorata</i> Western pond turtle	— / — SSC	G3G4 S3	Associated with permanent or nearly permanent water in a wide variety of habitat types. (CWHR 2016)	No. Project site has no permanent water habitat.
<i>Phrynosoma blainvillii</i> Coast horned lizard	— / — SSC	G3G4 S3S4	Sacramento Valley, surrounding foothills and Coast Ranges below 1200 m (4000 ft) elevation. Requires sandy or loose soil with abundant ant colonies for foraging. (CWHR 2016)	Yes. See text for further discussion.
<i>Thamnophis gigas</i> Giant garter snake	T / T	G2 S2	Freshwater marshes, low-gradient streams, drainage canals. Extremely aquatic, rarely found away from water, and forages in the water for food. Uses holes, crevices & surface objects at night. Ranges from Butte Co. to Fresno Co. (CWHR 2016)	No. Project site is out of the known range of the species. Nearest CNDDDB occurrence is in Sacramento County East of Rancho Murieta.
Birds				
<i>Accipiter cooperii</i> (nesting) Cooper's hawk	— / — CDFW:WL	G5 S4	Nests in deciduous trees in riparian areas or second-growth conifers near streams. (CWHR 2016)	Yes. See text for further discussion.
<i>Accipiter gentilis</i> (nesting) Northern goshawk	— / — SSC	G5 S3	Nests in mature, dense conifer forest. (CWHR 2016) Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees. (CNDDDB 2016)	No. Project site has no dense conifer forest habitat.
<i>Accipiter striatus</i> (nesting) Sharp-shinned hawk	— / — CDFW:WL	G5 S4	Ponderosa pine, black oak, riparian deciduous, mixed conifer & Jeffrey pine habitats. Prefers riparian areas. Nests usually within 275 ft of water. (CNDDDB 2016)	No. Project site has no suitable conifer forest habitat.
<i>Aechmophorus occidentalis</i> (wintering) Western grebe	— / — IUCN: LC	G5 SNR	Marshes, lakes, and bays. Nests in or very near water deep enough to allow bird to swim submerged. Nests typically is anchored to, or built over, living vegetation (Ehrlich et al. 1992)	No. Project site has no marsh, lake or bay habitat.
<i>Agelaius tricolor</i> (nesting colony) Tricolored blackbird	— / C SSC	G2G3 S1S2	Dense thickets of cattail, tule, willow, blackberry, wild rose or tall herbs near or emergent from water (CWHR 2016)	No. Project site has no aquatic thicket habitat.
<i>Aimophila ruficeps</i> Rufous-crowned sparrow	— / — IUCN: LC	G5 SNR	Moderate to steep, dry, rocky slopes vegetated with low cover of scattered shrubs interspersed with patches of grasses, forbs, and bare ground. Generally nest on the ground, in hollows among rocks or under clumps of grass or low bushes. (Collins 1999)	No. Project site lacks suitable shrub habitat.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Ammodramus savannarum</i> (nesting) Grasshopper sparrow	— / — SSC	G5 S3	Summer resident and breeder in dry, dense grasslands in foothills and lowlands with scattered shrubs west of Sierra-Cascade ranges. Uses shrubs for singing perches. (CWHR 2016)	No. Project site lacks suitable grassland habitat.
<i>Aquila chrysaetos</i> (nesting) Golden eagle	— / — CDFW: FP, WL	G5 S3	Nests on cliffs and in large trees in large open areas in rolling foothills. Home range in Northern California averages 124 km ² (48 mi ²). (CWHR 2016)	No. Project site is has no open areas suitable for the species.
<i>Ardea alba</i> (rookery) Great egret	— / — CDF:S	G5 S4	Nests in large trees near marshes, tide-flats, irrigated pastures, margins of lakes and rivers. (CWHR 2016)	No. Project site lacks suitable wetland habitat.
<i>Ardea herodias</i> (rookery) Great blue heron	— / — CDF:S	G5 S4	Forages in marshes, lakes margins, tide-flats, rivers, streams, wet meadows. Nests in colonies in tall trees, cliffsides, marshes near forage sites. (CWHR 2016)	No. Project site lacks suitable wetland habitat.
<i>Asio flammeus</i> (nesting) Short-eared owl	— / — SSC	G5 S3	Freshwater and saltwater marshes, lowland meadows and irrigated alfalfa fields with dense tules or tall grass for nesting and daytime roosts. (CWHR 2016)	No. Project site lacks suitable wetland, meadow or alfalfa field habitats.
<i>Asio otus</i> (nesting) Long-eared owl	— / — SSC	G5 S3?	Dense riparian stands of willow, cottonwoods, live oaks or conifers with adjacent open lands for foraging. (CWHR 2016)	No. Project site has no riparian woodland habitat.
<i>Athene cucularia</i> (burrow sites) Western burrowing owl	— / — SSC	G4 S3	Open, dry grassland and desert habitats; in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (CWHR 2016)	No. Project site has no open grassland, pinyon-juniper or ponderosa pine habitats.
<i>Baeolophus inornatus</i> (nesting) Oak titmouse	— / — BCC	G4 S4	Primarily associated with oaks; prefers open woodlands of oak, pine and oak, juniper and pinyon. Ventures into residential areas. (CWHR 2016)	Yes. See text for further discussion.
<i>Botaurus lentiginosus</i> American bittern	— / — IUCN:LC	G4 S3S4	Fresh or saline emergent wetlands, adjacent shallow water of lakes, backwaters of rivers or estuaries. (CWHR 2016)	No. Project site has lacks suitable wetland or water habitats.
<i>Buteo lagopus</i> (wintering) Rough-legged hawk	— / — IUCN:LC	G5 SNR	Migrant and winter resident in California lowlands. Hunts in wet meadows, marshes, swamps, riparian edges. (CWHR 2016)	No. Project site lacks suitable wetland or riparian habitats.
<i>Buteo regalis</i> (wintering) Ferruginous hawk	— / — SSC	G4 S3S4	Requires large, open tracts of grasslands, sparse shrub, or desert habitats with elevated structures for nesting. (CWHR 2016)	No. Project site has no open grasslands or sparse shrub habitats and is outside of the known range of the species.
<i>Buteo swainsoni</i> (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 2016)	No. Project site lacks suitable riparian or savannah habitat.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Calypte costae</i> (breeding) Costa's hummingbird	— / — BCC	G5 S4	Breeds in the Sonoran and Mojave Deserts of California and Arizona. (Cornell Lab of Ornithology 2016)	No. Project site is out of the breeding range of the species.
<i>Chaetura vauxi</i> (nesting) Vaux's swift	— / — SSC	G5 S2S3	Redwood and Douglas-fir habitats with nest sites in hollow trees and snags. (CWHR 2013)	No. Project site has no redwood or Douglas-fir habitats.
<i>Charadrius alexandrinus</i> (breeding) Snowy plover	T / — SSC	G3T3 S2	Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or saline lakes, reservoirs, and ponds. (Cornell Lab of Ornithology 2016)	No. Project site has no suitable sparsely vegetated habitats.
<i>Charadrius montanus</i> (wintering) Mountain plover	— / — SSC	G3 S2?	Winters in open plains or rolling hills with short grasses or very sparse vegetation in plowed fields and sandy deserts. (CWHR 2016)	No. Project site has no sparsely vegetated habitat.
<i>Circus cyaneus</i> (nesting) Northern harrier	— / — SSC	G5 S3	Nests on ground in shrubby vegetation, usually at edge of marsh or along rivers or lakes, in various habitats up to 800 m in Sierra Nevada and elsewhere. (CWHR 2016)	No. Project site has no suitable aquatic habitat.
<i>Cinclus mexicanus</i> American dipper	— / — IUCN-LC	G5 SNR	Confined to clear, clean streams and rivers with rocky shores and bottoms in the mountains. (CWHR 2016)	No. Project site has no stream or river habitats.
<i>Coccyzus americanus</i> (nesting) Yellow-billed cuckoo	T / E	G5T2T3 S1	Inhabits extensive deciduous riparian thickets with willows and dense, low-level foliage, which abut slow-moving watercourses, backwaters, or seeps. (CWHR 2016)	No. Project site lacks riparian thickets and waters.
<i>Contopus cooperi</i> (nesting) Olive-sided flycatcher	— / — SSC	G4 S4	Conifer or mixed hardwood/conifer forests (montane hardwood-conifer). Requires high perches for singing and hunting. (CWHR 2016)	No. Project site lacks montane hardwood-conifer habitat.
<i>Cypseloides niger</i> (nesting) Black swift	— / — SSC	G4 S2	Steep, rocky, often moist locations on cliff either on sea or behind or adjacent to a waterfall in a deep canyon. (CWHR 2016)	No. Project site lacks cliff, waterfall and deep canyon habitats.
<i>Elanus leucurus</i> 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 2016)	No. Project site lacks open, agricultural habitat required for foraging by the species.
<i>Empidonax traillii brewsteri</i> (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 2016)	No. Project site has no willow thickets.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Falco columbarius</i> (wintering) Merlin	— / — CDFW:WL	G5 S3S4	Winter migrant utilizing habitats from grassland to Ponderosa pine and montane hardwood-conifer below 1500 m. Found in dense tree stands near water. (CWHR 2016)	Yes. See text for further discussion.
<i>Falco mexicanus</i> (nesting) Prairie falcon	— / — CDFW:WL	G5 S4	Distributed from grassland through alpine meadows, but usually found in grasslands. Nests on ledge of cliff overlooking open area. (CWHR 2016)	No. Project site lacks suitable cliff nesting habitat.
<i>Falco peregrinus</i> (nesting & wintering) American peregrine falcon	D / D FP	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 2016)	No. Project site lacks suitable nesting ledges.
<i>Haliaeetus leucocephalus</i> (nesting, wintering) Bald eagle	D / E FP	G5 S2	Large bodies of water or free-flowing rivers with abundant fish, and adjacent snags or other perches. In California, 87% of nest sites were within 1.6 km (1 mi) of water. (CWHR 2016)	No. Project site is too far from suitable river or lake foraging habitats.
<i>Icteria virens</i> (nesting) Yellow-breasted chat	— / — SSC	G5 S3	Nests in dense riparian habitats dominated by willows, alders, Oregon ash, tall weeds, blackberry vines and grapevines. (CWHR 2016)	No. Project site has no riparian habitat.
<i>Lanius ludovicianus</i> (nesting) Loggerhead shrike	— / — SSC	G4 S4	Open habitats with scattered shrubs, posts, etc. for perches. Nests in densely-foliated shrub or tree (CWHR 2016)	No. Project site lacks suitable open habitat.
<i>Laterallus jamaicensis coturniculus</i> California black rail	— / T FP	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. (CWHR 2016)	No. Project site has no suitable wetland habitat.
<i>Melanerpes lewis</i> (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 2016)	No. Project site is out of the nesting range of the species, but has suitable winter forage habitat.
<i>Melospiza melodia</i> (Modesto population) Modesto song sparrow	— / — SSC	G5 S3?	Freshwater wetlands, early succession riparian thickets and valley oak riparian groves below 200 ft. (61 m.) elevation. (Shuford & Gardali 2008)	No. Project site is out of the range of the species.
<i>Numenius americanus</i> (nesting) Long-billed curlew	— / — CDFW:WL BCC	G5 S2	Grasslands and wet meadows, usually adjacent to lakes, marshes, or estuaries. Breeds on grazed, mixed-grass and short grass prairies. (CWHR 2016)	No. Project site lacks suitable wetland habitat and is out of the known range of the species.
<i>Otus flammeolus</i> (nesting) Flammulated owl	— / — BCC	G4 S2S3	Coniferous forests between 1830-3048 m (6000-10,000 ft) elevation. Favors small openings and edges with snags. (CWHR 2016)	No. Project site has no coniferous forest habitat.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Pandion haliaetus</i> (nesting) Osprey	— / — CDFW: WL	G5 S34	Associated strictly with large, fish-bearing waters, primarily in Ponderosa pine and higher-elevation conifer habitats. Preys mostly on fish; also takes a few mammals, birds, reptiles, amphibians, and invertebrates. (CWHR, 2016)	No. Project site has no large, fish-bearing waters.
<i>Passerella iliaca</i> Fox sparrow	— / — IUCN: LC	G5 SNR	Dense thickets in chaparral and brushy under-stories of a variety of wooded habitats. Riparian thickets used more frequently in summer than in winter. Nests on the ground or occasionally in low shrubs. (CWHR 2016)	Yes. See text for further discussion.
<i>Phalacrocorax auritus</i> (nesting colony) Double-crested cormorant	— / — CDFG: WL	G5 S34	Resident along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters. Feeds mainly on fish; also on crustaceans and amphibians. Requires undisturbed nest-sites beside water, on islands or mainland. Nests in colonies of a few to hundreds of pairs, or even thousands. (CWHR 2016)	No. Project site has no permanent water habitats.
<i>Pica nuttalli</i> (nesting & communal roosts) Yellow-billed magpie	— / — BCC	G3G4 S3S4	Resident of the Central Valley, and coastal mountain ranges south from San Francisco Bay to Santa Barbara Co. Prefers open oak and riparian woodland, and farm and ranch land with tall trees in the vicinity of grassland, pasture, and cropland. (CWHR 2016)	No. Project site lacks open oak and riparian habitat near farmland required by the species.
<i>Picoides albolarvatus</i> (nesting) White-headed woodpecker	— / — BCC	G4 S4	Montane pine and fir forests with large trees, snags and tree/shrub or tree/herbaceous ecotones. (CWHR 2016)	No. Project site has no mature pine or fir forest habitats.
<i>Picoides nuttallii</i> (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. (Zeiner et. al, 1990b)	Yes. See text for further discussion.
<i>Pipilo chlorurus</i> (breeding) Green-tailed towhee	— / — IUCN: LC	G5 SNR	Occurs primarily in montane chaparral, sagebrush, low sagebrush, and bitterbrush habitats, or sparse coniferous forests with suitable understory. Breeds in dry, moderately open stands of brush within sparse coniferous forest or chaparral, especially montane slopes of manzanita and ceanothus. (CWHR 2016)	No. Project site lacks suitable montane brush habitats.
<i>Plegadis chihi</i> (rookeries) White-faced ibis	— / — CDFW:WL	G5 S3S4	Fresh emergent wetlands, shallow lakes, irrigated pastures or cropland. Nests amid tall marsh plants in extensive marshes (CWHR 2016)	No. Project site has no suitable wetland or cropland habitats.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Progne subis</i> (nesting) Purple martin	— / — SSC	G5 S3	Uses valley foothill, 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 2016)	Yes. See text for further discussion.
<i>Riparia riparia</i> (nesting) Bank swallow	— / T	G5 S2	Open riparian areas, brushland, grassland and cropland. Nests in vertical banks and cliffs with fine-textured soils near water. (CWHR 2016)	No. Project site lacks suitable bank or cliff nesting habitat, and is out of the known range of the species.
<i>Setophaga petechia</i> (nesting) Yellow warbler	— / — SSC	G5 S3S4	Nests in riparian habitats dominated by willows, cottonwoods, sycamores or alders, or in mature chaparral. (CWHR 2016)	No. Project site has no riparian or chaparral habitat.
<i>Sphyrapicus ruber</i> (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 2016)	No. Project site is out of the nesting range of the species, but may provide winter forage areas.
<i>Sphyrapicus thyroideus</i> Williamson's sapsucker	— / — IUCN: LC	G5 SNR	Summer resident in 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 2016)	No. Project site is too low in elevation for the species.
<i>Spinus lawrencei</i> (nesting) Lawrence's goldfinch	— / — BCC	G3G4 S3S4	Breeds in open oak or other arid woodland within 0.5 mi. of water. Prefers to nest in an oak, most often near water, but also uses chaparral. (CWHR 2016)	Yes. See text for further discussion.
<i>Spizella atrogularis</i> (nesting) Black-chinned sparrow	— / — BCC	G5 S4	Summer resident breeding uncommonly in foothills bordering Central Valley, commonly on arid mountain slopes of southern California. 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 2016)	Yes. See text for further discussion.
<i>Spizella passerina</i> (nesting) Chipping sparrow	— / — IUCN: LC	G5 S4S5	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. Nests in conifers. (CWHR 2016)	Yes. See text for further discussion.
<i>Stellula calliope</i> (nesting) Calliope hummingbird	— / — IUCN: LC	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 2016)	No. Project site below the breeding elevation of the species.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
<i>Strix occidentalis occidentalis</i> California spotted owl	— / — SSC	G3T3 S3	In northern California, found in dense, old-growth mixed conifer habitats (canopy closure >40%) in narrow, steep-sided canyons with north-facing slopes, within 300 meters of water (CWHR 2016)	No. Project site lacks mixed conifer habitat.
<u>Mammals</u>				
<i>Lasionycteris noctivagans</i> 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 2016)	Yes. See text for further discussion.
<i>Myotis yumanensis</i> Yuma myotis	— / — IUCN: LC	G5 S4	Many habitats from sea level to 2400 m. in Sierras, roosting in warm, dark caves, mines, buildings, bridges, fire-scarred trees. Maternity colonies contain thousands of females and young. Forage for insects over water bodies. (CWHR 2016)	No. Project site lacks suitable forage, roosting and nursery habitat for the species.
<i>Pekania pennanti</i> Fisher–West Coast DPS (Distinct Population Segment)	CT / CT SSC	G5T2T3 S2S3	Suitable habitat is large areas of mature, dense coniferous forest stands or deciduous-riparian habitats with ≥50% canopy closure (CWHR 2016).	No. Project site lacks conifer and deciduous-riparian habitat.

Plants				
<i>Allium jepsonii</i> Jepson's onion	— / — 1B.2	G2 S2	Chaparral, cismontane woodland or lower montane coniferous forest on serpentine or volcanic soils, 450-1130 meters elevation (CNDDDB 2016)	Yes. See text for further discussion.
<i>Arctostaphylos nissenana</i> Nissenan manzanita	— / — 1B.2	G1 S1	Open rocky ridges in chaparral or closed-cone coniferous forest between 450-1100 m elevation. (CNDDDB 2016)	No. Project site lacks chaparral and coniferous forest habitats and is below the known elevation range of the species.
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i> Big-scale balsamroot	— / — 1B.2	G2 S2	Open grassy slopes and valleys in Sierra Nevada foothills, Sacramento Valley and San Francisco Bay area (Baldwin 2012). Sometimes found on Serpentine soils. (CNDDDB 2016)	No. Project site has no open grassy slopes.
<i>Calystegia stebbinsii</i> Stebbins's morning-glory	E / E 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 (CNDDDB 2016)	No. Project site has no chaparral habitat.
<i>Calystegia vanzuukiae</i> Van Zuuk's morning-glory	— / — 1B.3	G2Q S2	Open mixed, usually coniferous, woodland, usually (or exclusively) on serpentine or gabbro soils, only in Placer and El Dorado Counties (Brummitt & Namoff, 2013). 500-1800 m. elevation (CNDDDB 2016)	No. Project site lacks coniferous forest habitat and is below the recognized range of the species.
<i>Carex cyrtostachya</i> Sierra arching sedge	— / — 1B.2	G2G3 S2S3	Meadows, seeps, marshes and swamps in lower montane coniferous forest and riparian forest, 610 - 1360 meters elevation. (CNPS 2016)	No. Project has no suitable wet habitat, and is below the known range of the species.
<i>Ceanothus roderickii</i> Pine Hill ceanothus	E / R 1B.2	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 (CNDDDB 2016)	No. Project site has no gabbro soils.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	— / — 1B.2	G2 S2	Open chaparral on gabbro or serpentine soils. (Hunter and Horenstein 1991)	No. Project site has no open chaparral habitat.
<i>Clarkia biloba</i> ssp. <i>brandegeae</i> Brandegee's clarkia	— / — 4.2	G4G5T4 S4	Chaparral, cismontane woodland, often on road cuts, 295-885 m. elevation. (CNDDDB 2016)	Yes. See text for further discussion.
<i>Crocianthemum suffrutescens</i> Bisbee Peak rush-rose	— / — 3.2	G2Q S2	Chaparral on gabbro soils in El Dorado County or on serpentine or Ione soils elsewhere (Wilson 1986, CNPS 2016); 45-610 m. elevation (CNDDDB 2016).	No. Project site has no chaparral habitat.
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	— / — 1B.2	G2 S2	Vernal pools and other mesic areas in cismontane woodland and lower coniferous forest habitats on volcanic soils between 250-450 m. elevation. (CNDDDB 2016)	No. Project site lacks suitable mesic habitat.

<i>Fremontodendron decumbens</i> Pine Hill flannelbush	E / R 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. (CNDDDB 2016)	No. Project site is outside of the known range of the species.
<i>Galium californicum</i> ssp. <i>sierrae</i> El Dorado bedstraw	E / R 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 (CNDDDB 2016).	No. Project site has no gabbro soils.
<i>Horkelia parryi</i> Parry's horkelia	— / — 1B.2	G2 / S2.2	Chaparral and cismontane woodland, on Ione or limestone soils, between 80-1035 m. elevation. (CNDDDB 2016)	No. Neither Ione nor limestone soils, required by the species, are found on the project site.
<i>Orcuttia viscida</i> Sacramento orcutt grass	E / E 1B.1	G1 S1	Vernal pools. (CNDDDB 2016)	No. Project site has no vernal pool habitat.
<i>Packera layneae</i> (= <i>Senecio layneae</i>) Layne's butterwort	T / R 1B.2	G2 S2	Open rocky areas in chaparral on gabbro or serpentine soils (USFWS 2002b); 200-1000 m. elevation (CNDDDB 2016).	Yes. See text for further discussion.
<i>Rorippa subumbellata</i> Tahoe yellow-cress	— / E 1B.1	G1 S1	Lower montane coniferous forest, meadows and seeps. Found on sandy beaches, lakeside margins and riparian areas on decomposed granite sand from 1885-1900 meters elevation. (CNDDDB 2016)	No. Project site is lower than the known elevation range of the species.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	— / — 1B.2	G3 S3	Emergent from shallow, standing, fresh water within marshes, ponds and ditches, 0-650 m. elevation. (CNPS 2016, BLM 2010)	No. The project site has no standing water habitat with emergent vegetation.
<i>Viburnum ellipticum</i> Oval-leaved viburnum	— / — 2.3	G4G5 S3?	Chaparral, cismontane woodland or lower montane coniferous forest between 215-1400 m. elevation (CNDDDB 2016)	Yes. See text for further discussion.
<i>Wyethia reticulata</i> 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. (CNDDDB 2016)	No. Project site has neither stony red clay nor gabbro soil types.
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. (UC Davis 2014)	No. Project site has no perennial streams.

APPENDIX E

**Plant Species Found on the Project Site
August 1 & 2, 2014
July 23, 2015
and
March 17, 2016**

**Plant Species Found on the Project Site
August 1 & 2, 2014, July 23, 2015 and March 17, 2016**

Adoxaceae

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

Agavaceae

Chlorogalum pomeridianum (DC.) Kunth
var. *pomeridianum*, **Common soaproot**

Anacardiaceae

Rhus aromatica Aiton, **Skunk bush**
Toxicodendron diversiloba (Torrey & A. Gray)
E. Greene, **Western poison-oak**

Apiaceae

Daucus pusillus Michx., **Queen Ann's lace**
Galium aparine L., **Goose grass**
Galium porrigens Dempster, **Climbing bedstraw**
Sanicula sp., **Sanicle**
Scandis pecten-veneris L., **Venus' needle**

Apocynaceae

Nerium oleander L., **Common oleander**
Vinca major L., **Greater periwinkle**

Araliaceae

Hedera sp., **Ivy**

Asteraceae

Achillea millefolium L., **Yarrow**
Agoseris sp., **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**
Erigeron canadensis L., **Horseweed**
Hypochaeris sp., **Cat's-ear**
Lactuca serriola L., **Prickly lettuce**
Logfia gallica (L.) Coss. & Germ., **Daggerleaf cottonrose**
Pseudognaphalium californicum (DC.) Anderb.,
California cudweed
Senecio vulgaris L., **Common groundsel**
Solidago sp., **Goldenrod**
Tragopogon sp., **Goat's beard**
Wyethia angustifolia (DC) Nutt., **Narrow-leaved mule-ears**
Wyethia helenioides (DC.) Nutt., **Gray mule-ears**

Boraginaceae

Nemophila heterophylla Fisch. & C.A. Mey., **White nemophila**

Caprifoliaceae

Lonicera sp., **Honeysuckle**

Caryophyllaceae

Spergularia rubra (L.) J. Presl & C Presl, **Red sandspurry**

Stellaria media (L.) Vill., **Common chickweed**

Stellaria pallida (Dumort.) Crep., **Lesser chickweed**

Convolvulaceae

APN 319-330-27
Shingle Springs, El Dorado County, California

Calystegia occidentalis (A. Gray) Brummitt,
Western morning glory

Cupressaceae

Calocedrus decurrens (Torr.) Florin, **Incense cedar**

Cyperaceae

Carex tumulicola Mack, **Foothill sedge**

Cyperus sp., **Nutsedge**

Ericaceae

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

Euphorbiaceae

Croton setiger Hook., **Turkey-mullein**

Fabaceae

Acmispon brachycarpus (Benth.) D.D. Sokoloff, **Hill deervetch**

Genista sp., **Broom**

Lathyrus sp., **Wild pea**

Medicago sp., **Bur-clover**

Robinia pseudoacacia L., **Black locust**

Trifolium hirtum All., **Rose clover**

Vicia sp., **Vetch**

Fagaceae

Quercus douglasii Hook & Arn., **Blue oak**

Quercus kelloggii Newb., **California black oak**

Quercus lobata Nee, **Valley oak**

Quercus wislizeni A. DC., **Interior live oak**

Gentianaceae

Centaurium tenuiflorum (Hoffmanns. & Link) Janch.
Slender centaury

Geraniaceae

Erodium sp., **Filaree**

Geranium molle L.

Hypericaceae

Hypericum perforatum L. subsp. *perforatum*
klamathweed

Juncaceae

Juncus tenuis Willd., **Slender rush**

Luzula comosa E. Mey., **Hairy woodrush**

Lamiaceae

Marrubium vulgare L., **Horehound**

Stachys stricta Greene, **Hedge-nettle**

Liliaceae

Calochortus monophyllus (Lindl.) Lem., **Yellow star-tulip**

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

Montiaceae

Claytonia perfoliata Willd., **Miner's lettuce**

Myrsinaceae

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

Oleaceae

Ligustrum japonicum Thunb., **Japanese privet**

Onagraceae

Epilobium brachycarpum C. Presl, **Autumn willowherb**

Pinaceae

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

Plantaginaceae

Plantago lanceolata L., **Italian plantain**
Veronica persica Poir, **Persian speedwell**
Rumex crispus L., **Curly dock**
Rumex occidentalis S. Watson, **Western dock**

Poaceae

Aegilops triuncialis L., **Barbed goat grass**
Aira caryophyllea L., **Silver hair grass**
Avena sp., **Wild oat**
Briza minor L., **Annual quaking grass**
Bromus hordeaceus L., **Soft chess**
Bromus madritensis L., **Foxtail chess**
Bromus tectorum L., **Cheat grass**
Cynodon dactylon (L.) Pers., **Bermuda grass**
Cynosurus echinatus L., **Hedgehog dogtail**
Elymus glaucus Buckley, **Blue wildrye**
Festuca perennis (L.) Columbus & J.P.Sm., **Ryegrass**
Gastridium phleoides (Nee & Meyen) C.E. Hubb.,

Nit grass

Hordeum sp., **Barley**
Phalaris minor Retz., **Canary grass**
Poa sp., **Bluegrass**

Polygalaceae

Polygala cornuta Kellogg, **Milkwort**

Polygonaceae

Rumex sp., **Dock**

Primulaceae

Primula hendersonii (A. Gray) Mast & Reveal;

Mosquito bills, Sailor caps

Ranunculaceae

Clematis lasiantha Nutt., **Pipestem clematis**
Ranunculus canus Benth var. *canus*, **Buttercup**

Rhamnaceae

Ceanothus cuneatus (Hook.) Nutt. var. *cuneatus*,
Buck brush
Ceanothus integerrimus Hook. & Arn, **Deer brush**
Rhamnus ilicifolia Kellogg, **Holly-leaf redberry**
Rhamnus tomentella Benth., **Hoary coffeeberry**

Rosaceae

Heteromeles arbutifolia (Lindley) Roemer, **Toyon**
Prunus laurocerasus L., **English laurel**
Pyracantha sp., **Firethorn**
Rubus armeniacus Focke **Himalayan blackberry**

Rubiaceae

Galium bolanderi A. Gray, **Bolander's bedstraw**
Galium porrigens Dempster, **Climbing bedstraw**

Salicaceae

Populus fremontii S.Watson, subsp. *fremontii*

Fremont cottonwood

Salix laevigata Bibb., **Red willow**

Sapindaceae

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

Scrophulariaceae

Verbascum thapsus L., **Woolly mullein**

Simaroubaceae

Ailanthus altissima (Mill.) Swingle, **Tree of heaven**

Viscaceae

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

APPENDIX F

Oak Tree Assessments

TREE NO.	COMMON NAME	SCIENTIFIC NAME <i>Quercus</i> sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION ¹⁴	DEFECTS ¹⁵
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
1	Interior live oak	<i>Q. wislizeni</i>	21	22		✓			✓		3	1, 6, 11
2	Interior live oak	<i>Q. wislizeni</i>	11	17		✓			✓		3	1, 4, 6, 8, 11
3	Interior live oak	<i>Q. wislizeni</i>	11	16		✓		✓			4	11
4	Interior live oak	<i>Q. wislizeni</i>	20	16		✓			✓		2.5	1, 3, 4, 5, 6, 8, 10, 14
5	Interior live oak	<i>Q. wislizeni</i>	20	15		✓			✓		2.5	1, 4, 5, 6, 8, 10, 14
6	Blue oak	<i>Q. douglasii</i>	22.5	18	✓			✓			4.5	11
7	Blue oak	<i>Q. douglasii</i>	14	24	✓				✓		4	3, 5, 11
8	Interior live oak	<i>Q. wislizeni</i>	17.5	15	✓				✓		3.5	1, 4, 11
9	Interior live oak	<i>Q. wislizeni</i>	8	11	✓				✓		4.5	3, 11
10	Interior live oak	<i>Q. wislizeni</i>	15	19		✓			✓		3	2, 3, 6, 10
11	Interior live oak	<i>Q. wislizeni</i>	16	11		✓				✓	2.5	2, 3, 4, 6, 9, 10
12	Interior live oak	<i>Q. wislizeni</i>	7	9		✓		✓			3	15
13	Interior live oak	<i>Q. wislizeni</i>	18	13	✓				✓		4	1, 2, 6
14	Blue oak	<i>Q. douglasii</i>	12	6		✓				✓	1.5	5, 9, 10
15	Interior live oak	<i>Q. wislizeni</i>	25	19	✓				✓		3.5	1, 4, 6
16	Interior live oak	<i>Q. wislizeni</i>	21	22		✓			✓		3	1, 4, 6, 9
17	Blue oak	<i>Q. douglasii</i>	15	24	✓			✓			4	7, 8, 9
18	Interior live oak	<i>Q. wislizeni</i>	10	10	✓			✓			4.5	3, 13
19	Interior live oak	<i>Q. wislizeni</i>	17	15		✓			✓		3	1, 9, 11
20	Interior Live oak	<i>Q. wislizeni</i>	26	10		✓			✓		2.5	1, 4, 8, 9, 11, 12, 14
21	Blue oak	<i>Q. douglasii</i>	21	25	✓			✓			3.4	1, 8, 14

¹⁴ 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

¹⁵ 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4=cavities; 5= cavity at base of trunk; 6= multiple trunks; 7= wire in trunk; 8= growing beneath utility lines, 9= large wound, 10= rot, 11= dead limbs, 12= mostly dead; 13= shaded so limbs spread only one direction; 14= possible internal rot; 15= limb dieback; 16= severe ivy (*Hedera* sp.) infestation

TREE NO.	COMMON NAME	SCIENTIFIC NAME <i>Quercus</i> sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION ¹⁶	DEFECTS ¹⁷	
					GOOD	FAIR	POOR	GOOD	FAIR	POOR			
22	Interior Live oak	<i>Q. wislizeni</i>	12	11		✓			✓			3	7, 8, 9, 10, 11
23	Blue oak	<i>Q. douglasii</i>	13	18	✓				✓			4	1, 11
24	DEAD											0	
25	Interior Live oak	<i>Q. wislizeni</i>	8	15		✓			✓			3	11, 13
26	Interior live oak	<i>Q. wislizeni</i>	62	21		✓				✓		2.5	2, 4, 5, 6, 10, 11
27	Interior live oak	<i>Q. wislizeni</i>	7.5	10			✓			✓		1	9, 10, 12, 14
28	Interior live oak	<i>Q. wislizeni</i>	31	18		✓				✓		2.5	1, 6, 9, 11
29	Black oak	<i>Q. kelloggii</i>	21	22		✓			✓			4	8, 9, 11
30	Interior Live oak	<i>Q. wislizeni</i>	22	23	✓				✓			4.5	1
31	Black oak	<i>Q. kelloggii</i>	13	17		✓				✓		3	8, 11, 16
32	Interior Live oak	<i>Q. wislizeni</i>	13	13		✓			✓			2.5	8, 15, 16
33	Valley oak	<i>Q. lobata</i>	34	27		✓				✓		3.5	1, 6, 8, 11
34	Black oak	<i>Q. kelloggii</i>	34	30		✓					✓	2	2, 4, 5, 6, 9, 10
35	Interior live oak	<i>Q. wislizeni</i>	11	14	✓				✓			4.5	13
36	Interior live oak	<i>Q. wislizeni</i>	21	16		✓				✓		3	2, 4
37	Interior live oak	<i>Q. wislizeni</i>	12	18	✓					✓		3	1, 4, 9
38	Black oak	<i>Q. kelloggii</i>	17	21		✓				✓		3	2, 6, 9, 10, 11
39	Interior live oak	<i>Q. wislizeni</i>	17	30		✓				✓		3	1, 9
40	Interior Live oak	<i>Q. wislizeni</i>	27	33	✓						✓	3	2, 3, 11, 13
41	Interior Live oak	<i>Q. wislizeni</i>	20	23		✓					✓	2.5	1, 3, 11, 13
42	Live oak	<i>Q. wislizeni</i>	18	35	✓						✓	3	3, 6, 11, 13

¹⁶ 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

¹⁷ 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4=cavities; 5= cavity at base of trunk; 6=multiple trunks; 7=wire in trunk; 8=growing beneath utility lines, 9= large wound, 10= rot, 11=dead limbs, 12=mostly dead; 13= shaded so limbs spread only one direction; 14= possible internal rot; 15= limb dieback; 16= severe ivy (*Hedera* sp) infestation

TREE NO.	COMMON NAME	SCIENTIFIC NAME <i>Quercus</i> sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION ¹⁸	DEFECTS ¹⁹	
					GOOD	FAIR	POOR	GOOD	FAIR	POOR			
43	Interior live oak	<i>Q. wislizeni</i>	12	21		✓				✓		2.5	3, 5, 10
44	Interior live oak	<i>Q. wislizeni</i>	30	28		✓				✓		2.5	1, 3, 8, 9, 10, 11
45	Blue oak	<i>Q. douglasii</i>	32	35		✓			✓			2.5	1, 4, 8, 9, 10, 11
46	Blue oak	<i>Q. douglasii</i>	17	25	✓			✓				4.5	8, 11
47	Blue oak	<i>Q. douglasii</i>	25	25		✓		✓				4	9, 11
48	Blue oak	<i>Q. douglasii</i>	12	15	✓			✓				5	8
49	Blue oak	<i>Q. douglasii</i>	20	25	✓			✓				5	
50	Blue oak	<i>Q. douglasii</i>	16	29		✓			✓			3.5	3, 11, 13
51	Interior live oak	<i>Q. wislizeni</i>	15	32	✓					✓		3	3, 11, 13,
52	Interior live oak	<i>Q. wislizeni</i>	10	23			✓			✓		1.5	3, 4, 9, 10, 11
53	Blue oak	<i>Q. douglasii</i>	18	26	✓			✓				4.5	11
54	Interior live oak	<i>Q. wislizeni</i>	9	11	✓				✓			4	1
55	Blue oak	<i>Q. douglasii</i>	14	26	✓				✓			4	13
56	Blue oak	<i>Q. douglasii</i>	15	31	✓				✓			4	3, 13
57	Blue oak	<i>Q. douglasii</i>	25	47	✓				✓			4	3, 13
58	Blue oak	<i>Q. douglasii</i>	21	28	✓			✓				5	1

¹⁸ 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

¹⁹ 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4=cavities; 5= cavity at base of trunk; 6= multiple trunks; 7= wire in trunk; 8= growing beneath utility lines, 9= large wound, 10= rot, 11= dead limbs, 12= mostly dead; 13= shaded so limbs spread only one direction; 14= possible internal rot; 15= limb dieback; 16= severe ivy (*Hedera* sp) infestation

TREE NO.	COMMON NAME	SCIENTIFIC NAME <i>Quercus</i> sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION ²⁰	DEFECTS ²¹
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
100	Blue oak	<i>Quercus douglasii</i>	25	26		✓		✓			3.5	8, 9, 11
101	Blue oak	<i>Q. douglasii</i>	11	18	✓			✓			4.5	8, 11
102	Blue oak	<i>Q. douglasii</i>	25	35	✓					✓	3	3, 4, 8, 9, 11
103	Blue oak	<i>Q. douglasii</i>	18	10			✓			✓	1	4, 8, 9, 11, 12
104	Blue oak	<i>Q. douglasii</i>	13	12	✓			✓			5	
105	Blue oak	<i>Q. douglasii</i>	28	25	✓			✓			4.7	11
106	Blue oak	<i>Q. douglasii</i>	16	24	✓				✓		3.5	9
107	Blue oak	<i>Q. douglasii</i>	22	23	✓				✓		3.5	4, 9
108	Blue oak	<i>Q. douglasii</i>	19	27	✓			✓			4.5	11
109	Blue oak	<i>Q. douglasii</i>	9	12	✓			✓			5	11
110	Blue oak	<i>Q. douglasii</i>	8	9	✓			✓			5	
111	Blue oak	<i>Q. douglasii</i>	32	28		✓			✓		3.5	4, 6
112	Blue oak	<i>Q. douglasii</i>	17	25	✓			✓			5	11
113	Blue oak	<i>Q. douglasii</i>	9	12	✓			✓			4.7	
114	Blue oak	<i>Q. douglasii</i>	19	25	✓					✓	3	4, 9
115	Blue oak	<i>Q. douglasii</i>	17	21	✓			✓			4.7	6
116	Blue oak	<i>Q. douglasii</i>	13	25		✓				✓	3	2, 11
117	Blue oak	<i>Q. douglasii</i>	62	32		✓			✓		3	4, 6, 13
118	Blue oak	<i>Q. douglasii</i>	18	30		✓			✓		3	3, 4, 11
119	Blue oak	<i>Q. douglasii</i>	22	34		✓		✓			3.5	4, 11
120	Interior Live oak	<i>Q. wislizeni</i>	38	38		✓				✓	2.5	1, 2, 3, 6, 9, 11
121	Interior Live oak	<i>Q. wislizeni</i>	11	31	✓					✓	3	3, 9
122	Interior Live oak	<i>Q. wislizeni</i>	7	17	✓			✓			5	
123	Interior Live oak	<i>Q. wislizeni</i>	46	26		✓			✓		3	1, 3, 4, 6, 11
124	Interior Live oak	<i>Q. wislizeni</i>	26	27		✓			✓		3	6, 11

²⁰ 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

²¹ 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= cavities; 5=many suckers; 6=multiple trunks; 7=wire in trunk; 8= growing beneath utility lines, 9= large wound, 10=rot, 11=dead limbs, 12=mostly dead; 13=severe mistletoe; 14=dead stems at base of tree.

TREE NO.	COMMON NAME	SCIENTIFIC NAME <i>Quercus</i> sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION ²²	DEFECTS ²³	
					GOOD	FAIR	POOR	GOOD	FAIR	POOR			
125	Interior Live oak	<i>Q. wislizeni</i>	23	22		✓			✓			3	6, 11
126	Blue oak	<i>Q. douglasii</i>	11	14	✓			✓				5	
127	Blue oak	<i>Q. douglasii</i>	14	25	✓				✓			4	2, 11
128	Blue oak	<i>Q. douglasii</i>	15	19	✓				✓			4	1, 11
129	Blue oak	<i>Q. douglasii</i>	23	22	✓				✓			3.5	1, 2, 6, 9, 11
130	Interior Live oak	<i>Q. wislizeni</i>	28	21		✓				✓		3	1, 6, 9
131	Interior Live oak	<i>Q. wislizeni</i>	62	34	✓					✓		3	1, 2, 3, 6, 11
132	Interior Live oak	<i>Q. wislizeni</i>	10	32			✓			✓		3	3, 11
133	Interior Live oak	<i>Q. wislizeni</i>	77	37		✓				✓		3	3, 11
134	Interior Live oak	<i>Q. wislizeni</i>	10	8			✓			✓		2	9, 10, 11, 12
135	Blue oak	<i>Q. douglasii</i>	27	25		✓			✓			3	1, 6, 9, 10, 11
136	Blue oak	<i>Q. douglasii</i>	9	7	✓				✓			4	1, 6, 11
137	Black oak	<i>Q. wislizeni</i>	33	28	✓				✓			4.5	6
138	Interior Live oak	<i>Q. wislizenii</i>	33	26	✓					✓		3	6, 11
139	Black oak	<i>Q. kelloggii</i>	16	18	✓				✓			5	11
140	Interior Live oak	<i>Q. wislizeni</i>	6	7	✓				✓			5	
141	Interior Live oak	<i>Q. wislizeni</i>	11	12		✓				✓		3	4, 10
142	Interior Live oak	<i>Q. wislizeni</i>	15	18		✓				✓		2.5	6, 10, 11
143	Blue oak	<i>Q. douglasii</i>	16	28	✓					✓		2	6
144	Black oak	<i>Q. kelloggii</i>	53	40	✓				✓			3.5	6, 11
145	Black oak	<i>Q. kelloggii</i>	74	34	✓					✓		3	3, 6, 11

²² 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

²³ 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= rot; 5=many suckers; 6= multiple stems from base; 7=wire in trunk; 8= cavity at base of trunk, 9= large wound, 10=cavity, 11=dead limbs, 12=mostly dead; 13= dead stems at base of tree; 14=severe mistletoe

TREE NO.	COMMON NAME	SCIENTIFIC NAME <i>Quercus</i> sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION ²⁴	DEFECTS ²⁵
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
146	Blue oak	<i>Q. douglasii</i>	34	26		✓			✓		3	2, 6, 10, 11
147	Black oak	<i>Q. kelloggii</i>	50	23		✓				✓	2.5	1, 4, 6, 11
148	Interior Live oak	<i>Q. wislizeni</i>	7	17		✓			✓		3	3, 11
149	Black oak	<i>Q. kelloggii</i>	64	30	✓				✓		3	3, 9, 11
150	Black oak	<i>Q. kelloggii</i>	36	38	✓					✓	3	3, 6, 11
151	Interior Live oak	<i>Q. wislizeni</i>	76	37		✓				✓	3	4, 6, 11
152	Black oak	<i>Q. kelloggii</i>	29	15	✓				✓		3.5	2, 4, 6, 11
153	Interior Live oak	<i>Q. wislizeni</i>	9	26			✓		✓		2.5	3, 11
154	Black oak	<i>Q. kelloggii</i>	59	28	✓				✓		3.5	6, 11
155	Black oak	<i>Q. kelloggii</i>	40	22	✓					✓	3	2, 6, 11
156	Interior Live oak	<i>Q. wislizeni</i>	14	18		✓				✓	2.5	2, 3, 6
157	Black oak	<i>Q. kelloggii</i>	22	15		✓			✓		3	6, 11
158	Black oak	<i>Q. kelloggii</i>	82	30	✓				✓		3.5	2, 6, 11
159	Black oak	<i>Q. kelloggii</i>	40	19	✓				✓		3.5	2, 6, 11
160	Valley oak	<i>Q. lobata</i>	14	19	✓			✓			5	11
161	Interior Live oak	<i>Q. wislizeni</i>	6	13	✓				✓		4	11
162	Interior Live oak	<i>Q. wislizeni</i>	6	18	✓				✓		4	3
163	Interior Live oak	<i>Q. wislizeni</i>	34	20	✓				✓		4	2, 11
164	Interior Live oak	<i>Q. wislizeni</i>	33	27		✓			✓		3	2, 6, 11
165	Interior Live oak	<i>Q. wislizeni</i>	29	19			✓			✓	1.5	6, 10, 11

²⁴ 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

²⁵ 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= rot; 5=many suckers; 6= multiple stems from base; 7=wire in trunk; 8= cavity at base of trunk, 9= large wound, 10=cavity, 11=dead limbs, 12=mostly dead; 13= dead stems at base of tree; 14=severe mistletoe

APPENDIX G

El Dorado County Oak Canopy Site Assessment Report

El Dorado County

OAK/CANOPY SITE ASSESSMENT FORM

Qualified Professional & Contact Information: <i>(attach qualifications)</i>	Ruth Willson, 530/6227014; ruthwillson@comcast.net	
Property Owner's Name/APN(s):	Ray Tanis, APN. 319-330-27	
Address:	3069 Rancheria Court, Shingle Springs, CA 95682	
General Plan Designation:	Low-density residential	
Zoning:	RE-5	
Project Description: <i>(attach site photos)</i>	Subdivision of 16.65 acre parcel into two parcels: 5.1 acres and 11.5 acres.	
Would the project, directly or indirectly, have the potential to cause any impact, conflict with, or disturbance to:	YES	NO
a) Individual landmark or heritage trees (of any species) subject to review under General Plan Policy 7.4.5.2?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Oak woodland corridor continuity (General Plan Policy 7.4.4.5)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Sensitive or important oak woodland habitat as defined in the Guidelines?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Movement of Wildlife and/or Any Wildlife Migration Corridor?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Any Candidate, Listed or Special Status Plant or Animal Species observed or expected to occur on or adjacent to the project site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Is the affected area of oak canopy within or directly adjacent to an Important Biological Corridor or Ecological Preserve overlay?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Does the removal of oak canopy comply with the retention requirements of Policy 7.4.4.4?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Was project subject to prior County approval? (If yes, provide Tentative Map # and environmental documents if available)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) For Discretionary Projects, would the project have the potential to cause a significant environmental impact on biological resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>I affirm that all of the information contained in this document is true and correct to the best of my knowledge and I acknowledge and agree that any material misinformation in this document can result in the denial or revocation of any permits or County approvals for this project.</i>		
Qualified Professional: <u>Ruth Willson</u>	Date: <u>April 4, 2016</u>	
Applicant/Owner: _____	Date: _____	

Required Attachments: 1) Qualified Professional Qualifications; 2) Site Photos; 3) Required Tree Survey, Preservation, and Replacement Plan or Biological Resources Study and Important Habitat Mitigation Program (see Interim Interpretive Guidelines for El Dorado County Policy 7.4.4.4 Option A)

H:\D-drive\MyDocuments\Oak Woodlands\Oak Site Assessment Form Adopted 118808.doc



Site photos: Typical oak woodland scenes from the project site (above left and right); several trees within the proposed septic area consist of multi-stem trees from stumps of previously cut trees (lower left); Tree 103, located near the southwest corner of the project site, is a potential hazard tree that is recommended for removal.



Professional Qualifications

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 is an ISA Certified Arborist, No. WE-8335A.

Wetland Delineation Report

for

Assessor's Parcel Number 319-330-27

including

Rancheria Court Road Improvement Area

Shingle Springs, El Dorado County, CA

Prepared by
Site Consulting, Inc.
3460 Angel Lane
Placerville, California 95667
(530) 622-7014

Prepared for
Ray Tanis
(530) 672-6266

April 2016

Attachment 9

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- Appendix A. Wetland Determination Data Forms–Arid West Region
- Appendix B. Plant Species Found on the Project Site

I. Report Summary

The project site consists of the Tanis property and the Rancheria Court easement. One ephemeral drainage channel and an intermittent creek were found on the Tanis property. A small wetland was found behind a very low dam within the ephemeral drainage channel. The total potential jurisdictional area within the Tanis property is 2,814 square feet (0.065 Ac.).

Two seasonal ponds and an ephemeral drainage were found within the Rancheria Court easement. Total potential jurisdictional area within Rancheria Court easement is 8,970 square feet (0.205 acre).

Total potential jurisdictional area in the project site is 11,784 square feet (0.27 acre). See Table 1, page 12, for more details.

II. Introduction

A. Purpose of Report

A wetland delineation was conducted on Assessor's Parcel Number 319-330-27 (Figure 1) November 11, 2014, and alongside Rancheria Court easement, which serves said parcel, on March 16, 2016, at the request of Ray Tanis. The wetland delineation is part of submittal information required by El Dorado County for a two-way subdivision of a 16.65 acre parcel.

B. Project Location and Description

The Tanis property, 16.65 acres in size, is located in the northeast quarter of the northwest quarter of Section 30, Township 10 North, Range 10 East, M.D.M. (Figure 5), being Parcel A of PM 8-62, at 3069 Rancheria Court, Shingle Springs, CA. The proposed project would subdivide the parcel into two single-family residential lots, one being 5.1 acres and the other being 11.5 acres in size (Figure 2). One of the Conditions of Approval for the project is to make improvements to Rancheria Court (Figure 3).

The Tanis property has a General Plan designation of Low-Density Residential with RE-5 zoning, and lies within an Important Biological Corridor and Rare Plant Mitigation Area 1. The parcel is bounded on all sides by single-family residential lots varying in size from 1.0 to 10.6 acres.

C. Property Owner and Project Manager

Property Owner
Ray Tanis
3069 Rancheria Ct.
Shingle Springs, CA 95682

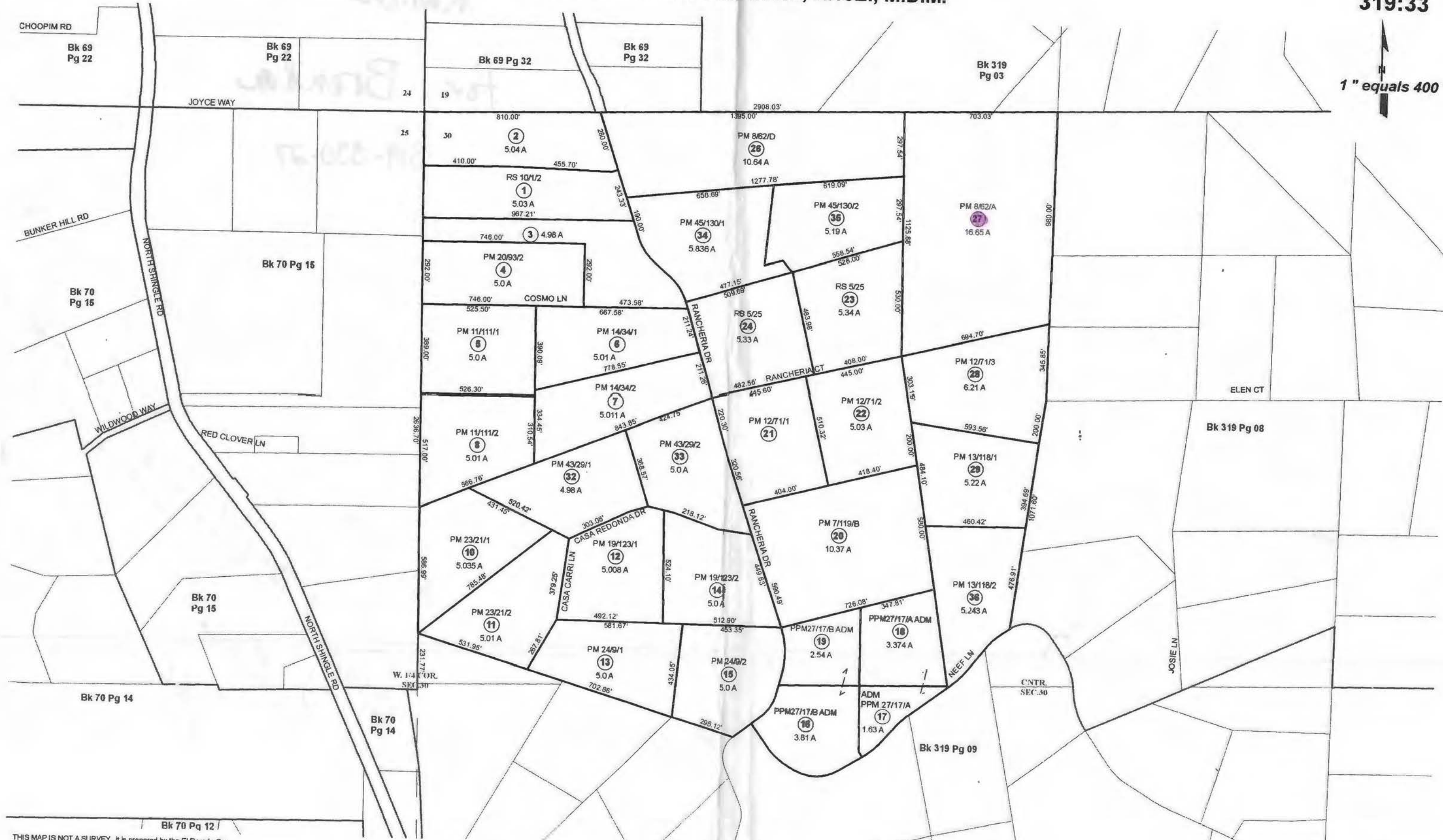
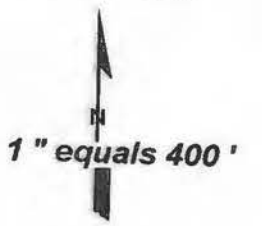
Project Manager
Brendan Williams
Northern California Geomatics
Phone: 530-957-0293

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).

POR. N.W. 1/4 SEC. 30, T.10N., R.10E., M.D.M.

319:33



Acreages Are Estimates

Adjacent Map Pages Shown In Grey Text
 Assessor's Block Numbers Shown In Ellipses
 Assessor's Parcel Numbers Shown In Circles

Rev. Jan 2, 2007

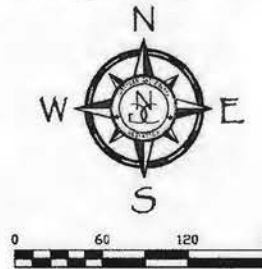
Assessor's Map Bk. 319, Pg. 33
 County of El Dorado, CA

THIS MAP IS NOT A SURVEY. It is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

Tentative Parcel Map

RANCHERIA COURT - TANIS JOB# 1102014
 PARCEL A OF PM 8-62 ALSO BEING A PORTION OF THE NORTH HALF
 OF SECTION 30 T.10N., R.10E., M.D.M.

COUNTY of EL DORADO STATE of CALIFORNIA
 SEPTEMBER, 2014 SHEET 1 of 1
 1"=60'



NOTES

1) ??

LEGEND

○	DIMENSION POINT ONLY
●	FIRE HYDRANT PROPOSED WATER
●	SEPTIC TANK
●	LEACH SYSTEM VENTS
—●—	OVERHEAD UTILITY POLE
○	EXISTING
(P)	PROPOSED

OWNER / APPLICANT:

RAYMOND TANIS
 3069 RANCHERIA COURT
 SHINGLE SPRINGS, CA 95682
 (530) 672-6266

MAP PREPARED BY:

 1044 DIAMANTE ROBLES CT.
 DIAMOND SPRINGS, CA 95619
 (530) 957-0293

SCALE OF MAP:	1"=60'
CONTOUR INTERVAL:	1'
SOURCE OF TOPOGRAPHY:	AERIAL SURVEY
SECTION, TOWNSHIP, RANGE	SECTION 30, T. 10 N., R. 10 E
ASSESSOR'S PARCEL NO.	319-330-27
PRESENT ZONING:	RE 5
PROPOSED ZONING:	RE 5
TOTAL PARCEL AREA:	16.646 ACRES
TOTAL NUMBER OF PARCELS:	2
MINIMUM PARCEL AREA:	5.0 ACRES
WATER SUPPLY:	WELL
SEWAGE DISPOSAL:	SEPTIC
STRUCTURAL FIRE PROTECTION:	DIAMOND SPRINGS FPD
DATE OF PREPARATION:	SEPTEMBER, 2014

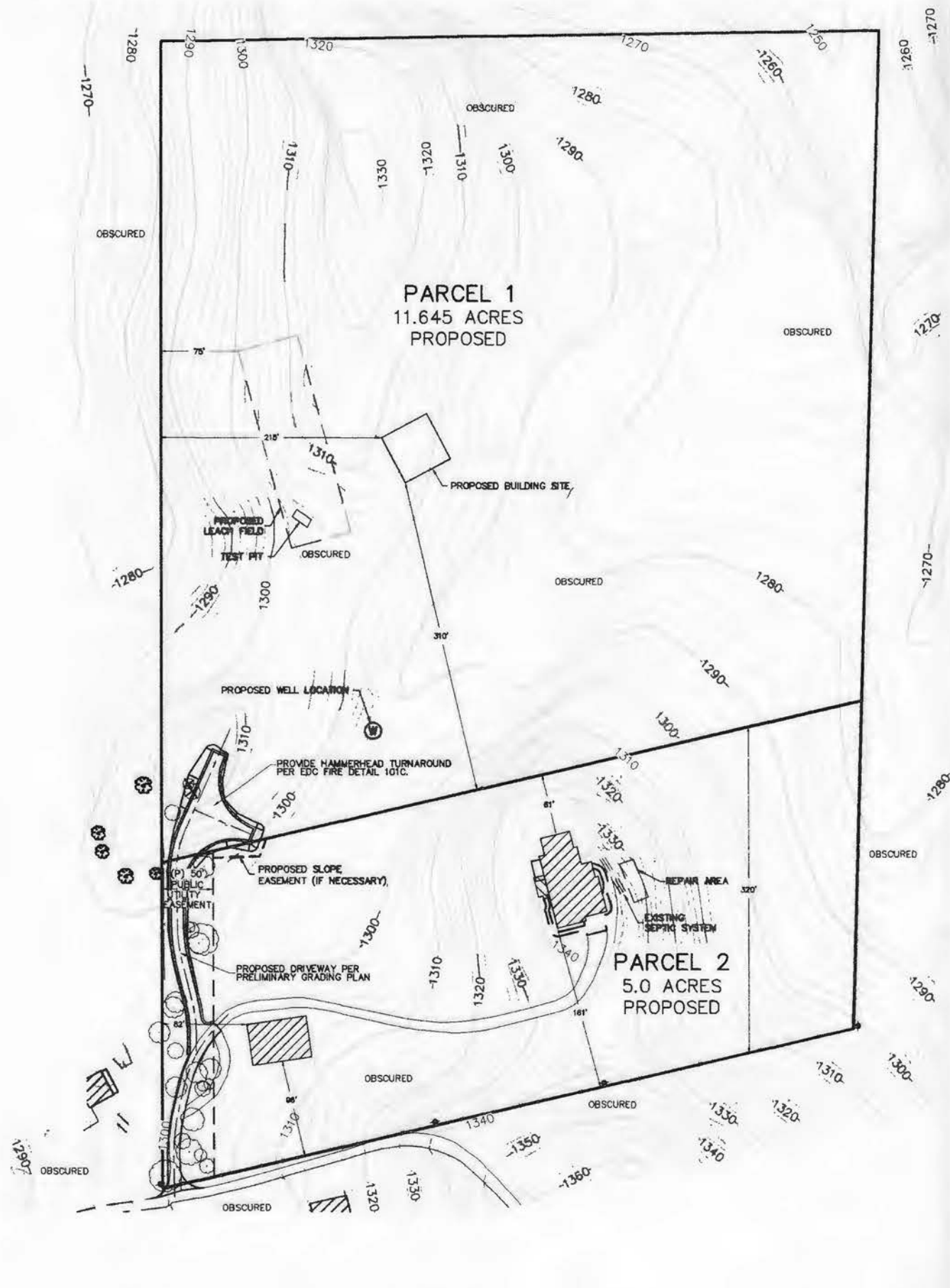
VICINITY MAP

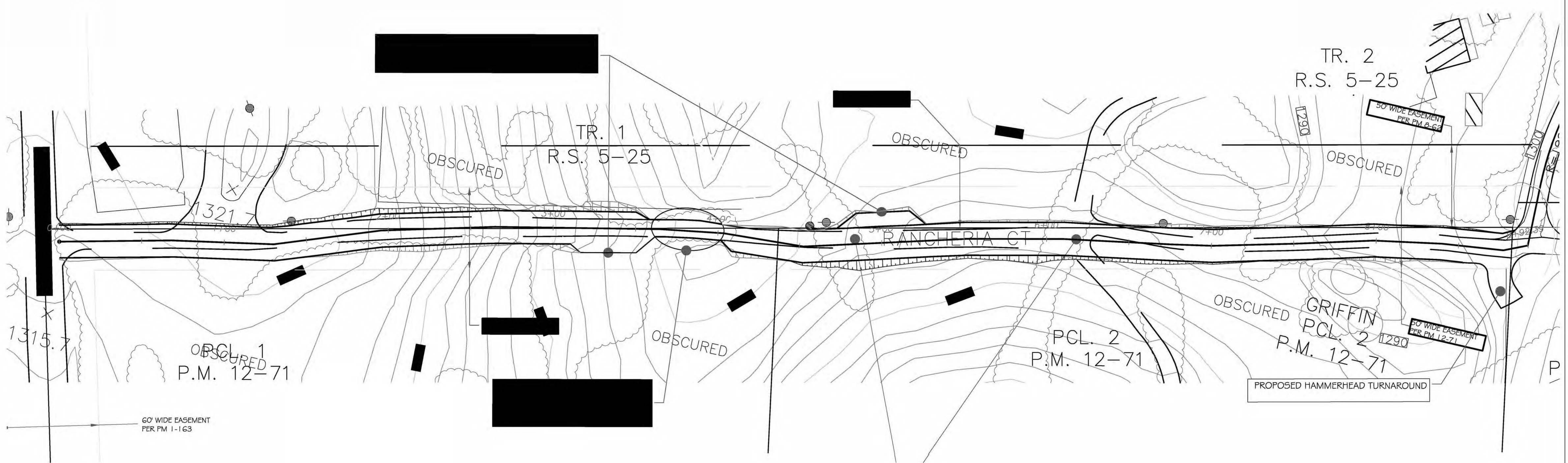
NTS



 Site

ZONING ADMINISTRATOR: _____
 APPROVAL / DENIAL DATE: _____
 BOARD OF SUPERVISORS: _____
 APPROVAL / DENIAL DATE: _____

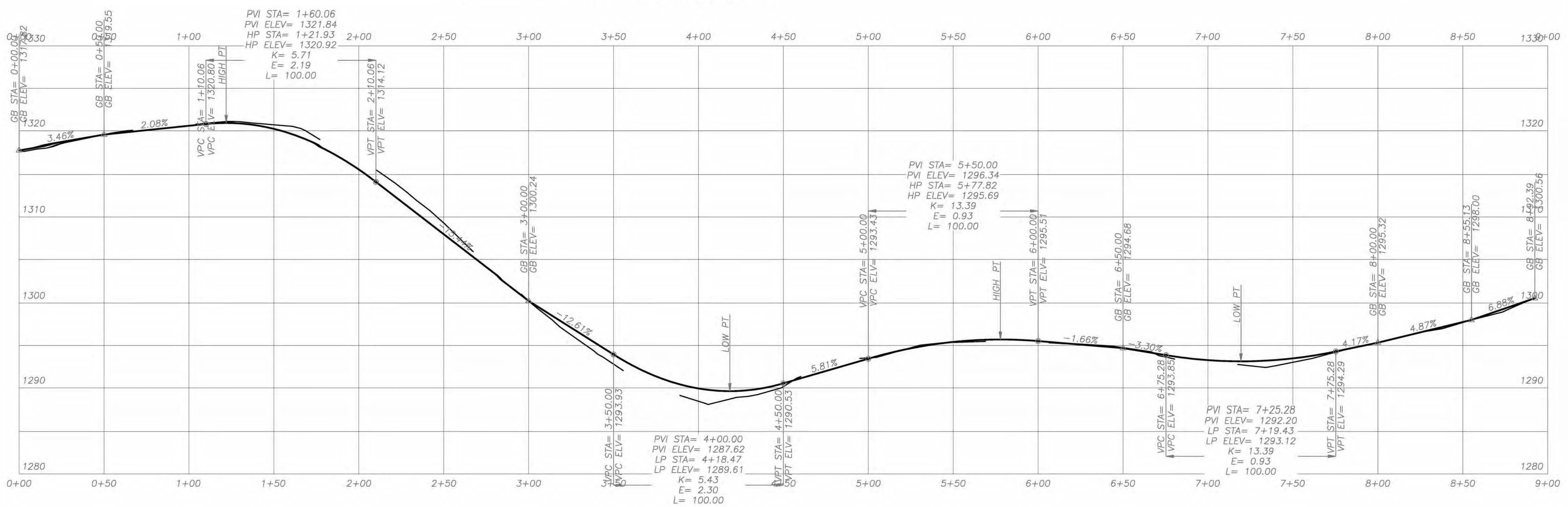
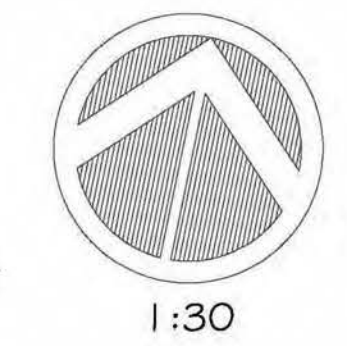




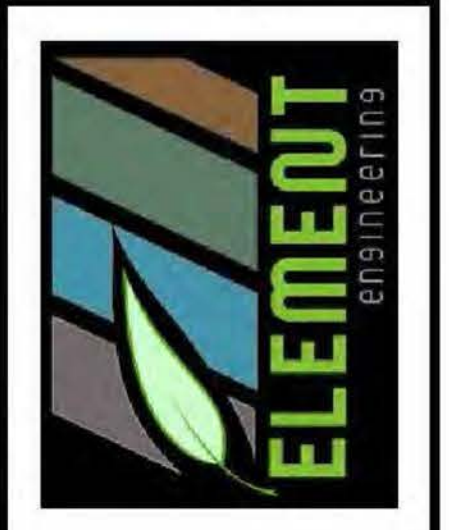
CIVIL ENGINEER:
Andrew Hammond
ANDREW HAMMOND
PROFESSIONAL ENGINEER

1/30/2016
 DATE

ROAD GRADING PLAN



DATE:	
REVISIONS:	



ROAD GRADING FOR:
RANCHERIA COURT - TANIS
 3069 RANCHERIA CT
 SHINGLE SPRINGS, CA 95682

SCALE: 1"=30'
DRAWN: AMH
CHECKED: AMH
DATE: 1/30/16
NOTES:

SHEET
C3

Figure 4. Aerial photograph.

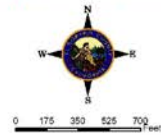


April 4, 2016

Tanis TPM Aerial Photo

- Placenames — Highways
- County Names — Major Roads
- Highway Labels — Minor Roads

- Cities
- County Outline
- Rivers
- Lakes
- Red: Band_1
- Green: Band_2
- Blue: Band_3



III. Methods

A. Literature

Literature utilized for the wetland delineation include U.S. Army Corp (1987 and 2006), 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 (2014). Vegetation and plant taxonomy references include DFG (2003), Sawyer et al. (2009), Mayer and Laudenslayer (1988), Klein et al. (2007), and Baldwin (2012). Hydrophytic vegetation classification was found in Lichvar (2012). 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 November 7, 2014, and March 16, 2016 by Ruth Willson, in accordance with the U.S. Army Corps of Engineers Arid West Regional Supplement to the Wetland Delineation Manual (Corps 2006). Wetland determination data points are mapped on Figure 8, and wetland data sheets are presented in Appendix A.

IV. Site Description

A. Topography

The project site lies between 1250 and 1380 feet (381 and 421 meters) elevation. The Tanis property encompasses two knolls and the drainage between them (Figure 2 and 5). The average slope gradient is fifteen percent, but it varies from eight to thirty percent. Two ephemeral drainages cross Rancheria Court.

B. Hydrology

Direct precipitation and drainage of precipitation are the hydrologic sources on the project site. The drainage crossing the Tanis property forms a channel 290 feet east of the west property boundary of Parcel 1. The channel carries water northeasterly through a small wetland to an unnamed intermittent creek near the northeast corner of the project site. A pond within the intermittent creek is located offsite, immediately east of the project site (visible on Figure 4), and the on-site channel joins the creek below the pond's outlet. The intermittent creek carries water northwesterly about one-half mile to a second pond. Both drainages crossing Rancheria Court also flow into the second pond, and the intermittent creek from the second pond carries water northerly a little less than a mile to its confluence with Dry Creek. Dry Creek converges with Weber Creek about two miles further from said confluence, and Weber Creek converges with the South Fork American River about seven and one-half miles northwest of the project site.

C. Vegetation Community

The vegetation community on project site (Figure 6) consists of blue oak–foothill pine woodland.¹ The vegetation community may also be classified as *Quercus wislizeni* - *Quercus kelloggii* Forest Association (Klein et. al 2007). The most common oak species is interior live oak (*Quercus wislizeni*) followed by black oak (*Q. kelloggii*), blue oak (*Q. douglasiana*) and valley oak (*Q. lobata*). Other trees found on the property are California buckeye (*Aesculus californica*), Ponderosa pine (*Pinus ponderosa*) and gray or foothill pine (*Pinus sabiniana*). Common understory shrubs include Scotch broom (*Cytisus scoparius*), toyon (*Heteromeles arbutifolia*), western poison-oak (*Toxicodendron diversiloba*) and holly-leaf redberry (*Rhamnus ilicifolia*). Common herbs and grasses include Italian plantain (*Plantago lanceolata*), sanicle (*Sanicula* sp.), cat's-ear (*Hypochaeris* sp.), rose clover (*Trifolium hirtum*), Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), canary grass (*Phalaris minor*), barbed goatgrass (*Aegilops triuncialis*), and various bromes (*Bromus* sp.).

¹El Dorado County. 2004. El Dorado County General Plan, Attachment Two, El Dorado County Major Habitat Types.

Figure 5. A portion of the Shingle Springs USGS Quad map showing the project site.

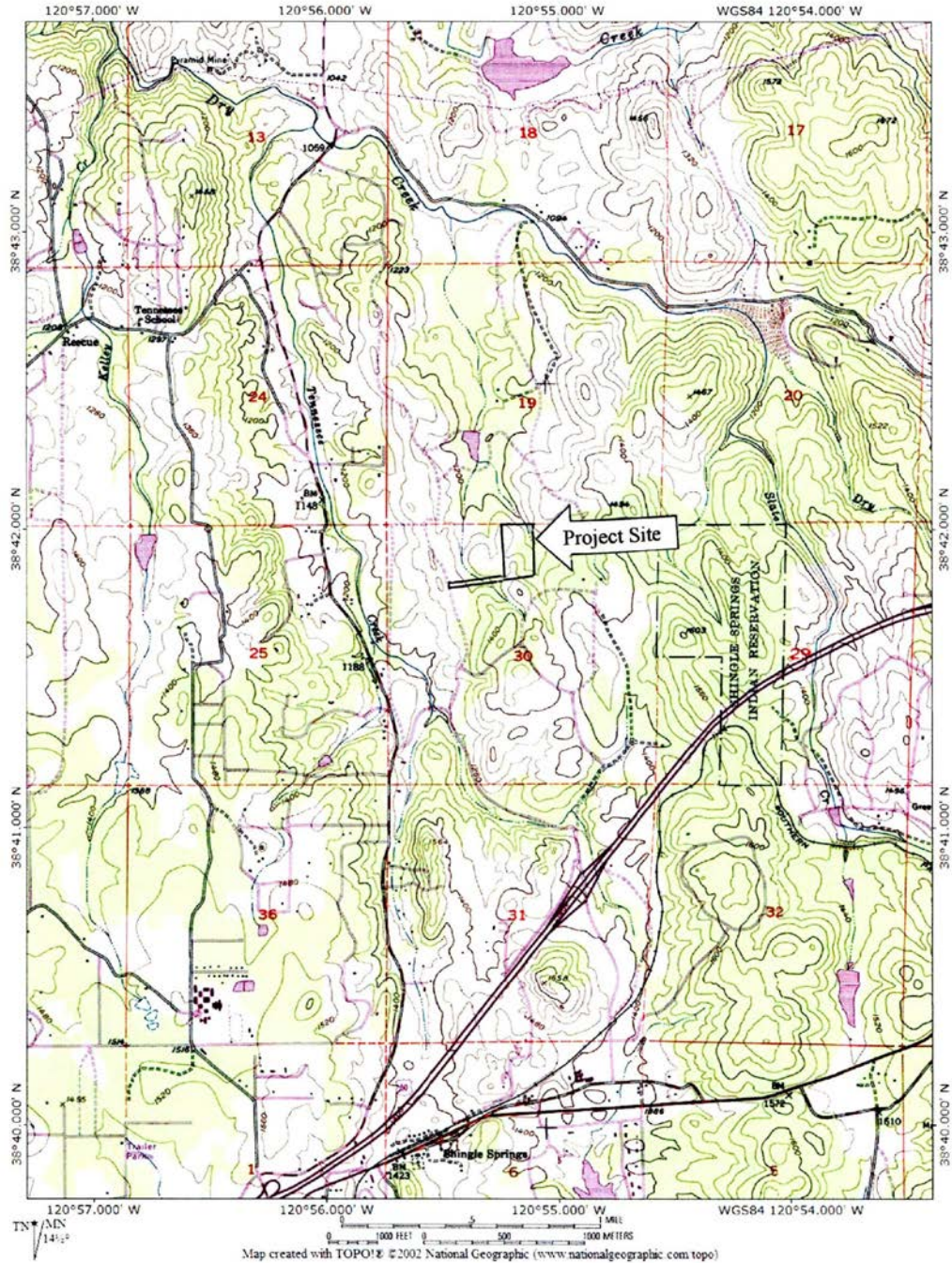
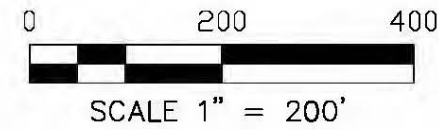
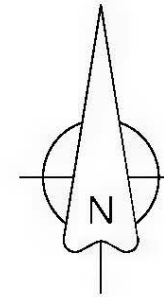


FIGURE 6 VEGETATION COMMUNITY

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA

APRIL, 2016

APN: 319-330-27



LEGEND

-  OPEN AREA
-  OAK WOODLAND



D. Hydrophytic Vegetation

Hydrophytic vegetation² was found on the Tanis property within both the drainage and the intermittent creek on Parcel 1; no hydrophytic vegetation was found on Parcel 2. Obligate wetland plants³ were limited to three species: nutsedge (*Cyperus* sp.), spikerush (*Eleocharis* sp.) and hedge-nettle (*Stachys stricta*). Two facultative wetland plants⁴ were found: slender rush (*Carex tenuis*) and red willow (*Salix laevigata*). Four facultative⁵ species were found: mugwort (*Artemisia douglasiana*), Italian plantain (*Plantago lanceolata*), curly dock (*Rumex crispus*) and ryegrass (*Festuca perennis*). Seven facultative upland⁶ species were found: soft chess (*Bromus hordeaceus*), bull thistle (*Cirsium vulgare*), foothill sedge (*Carex tumulicola*), valley oak (*Quercus lobata*), Bermuda grass (*Cynodon dactylon*), western poison-oak (*Toxicodendron diversilobus*) and Himalayan blackberry (*Rubus armeniacus*).

Hydrophytic vegetation within the Rancheria Court easement includes western dock (*Rumex occidentalis*), a FACW plant found in the seasonal ponds, and the following FAC plants found in the ephemeral drainage channel: mugwort, Italian plantain and Himalayan blackberry.

E. Soils

1. Soil classification

The soils on the project site (Figure 7) are predominantly classified in the Auburn series: Auburn very rocky silt loam (AxD) and Auburn silt loam (AwD), with the remainder classified as Serpentine rock land (SaF). Auburn very rocky silt loam comprises about 97 percent of the property; Auburn silt loam, found along the eastern boundary, about 1 percent; and Serpentine rock land, found at the northeast corner, about 2 percent (NRCS 2014).

2. Soil Descriptions

a. Auburn Soils

Auburn soils are well-drained and are underlain by hard metamorphic rock at depths of 14 to 18 inches. Average annual rainfall is 20 to 40 inches and the frost-free season is 175 to 275 days. A representative soil profile⁷ follows:

- 0 to 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 (5YR3/4) when moist;
- 14 inches: weathered metabasic rock.

² Plants listed in the U.S. Army Corps of Engineers 2014 Arid West Region Wetland Plant List. http://wetland_plants.usace.army.mil/

³ Obligate wetland plants (OBL) almost always occurs in wetlands (estimated probability > 99%)

⁴ Facultative wetland (FACW). Usually occur in wetlands (est. probability 67% – 99%), but occasionally found in non-wetlands (est. probability 1% – 33%).

⁵ Facultative (FAC). Equally likely to occur in wetlands (est. probability 34% – 66%) or non-wetlands.

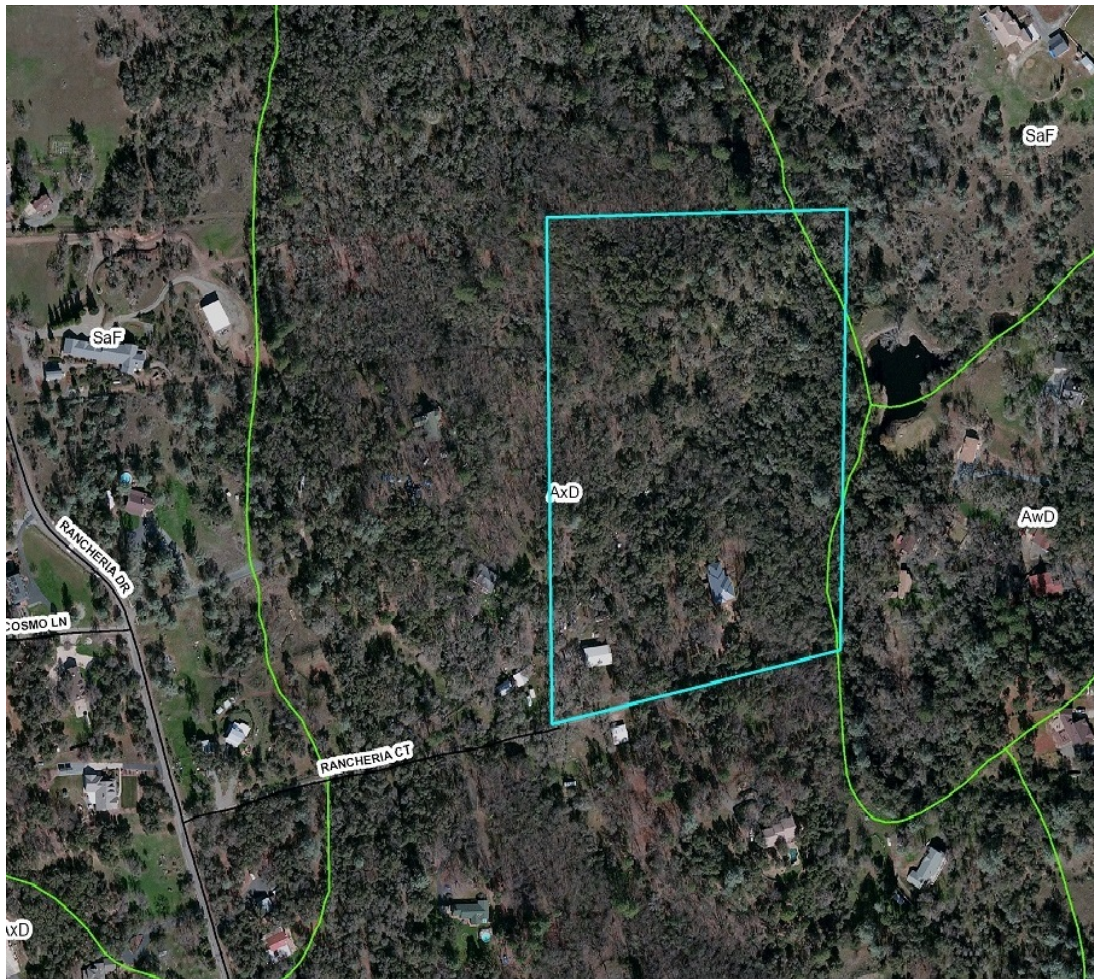
⁶ Facultative upland (FACU). Usually occur in non-wetlands (est. probability 67% – 99%), but occasionally found in wetlands (est. probability 1% – 33%).

⁷ USDA Soil Conservation Service. 1974. *Soils Survey of El Dorado Area, California*. Page 12.

b. Serpentine Soils

Serpentine soils are derived from highly resistant serpentine and other ultrabasic rock formations. Rock outcrops and stones make up 50-90 percent of the surface, and there is a thin soil mantle. Included in this land type are small areas of soil with a surface layer of reddish-brown, slightly acid loam and a subsoil of reddish-brown and yellowish-red neutral very gravelly heavy clay loam and clay. Depth to hard bedrock ranges from 10 to 24 inches.⁸

Figure 7. Soils map, generated by Natural Resources Conservation Service's Web Soil Survey.



AxD = Auburn very rocky silt loam
AwD = Auburn silt loam
SaF = Serpentine Rock Land

⁸ Ibid. Page 31.

V. Delineation Results

One ephemeral channel and an intermittent creek were found on the Tanis property (Figure 8). A small wetland was found within the ephemeral channel. The total potentially jurisdictional area on the Tanis property, shown in Table 1, is 2,814 square feet (0.065 Ac.).

One ephemeral drainage and two seasonal ponds were found within the Rancheria Court easement. The seasonal ponds contain wetlands when the water dissipates. Total potential jurisdictional area within the easement is 8,970 square feet (0.205 acre). Total potential jurisdictional area in the project site is 11,784 square feet (0.27 acre).

A. Waters

The drainage that bisects Parcel 1 forms a channel 290 feet east of the west property boundary (Channel 1A, Figure 8), and carries water 156 feet easterly to a wetland. After the wetland, Channel 1B carries water another 330 feet, where it discharges through an upland area to an intermittent creek.

The intermittent creek (Channel 2), an unnamed tributary of Dry Creek, leaves an off-site pond, then splits to circumvent a small upland, entering the project site as two distinct channels (Channels 2A and 2B). Channel 2A carries water northerly 75 feet from the east property boundary to its confluence with Channel 2B, then continues 60 feet to the north boundary, where it leaves the project site. Channel 2B carries water 43 feet from the east property boundary to its confluence with Channel 2A.

The ephemeral drainage within the Rancheria Court easement enters the easement from the south and carries water northerly about 15 feet to a culvert beneath the existing road. After the culvert, it carries water another 30 feet to the edge of the easement.

The two seasonal ponds within the Rancheria Court easement are impounded behind the roads that cross a second ephemeral drainage, located outside the easement, that carries water to them. Pond 1, having 2964 ft.² within the easement, backs up behind Rancheria Court and Pond 2, having 5638 ft.² within the easement, forms behind a driveway serving the parcel immediately west of the Tanis parcel. All channels and ponds were dry during July and August site visits, but the ponds were full of water on March 16, 2016, after heavy rains during March. Seasonal Pond 2, north of Rancheria Court (photo below, at right), was dry after two weeks without rain, but Seasonal Pond 1, south of Rancheria Court, still held water at that time (photo below, at left).

B. Wetlands

One wetland, 570 ft.² in size, was found on Parcel 1, and is wholly confined within the banks of Channel 1. The wetland has formed behind a very shallow dam, perhaps the remnant of a more substantial dam that washed out many years ago. No wetlands were found on Parcel 2.

Wetlands were found in the beds of the two seasonal ponds within the Rancheria Court easement. No wetlands were found within Channel 3.



Seasonal Pond 1



Seasonal Pond 2

Table 1. Summary of waters and wetlands.

Tanis Parcel				
Channel ID	Channel Length (ft)	Average Flow-line Width (ft)	Area (ft²)	Area (acres)
Channel 1A	156	5	780	0.018
Channel 1B	330	2	660	0.015
Channel 2A	135	5	675	0.016
Channel 2B	43	3	129	0.003
Wetland	—	—	570	0.013
Potential Onsite Jurisdictional Totals:			2,814	0.065
Rancheria Court				
Channel ID	Channel Length (ft)	Average Flow-line Width (ft)	Area (ft²)	Area (acres)
Channel 3	46	8	368	0.008
Seasonal Pond 1	—	—	2964	0.068
Seasonal Pond 2	—	—	5638	0.129
Potential Offsite Jurisdictional Totals			8970	0.205
Total Potential Jurisdictional Area			11,784	0.27

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.

Table of waters and wetlands.

Tanis Parcel				
Channel ID	Channel Length (ft)	Average Flow-line Width (ft)	Area (ft ²)	Area (acres)
Channel 1A	156	5	780	0.018
Channel 1B	330	2	660	0.015
Channel 2A	135	5	675	0.016
Channel 2B	43	3	129	0.003
Wetland			570	0.013
Potential Onsite Jurisdictional Totals:			2,814	0.065
Rancheria Court				
Channel ID	Channel Length (ft)	Average Flow-line Width (ft)	Area (ft ²)	Area (acres)
Channel 3	46	8	368	0.008
Pond 1			2964	0.068
Pond 2			5638	0.129
Potential Offsite Jurisdictional Totals			8970	0.205
Total Potential Jurisdictional Area			11,784	0.27

LEGEND






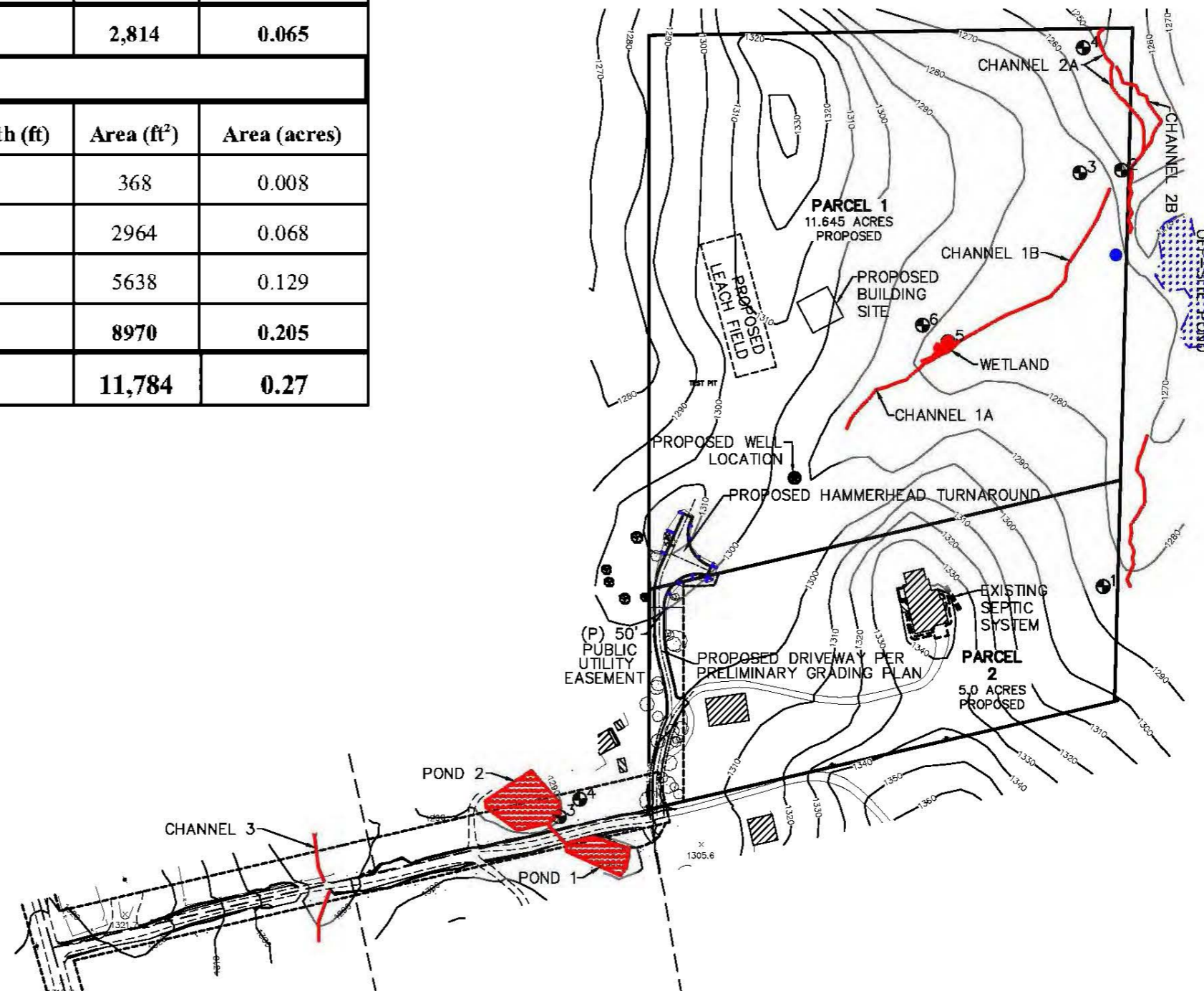
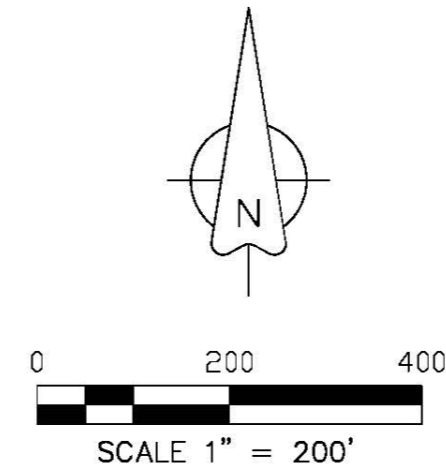
-  CHANNEL / INTERMITTENT CREEK
-  WETLAND
-  SEASONAL POND
-  ELDERBERRY
-  DATA POINT

FIGURE 8 POTENTIAL JURISDICTIONAL FEATURES

A PORTION OF THE NW 1/4 OF SECTION 30,
T. 10 N., R.10 E. MDM, BEING PARCEL A OF PM 8-62
COUNTY OF EL DORADO, STATE OF CALIFORNIA
APRIL, 2016
APN: 319-330-27



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Appendix A.

Wetland Determination Data Forms Arid West Region

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 11/07/2013
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 1
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 6.1
 Subregion (LRR): C Lat: 38° 41' 14" N Long: 120° 55' 07" W Datum: WGS 84
 Soil Map Unit Name: Auburn Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>The previous rain season was the third driest in recorded history. Soils are derived from red parent material.</u>	

VEGETATION Plot Size: 20'x20'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <u>Quercus wislizeni</u>	80	Yes	UPL	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
2. _____				Total Number of Dominant Species Across All Strata:	4	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	0.0 %	(A/B)
4. _____				Prevalence Index worksheet:		
Total Cover: 80 %				Total % Cover of:		
Sapling/Shrub Stratum				OBL species	0.0	x 1 = 0.0
1. <u>Toxicodendron diversiloba</u>	20	Yes	FACU	FACW species	0.0	x 2 = 0.0
2. <u>Quercus wislizeni</u>	15	Yes	UPL	FAC species	0.0	x 3 = 0.0
3. <u>Heteromeles arbutifolia</u>	10	Yes	UPL	FACU species	1.0	x 4 = 4.0
4. _____				UPL species		x 5 =
5. _____				Column Totals:	1.0	(A) 4.0 (B)
Total Cover: 45 %				Prevalence Index = B/A = 4.0		
Herb Stratum				Hydrophytic Vegetation Indicators:		
1. _____				<input type="checkbox"/> Dominance Test is >50%		
2. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 ¹		
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.		
6. _____						
7. _____				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>		
8. _____						
Total Cover: %						
Woody Vine Stratum						
1. _____						
2. _____						
Total Cover: 0 %						
% Bare Ground in Herb Stratum <u>100 %</u>		% Cover of Biotic Crust <u>0 %</u>				

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		Redox Features			Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-12	5YR 3/4	100				Silt loam	
12	Bottom of hole						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
Restrictive Layer (if present): Type: _____ Depth (inches): _____		Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: _____			

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____			
Remarks: _____			

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 11/07/2013
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 2
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 4.1
 Subregion (LRR): C Lat: 38° 41' 58" N Long: 120° 55' 08.5" W Datum: WGS 84
 Soil Map Unit Name: Auburn Very Rocky Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: The 2013-14 rain season was the third driest in recorded history, and was preceded by subnormal rainfall in 2012-13. Soils are derived from red parent material.	

VEGETATION Plot Size: 15'x15'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <i>Salix laevigata</i>	5	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)																
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0</u> % (A/B)																
4. _____				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">x 1 =</td> </tr> <tr> <td>FACW species <u>5.0</u></td> <td align="center">x 2 = <u>10.0</u></td> </tr> <tr> <td>FAC species <u>15.0</u></td> <td align="center">x 3 = <u>45.0</u></td> </tr> <tr> <td>FACU species <u>82.0</u></td> <td align="center">x 4 = <u>328.0</u></td> </tr> <tr> <td>UPL species</td> <td align="center">x 5 =</td> </tr> <tr> <td>Column Totals: <u>102.0</u> (A)</td> <td align="center"><u>383.0</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.8</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species	x 1 =	FACW species <u>5.0</u>	x 2 = <u>10.0</u>	FAC species <u>15.0</u>	x 3 = <u>45.0</u>	FACU species <u>82.0</u>	x 4 = <u>328.0</u>	UPL species	x 5 =	Column Totals: <u>102.0</u> (A)	<u>383.0</u> (B)	Prevalence Index = B/A = <u>3.8</u>	
Total % Cover of:	Multiply by:																			
OBL species	x 1 =																			
FACW species <u>5.0</u>	x 2 = <u>10.0</u>																			
FAC species <u>15.0</u>	x 3 = <u>45.0</u>																			
FACU species <u>82.0</u>	x 4 = <u>328.0</u>																			
UPL species	x 5 =																			
Column Totals: <u>102.0</u> (A)	<u>383.0</u> (B)																			
Prevalence Index = B/A = <u>3.8</u>																				
Total Cover: <u>5</u> %																				
Sapling/Shrub Stratum																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
Total Cover: _____ %																				
Herb Stratum																				
1. <i>Artemisia douglasiana</i>	15	No	FAC																	
2. <i>Rubus armeniacus</i>	2	No	FACU																	
3. <i>Carex tumulicola</i>	80	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
Total Cover: <u>97</u> %																				
Woody Vine Stratum																				
1. _____																				
2. _____																				
Total Cover: <u>0</u> %																				
% Bare Ground in Herb Stratum <u>3</u> % % Cover of Biotic Crust <u>0</u> %		Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>																		

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Silt loam	Many fine roots
5-8	5YR 4/4	50					Silt loam	Many fine roots, 50% medium gravel
8-13	5YR 4/6	90	7.5YR 5/4	10	C	*		10% coarse rock
13	Bottom of hole							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

*Redox features were attached to rocks.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

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

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: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 11/07/2013
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 3
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 4.1
 Subregion (LRR): C Lat: 38° 41' 58" N Long: 120° 55' 08.9" W Datum: WGS 84
 Soil Map Unit Name: Auburn Very Rocky Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: The 2013-14 rain season was the third driest in recorded history, and was preceded by subnormal rainfall in 2012-13. Soils are derived from red parent material.	

VEGETATION Plot Size: 25'x25'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Quercus wislizeni</i>	60	Yes	UPL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)
4. _____				
Total Cover: <u>60</u> %				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. <i>Heteromeles arbutifolia</i>	2	No	UPL	Total % Cover of: _____ Multiply by: _____
2. <i>Quercus wislizeni</i>	20	Yes	UPL	OBL species x 1 = _____
3. _____				FACW species x 2 = _____
4. _____				FAC species x 3 = _____
5. _____				FACU species x 4 = _____
				UPL species x 5 = _____
Total Cover: <u>22</u> %				Column Totals: (A) _____ (B) _____
Herb Stratum				Prevalence Index = B/A = _____
1. <i>Bromus hordeaceus</i>	35	Yes	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <i>Bromus tectorum</i>	30	Yes	UPL	
3. <i>Sanicula bipinnatifida</i>	20	Yes	UPL	
4. <i>Geranium molle</i>	10	No	UPL	
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>95</u> %				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: <u>0</u> %				
% Bare Ground in Herb Stratum <u>5</u> %	% Cover of Biotic Crust <u>0</u> %			Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	2.5YR 3/4	100					Silt loam	Many fine roots
1-5	2.5YR 4/4	70					Silt loam	Many fine roots, 30% fine gravel
5-13	5YR 4/6	90						10% coarse rock
13	Bottom of hole							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators 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)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	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: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 11/07/2013
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 4
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 11.9
 Subregion (LRR): C Lat: 38° 42' 00.2" N Long: 120° 55' 09.7" W Datum: WGS 84
 Soil Map Unit Name: Serpentine Rock Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: The 2013-14 rain season was the third driest in recorded history, and was preceded by subnormal rainfall in 2012-13. Soils are derived from red parent material.	

VEGETATION Plot Size: 25'x25'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <i>Quercus wislizeni</i>	20	Yes	UPL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)																
2. <i>Quercus douglasii</i>	10	Yes	UPL																	
3. <i>Pinus sabiniana</i>	10	Yes	UPL																	
4. <i>Aesculus californica</i>	10	Yes	UPL																	
Total Cover: 50 %				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A =</td> </tr> </table>	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 =	
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 =																				
Sapling/Shrub Stratum																				
1. <i>Heteromeles arbutifolia</i>	15	Yes	UPL																	
2. <i>Quercus wislizeni</i>	10	Yes	UPL																	
3.																				
4.																				
5.																				
Total Cover: 25 %																				
Herb Stratum																				
1. <i>Bromus hordeaceus</i>	40	Yes	FACU																	
2. <i>Bromus tectorum</i>	25	Yes	UPL																	
3. <i>Sanicula bipinnatifida</i>	5	No	UPL																	
4. <i>Geranium molle</i>	30	Yes	UPL																	
5.																				
6.																				
7.																				
8.																				
Total Cover: 95 %																				
Woody Vine Stratum																				
1.																				
2.																				
Total Cover: 0 %																				
% Bare Ground in Herb Stratum <u>5</u> %		% Cover of Biotic Crust <u>0</u> %		Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>																

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	5YR 3/3	100					Loam	Many fine roots
4-12	2.5YR 3/4	100					Clay loam	
12	Bottom of hole							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators 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)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	Secondary Indicators (2 or more required)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Water-Stained Leaves (B9)		

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 11/07/2013
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 5
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): C Lat: 38° 41' 56.7" N Long: 120° 55' 11.5" W Datum: WGS 84
 Soil Map Unit Name: Auburn Very Rocky Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: The 2013-14 rain season was the third driest in recorded history, and was preceded by subnormal rainfall in 2012-13. Soils are derived from red parent material.	

VEGETATION Plot Size: 25'x30'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: _____ %				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td></td> <td>x 1 =</td> <td></td> </tr> <tr> <td>FACW species</td> <td align="right">35.0</td> <td>x 2 =</td> <td align="right">70.0</td> </tr> <tr> <td>FAC species</td> <td align="right">60.0</td> <td>x 3 =</td> <td align="right">180.0</td> </tr> <tr> <td>FACU species</td> <td></td> <td>x 4 =</td> <td></td> </tr> <tr> <td>UPL species</td> <td align="right">2.0</td> <td>x 5 =</td> <td align="right">10</td> </tr> <tr> <td>Column Totals:</td> <td align="right">97.0</td> <td>(A)</td> <td align="right">260.0 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.7</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species		x 1 =		FACW species	35.0	x 2 =	70.0	FAC species	60.0	x 3 =	180.0	FACU species		x 4 =		UPL species	2.0	x 5 =	10	Column Totals:	97.0	(A)	260.0 (B)	Prevalence Index = B/A = <u>2.7</u>			
Total % Cover of:		Multiply by:																																		
OBL species		x 1 =																																		
FACW species	35.0	x 2 =	70.0																																	
FAC species	60.0	x 3 =	180.0																																	
FACU species		x 4 =																																		
UPL species	2.0	x 5 =	10																																	
Column Totals:	97.0	(A)	260.0 (B)																																	
Prevalence Index = B/A = <u>2.7</u>																																				
Sapling/Shrub Stratum																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
Herb Stratum																																				
1. <i>Carex tumulicola</i>	60	Yes	FAC*																																	
2. <i>Juncus tenuis</i>	35	Yes	FACW																																	
3. <i>Cynosurus echinatus</i>	2	No	UPL																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>97</u> %																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: <u>0</u> %																																				
% Bare Ground in Herb Stratum <u>3</u> %	% Cover of Biotic Crust <u>0</u> %																																			
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																				

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	5YR 4/6	100					Silt loam	Many fine roots
5-8	5YR 4/4	70	5YR 4/2	30	C	M	Silt loam	
8-14	5YR 4/6	30	10YR 6/8	5	RM	M	Silty clay	
14	Bottom of hole		10YR 6/2	65	RM			

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators 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)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:
 Data was taken at the middle of a small impoundment behind a very low dam within a channel at the beginning of a new rain season. The previous rain season was the third driest in recorded history, and was preceded by subnormal rainfall in 2012-13. No hydrology features were evident because it had been several months (perhaps a year or more) since the site had enough rain to fill the impoundment.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 11/07/2013
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 6
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 14.3
 Subregion (LRR): C Lat: 38° 41' 56.9" N Long: 120° 55' 11.5" W Datum: WGS 84
 Soil Map Unit Name: Auburn Very Rocky Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: The 2013-14 rain season was the third driest in recorded history, and was preceded by subnormal rainfall in 2012-13. Soils are derived from red parent material.	

VEGETATION Plot Size: 20'x20'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <i>Quercus wislizeni</i>	40	Yes	UPL	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)																																
2. <i>Quercus kelloggii</i>	10	Yes	UPL																																	
3. _____			UPL																																	
4. _____																																				
Total Cover: <u>50</u> %				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">x 1 =</td> <td></td> <td></td> </tr> <tr> <td>FACW species</td> <td align="center">x 2 =</td> <td></td> <td></td> </tr> <tr> <td>FAC species</td> <td align="center">x 3 =</td> <td></td> <td></td> </tr> <tr> <td>FACU species</td> <td align="center">x 4 =</td> <td></td> <td></td> </tr> <tr> <td>UPL species</td> <td align="center">x 5 =</td> <td></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td align="center">(A)</td> <td></td> <td align="center">(B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = _____</td> </tr> </table>	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 = _____			
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 = _____																																				
Sapling/Shrub Stratum																																				
1. <i>Toxicodendron diversilobum</i>	20	Yes	FACU																																	
2. <i>Heteromeles arbutifolia</i>	10	Yes																																		
3. _____																																				
4. _____																																				
Total Cover: <u>30</u> %																																				
Herb Stratum																																				
1. <i>Elymus glaucus</i>	2	No	FACU																																	
2. <i>Quercus wislizeni</i>	5	Yes	UPL																																	
3. <i>Cynosurus echinatus</i>	10	Yes	UPL																																	
4. <i>Lonicera interrupta</i>	7	Yes	UPL																																	
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>24</u> %																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: <u>0</u> %																																				
% Bare Ground in Herb Stratum <u>76</u> %		% Cover of Biotic Crust <u>0</u> %																																		
Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>																																				

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	2.5YR 4/4	100					Silt loam	Many fine roots
5-13	2.5YR 4/4	70					Silt loam	30% medium gravel
13	Bottom of hole							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators 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)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	Secondary Indicators (2 or more required)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Water-Stained Leaves (B9)		

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 03/16/2016
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 7
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Ravine bottom Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C Lat: 38° 41' 14" N Long: 120° 55' 07" W Datum: WGS 84
 Soil Map Unit Name: Auburn Silt Loam NWI classification: L2UB3C

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: Soils are derived from red parent material.	

VEGETATION Plot Size: 10'x10'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																																
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)																																
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
4. _____				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;">Total % Cover of:</th> <th colspan="3">Multiply by:</th> </tr> <tr> <td>OBL species</td> <td>0.0</td> <td>x 1 =</td> <td>0.0</td> </tr> <tr> <td>FACW species</td> <td>0.0</td> <td>x 2 =</td> <td>0.0</td> </tr> <tr> <td>FAC species</td> <td>0.0</td> <td>x 3 =</td> <td>0.0</td> </tr> <tr> <td>FACU species</td> <td>0.0</td> <td>x 4 =</td> <td>0.0</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> <td></td> </tr> <tr> <td>Column Totals:</td> <td>0.0</td> <td>(A)</td> <td>0.0 (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A =</td> <td>0.0</td> </tr> </table>	Total % Cover of:	Multiply by:			OBL species	0.0	x 1 =	0.0	FACW species	0.0	x 2 =	0.0	FAC species	0.0	x 3 =	0.0	FACU species	0.0	x 4 =	0.0	UPL species		x 5 =		Column Totals:	0.0	(A)	0.0 (B)	Prevalence Index = B/A =			0.0
Total % Cover of:	Multiply by:																																			
OBL species	0.0	x 1 =	0.0																																	
FACW species	0.0	x 2 =	0.0																																	
FAC species	0.0	x 3 =	0.0																																	
FACU species	0.0	x 4 =	0.0																																	
UPL species		x 5 =																																		
Column Totals:	0.0	(A)	0.0 (B)																																	
Prevalence Index = B/A =			0.0																																	
Total Cover: <u>0 %</u>																																				
Sapling/Shrub Stratum																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: <u>0 %</u>																																				
Herb Stratum																																				
1. <u>Rumex conglomeratus</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>5 %</u>																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: <u>0 %</u>																																				
% Bare Ground in Herb Stratum <u>95 %</u>		% Cover of Biotic Crust <u>30 %</u>																																		
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																				

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2							Forest duff	
2-6	7.5YR 4/3	35	7.5YR 7/3	4	C	M	silt	
	7.5 YR 5/4	60						
6-12	7.5YR 5/2	80	7.5YR 4/2	10	RM	M	silty clay	
			7.5YR 5/8	10	C	M		
12	Bottom of hole							Hole was full of water at 8 inches

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

³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

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

Indicators for Problematic Hydric Soils:

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

⁴Indicators 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)

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

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): 24
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 4

Wetland Hydrology Present? Yes No

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 03/16/2016
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 8
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 11%
 Subregion (LRR): C Lat: 38° 41' 14" N Long: 120° 55' 07" W Datum: WGS 84
 Soil Map Unit Name: Auburn Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: Soils are derived from red parent material.	

VEGETATION Plot Size: 20'x20'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																								
1. <u><i>Robinia pseudoacacia</i></u>	20	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)																								
2. <u><i>Quercus wislizeni</i></u>	40	Yes	UPL	Total Number of Dominant Species Across All Strata: <u>2</u> (B)																								
3. <u><i>Quercus douglasii</i></u>	5	No	UPL	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)																								
4. _____				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <th style="width:40%;">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> <tr> <td>OBL species</td> <td align="center">0.0</td> <td align="center">x 1 = 0.0</td> </tr> <tr> <td>FACW species</td> <td align="center">0.0</td> <td align="center">x 2 = 0.0</td> </tr> <tr> <td>FAC species</td> <td align="center">0.0</td> <td align="center">x 3 = 0.0</td> </tr> <tr> <td>FACU species</td> <td align="center">0.0</td> <td align="center">x 4 = 0.0</td> </tr> <tr> <td>UPL species</td> <td></td> <td align="center">x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td align="center">0.0 (A)</td> <td align="center">0.0 (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A = <u>0.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:		OBL species	0.0	x 1 = 0.0	FACW species	0.0	x 2 = 0.0	FAC species	0.0	x 3 = 0.0	FACU species	0.0	x 4 = 0.0	UPL species		x 5 =	Column Totals:	0.0 (A)	0.0 (B)	Prevalence Index = B/A = <u>0.0</u>		
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OBL species	0.0	x 1 = 0.0																										
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FAC species	0.0	x 3 = 0.0																										
FACU species	0.0	x 4 = 0.0																										
UPL species		x 5 =																										
Column Totals:	0.0 (A)	0.0 (B)																										
Prevalence Index = B/A = <u>0.0</u>																												
Total Cover: <u>65</u> %																												
Sapling/Shrub Stratum																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
Total Cover: <u>0</u> %																												
Herb Stratum																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
Total Cover: <u>0</u> %																												
Woody Vine Stratum																												
1. _____																												
2. _____																												
Total Cover: <u>0</u> %																												
% Bare Ground in Herb Stratum <u>100</u> %		% Cover of Biotic Crust <u>0</u> %																										
Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>																												

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1							Forest duff	
2-12	7.5YR 4/6	100					Silt loam	
12	Bottom of hole							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR D)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators 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)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Secondary Indicators (2 or more required)

Field Observations:

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

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

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

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: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 03/16/2016
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 7
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Ravine bottom Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C Lat: 38° 41' 14" N Long: 120° 55' 07" W Datum: WGS 84
 Soil Map Unit Name: Auburn Silt Loam NWI classification: L2UB3C

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: Soils are derived from red parent material.	

VEGETATION Plot Size: 10'x10'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																								
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																								
2. _____																												
3. _____																												
4. _____																												
Total Cover: <u>0 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">x 1 = 0.0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">x 2 = 0.0</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">x 3 = 0.0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">x 4 = 0.0</td> </tr> <tr> <td>UPL species</td> <td></td> <td style="text-align: center;">x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">0.0 (A)</td> <td style="text-align: center;">0.0 (B)</td> </tr> <tr> <td align="right" colspan="3">Prevalence Index = B/A = <u>0.0</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:		OBL species	0.0	x 1 = 0.0	FACW species	0.0	x 2 = 0.0	FAC species	0.0	x 3 = 0.0	FACU species	0.0	x 4 = 0.0	UPL species		x 5 =	Column Totals:	0.0 (A)	0.0 (B)	Prevalence Index = B/A = <u>0.0</u>		
Total % Cover of:	Multiply by:																											
OBL species	0.0	x 1 = 0.0																										
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FAC species	0.0	x 3 = 0.0																										
FACU species	0.0	x 4 = 0.0																										
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Column Totals:	0.0 (A)	0.0 (B)																										
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Sapling/Shrub Stratum																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
Total Cover: <u>0 %</u>																												
Herb Stratum																												
1. <u>Rumex conglomeratus</u>	5	Yes	FACW																									
2. _____																												
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
Total Cover: <u>5 %</u>																												
Woody Vine Stratum																												
1. _____																												
2. _____																												
Total Cover: <u>0 %</u>																												
% Bare Ground in Herb Stratum <u>95 %</u>		% Cover of Biotic Crust <u>30 %</u>																										
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																												

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2							Forest duff	
2-6	7.5YR 4/3	35	7.5YR 7/3	4	C	M	silt	
	7.5 YR 5/4	60						
6-12	7.5YR 5/2	80	7.5YR 4/2	10	RM	M	silty clay	
			7.5YR 5/8	10	C	M		
12	Bottom of hole							Hole was full of water at 8 inches

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators 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)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
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<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>24</u>	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>4</u>	

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Tanis Tentative Parcel Map City/County: Shingle Springs, El Dorado Co Sampling Date: 03/16/2016
 Applicant/Owner: Ray Tanis State: CA Sampling Point: 8
 Investigator(s): Ruth Willson Section, Township, Range: Sec. 30, T. 10 N., R. 10 E., M.D.M.
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 11%
 Subregion (LRR): C Lat: 38° 41' 14" N Long: 120° 55' 07" W Datum: WGS 84
 Soil Map Unit Name: Auburn Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? 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 <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: Soils are derived from red parent material.	

VEGETATION Plot Size: 20'x20'

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Robinia pseudoacacia</u>	20	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)																
2. <u>Quercus wislizeni</u>	40	Yes	UPL																	
3. <u>Quercus douglasii</u>	5	No	UPL																	
4. _____																				
Total Cover: <u>65</u> %				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0.0</u></td> <td>x 1 = <u>0.0</u></td> </tr> <tr> <td>FACW species <u>0.0</u></td> <td>x 2 = <u>0.0</u></td> </tr> <tr> <td>FAC species <u>0.0</u></td> <td>x 3 = <u>0.0</u></td> </tr> <tr> <td>FACU species <u>0.0</u></td> <td>x 4 = <u>0.0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>0.0</u> (A)</td> <td><u>0.0</u> (B)</td> </tr> <tr> <td align="center" colspan="2">Prevalence Index = B/A = <u>0.0</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0.0</u>	x 1 = <u>0.0</u>	FACW species <u>0.0</u>	x 2 = <u>0.0</u>	FAC species <u>0.0</u>	x 3 = <u>0.0</u>	FACU species <u>0.0</u>	x 4 = <u>0.0</u>	UPL species _____	x 5 = _____	Column Totals: <u>0.0</u> (A)	<u>0.0</u> (B)	Prevalence Index = B/A = <u>0.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0.0</u>	x 1 = <u>0.0</u>																			
FACW species <u>0.0</u>	x 2 = <u>0.0</u>																			
FAC species <u>0.0</u>	x 3 = <u>0.0</u>																			
FACU species <u>0.0</u>	x 4 = <u>0.0</u>																			
UPL species _____	x 5 = _____																			
Column Totals: <u>0.0</u> (A)	<u>0.0</u> (B)																			
Prevalence Index = B/A = <u>0.0</u>																				
Sapling/Shrub Stratum																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
Total Cover: <u>0</u> %																				
Herb Stratum																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
Total Cover: <u>0</u> %																				
Woody Vine Stratum																				
1. _____																				
2. _____																				
Total Cover: <u>0</u> %																				
% Bare Ground in Herb Stratum <u>100</u> % % Cover of Biotic Crust <u>0</u> %		Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>																		

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		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1							Forest duff	
2-12	7.5YR 4/6	100					Silt loam	
12	Bottom of hole							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		Indicators for Problematic Hydric Soils⁴: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)		⁴ Indicators of hydrophytic vegetation and wetland hydrology must be present.	
Restrictive Layer (if present): Type: _____ Depth (inches): _____		Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: _____			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____			
Remarks: _____			

Appendix B

**Plant Species Found on the Project Site
August 1 & 2, 2014; July 23, 2015 and March 17, 2016**

**Plant Species Found on the Project Site
August 1 & 2, 2014, July 23, 2015 and March 17, 2016**

Adoxaceae

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

Agavaceae

Chlorogalum pomeridianum (DC.) Kunth
var. *pomeridianum*, **Common soaproot**

Anacardiaceae

Rhus aromatica Aiton, **Skunk bush**
Toxicodendron diversiloba (Torrey & A. Gray)
E. Greene, **Western poison-oak**

Apiaceae

Daucus pusillus Michx., **Queen Ann's lace**
Galium aparine L., **Goose grass**
Galium porrigens Dempster, **Climbing bedstraw**
Sanicula sp., **Sanicle**
Scandis pecten-veneris L., **Venus' needle**

Apocynaceae

Nerium oleander L., **Common oleander**
Vinca major L., **Greater periwinkle**

Araliaceae

Hedera sp., **Ivy**

Asteraceae

Achillea millefolium L., **Yarrow**
Agoseris sp., **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**
Erigeron canadensis L., **Horseweed**
Hypochaeris sp., **Cat's-ear**
Lactuca serriola L., **Prickly lettuce**
Logfia gallica (L.) Coss. & Germ., **Daggerleaf cottonrose**
Pseudognaphalium californicum (DC.) Anderb.,
California cudweed
Senecio vulgaris L., **Common groundsel**
Solidago sp., **Goldenrod**
Tragopogon sp., **Goat's beard**
Wyethia angustifolia (DC) Nutt., **Narrow-leaved mule-ears**
Wyethia helenioides (DC.) Nutt., **Gray mule-ears**

Boraginaceae

Nemophila heterophylla Fisch. & C.A. Mey., **White nemophila**

Caprifoliaceae

Lonicera sp., **Honeysuckle**

Caryophyllaceae

Spergularia rubra (L.) J. Presl & C Presl, **Red sandspurry**
Stellaria media (L.) Vill., **Common chickweed**
Stellaria pallida (Dumort.) Crep., **Lesser chickweed**

Convolvulaceae

Calystegia occidentalis (A. Gray) Brummitt,
Western morning glory

Cupressaceae

Calocedrus decurrens (Torr.) Florin, **Incense cedar**

Cyperaceae

Carex tumulicola Mack, **Foothill sedge**
Cyperus sp., **Nutsedge**

Ericaceae

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

Euphorbiaceae

Croton setiger Hook., **Turkey-mullein**

Fabaceae

Acmispon brachycarpus (Benth.) D.D. Sokoloff, **Hill deervetch**
Genista sp., **Broom**
Lathyrus sp., **Wild pea**
Medicago sp., **Bur-clover**
Robinia pseudoacacia L., **Black locust**
Trifolium hirtum All., **Rose clover**
Vicia sp., **Vetch**

Fagaceae

Quercus douglasii Hook & Arn., **Blue oak**
Quercus kelloggii Newb., **California black oak**
Quercus lobata Nee, **Valley oak**
Quercus wislizeni A. DC., **Interior live oak**

Gentianaceae

Centaureum tenuiflorum (Hoffmanns. & Link) Janch.
Slender centaury

Geraniaceae

Erodium sp., **Filaree**
Geranium molle L.

Hypericaceae

Hypericum perforatum L. subsp. *perforatum*
klamathweed

Juncaceae

Juncus tenuis Willd., **Slender rush**
Luzula comosa E. Mey., **Hairy woodrush**

Lamiaceae

Marrubium vulgare L., **Horehound**
Stachys stricta Greene, **Hedge-nettle**

Liliaceae

Calochortus monophyllus (Lindl.) Lem., **Yellow star-tulip**

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

Montiaceae

Claytonia perfoliata Willd., **Miner's lettuce**

Myrsinaceae

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

Oleaceae

Ligustrum japonicum Thunb., **Japanese privet**

Onagraceae

Epilobium brachycarpum C. Presl, **Autumn willowherb**

Pinaceae

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

Plantaginaceae

Plantago lanceolata L., **Italian plantain**
Veronica persica Poir, **Persian speedwell**
Rumex crispus L., **Curly dock**
Rumex occidentalis S. Watson, **Western dock**

Poaceae

Aegilops triuncialis L., **Barbed goat grass**
Aira caryophylla L., **Silver hair grass**
Avena sp., **Wild oat**
Briza minor L., **Annual quaking grass**
Bromus hordeaceus L., **Soft chess**
Bromus madritensis L., **Foxtail chess**
Bromus tectorum L., **Cheat grass**
Cynodon dactylon (L.) Pers., **Bermuda grass**
Cynosurus echinatus L., **Hedgehog dogtail**
Elymus glaucus Buckley, **Blue wildrye**
Festuca perennis (L.) Columbus & J.P.Sm., **Ryegrass**
Gastridium phleoides (Nee & Meyen) C.E. Hubb.,
Nit grass

Hordeum sp., **Barley**
Phalaris minor Retz, **Canary grass**
Poa sp., **Bluegrass**

Polygalaceae

Polygala cornuta Kellogg, **Milkwort**

Polygonaceae

Rumex sp., **Dock**

Primulaceae

Primula hendersonii (A. Gray) Mast & Reveal;
Mosquito bills, Sailor caps

Ranunculaceae

Clematis lasiantha Nutt., **Pipestem clematis**
Ranunculus canus Benth var. *canus*, **Buttercup**

Rhamnaceae

Ceanothus cuneatus (Hook.) Nutt. var. *cuneatus*,
Buck brush
Ceanothus integerrimus Hook. & Arn, **Deer brush**
Rhamnus ilicifolia Kellogg, **Holly-leaf redberry**
Rhamnus tomentella Benth., **Hoary coffeeberry**

Rosaceae

Heteromeles arbutifolia (Lindley) Roemer, **Toyon**
Prunus laurocerasus L., **English laurel**
Pyracantha sp., **Firethorn**
Rubus armeniacus Focke **Himalayan blackberry**

Rubiaceae

Galium bolanderi A. Gray, **Bolander's bedstraw**
Galium porrigens Dempster, **Climbing bedstraw**

Salicaceae

Populus fremontii S.Watson, subsp. *fremontii*
Fremont cottonwood

Salix laevigata Bibb., **Red willow**

Sapindaceae

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

Scrophulariaceae

Verbascum thapsus L., **Wooly mullein**

Simaroubaceae

Ailanthus altissima (Mill.) Swingle, **Tree of heaven**

Viscaceae

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

MITIGATION MONITORING and REPORTING PLAN - TM14-1523, Rancheria Court Tanis Split

The environmental mitigation measures listed in column two below have been incorporated into the Tentative Subdivision Map TM14-1523 in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been complied with, and that County and state monitoring requirements have been fulfilled with respect to Public Resources Code Section 21081.6.

IMPACT AND MITIGATION		MONITORING		VERIFICATION	
IDENTIFIED IMPACT	RELATED MITIGATION MEASURES	Method of Verification and Timing Requirements	Monitoring and Verification Entity	Signature	Date
The project has the potential to impact potential habitat for the Valley Elderberry Longhorn Beetle consisting of one Elderberry Bush (<i>Sambucus Mexicana</i>), which was identified along the eastern border of proposed Lot 1.	BIO-1: Listed Species: Impacts to potential habitat for the Valley Elderberry Longhorn Beetle habitat shall be mitigated through establishment of a 30-foot radius setback from the host plant. Use of herbicides and insecticide within the setback area shall be prohibited.	The applicant shall conduct all construction activities outside the 30-foot radius setback from the existing Elderberry Bush (<i>Sambucus Mexicana</i>) as identified on Figure 13 of the <i>Biological Resources Report</i> prepared by Site Consulting Inc. dated April 2016. ¹ The 30-foot radius shall be identified on the Final Map prior to recordation, and this mitigation measure and the associated 30-foot radius setback shall be noted on future grading and residential construction plans. Development Services Division shall verify the inclusion of this requirement on the Final Map, and future grading and residential construction plans.	CDA – Development Services Division		
The project has the potential to impact potential habitat for species of concern including nesting birds, raptors, or other protected migratory birds due to construction activities such as tree and vegetation removal, which are protected under the Migratory Bird Treaty Act.	BIO-2: Species of concern: Pre-construction surveys for nesting birds, including raptors, conducted no more than 30 days prior to construction activities, are required if construction is scheduled during the normal nesting season (March 15 to 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, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures. No mitigation is required if tree removal and grading are not scheduled during normal nesting season.	The applicant shall conduct all construction activities outside the nesting season or perform a pre-construction survey and the necessary avoidance measures prior to initiation of construction activities. This mitigation measure shall be noted on the grading plans. If a pre-construction survey is required, the Development Services Division shall verify the completion of survey prior to issuance of grading permit.	CDA – Development Services Division		
The project would result in impacts to oak woodland canopy resulting in the removal of approximately 0.88 acres of on- and off-site oak woodland canopy from on- and off-site grading and future residential construction activities.	BIO-3: Oak Woodlands: Oak woodland preservation and replacement shall be consistent with Section VII (Oak Tree Survey, Preservation and Replacement Plan) of the <i>Biological Resources Report</i> prepared by Site Consulting Inc. dated April 2016. ¹ The plan identifies appropriate oak woodland canopy preservation measures, and identifies replacement requirements for oak woodland canopy removal resulting from the proposed project. Removal of oak woodland canopy must be mitigated by replanting oaks at a 1-to-1 ratio of canopy removed to area	All grading and construction activities will require compliance with the oak woodland preservation measures and replacement measures as described in Section VII (Oak Tree Survey, Preservation and Replacement Plan) of the <i>Biological Resources Report</i> prepared by Site Consulting Inc. dated April 2016. ¹ The applicant shall plant oak trees or acorns in compliance with said Report and the Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4. Planning Services shall verify the inclusion of this requirement prior to the issuance of	CDA – Development Services Division		

¹See *Biological Resources Report* (Ruth Willson, Biologist, April, 2016)

MITIGATION MONITORING and REPORTING PLAN - TM14-1523, Rancheria Court Tanis Split

The environmental mitigation measures listed in column two below have been incorporated into the Tentative Subdivision Map TM14-1523 in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been complied with, and that County and state monitoring requirements have been fulfilled with respect to Public Resources Code Section 21081.6.

IMPACT AND MITIGATION		MONITORING		VERIFICATION	
IDENTIFIED IMPACT	RELATED MITIGATION MEASURES	Method of Verification and Timing Requirements	Monitoring and Verification Entity	Signature	Date
	revegetated. Using the standard of 200 saplings or 600 acorns per acre, the mitigation for proposed oak woodland canopy removal for Lot 1 would be 66 saplings or 198 acorns planted on 0.33 acres; for Lot 2 would be 80 saplings or 240 acorns on 0.4 acres; and for Rancheria Court would be 30 saplings or 90 acorns on 0.15 acres. Proposed mitigation areas shall be in substantial conformance with Figure 13 of the referenced study (Oak and Elderberry Mitigation Map).	grading and building permits.			

¹See *Biological Resources Report* (Ruth Willson, Biologist, April, 2016)