MITIGATED NEGATIVE DECLARATION

FILE: P19-0010

PROJECT NAME Hoekstra Tentative Parcel Map

NAME OF APPLICANT: Eric and Trudy Hoekstra

ASSESSOR'S PARCEL NO.: 087-030-036 **SECTION:** 17 **T:** 08N **R:** 09E

LOCATION: The project is located on the south side of Coulter Lane, approximately 2,435-feet south of the intersection with South Shingle Road in the Latrobe area.

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

☐ **REZONING: FROM: TO:**

☒ **TENTATIVE PARCEL MAP** To create four parcels of approximately 40-acres each from a 160.25-acre parent parcel ☐ **SUBDIVISION:**

SUBDIVISION (NAME):

☐ **SPECIAL USE PERMIT TO ALLOW:**

☐ **OTHER:**

REASONS THE PROJECT WILL NOT HAVE A SIGNIFICANT ENVIRONMENTAL IMPACT:

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

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

☐ **OTHER:**

In accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), State Guidelines, and El Dorado County Guidelines for the Implementation of CEQA, the County Environmental Agent analyzed the project and determined that the project will not have a significant impact on the environment. Based on this finding, the Planning Department hereby prepares this MITIGATED NEGATIVE DECLARATION. A period of 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 COUNTY OF EL DORADO. A copy of the project specifications is on file at the County of El Dorado Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Negative Declaration was adopted by the Zoning Administrator on _____.

_____

Executive Secretary

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

Project Title: P19-0010/Hoekstra Tentative Parcel Map

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

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

Owner's Name and Address: Eric and Trudy Hoekstra, 445 Amhurst Circle, Folsom, CA 95630

Applicant's Name and Address: Eric and Trudy Hoekstra, 445 Amherst Circle, Folsom, CA 95630

Project Engineer's Name and Address: Lebeck Young Engineering, Inc., 3430 Robin Lane #2, Cameron Park, CA 95682

Project Location: The project is located on the south side of Coulter Lane, approximately 2,435 feet south of the intersection with South Shingle Road in the Latrobe area.

Assessor's Parcel Number: 087-030-036 **Acres:** 160.25 acres

Sections: S: 17 **T:** 08N **R:** 09E

General Plan Designation: Rural Residential (RR)

Zoning: Limited Agriculture – 40 Acre Minimum (LA-40)

Description of Project: A request for a Tentative Parcel Map to subdivide a 160.25 acre parcel into four parcels of 40.09 acres (Parcel 1), 40.01 acres (Parcel 2), 40.10 acres (Parcel 3), and 40.06 acres (Parcel 4) (Attachment A). The property is developed with an existing single-family dwelling of 1200 square feet, one well, and one leach field located on Parcel 1. All other resultant parcels are currently undeveloped, with no residential development proposed as part of this project. However, each parcel would be allowed to develop up to one primary residence and one secondary residence. Access to the residence on Parcel 1 is from a private driveway from Coulter Lane, a county maintained road. Access to each other parcel will be provided by extending Coulter Lane to the approximate center of the property, terminating into a cul-de-sac. Off-site road improvements include widening Coulter Lane from 12 feet to 20 feet wide from the northern property boundary to the intersection with South Shingle Road. Electricity services will be provided by Pacific Gas & Electric (PG&E). Water and sewage treatment will be provided by a private well and septic system per each parcel. The vegetation community on the project site is broadly classified as California Annual Grassland. Very few trees exist on site and none are proposed for removal. The site contains several riparian features including one approximately 400 square foot seasonal wetland, 2.6 acres of intermittent channels, 0.5 acres of ephemeral channels, and 0.25 acres of seeps. A 50-foot setback from each of these riparian features will be required of all development. The project as proposed complies with the pertinent zoning development standards including lot size and lot frontage as well as with the provisions of Section 120.36.010 (Minor Land Divisions) of the El Dorado County Subdivision Ordinance. Setback standards will be verified upon review of future development proposals.

Environmental Setting: The project site is a 160.25 acre partially developed parcel with additional off-site impacts located in the low foothills of the western slope of the Sierra Nevada Mountains at an elevation of approximately 490 feet to 610 feet above mean sea level. The off-site portion of the project extends from the intersection of South Shingle Road and Coulter Lane to the northern property boundary of the site. Along the offsite portion of the project site, there are two ephemeral channels and one intermittent channel. The major biological community in the off-site portion of the project is California Annual Grassland. Vegetation within the offsite riparian channels, if any, is mostly non-protected herbaceous species. The onsite topography is characterized by low rolling hills covered by grasslands. A few scattered riparian trees are the only trees on site. There are areas of exposed bedrock and boulders, up to a few feet high, mostly on the far eastern and western sides of the site. A Biological Resources Assessment and an Aquatic Resource Delineation Report were prepared for the project by Sycamore Environmental Consultants, Inc., dated January 30, 2018 (Attachments B and C). Four intermittent channels on site have streambeds mostly of scoured cobble, gravel, and exposed bedrock. They contain water from upstream seeps into the late spring and early summer of most years. There are very few trees or shrubs present along the intermittent channels and there are no riparian corridors. Ephemeral channels on site have streambeds mostly of scoured soil and gravel which allows water to flow for brief periods in response to surface runoff from storm events. The ephemeral channels have little or no hydrophytic

vegetation and no riparian corridors. Seeps on site contain saturated or moist soil into the late spring or early summer with perennial hydrophytic plants present. The primary source of hydrology in the seeps is groundwater; however, runoff from surrounding uplands is a secondary source. There is a seasonal wetland consisting of a small depression and swale that drains to a nearby intermittent channel. Hydrology is seasonal from upland runoff and periodic high flows in the nearby channel. The wetland is dry most of the year. A 50-foot setback from each of these natural features will be required to minimize any potential impact. Little disturbance is expected as part of this project as no residential development is proposed at this time. The soils on site are Argonaut very rocky loam, 3-30% slopes (AmD), Auburn very rocky silt loam, 2-30% slopes (AxD), Auburn silt loam, 2-30% slopes (AwD), Auburn extremely rocky silt loam 3-70% slopes (AyF), and Perkins gravelly loam, moderately deep variant 2-5% slopes (Pgb). The adjacent-neighboring parcels are similarly zoned for residential and limited agricultural uses on properties of at least 40 acres with similar vegetation and features, and have the same corresponding General Plan Land Use Designation of Rural Residential (RR). The United States Department of the Interior Fish & Wildlife Service reviewed the project January 30, 2018 and recommended the Biological Assessment. Results of the biological field surveys and recommended mitigation measures are contained within this Initial Study.

Other Project Concerns: The project is within a limited agricultural zone district which is located in an area of historic grazing uses. The grazing usage potential of the site will be protected by creating parcels of no less than 40 acres. The El Dorado County Agriculture Commission reviewed this project on June 12, 2019, at which time the proposal intended to create eight lots of approximately 20 acres each. As this did not meet the code requirements for historic grazing land, the Agriculture Commission recommended denial. This resulted in the current proposal which is compliant with the 40 acre minimum parcel size required of historic grazing lands. As the current project proposal complies with all issues raised by the Agricultural Commission, a second hearing is not required.

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

1. El Dorado County Surveyor
2. El Dorado County Building Services
3. El Dorado County Environmental Management Department
4. El Dorado County Air Quality Management District
5. El Dorado County Department of Transportation
6. El Dorado Hills Fire Department
7. El Dorado Agricultural Commission

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

At the time of the application request, seven Tribes: Colfax-Todds Valley Consolidated Tribe, El Dorado County Wopumnes Nisenan-Mewuk Nation, Ione Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of California and Nevada, and the Wilton Rancheria, had requested to be notified of proposed projects for consultation in the project area. Pursuant to the records search conducted at the North Central Information Center on September 5, 2017, the proposed project area contains zero prehistoric-period resources and zero historic-period cultural resources. Additionally, zero cultural resources study reports are on file. Outside of the project area, but within the ¼ mile radius of the geographic area, a broader search area contains zero prehistoric-period resources and zero historic-period cultural resources. There is moderate potential for locating prehistoric-period cultural resources in the immediate vicinity. There is low potential for locating historic-period cultural resources in the immediate vicinity. The project site is not known to contain either Tribal Cultural Resources (TCRs) or historic-period resources; however, proposed conditions of approval from the North Central Information Center Records Search have been incorporated as conditions for the project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

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

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

Signature: Matt Aselage Date: 2/11/2021

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

Signature: Date: 2/11/21

PROJECT DESCRIPTION

Introduction

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts resulting from the proposed project. The proposed project would allow for the subdivision of a partially developed 160.25 acre parcel into four parcels ranging in size from 40.09 acres (Parcel 1), 40.01 acres (Parcel 2), 40.10 acres (Parcel 3), and 40.06 acres (Parcel 4).

Throughout this Initial Study, please reference the following Attachments:

Attachment A: Tentative Parcel Map
Attachment B: Aquatic Resources Delineation Report
Attachment C: Biological Resources Assessment
Attachment D: Comments from El Dorado Hills Fire Department

Detailed Project Description:

A request for a Tentative Parcel Map to subdivide a 160.25 acre parcel into four parcels of 40.09 acres (Parcel 1), 40.01 acres (Parcel 2), 40.10 acres (Parcel 3), and 40.06 acres (Parcel 4) (Attachment A). The property is developed with an existing single-family dwelling of 1200 square feet, one well, and one leach field located on Parcel 1. All other resultant parcels are currently undeveloped, with no residential development proposed as part of this project. However, each parcel would be allowed to develop up to one primary residence and one secondary residence. Access to the residence on Parcel 1 is from a private driveway from Coulter Lane, a county maintained road. Access to each other parcel will be provided by extending Coulter Lane to the approximate center of the property, terminating into a cul-de-sac. Off-site road improvements include widening Coulter Lane from 12 feet to 20 feet wide from the northern property boundary to the intersection with South Shingle Road. Electricity services will be provided by Pacific Gas & Electric (PG&E). Water and sewage treatment will be provided by a private well and septic system per each parcel. The vegetation community on the project site is broadly classified as California Annual Grassland. Very few trees exist on site and none are proposed for removal. The site contains several riparian features including one approximately 400 square foot seasonal wetland, 2.6 acres of intermittent channels, 0.5 acres of ephemeral channels, and 0.25 acres of seeps. A 50-foot setback from each of these riparian features will be required of all development. The project as proposed complies with the pertinent zoning development standards including lot size and lot frontage as well as with the provisions of Section 120.36.010 (Minor Land Divisions) of the El Dorado County Subdivision Ordinance. Setback standards will be verified upon review of future development proposals.

Site Description:

The project site contains both a 160.25 acre partially developed parcel and an offsite area encompassing the area within a width of 25 feet from both sides of the center line of Coulter Lane bound by the intersection between South Shingle Road and Coulter Lane to the north and extending south to the northern property boundary line located in the low foothills of the western slope of the Sierra Nevada Mountains at an elevation of approximately 490 feet to 610 feet above mean sea level. The topography is generally characterized by low rolling hills covered by annual grasslands. The offsite portion of the site contains a portion of two ephemeral channels and one intermittent channel capable of hosting primarily non-protected herbaceous plant species. Onsite, a few scattered riparian trees are the only trees on site. There are areas of exposed bedrock and boulders, up to a few feet high, mostly on the far eastern and western sides of the site. A Biological Resources Assessment and an Aquatic Resource Delineation Report were prepared for the project by Sycamore Environmental Consultants, Inc., dated January 30, 2018 (Attachments B and C). Four intermittent channels on site have streambeds mostly of scoured cobble, gravel, and exposed bedrock. They contain water from upstream seeps into the late spring and early summer of most years. There are very few trees or shrubs present along the intermittent channels and there are no riparian corridors. Additionally, the ephemeral channels on site have streambeds mostly of scoured soil and gravel. Ephemeral channels flow for brief periods in response to surface runoff from storm events. The ephemeral channels have little or no hydrophytic vegetation and no riparian corridors. Further, seeps on site contain saturated or moist soil into the late spring or early summer with

perennial hydrophytic plants present. The primary source of hydrology in the seeps is groundwater; however, runoff from surrounding uplands is a secondary source. Lastly, there is a seasonal wetland consisting of a small depression and swale that drains to a nearby intermittent channel. Hydrology is seasonal from upland runoff and periodic high flows in the nearby channel. The wetland is dry most of the year. A 50-foot setback from each of these natural features will be required to minimize any potential impact. Little disturbance is expected as part of this project as no residential development is proposed at this time. The soils on site are Argonaut very rocky loam, 3-30% slopes (AmD), Auburn very rocky silt loam, 2-30% slopes (AxD), Auburn silt loam, 2-30% slopes (AwD), Auburn extremely rocky silt loam 3-70% slopes (AyF), and Perkins gravelly loam, moderately deep variant 2-5% slopes (Pgb). The adjacent-neighboring parcels are similarly zoned for residential and limited agricultural uses on properties of at least 40 acres with similar vegetation and features, and have the same corresponding General Plan Land Use Designation of Rural Residential (RR). The United States Department of the Interior Fish & Wildlife Service reviewed the project January 30, 2018 and recommended the Biological Assessment. Results of the biological field surveys and recommended mitigation measures are contained within this Initial Study.

Project Location and Surrounding Land Uses

The project site is located on the south side of Coulter Lane, approximately 0.5 miles south of the intersection with South Shingle Road in the Latrobe area. The neighboring parcels to the north are currently developed with residential uses. Properties to the east, west, and south are primarily undeveloped lands.

Project Characteristics

1. Transportation/Circulation/Parking

The project was reviewed by the El Dorado County Transportation Division and conditions have been submitted to require the construction of the on-site roadway and an off-site road expansion, at the locations shown on the Tentative Parcel Map, to the satisfaction of the responsible fire district. The El Dorado Hills Fire Department reviewed the project and has recommended conditions for improving access from Coulter Lane and extending Coulter Lane to provide driveway encroachments for driveways to Parcels 2, 3, and 4, to be constructed per the current Fire Code, Ordinance and Standards (Attachment D).

2. Utilities and Infrastructure

The El Dorado County Environmental Management Department (EMD) reviewed the project. Each parcel will be served by their own onsite well and wastewater treatment systems. For electricity the parcels would have to connect to service provided by Pacific Gas & Electric (PG&E).

3. Construction Considerations

No residential development is proposed as a part of the project, nor have tentative residential sites been identified. Driveway plans will be finalized upon final siting of future residential development proposals. The scope of construction considerations pertinent to this project includes both on and off-site improvements to Coulter Lane. Coulter Lane will be widened from 12 feet to 20 feet from the northern property boundary line to the intersection with South Shingle Road. Coulter Lane will also be extended to a cul-de-sac terminus located in the approximate center of the property. The off-site widening of Coulter Lane may result in impacts to existing culverts; however, there are no expected culvert extensions required along this section of Coulter Lane. The on-site extension of Coulter Lane will require the installation of one culvert to maintain current drainage flows. The proposed driveway onto proposed Parcels Three and Four will require installation of one culvert. The proposed driveway onto proposed Parcel Two will require installation of one culvert. The proposed parcels would maintain the current Limited Agriculture – 40 acres (LA-40) zoning designation, which allows for single-family residential development. Any future construction activities, such as single-family dwelling units and accessory structures, would be completed in conformance with applicable agency requirements, and subject to a building permit from the El Dorado County Building Services.

Project Schedule and Approvals

This Initial Study is being circulated for public and agency review for a 30-day period. Written comments on the Initial Study should be submitted to the project planner indicated in the Summary section, above. Following the close of the written comment period, the Initial Study will be considered by the Lead Agency in a public meeting and will be certified if it is determined to be in compliance with California Environmental Quality Act (CEQA). The Lead Agency will also determine whether to approve the project.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

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

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

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

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

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

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

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

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

9. The explanation of each issue should identify:

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

ENVIRONMENTAL IMPACTS

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

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

State Laws, Regulations, and Policies

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

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

Local Laws, Regulations, and Policies

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

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

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

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

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

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

a. **Scenic Vista or Resource:** The project site is located in a rural area surrounded by large lot single-family residences and undeveloped 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 a State Scenic Highway. There is the potential for residential development with accessory structures on each of the currently undeveloped parcels, which is allowed on all lots within a limited agriculture zone district. Any new structures would require permits for construction and would comply with the General Plan and Zoning code. There would be no impact.

b. **Scenic Resources:** The project site is not visible from an officially designated State Scenic Highway or county-designated scenic highway, or any roadway that is part of a corridor protection program (Caltrans, 2013). There are no views of the site from public parks or scenic vistas. Though there are trees 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, and no trees are proposed for removal. There would be no impact.

c. **Visual Character:** Each proposed lot would have the capability for single-family residential development. Parcel 1 is already developed with a residential use. Each lot would be allowed to develop one primary residence and one secondary residence, and accessory structures. The site is adjacent to other single-family homes on large rural lots and the proposed project would not affect the visual character of the surrounding area. There will be no impact.

d. **Light and Glare:** The proposed project does not include any substantial new light sources, however, the project would allow for new dwelling units, such as primary and/or secondary dwellings, to be developed in the future, which could produce minimal new light and glare. The property already has one existing residence, a 1200 SF home on Parcel 1, with no development elsewhere on site. Future development would be required to comply with the County lighting ordinance requirements, including the shielding of lights to avoid potential glare, during the building permit process, and therefore any impacts would be less than significant.

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

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

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

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

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

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

Prime Farmland: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agricultural production at some time during the 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 (CALFIRE) works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs.

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

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

a. **Farmland Mapping and Monitoring Program:** The site is zoned for limited agricultural uses. The site has historically been used for and is currently capable of sustaining commercial grazing of livestock. Given the suitability of this land for grazing and the agricultural designation of the site, 40-acre minimum parcel sizes are a requirement to protect the ability of the land to sustain grazing activities. As the project proposes parcels meeting the minimum 40-acre parcel size, there will be a less than significant 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. No trees are proposed for removal as part of the project. There would be no impact.

e. **Conversion of Prime Farmland or Forest Land:** The project is within a limited agricultural zone district. As discussed in "a" above, the historic grazing usage of the site will be protected by creating parcels of no less than 40 acres. This project may allow residential uses up to two dwelling units per parcel

(one primary residence and one secondary residence), which will leave the majority of each parcel available for potential future grazing uses. The El Dorado County Agriculture Commission reviewed this project on June 12, 2019, at which time the proposal intended to create eight lots of approximately 20 acres each. As this did not meet the code requirements for historic grazing land, the Agriculture Commission recommended denial. This resulted in the current proposal which is compliant with the 40 acre minimum parcel size required of historic grazing lands. As the current project proposal complies with all issues raised by the Agricultural Commission, a second hearing is not required. The project is not located on forest land; therefore, no forest land would be converted to a non-forest land use. There would be a less than significant impact.

FINDING: For this Agriculture category, the thresholds of significance regarding forest lands have not been exceeded and no impacts to forest lands are anticipated as a result of the project. However, this project does have farmland considerations resulting from the classification of the property as historic grazing lands. The project, as proposed, complies with the county's land division standard of 40-acre minimum parcel size on lands classified as historic grazing lands. Therefore, impacts will be less than significant.

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of 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 U.S. National Ambient Air Quality Standards (NAAQS) and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The proposed project is located within the Mountain Counties Air Basin, which is comprised of seven air districts: the Northern Sierra Air Quality Management District (AQMD), Placer County Air Pollution Control District (APCD), Amador County APCD, Calaveras County APCD, the Tuolumne County APCD, the Mariposa County APCD, and a portion of the El Dorado County AQMD, which consists of the western portion of El Dorado County. The El Dorado County Air Quality Management District (AQMD) manages air quality for attainment and permitting purposes within the west slope portion of El Dorado County.

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

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

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

Criteria Pollutant	**El Dorado County Threshold**	
Reactive Organic Gasses (ROG)	82 lbs/day	
Nitrogen Oxides (NOx)	82 lbs/day	
Carbon Monoxide (CO)	8-hour average: 6 parts per million (ppm)	1-hour average: 20 ppm
Particulate Matter (PM10):	Annual geometric mean: 30 µg/m3	24-hour average: 50 µg/m3
Particulate Matter (PM2.5):	Annual arithmetic mean: 15 µg/m3	24-hour average: 65 µg/m3
Ozone	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, AQMD assumed that exhaust emissions of other air pollutants from the operation of equipment and vehicles are also not significant.

For Fugitive dust (PM10), if dust suppression measures will prevent visible emissions beyond the boundaries of the project, further calculations to determine PM emissions are not necessary. For the other criteria pollutants, including CO, PM10, SO2, NO2, sulfates, lead, and H2S, a project is considered to have a significant impact on air quality if it will cause or contribute significantly to a violation of the applicable national or state ambient air quality standard(s).

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

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

- Emissions of ROG and No_x will result in construction or operation emissions greater than 82lbs/day (Table 3.2);
- Emissions of PM_{10}, CO, SO_2 and No_x, as a result of construction or operation emissions, will result in ambient pollutant concentrations in excess of the applicable National or State Ambient Air Quality Standard (AAQS). Special standards for ozone, CO, and visibility apply in the Lake Tahoe Air Basin portion of the County; or
- Emissions of toxic air contaminants cause cancer risk greater than 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, NOx, and O3). The EDC/State Clean Air Act Plan has set a schedule for implementing and funding transportation contract measures to limit mobile source emissions. The project would not conflict with or obstruct implementation of either plan. Any activities associated with future plans for grading and construction would require a Fugitive Dust Mitigation Plan (FDMP) for grading and construction activities. Such a plan would address grading measures and operation of equipment to minimize and reduce the level of defined particulate matter exposure and/or emissions to a less than significant level. The potential impacts of the project would be less than significant.

b-c. **Air Quality Standards and Cumulative Impacts:** No residential construction is proposed as part of the project; however, there will be on-site and off-site road improvements. There is the potential for future development on the lots for construction of additional residential structures as well as accessory structures. Although this would contribute air pollutants due to construction and possible additional vehicle trips to and from the site, these impacts would be minimal. Existing regulations implemented at issuance of building and grading permits would ensure that any construction related PM10 dust emissions would be reduced to acceptable levels. The El Dorado County Air Quality Management District (AQMD) reviewed the project on March 23, 2020 and provided standard conditions which will be incorporated into the project. With full review for consistency with General Plan Policies, any impacts would be less than significant.

d. **Sensitive Receptors:** The CEQA Guidelines (14 CCR 15000) identify sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others that are especially sensitive to the

effects of air pollutants. Hospitals, schools, and convalescent hospitals are examples of sensitive receptors. No sources of substantial pollutant concentrations would be emitted by any future single family residences, during construction or following construction. The impact would be less than significant.

e. **Objectionable Odors:** Table 3-1 of the Guide to Air Quality Assessment (AQMD, 2002) does not list the proposed use of the parcels for residential uses as a use known to create objectionable odors. The request to subdivide a 160.25 acre parcel into four parcels would not be a source of objectionable odors. There would be no impact.

FINDING: The proposed project would not affect the implementation of regional air quality regulations or management plans. The proposed project is not anticipated to cause substantial adverse effects to air quality. The conditions placed on this project as well as county requirements for approval of a building and/or grading permit will prevent this project from exceeding established significance thresholds for air quality impacts. Therefore, there will be a less than significant impact.

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

Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				

Regulatory Setting:

Federal Laws, Regulations, and Policies

Endangered Species Act

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

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

Migratory Bird Treaty Act

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

Bald and Golden Eagle Protection Act

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

Clean Water Act

Clean Water Act (CWA) section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject

to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

State Laws, Regulations, and Policies

California Fish and Game Code

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

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

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

Streambed Alteration Agreement

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

California Native Plant Protection Act

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

Forest Practice Act

Logging on private and corporate land in California is regulated by the Z'berg-Nejedly Forest Practices Act (FPA), which took effect January 1, 1974. The act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. CALFIRE works under the direction of the Board of Forestry

and is the lead government agency responsible for approving logging plans and for enforcing the FPRs. A Timber Harvest Plan (THP) must be prepared by a Registered Professional Forester (RPF) for timber harvest on virtually all non-federal land. The FPA also established the requirement that all non-federal forests cut in the State be regenerated with at least three hundred stems per acre on high site lands, and one hundred fifty trees per acre on low site lands.

Local Laws, Regulations, and Policies

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

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

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

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

a. **Special Status Species:** The project site is not located within a sensitive natural community of the County, state or federal agency, including but not limited to an Ecological Preserve, or U.S. Fish and Wildlife Service (USFWS) Recovery Plan boundaries. A biological resources report was prepared in January of 2018, by Chuck Hughes, M.S., of Sycamore Environmental Consultants, Inc. **Fauna (animal life)**: The Biological Resources Report details habitat for two species of fish. California Central Valley Steelhead (a trout species), which is classified as threatened by the U.S. Fish and Wildlife Service, and Central Valley fall/late fall-run chinook salmon, a species of special concern per the California Department of Fish and Wildlife. No steelhead was sited during fieldwork completed on November 30, 2017. Despite no recorded siting of this species, the biological resources report cites the siting of four adult chinook salmon within Channel 1 (Attachments B and C). The biological study area is likely near the upper limit of areas that are accessible to anadromous fish. Since chinook salmon were observed during late November, it is reasonable to conclude that Central Valley Steelhead may also be able to reach Channel 1, at least in some years. Additionally, the Biological Resources Report details potential habitat for four bird species including White-Tailed Kite- a CDFW fully protected species, Grasshopper Sparrow- a species of special concern, and Burrowing Owl- a species of special concern. The BSA provides seasonal habitat to western pond turtle, a CDFW species of special concern. The intermittent channels in the BSA are dry in the summer and early autumn, thereby limiting suitable habitat to later fall through spring. The BSA provides potential

habitat for American Badgers, a CDFW species of special concern. The BSA provides nesting habitat for birds regulated by State Fish and Game Code and listed under the federal Migratory Bird Treaty Act. The Migratory Bird Treaty Act prohibits the taking of protected bird species. The BSA provides habitat for anadromous fish species which are regulated by the Environmental Species Act (ESA). 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 proposed project is for a Tentative Parcel Map to subdivide a 160.25 acre parcel into four parcels. Future residential development will be conditioned so as to not involve the taking of any protected species. In order to reduce any possible impacts, the report recommends that project conditions include a required pre-construction survey and avoidance of nests during nesting season as well as enhanced setbacks from all waters and wetlands. **Flora (plant life)**: Removal of flora as a result of this Tentative Map Project will consist primarily of California annual grass species with no state rarity ranking. Although future development could occur on each new parcel, future property owners would be required to comply with all applicable County requirements and conditions. Planning Services would review future building permits to ensure consistency with this requirement. If development would result in ground disturbance, a floristic survey should be conducted during the blooming period (mid to late May) to determine the presence or absence of the four potential species that may occur on the project site: Tuolumne button-celery, Sanford's arrowhead, Prairie wedge grass, and big-scale balsamroot. With the incorporation of the mitigation measures, any potential impacts to biological resources from future development would be mitigated to a level of less than significant.

MM BIO-1 Pre-Construction Breeding Bird Surveys:

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

a) Project activities that would remove or disturb potential nest sites shall be scheduled outside the breeding bird season, if feasible. The breeding bird nesting season is typically from February 15 through September 15, but can vary slightly from year to year, usually depending on weather conditions.
b) If project activities that would remove or disturb potential nest sites cannot be avoided during February 15 through September 15, a qualified biologist shall conduct a pre-construction clearance and nesting bird survey to search for all potential nesting areas, breeding birds, and active nests or nest sites within the limits of project disturbance up to 30 days prior to mobilization, staging, and other disturbances.
c) If no breeding birds or active nests are observed during the pre-construction survey(s), or if they are observed and would not be disturbed, then project activities may begin and no further mitigation would be required.
d) If a breeding bird territory or active bird nest is located during the pre-construction survey and potentially would be disturbed, a no-activity buffer zone shall be delineated on maps and marked (flagging or other means) up to 500 feet for special-status avian species or raptors, or 100 feet for non-special status avian species. The limits of the buffer shall be demarked so as not to provide a specific indicator of the location of the nest to predators or people. Materials used to demarcate the nests shall be removed as soon as work is complete or the fledglings have left the nest. The biologist shall determine the appropriate size of the buffer zone based on the type of activities planned near the nest and bird species because some bird species are more tolerant than others to noise and other disturbances. The nest and buffer zone shall be field-checked weekly by a qualified biologist. The nest and buffer zone shall not be disturbed until the biologist has determined that the young have fledged, the young are no longer being fed by the parents, the young have left the area, or the young would no longer be impacted by project activities.

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

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

MM BIO-2 Rare Plant Protection:

A qualified biologist shall conduct a pre-construction survey within 14-days prior to on-site and off-site clearing or grading operations to look for potential presence of rare plant species, particularly Tuolumne button-celery, Sanford's arrowhead, Prairie wedge grass, and big-scale balsamroot. If no rare plants are observed, a letter report shall be prepared to document the results of the survey, and no additional measures are recommended. If rare plants are present, then the applicant shall coordinate with the Pine Hill Ecological Preserve Manager and staff to facilitate collection of seeds and plants on site. The collected material shall be transplanted under the discretion of the Pine Hill Ecological Preserve Manager or a qualified professional to the Pine Hill Ecological Preserve land.

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

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

b, c. **Riparian Habitat and Wetlands:** Based on review of the Biological Resources Report prepared for the project by Sycamore Environmental Consultants, Inc. in January 2018, which was based on field reviews conducted in November of 2017, indicates that there are three intermittent channels, nine ephemeral channels, three seeps, and one small wetland area on site. The intermittent channels contain water from upstream seeps into the late spring or early summer of most years; there are very few trees or shrubs present along the intermittent channels and there are no riparian corridors. The ephemeral channels flow for brief periods in response to surface runoff from storm events; there is little or no hydrophytic vegetation and no riparian corridors. The primary source of hydrology in the seeps is groundwater, with runoff from surrounding uplands being a secondary source. The seeps do contain perennial hydrophytic plants. There is a seasonal wetland consisting of a small depression and swale that drains to a nearby channel; the wetland is dry for most of the year. The wetland has hydrophytic vegetation dominated by rye grass and Mediterranean barley. The total area of riparian features on site is 3.341 acres.

Central Valley fall/late-fall run chinook salmon, a species of special concern was identified in the project area during the biological field review. No other special-status plants or threatened/endangered wildlife species were identified in the project vicinity during the biological field review; however there is the potential for the occurrence of additional special-status plants and protected wildlife including the California Central Valley steelhead, Western pond turtle, grasshopper sparrow, burrowing owl, white-tailed kite, and the American badger. Mitigation Measures have been incorporated into the project to avoid and protect these protected species, and potential impacts from residential uses allowed on each parcel would be considered a level of less than significant.

MM BIO-3 Riparian Habitat and Wetland Protection:
A 55-foot setback from the ephemeral channels, intermittent channels, seeps, and wetland area shall be shown prior to recordation of the final map

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

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

d. **Migration Corridors:** Review of the Department of Fish and Wildlife Migratory Deer Herd Maps and General Plan DEIR Exhibit 5.12-7 indicate that the Outside deer herd migration corridor does not extend over the project site. The project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with any established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. The impacts would be less than significant.

e. **Local Policies:** Local protection of biological resources includes oak woodland preservation, rare plants and special-status species, and wetland preservation with the goal to preserve and protect sensitive natural resources within the County. Oak woodlands, individual native oak trees, or heritage trees, as defined in Section 130.39.030, have not been impacted or removed as a result of the proposed project. Any future tree removal would be required to be in compliance with the Oak Resources Conservation Ordinance of Section 130.39.070.C (Oak Tree and Oak Woodland Removal Permits), which would be reviewed at time of future building permit issuance. The BSA is not located within a Rare Plant Mitigation Area. Future development would be required to comply with all applicable County ordinances and policies regarding biological resources, and conditioned to require a pre-construction survey to detect and protect if any nests exist on site. Pursuant to Zoning Ordinance Section 130.30.050, the project will also be conditioned to require all future development to comply with increased setbacks from perennial and intermittent streams and wetlands. Any future development would need to adhere to the County's setbacks from any intermittent stream or wetland, including any new single-family dwellings, secondary dwellings, and/or accessory structures. Therefore, any potential impacts would be less than significant.

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

Finding: With the incorporation of Mitigation Measures BIO-1, BIO-2, and BIO-3, potential impacts to biological resources from any future residential development would be mitigated. Future residential development is required to comply with applicable County codes and policies which would be reviewed at time of submittal of the grading and building permits. Therefore, potential impacts to Biological Resources as mitigated would be less than significant.

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

The National Register of Historic Places

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

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

State Laws, Regulations, and Policies

California Register of Historical Resources

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

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

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

The California Register of Historic Places

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

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

The State Office of Historic Preservation sponsors the California Historical Resources Information System (CHRIS), a statewide system for managing information on the full range of historical resources identified in

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

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

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

Section 5097.98 of the California Public Resources Code stipulates that whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants 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 Records Search was conducted through the North Central Information Center (NCIC) dated September 5, 2017. Cultural resource analysis includes the moderate potential for discovery and disturbance of paleontological resources, and low potential for discovery of historic-period cultural resources. According to the NCIC, the proposed project site contains no pre-historic period cultural resource sites, features, or artifacts, nor were there any historic buildings, structures, or objects discovered. Therefore, no significant cultural resources were identified and the project will have no effect on cultural resources. Impacts would be less than significant.

d. **Human Remains.** A records search was conducted at the North Central Information Center on September 5, 2017. There were no Tribal Cultural Resources (TCRs) identified in the project footprint and the project site is not known to contain any TCRs. In the event of human remains discovery during any future construction if additional structures are built, standard conditions of approval to address accidental discovery of human remains would apply during any grading activities. In accordance with the laws of AB 52, the County notified seven Tribes: Colfax-Todds Valley Consolidated Tribe, El Dorado County Wopumnes Nisenan-Mewuk Nation, Ione Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of California and Nevada, and the Wilton Rancheria, which requested to be notified of proposed projects for consultation in the project area. Impacts would be less than significant.

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

VI. GEOLOGY AND SOILS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				**X**
ii) Strong seismic ground shaking?				**X**
iii) Seismic-related ground failure, including liquefaction?				**X**
iv) Landslides?				**X**
b. Result in substantial soil erosion or the loss of topsoil?			**X**	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				**X**
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?				**X**
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk-reduction program to

better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: USGS, National Science Foundation (NSF), Federal Emergency Management Agency (FEMA), and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives (NEHRP 2009) are to:

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

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

State Laws, Regulations, and Policies

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 *et seq.*) was passed to reduce the risk to life and property from surface faulting in California. The Alquist–Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a project can be permitted, cities and counties are required to have a geologic investigation conducted to demonstrate that the proposed buildings would not be constructed across active faults.

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

Seismic Hazards Mapping Act

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

Mapping and other information generated pursuant to the SHMA is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval

process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

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

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

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

a. **Seismic Hazards:**

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

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

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

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

b. **Soil Erosion:** The soils on site are Auburn very rocky silt loam (AxD) 2-30% slopes which has moderately slow permeability; Auburn silt loam (AwD) 2-30% slopes which is a shallow, well-drained, rocky foothill soil underlain by hard metamorphic rocks; Auburn extremely rocky silt loam (AyF) 3-70% slopes which

has a slow to moderately slow permeability; Perkins gravelly loam, moderately deep variant (Pgb) 2-5% slopes which is moderately well drained soil; and Argonaut very rocky loam (AmD) 3-30% slopes which is a well-drained soil. These soils are prominent in the foothills. There could be the potential for erosion, changes in topography during future construction of any primary or accessory structures; however, these concerns would be addressed during the grading permit process. Any development activities would need to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance, including the implementation of pre- and post-construction Best Management Practices (BMPs). Implemented BMPs are required to be consistent with the County's Stormwater Pollution Prevention Plan (SWPPP) issued by the State Water Resources Control Board to eliminate run-off and erosion and sediment controls. Any grading activities exceeding 250 cubic yards of graded material or grading completed for the purpose of supporting a structure must meet the provisions contained in the County of El Dorado Grading, Erosion, and Sediment Control Ordinance. Any future construction would require similar review for compliance with the County SWPPP. Impacts would be less than significant. Potential degradation of water quality and soil erosion impacts. If construction will disturb 1 acre or more of soil, the project proponent must obtain a General Permit for discharges of storm water associated with activity from SWRCB. As part of this permit, a SWPPP must be prepared and implemented. The SWPPP must include erosion control measures and construction waste containment measures to ensure that waters of the State are protected during and after project construction. Pursuant to Zoning Ordinance Section 130.30.050, future development would require setbacks from perennial and intermittent streams and wetlands. The project site does not contain blue-line stream, rivers, or lakes; however the site contains and supports a wetland, therefore any future development would need to adhere to the County's setback distance of 50-feet minimum from any intermittent stream or wetland, including single-family dwellings and accessory structures (Biological Resources Evaluation, Sycamore Environmental Consultants, Inc., January 2018). The impacts would be less than significant.

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

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

e. **Septic Capability:** The El Dorado County Environmental Management Department reviewed the project and determined that each proposed parcel meets the requirements for land divisions of parcels to be served by an onsite wastewater treatment system. Each proposed parcel has confirmed adequate soil depth, a soil percolation rate below 120 minutes per inch, and a dispersal area identified. Any future septic development would be required to obtain a septic system permit application, and would have to be compliant with the El Dorado County Standards for the Site Evaluation, Design, and Construction of Onsite Wastewater Treatment Systems (OWTS) Manual. Impacts would be less than significant.

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

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

Background/Science

Cumulative greenhouse gases (GHG) emissions are believed to contribute to an increased greenhouse effect and global climate change, which may result in sea level rise, changes in precipitation, habitat, temperature, wildfires, air pollution levels, and changes in the frequency and intensity of weather-related events. While criteria pollutants and toxic air contaminants are pollutants of regional and local concern (see Section III. Air Quality above); GHG are global pollutants. The primary land-use related GHG are carbon dioxide (CO_2), methane (CH_4) and nitrous oxides (N_2O). The individual pollutant's ability to retain infrared radiation represents its "global warming potential" and is expressed in terms of CO_2 equivalents; therefore CO_2 is the benchmark having a global warming potential of 1. Methane has a global warming potential of 21 and thus has a 21 times greater global warming effect per metric ton of CH_4 than CO_2. Nitrous Oxide has a global warming potential of 310. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., $MTCO_2e/yr$). The three other main GHG are Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. While these compounds have significantly higher global warming potentials (ranging in the thousands), all three typically are not a concern in land-use development projects and are usually only used in specific industrial processes.

GHG Sources

The primary man-made source of CO_2 is the burning of fossil fuels; the two largest sources being coal burning to produce electricity and petroleum burning in combustion engines. The primary sources of man-made CH_4 are natural gas systems losses (during production, processing, storage, transmission and distribution), enteric fermentation (digestion from livestock) and landfill off-gassing. The primary source of man-made N_2O is agricultural soil management (fertilizers), with fossil fuel combustion a very distant second. In El Dorado County, the primary source of GHG is fossil fuel combustion mainly in the transportation sector (estimated at 70% of countywide GHG emissions). A distant second are residential sources (approximately 20%), and commercial/industrial sources are third (approximately 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 CO_2 equivalent ($MMTCO_2e$) while 1990 levels were estimated at 427 $MMTCO_2e$. Setting 427 $MMTCO_2e$ as the emissions target for 2020, current (2006) GHG emissions levels must be reduced by 29%. CARB adopted the AB 32 Scoping Plan in December 2008 establishing various actions the state would implement to achieve this reduction (CARB, 2008). The Scoping Plan recommends a community-wide GHG reduction goal for local governments of 15%.

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

Discussion

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

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

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

These thresholds are summarized below:

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

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

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

a. The proposed project would create four new parcels from a 160.25 acre parcel. The four new parcel sizes would be 40.09 acres (Parcel 1), 40.01 acres (Parcel 2), 40.10 acres (Parcel 3), and 40.06 acres (Parcel 4). Each parcel would be allowed to have a primary residence and secondary dwelling by right, for a total of eight residences possible. There is currently one residence on site which is located on Parcel 1 (currently the primary structure). The potential for future construction may involve a small increase in household GHG production. However, any future construction would be required to incorporate modern construction and design features that reduce energy consumption to the extent feasible. Implementation of these features would help reduce potential GHG emissions resulting from the development. The proposed project would have a negligible contribution towards statewide GHG inventories and would have a less than significant impact.

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

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

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a				**X**

significant hazard to the public or the environment?				
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				**X**
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				**X**
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			**X**	

Regulatory Setting:

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

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

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

Resource Conservation and Recovery Act

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

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

Energy Policy Act of 2005

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

Spill Prevention, Control, and Countermeasure Rule

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

Occupational Safety and Health Administration

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

Federal Communications Commission Requirements

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

FCC has established two sets of RF radiation exposure limits—Occupational/Controlled and General Population/Uncontrolled. The less-restrictive Occupational/Controlled limit applies only when a person (worker) is exposed as a consequence of his or her employment and is "fully aware of the potential exposure and can exercise control over his or her exposure," otherwise the General Population limit applies (47 CFR Section 1.1310).

The FCC exposure limits generally apply to all FCC-licensed facilities (47 CFR Section 1.1307[b][1]). Unless exemptions apply, as a condition of obtaining a license to transmit, applicants must certify that they comply with FCC environmental rules, including those that are designed to prevent exposing persons to radiation above FCC RF limits (47 CFR Section1.1307[b]). Licensees at co-located sites (e.g., towers supporting multiple antennas, including antennas under separate ownerships) must take the necessary actions to bring the accessible areas that exceed the FCC exposure limits into compliance. This is a shared responsibility of all licensees whose transmission power density levels account for 5.0 or more percent of the applicable FCC exposure limits (47CFR 1.1307[b][3]).

Code of Federal Regulations (14 CFR) Part 77

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

State Laws, Regulations, and Policies

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

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

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other state agencies set the standards for their programs, while local governments (CUPAs) implement the standards. For each county, the CUPA regulates/oversees the following:

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

Hazardous Materials Business Plans

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

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans.

Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible RF radiation exposure limits for workers (Title 8 CCR Section 5085[b]), and requires warning signs where RF radiation might exceed the specified limits (Title 8 CCR Section 5085 [c]).

California Accidental Release Prevention

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

California Department of Forestry and Fire Protection Wildland Fire Management

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

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Highway Patrol

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

Local Laws, Regulations, and Policies

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

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

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

a-c. **Hazardous Materials:** The Tentative Parcel Map project would not involve the routine transportation, use, or disposal of hazardous materials such as construction materials, paints, fuels, landscaping materials, and household cleaning supplies. The project site is located approximately three-quarters of a mile from a private school, Millers Hill School, which lies outside of the quarter mile zone of concern. Any future construction may involve some hazardous materials temporarily, but this is considered to be small scale. Impacts would be less than significant.

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

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

g. **Emergency Plan:** The project was reviewed by the County Transportation Department for traffic and circulation. A Traffic Impact Study (TIS) - Initial Determination was completed for this project which determined no impacts expected. No further transportation studies are required. The proposed project would not impair implementation of any emergency response plan or emergency evacuation plan. Impacts would be less than significant.

h. **Wildfire Hazards:** The project site is in an area of moderate fire hazard for wildland fire pursuant to Figure 5.8-4 of the 2004 General Plan Draft Environmental Impact Report (EIR). The El Dorado County General Plan Safety Element does not require a Fire Safe Plan prepared by a Registered Professional Forester (RPF) for sites located in fire severity zones below the high fire hazard classification. The El Dorado Hills Fire Department reviewed the project on March 14, 2020 and provided a condition to require the provision of a Wildfire Hazard Real Estate Disclosure to all future property owners. Therefore, any potential impacts would be less than significant.

FINDING: For the Hazards and Hazardous Materials category, with the incorporation of recommended conditions of approval as provided by the El Dorado Hills Fire Department, any potential impacts would be less than significant.

IX. HYDROLOGY AND WATER QUALITY. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			**X**	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop			**X**	

to a level which would not support existing land uses or planned uses for which permits have been granted)?				
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.

<u>Municipal Stormwater Permitting Program</u>

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:** De minimis waste discharge will occur as part of the Tentative Parcel Map project. Erosion control would be required as part of any future building or grading permit. Stormwater runoff from potential development would contain water quality protection features in accordance with a potential National Pollutant Discharge Elimination System (NPDES) stormwater permit, as deemed applicable. The project would not be anticipated to violate water quality standards. Impacts would be less than significant.

b. **Groundwater Supplies:** The geology of the Western Slope portion of El Dorado County is principally hard, crystalline, igneous, or metamorphic rock overlain with a thin mantle of sediment or soil. Groundwater in this region is found in fractures, joints, cracks, and fault zones within the bedrock mass. These discrete fracture areas are typically vertical in orientation rather than horizontal as in sedimentary or alluvial aquifers. Recharge is predominantly through rainfall infiltrating into the fractures. Movement of this groundwater is very limited due to the lack of porosity in the bedrock. Wells are typically drilled to

depths ranging from 80 to 300 feet in depth. There is no evidence that the project will substantially reduce or alter the quantity of groundwater in the vicinity, or materially interfere with groundwater recharge in the area of the proposed project. Parcel 1 contains an existing well and septic system which will remain as the primary source of water and waste discharge for this parcel. Well and septic systems are proposed for all other parcels alongside future residential development. There are no indications of shallow ground water, no slopes greater than 30%, and no wells within 100 feet of proposed sewage disposal areas. For the final map, the applicant would need to prove that all parcels have a safe and reliable water source that meets the minimum criteria of EDC policy 800-02. The project is not anticipated to affect potential groundwater supplies above pre-project levels. Impacts would be less than significant.

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

g-j. **Flood-related Hazards:** The project site is not located within any mapped 100-year flood areas and would not result in the construction of any structures that would impede or redirect flood flows (FEMA, 2008). 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 impact.

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

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

Regulatory Setting:

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

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

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

a. **Established Community:** The project is located in a rural region near the Latrobe community center. The project is surrounded by similar large, rural lot single family residential development. The Tentative Parcel Map project would not conflict with the existing land use pattern in the area or physically divide an established community. Therefore, there will be no impacts.

b. **Land Use Consistency:** The parcel has a General Plan Land Use Designation of Rural Residential (RR) and a zoning designation of Limited Agriculture, Forty-Acres (LA-40). The RR land use designation establishes areas for residential and agricultural development. The maximum allowable density shall be one dwelling unit per 40 acres. As shown on the site plan, the four parcels would range in size from 40.01 acres (Parcel 2) to 40.1 acres (Parcel 3). The proposed project is compatible with the General Plan land use designation and the zone district. Impacts would be less than significant.

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

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

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

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

State Laws, Regulations, and Policies

Surface Mining and Reclamation Act

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

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

Local Laws, Regulations, and Policies

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

According to General Plan Policy 2.2.2.7, before authorizing any land uses within the -MR overlay zone that will threaten the potential to extract minerals in the affected area, the County shall prepare a statement specifying its reasons for considering approval of the proposed land use and shall provide for public and agency notice of such a statement consistent with the requirements of Public Resources Code section 2762. Furthermore, before finally approving any such proposed land use, the County shall balance the mineral values of the threatened mineral resource area against the economic, social, or other values associated with the proposed alternative land uses. Where the affected minerals are of regional significance, the County shall consider the importance of these minerals to their market region as a whole and not just their importance to the County.

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

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

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

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

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

XII.NOISE. *Would the project result in:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			**X**	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise level?				**X**
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				**X**

Regulatory Setting:

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

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

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

- Result in short-term construction noise that creates noise exposures to surrounding noise sensitive land uses in excess of 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 130.37.060.1 and Table 130.37.060.2 of the El Dorado County Zoning Ordinance.

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

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

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

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

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

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

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

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

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

Regulatory Setting:

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

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

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

a. **Population Growth:** The 160.25 acre parcel is currently developed. The proposed project would result in the creation of four parcels, each of which would be allowed a primary residence and a secondary dwelling by right. This potential additional housing and population would not be considered a significant population growth. Impacts would be less than significant.

b. **Housing Displacement:** The 160.25 acre parcel is currently developed. The proposed project would result in the creation of four parcels. No existing housing would be displaced by the project. There would be no impact.

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

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

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Fire protection?			**X**	
b. Police protection?			**X**	
c. Schools?			**X**	
d. Parks?			**X**	
e. Other government services?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

California Fire Code

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

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

- Substantially increase or expand the demand for fire protection and emergency medical services without increasing staffing and equipment to meet the Department's/District's goal of 1.5 firefighters per 1,000 residents and 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 El Dorado Hills Fire Department provides fire protection to the site. The project must adhere to applicable requirements for emergency vehicle access including roadway widths and turning radii, fire flow and water supply requirements, and vehicle ingress/egress. The El Dorado Hills Fire Department has required the submittal of a Wildfire Safe Plan prior to recordation of the final map. The Wildfire Safe Plan will address concerns such as fire safe setbacks, fire safe vegetation clearing area, and a review for adequate site ingress/egress. Compliance with these requirements will assure adequate emergency access and evacuation routes. If any additional dwelling units are proposed in the future, the Fire District would review the building permit application and include any fire protection measures at that time. Impacts would be less than significant.

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

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

d. **Parks.** Any additional residents from future construction would not substantially increase the local population and therefore not substantially increase the use of parks and recreational facilities. The dedication of land, the payment of fees in lieu thereof or a combination of both for park and recreational purposes would be required, pursuant to the provisions of Sections 120.12.090 through 120.12.110, as a condition of approval for any parcel map which creates less than 50 parcels. With the payment of park in-lieu fees, impacts would be less than significant.

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

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

XV. RECREATION.				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would 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 §120.12.090 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.** Any additional units from future construction would not increase the local population substantially, and therefore would not substantially increase the use of parks and recreational facilities. The dedication of land, the payment of fees in lieu thereof or a combination of both for park and recreational purposes would

be required, pursuant to the provisions of Sections 120.12.090 through 120.12.110, as a condition of approval for any parcel map which creates less than 50 parcels. With the payment of park in-lieu fees, impacts would be less than significant.

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

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

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

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

State Laws, Regulations, and Policies

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

Local Laws, Regulations, and Policies

The Transportation and Circulation Element of the County General Plan relies on automobile delay and Level of Service (LOS) as performance measures to determine impacts on County-maintained roads and state highways within the unincorporated areas of the county.

County General Plan Policy TC-Xd states that 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 calculated using the methodologies in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council). There are some roadway segments that are except from these standards and are allowed to operate at LOS F and are listed

in Table TC-2. 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.

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

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

Current direction regarding methods to identify VMT and comply with state requirements is provided by the California Governor's Office of Planning and Research (OPR) December 2018 publication, Technical Advisory on Evaluating Transportation Impacts in CEQA. This advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. OPR provides this Technical Advisory as a resource for the public to use at their discretion. OPR is not enforcing or attempting to enforce any part of the recommendations contained herein. (Government Code Section 65035 ["It is not the intent of the Legislature to vest in the Office of Planning and Research any direct operating or regulatory powers over land use, public works, or other state, regional, or local projects or programs."].)

OPR's Technical Advisory provides this direction for small projects:

Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.

Per OPR's Technical Advisory, this determination is based on the following:

CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).). Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

El Dorado County Department of Transportation (DOT) adopted VMT screening thresholds. Consistent with El Dorado General Plan Policy TC-Xe, cited above, transportation impact studies (TIS) are required of development when development "worsens" travel conditions. The threshold criteria for worsening conditions include 2 percent increase in overall volumes, 100 daily trips, or 10 peak hour trips. The threshold of 100 trips generated by the project is more conservative than the recommended exemption threshold of 110 trips suggested by the OPR.

Further, DOT's current criteria for determining uses that are typically exempt from preparation of a transportation impact study (TIS) include industrial uses with footprints of 10,000 square feet or less, which is reflective of the direction in OPR's Technical Advisory for evaluating traffic impacts for small projects. Access to the project site would be provided by construction of future driveways for each resulting parcel.

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

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

a. **Conflicts with a Transportation Plan, Policy or Ordinance:** No substantial traffic increases would result from the proposed project, as the total potential new development would be limited to three primary single family residential units and four secondary residential units. Access to the new parcels would be from individual private driveways off of Coulter Lane. The project area is in an area of similar rural large-lot parcels. Trip generation from the project using the ITE Trip Generation Manual, 10th Edition would be 2 trips in the AM and PM Peak hours and 9 trips daily. This is less than the thresholds set by El Dorado County General Plan Policy TC-Xe. The proposed project site is not on a main roadway and there are very low traffic volumes. Construction activities associated with the proposed project would temporarily generate additional vehicle traffic in the project area. Once construction has been completed, traffic is anticipated to increase by 38 trips daily or 4 trips in the peak hour. However, this long term increase will remain below the thresholds discussed above. The project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Impacts would be less than significant.

b. **Vehicle Miles Travelled (VMT):** The proposed project would create four parcels for a total of four primary single-family dwellings. Construction activities associated with the project would temporarily generate additional vehicle traffic in the project area but would not be expected to exceed 110 trips per day during the construction period. Once construction has been completed, long-term traffic is anticipated to increase by 38 trips daily or 4 trips in the peak hour, which is less than the threshold of 100 trips per day or 10 trips in the peak hour as set by El Dorado County General Plan Policy TC-Xe. Therefore, in accordance with DOT's criteria for exemption from requiring a TIS and OPR's direction regarding determining transportation impacts for small projects, this impact is presumed to be less than significant. The El Dorado County Department of Transportation reviewed the project and determined that a Transportation Impact Study (TIS) and On-Site Transportation Review were not required, and both the TIS and OSTR were waived. Impacts would be less than significant.

c. **Design Hazards**: The design and location of the project is not anticipated to create any significant hazards. The existing project site is developed. Any future road or driveway improvements for access to the newly created parcels would require a grading permit. The El Dorado County Department of Transportation reviewed the project and provided comments which will be incorporated as conditions of approval. The impact for design hazards would be less than significant.

d. **Emergency Access:** The existing project site is developed. Future road or driveway improvements for access to the newly created parcels would require a grading permit and would be required to be compliant with fire and building code emergency access requirements. The El Dorado Hills Fire Protection District reviewed the project and provided comments which will be incorporated as conditions of approval to ensure adequate quantity and quality of water for all uses, including fire protection. Impacts would be less than significant.

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

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

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

State Laws, Regulations, and Policies

Assembly Bill (AB) 52

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

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

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

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

TCRs are further defined under Section 21074 as follows:

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

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

Discussion:

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

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

a-b. **Tribal Cultural Resources.** The County notified eight Tribes: Colfax-Todds Valley Consolidated Tribe, El Dorado County Wopumnes Nisenan-Mewuk Nation, Ione Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of California and Nevada, and the Wilton Rancheria, which requested to be notified of proposed projects for consultation in the project area. A records search was conducted at the North Central Information Center. There were no Tribal Cultural Resources (TCRs) identified in the project footprint and the project site is not known to contain any TCRs. In the event of TCR discovery during any future construction, the standard conditions of approval would apply to address such discovery to protect and preserve any TCRs. The impacts would be less than significant.

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

XVIII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			**X**	
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			**X**	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			**X**	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

Energy Policy Act of 2005

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

State Laws, Regulations, and Policies

California Integrated Waste Management Act of 1989

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

California Solid Waste Reuse and Recycling Access Act of 1991

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

California Integrated Energy Policy

Senate Bill 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report for the governor and legislature every 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 Water Sense 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 El Dorado County Environmental Management Department reviewed the project and verified that each parcel could be served by an onsite wastewater treatment system. Each parcel has confirmed adequate soil depth, a soil percolation rate below 120 minutes per inch, and a dispersal area identified. Impacts would be less than significant.

b. **Construction of New Facilities:** No development is proposed as a part of the Tentative Parcel Map project and no construction of new facilities is required. Each parcel is required to provide its own wastewater treatment system, connection to public water service or private well, and utilities/electricity services by Pacific Gas & Electric (PG&E). Private well and sewage disposal developments for Parcel 1 currently exist; however, all other parcels will develop private well and sewage disposal systems alongside residential development. The impact would be less than significant.

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

d. **Sufficient Water Supply:** Water for each parcel would be provided by connection to a private well. The El Dorado County Environmental Management Department reviewed the project and concluded that the well locations on the proposed parcel map match well locations submitted on EMD well permit locations. An adequate water supply will be required for future developments, with a minimum of 5 gallons per minute through a combination of well production, water storage, or both per the current El Dorado County well ordinance. The impact would be less than significant.

e. **Adequate Wastewater Capacity:** The project would require each parcel to provide its own onsite wastewater treatment system. The Environmental Management Department reviewed the project and confirmed that the parcels can be served by an onsite wastewater treatment system. Each parcel has confirmed adequate soil depth, a soil percolation rate below 120 minutes per inch, and a dispersal area identified. Impacts would be less than significant.

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

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

XIV. MANDATORY FINDINGS OF SIGNIFICANCE. *Does the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		**X**		

b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			**X**	
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

Discussion

a. No substantial evidence contained in the project record has been found that would indicate that this project would have the potential to significantly degrade the quality of the environment. 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 and required standards that would be implemented prior to recording the final Parcel Map or with the building permit processes and/or any required project specific improvements on the property.

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

The project would not involve development or changes in land use that would result in an excessive increase in population growth. Impacts due to increased demand for public services associated with the project would be offset by the payment of fees as required by service providers to extend the necessary infrastructure services. The project would not be anticipated to contribute substantially to increased traffic in the area and the project would not require an increase in the wastewater treatment capacity of the County. Due to the small size of the proposed project, 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, 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 not include any physical changes to the site, and any future development or physical changes would require review and permitting through the County. Adherence to these standard conditions would be expected to reduce potential impacts to a less than significant level.

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

SUPPORTING INFORMATION SOURCE LIST

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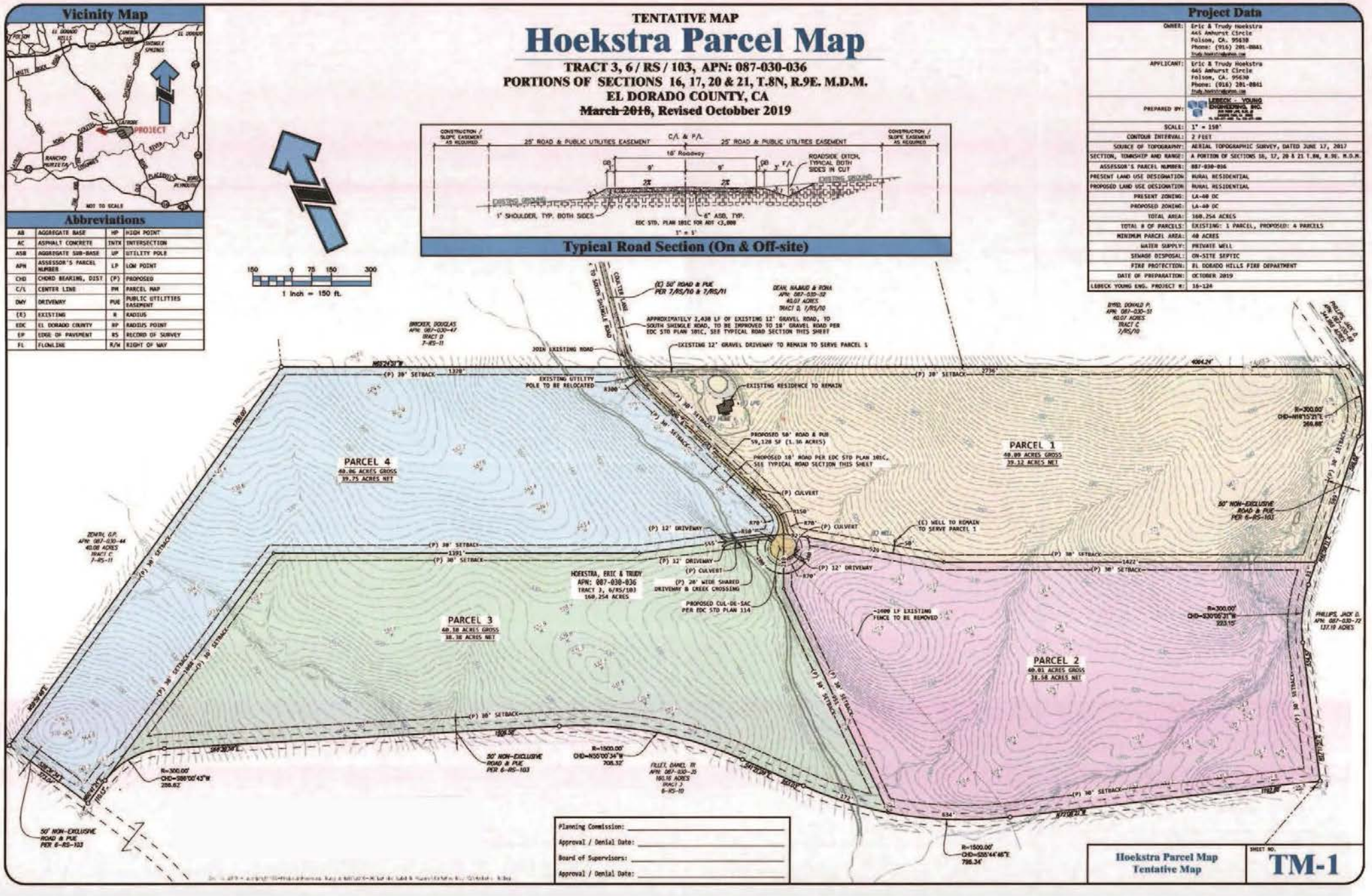


P19-0010 Attachment A: Tentative Parcel Map

Aquatic Resource Delineation Report

for the

Hoekstra Tentative Map Project

El Dorado County, CA

Prepared by:

Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd., Suite C
Sacramento, CA 95831
Phone: 916/ 427-0703
Contact: Chuck Hughes, M.S.

Prepared for:

Eric and Trudy Hoekstra
4200 Coulter Lane
Latrobe, CA 95682
Phone: 916/ 201-0841
Contact: Trudy Hoekstra

30 January 2018

Aquatic Resource Delineation Report
for the
Hoekstra Tentative Map

El Dorado County, CA

Table of Contents

Figures

Tables

Appendices

I. INTRODUCTION

A. Purpose

Sycamore Environmental Consultants, Inc., conducted an aquatic resource delineation of the Hoekstra Tentative Map Project Study Area (PSA) in El Dorado County. The purpose of the delineation was to identify wetlands and waters in the PSA, and identify features that meet the definition of waters of the U.S. Verifications of the extent of waters of the U.S. may be made by the U.S. Army Corps of Engineers (Corps).

B. Project Location

The PSA is near Latrobe, an unincorporated community in El Dorado County, CA. The PSA includes the areas of potential Project road improvements. The PSA is on the Folsom SE and Latrobe U.S. Geological Survey topographic quads (T8N, R9E, Section 16, 17, 20, and 21; Figure 1), and is in the Upper Cosumnes hydrologic unit (18040013). Its centroid is 38.545262° north, 121.005121° west, UTM coordinate 673,862 meters E, 4,268,193 meters N, Zone 10S (WGS84). Figure 2 is an aerial photograph of the PSA.

To access the PSA from Sacramento, take Highway 50 east to the Latrobe Road exit. Turn right onto Latrobe Road, continue for 10.0 miles, then turn right on South Shingle Road. Turn left onto Coulter Lane.

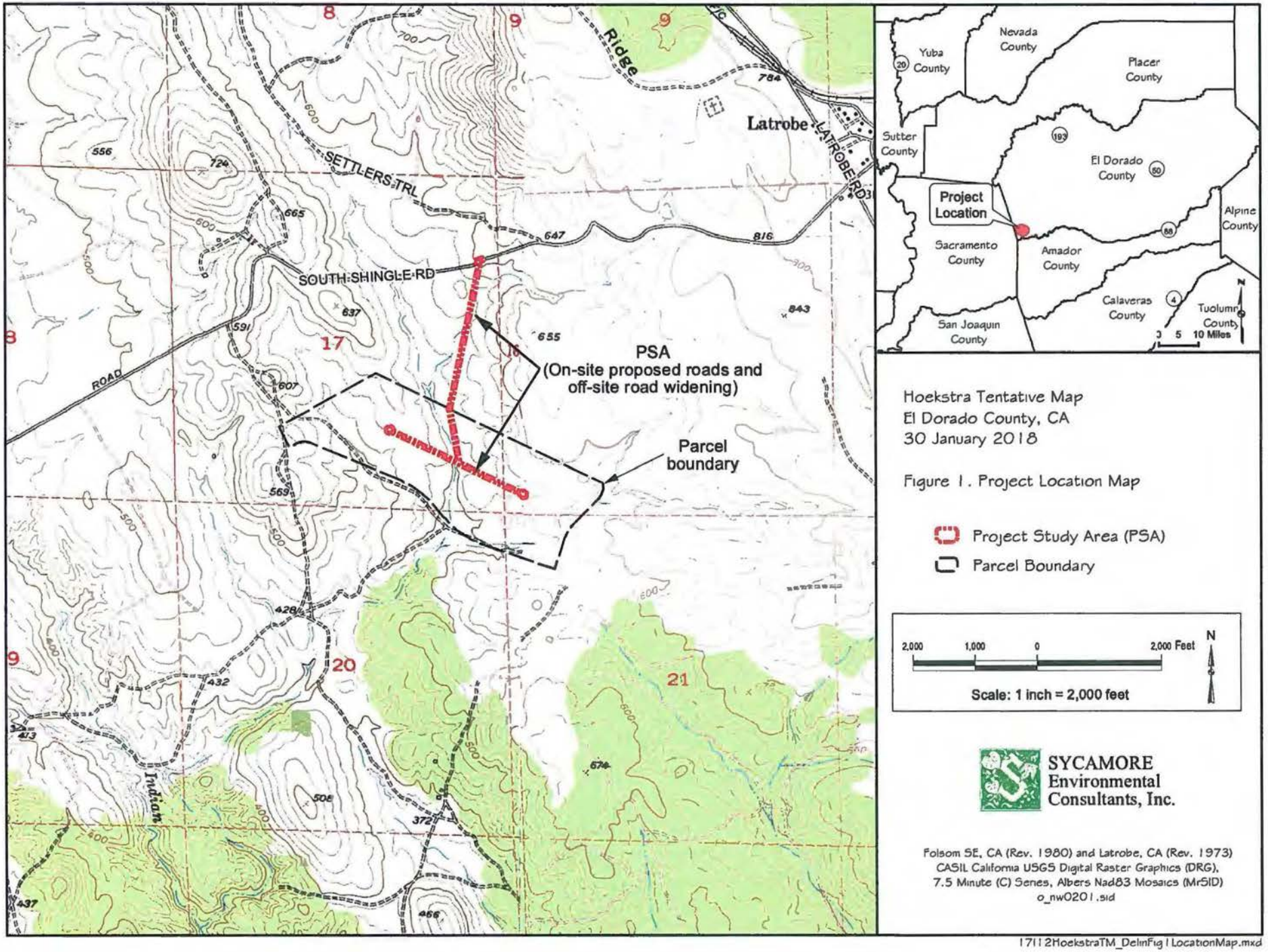
C. Project Applicant

Eric and Trudy Hoekstra
4200 Coulter Lane
Latrobe, CA 95682

Contact: Ms. Trudy Hoekstra
Phone: 916/ 201-0841

D. Project Description

The proposed project is a rural subdivision with eight 20-acre minimum lots, on assessor's parcel number (APN) 087-030-36. The project could include road widening along Coulter Lane and an existing driveway that provide access to APN 087-030-36 from South Shingle Road. Project design has not been finalized, and this report does not quantify impacts or propose mitigation.


Latrobe
SETTLERS TRL
SOUTH SHINGLE RD
ROAD
Ridge
LATROBE RD
PSA
(On-site proposed roads and off-site road widening)
Parcel boundary
Indian
Yuba County
Nevada County
Placer County
Sutter County
El Dorado County
Project Location
Alpine County
Sacramento County
Amador County
Calaveras County
San Joaquin County
Tuolumne County
0 5 10 Miles
Hoekstra Tentative Map
El Dorado County, CA
30 January 2018
Figure 1. Project Location Map
Project Study Area (PSA)
Parcel Boundary
2,000 1,000 0 2,000 Feet
N
Scale: 1 inch = 2,000 feet
SYCAMORE Environmental Consultants, Inc.
Folsom SE, CA (Rev. 1980) and Latrobe, CA (Rev. 1973)
CASIL California USGS Digital Raster Graphics (DRG),
7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
o_nw0201.sid
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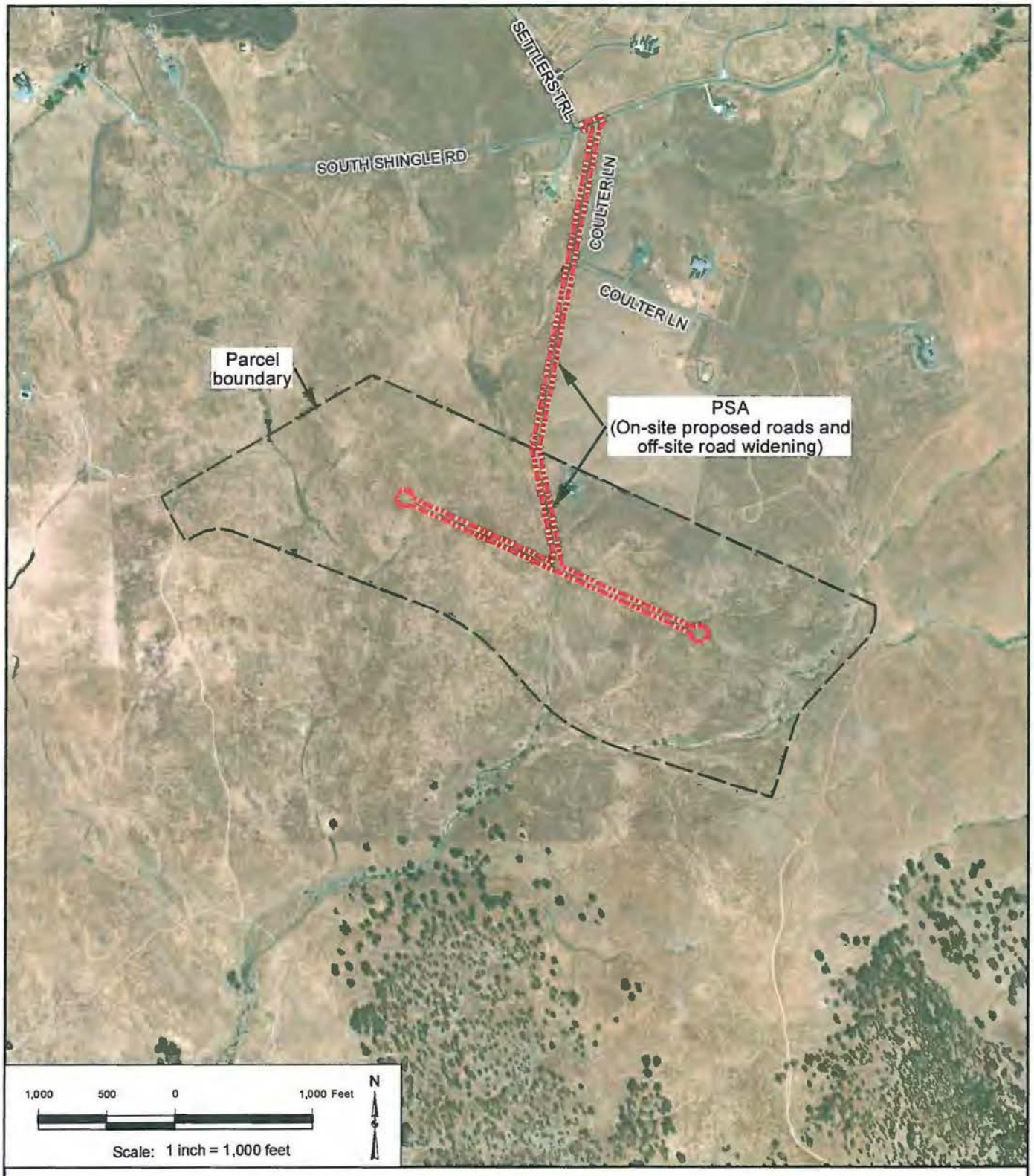


Hoekstra Tentative Map
El Dorado County, CA
30 January 2018

Project Study Area (PSA)

Parcel Boundary

SYCAMORE Environmental Consultants, Inc.

Figure 2. Aerial Photograph

Aerial Photograph: 20 June 2016
NAIP2016 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

17112HoekstraTM_DelinFig2AerialPhoto.mxd

II. STUDY METHODS

A. Data Sources

Table 1 is a list of data sources compiled for this report.

Table 1. Data Sources

Data Source	Data Location/Results
1. Maps, plans, plots or plat submitted by or on behalf of the applicant	See Figures 1 through 4.
2. Data sheets prepared/submitted by or on behalf of the applicant	See Appendix A.
3. Corps navigable waters study	Corps (October 2017).
4. USGS Hydrologic Atlas • USGS NHD data • USGS 8- and 12-digit HUC maps	Upper Cosumnes (18040013) Indian Creek-Cosumnes River (180400130604)
5. U.S. Geological Survey map(s)	Folsom SE and Latrobe USGS quad, see Figure 1.
6. USDA Natural Resources Conservation Service Soil Survey	NRCS 1974, USDA-NRCS 2017a, b; see Figure 3.
7. National wetlands inventory map(s)	NWI map for the Folsom SE & Latrobe quads.
8. State/Local wetland inventory map(s)	None known.
9. FEMA/FIRM maps	See Appendix D.
10. 100-year Floodplain Elevation is: (e.g. National Geodetic Vertical Datum of 1929)	The PSA is determined to be outside the 0.2% annual chance floodplain.
11. Photographs: • Aerial (Name & Date): • Other (Name & Date):	• Figure 2, Aerial Photograph, 20 June 2016 • Appendix B, Photographs, 2017
12. Previous determination(s). File no. and date of response letter	None known.

B. Survey Dates and Personnel

Fieldwork for the aquatic resource delineation was conducted by Chuck Hughes, M.S., and Paris Krause, B.S., on 30 November 2017.

C. Survey Methods

This report has been prepared in accordance with the Sacramento District minimum standards (Corps January 2016), U.S. Army Corps of Engineers Wetland Delineation Manual (Corps 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0; Corps 2008), and the guide to OHWM delineation for non-perennial streams (Corps 2014). The Arid West Supplement is intended to bring the Corps Manual (Corps 1987) up to date with current knowledge and practice in the region. Use of the Corps Manual in combination with the supplement is intended to improve the accuracy and efficiency of wetland delineation procedures in the Arid West

regions. The Arid West Regional Supplement is applicable because the PSA experiences hot, dry summers typical of a Mediterranean climate, and the surrounding landscape is dominated by oak woodland and annual grassland (Corps 2008).

All areas possessing an ordinary high water mark or meeting the three criteria for wetlands were identified and mapped. Hydrophytic classifications of plants were determined from the national list of plant species that occur in wetlands (Lichvar *et al.* 2016).

D. Jurisdictional Data

The aquatic resource delineation was conducted using the Routine On-Site Determination Method (Corps 1987). Jurisdictional data were recorded using the Wetland Determination Data Form for the Arid West Region (Corps 2008). Soil, vegetation, and hydrology data were recorded at the data points. Data sheets are in Appendix A. Photographs are in Appendix B. Appendix C is a list of plant species recorded at the data points.

E. Mapping of Data and Calculation of Acreages

Waters and wetland boundaries were mapped with a sub-meter accurate global positioning system (GPS). The GPS data were exported to a geographic information system (GIS) shapefile mapping format and overlaid onto a topographic contour map to create Figure 4. Acreages were calculated using ESRI® ArcMap™ mapping functions.

F. Definitions

The Corps and EPA regulate the discharge of dredge and fill material into "waters of the United States" under Section 404 of the Clean Water Act (CWA; 33 U.S.C. 1344). The lateral limits of jurisdiction in waters of the U.S. may be divided into three categories. The categories are the territorial seas, tidal waters, and non-tidal waters [see 33 CFR 328.4 (a), (b), and (c), respectively]. The current regulations defining waters of the U.S. [33 CFR 328.3(a)] and defining features that are excluded [33 CFR 328.3(b)], became effective on 28 August 2015 (80 FR 37054), but has since been stayed by the U.S Sixth Circuit Court of Appeals on 9 October 2015. The definition of waters of the U.S. below, from prior to 28 August 2015, is the definition currently implemented by the Corps while the stay from the Circuit Court is in effect. The Corps has since proposed re-codifying the definition below to replace the 2015 rule (82 FR 34899; 27 July 2017).

Wetlands, where jurisdictional under the CWA, are a subset of waters of the U.S. Wetlands, as defined by the Corps for regulatory purposes, are identified using a three-parameter test that considers whether hydrophytic vegetation, hydric soils, and wetland hydrology are present (Corps 1987, 2008).

The term "waters of the U.S." is defined at 33 CFR 328.3(a) as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
   i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
   ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

The term "adjacent" is defined at 33 CFR 328.3(c):

> The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

The limits of jurisdiction are identified in 33 CFR 328.4 as:

a. Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)
b. Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:
   1. Extends to the high tide line, or
   2. When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.
c. Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:
   1. In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
   2. When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
   3. When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

The term "ordinary high water mark" is defined at 33 CFR 328.3(e):

> The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

An ephemeral tributary has flowing water only during and for a short duration after, precipitation events in a typical year. Ephemeral tributary beds are located above the water table year-round. Groundwater is not a source of water for the tributary. Runoff from rainfall is the primary source of water for tributary flow. An intermittent tributary has flowing water during certain times of the year, when groundwater provides water for tributary flow. During dry periods, intermittent tributaries may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow. A perennial tributary has flowing water year-round during a typical year (66 FR 42099).

III. SETTING

The northern end of the PSA consists of the paved Coulter Lane and a dirt driveway. The southern end of the PSA is characterized by undeveloped grassland. The area surrounding the PSA consists of both undeveloped areas and rural residential uses.

A. Topography

The elevation ranges from approximately 492 to 620 feet. The terrain is uneven, with gentle slopes.

B. Existing Field Conditions

Fieldwork for the aquatic resource delineation was conducted on 30 November 2017. The Folsom Dam precipitation gauge operated by the National Weather Service is nearby (13 miles) and at a similar elevation (350 feet) as the PSA. The Folsom Dam gauge recorded 5.12 inches of precipitation for the rain-year beginning 1 July 2017 through 30 November 2017. Almost all of that precipitation came in November 2017 (4.85 inches). Average precipitation for the Folsom Dam gauge through the end of November is 4.44 inches. The region had received about 115% of normal precipitation on the day of the delineation. Most of the precipitation (3.74 inches) had fallen in the two weeks prior to the fieldwork (CDWR 2018).

C. Vegetation

Vegetation in the PSA consists mostly of annual grassland dominated by nonnative annual grasses such as rye grass (*Festuca perennis*), medusa head (*Elymus caput-medusae*), soft chess *(Bromus hordeaceus*), wild oat (*Avena* sp.) and by nonnative forbs such as storksbill (*Erodium botrys*), prickly lettuce (*Lactuca* sp.) and rose clover (*Trifolium hirtum*). Native forbs such as tarplant (*Holocarpha virgata*) and deervetch (*Acmispon americanus*) are also common in the grassland. See section IV for further discussion of vegetation in and along waters and in wetlands. Appendix C contains a list of plant species recorded at the data points. Photographs showing the vegetation in the PSA are in Appendix B.

D. Existing Level of Disturbance

The existing Coulter Lane, and a dirt driveway, occupy the most of the northern end of the BSA. The southern end of the BSA, on APN 087-030-36, has little disturbance.

E. Soils

Soil pits were dug to observe the chroma, texture, degree of saturation, and other characteristics. The primary component soils of mapping units in the PSA (Figure 3) are summarized below (NRCS 1974, USDA-NRCS 2017a, b). Reported colors are for moist soil. The Argonaut very rocky loam, 3 to 30% slopes mapping unit may have hydric components on fan remnants (USDA 2015). None of the other soils are identified as hydric.

Argonaut Very Rocky Loam, 3–30% Slopes:
The Argonaut series consists of well-drained soils underlain by meta-basic or basic rocks at a depth of 20-40 inches. A typical profile has:

0–3 inches	Yellowish red (5YR 3/6) medium acidic gravelly loam
3–7 inches	Yellowish red (5YR 4/6) medium acidic gravelly silt loam
7–10 inches	Yellowish red (5YR 4/6) medium acidic heavy silt loam
10–13 inches	Yellowish red (5YR 5/6) slightly acidic clay
13–27 inches	Brown and yellowish red (7.5YR 5/4, 10YR 5/3, 5YR 4/6) slightly acidic clay
27–30 inches	Brown (7.5YR 4/4) slightly acidic gravelly clay
30 inches	Weathered meta-andesite

Permeability is very slow, surface runoff is slow to medium, and the erosion hazard is slight to moderate. A total of 5–25% of the surface is bedrock outcrops.

Auburn Very Rocky Silt Loam, 2–30% Slopes;
Auburn Silt Loam, 2–30% Slopes;
Auburn Extremely Rocky Silt Loam, 3–70% Slopes:
The Auburn series consists of well-drained soils that are underlain by hard metamorphic rock at a depth of 12 to 26 inches. A typical profile of Auburn very rocky silt loam has:

0–14 inches	Dark reddish brown (5YR 3/3, 3/4) slightly acidic silt loam
14 inches	Weathered meta-basic rock

Surface runoff is slow to medium and erosion hazard is slight to moderate. This soil occurs on steep terrain on more prominent foothills and slopes that drop into creek channels and drainageways

Auburn silt loam, 2–30% slopes is similar to the representative profile except that less than 5 percent of the surface is exposed bedrock. Auburn extremely rocky silt loam, 3–70% slopes is similar to the representative profile except that 25–50 percent of the surface has rock outcrops and the depth to bedrock ranges from 12–20 inches.

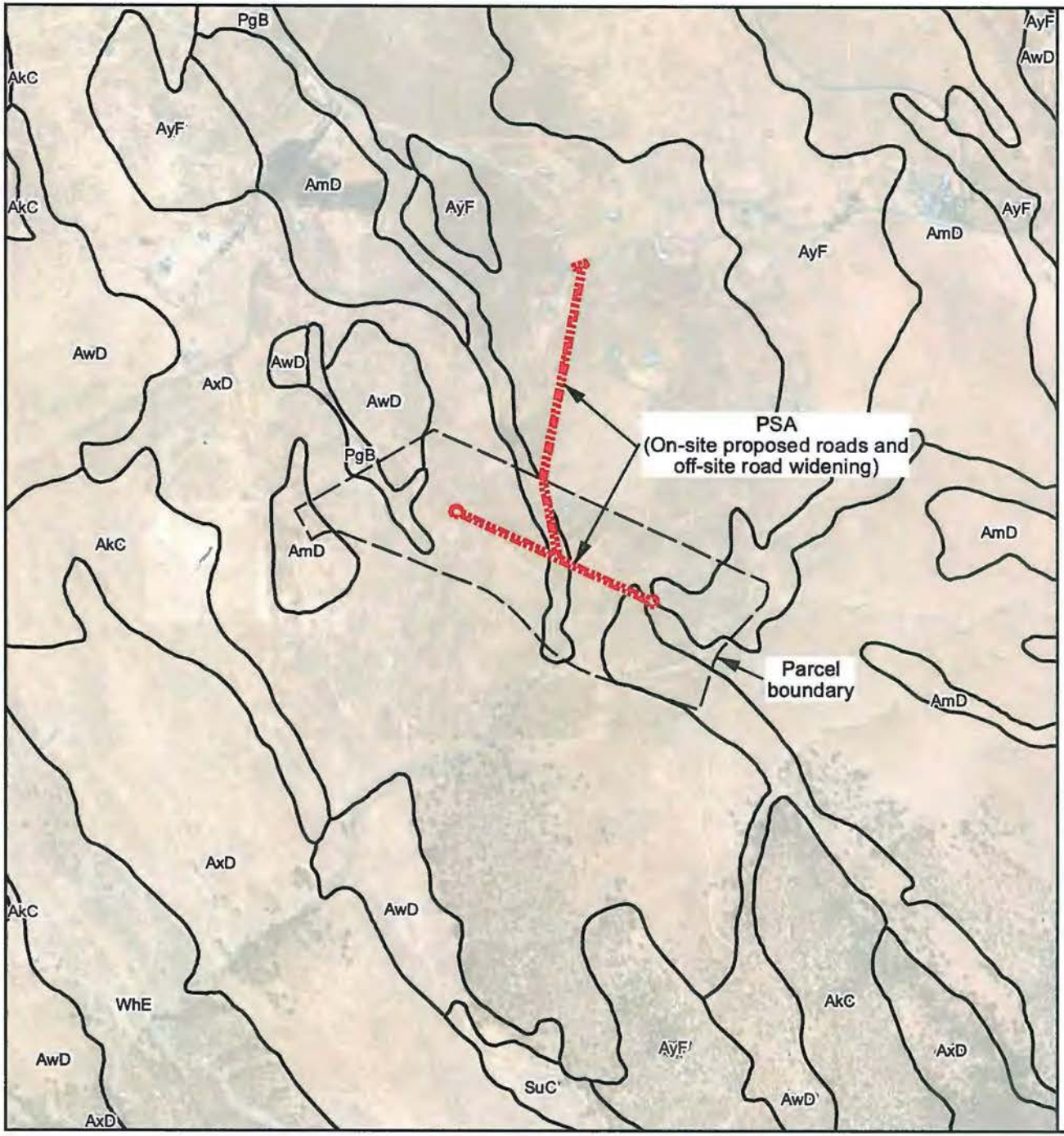
Perkins Gravelly Loam, Moderately Deep Variant, 2–5% Slopes:
The Perkins series, moderately deep variant, consists of moderately well-drained soils that formed in medium textured alluvium underlain by unrelated rock at a depth of 24–40 inches. A typical profile has:

0–4 inches	Dark brown (7.5YR 3/4) slightly acidic gravelly loam
4–12 inches	Dark reddish brown (5YR 3/4) slightly acidic gravelly heavy loam
12–17 inches	Dark reddish brown (5YR 3/4) slightly acidic clay loam
17–25 inches	Dark red (2.5YR 3/6) slightly acidic very gravelly sandy clay loam
25–33 inches	Reddish brown (5YR 4/4) slightly acidic gravelly sandy clay loam
33–37 inches	Olive (5Y 5/3) mildly alkaline sandy clay
37 inches	Fractured hard greenstone

Permeability of the Perkins soil is moderately low. Surface runoff is slow, and the erosion hazard in slight.

F. National Wetlands Inventory Map

The NWI map identifies Channel 1 as riverine, intermittent, seasonally flooded streambed (R4SBC). Channels 1e and 1f are identified as palustrine, emergent, persistent, and temporarily flooded (PEM1A). Two other areas partially in the PSA are identified as palustrine, emergent, persistent, and temporarily flooded wetlands (PEM1A).



Hoekstra Tentative Map
El Dorado County, CA
30 January 2018

Figure 3. Soils Map

Project Study Area (PSA)

Parcel Boundary

Soil Boundary

Soil Mapping Unit

Symbol	Name
AwD	Auburn silt loam, 2 to 30 percent slopes
AxD	Auburn very rocky silt loam, 2 to 30 percent slopes
AyF	Auburn extremely rocky silt loam, 3 to 70 percent slopes
PgB	Perkins gravelly loam, moderately deep variant, 2 to 5 percent slopes

1,667 0 1,667 Feet

N

Scale: 1 inch = 1,667 feet

SYCAMORE Environmental Consultants, Inc.

Soil Survey Geographic (SSURGO) database for El Dorado Area, California. USDA, NRCS
URL:http://SoilDataMart.nrcs.usda.gov/

Aerial Photograph: 20 June 2016
NAIP2016 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

IV. WATERS AND WETLANDS

Waters and wetlands are shown on the aquatic resource delineation map in Figure 4. A summary of acreages by feature is in Table 2 below. An evaluation of waters and wetlands pursuant to the definition of waters of the U.S. and their potential jurisdiction under Section 404 of the Clean Water Act (33 U.S.C. 1344) is in Section V. Section V uses the Waters of the U.S. rule in effect prior to 28 August 2015, that has been proposed for re-codification.

A. Waters

Channel 1: Channel 1 is intermittent, and is tributary to Indian Creek off-site. The substrate for channel 1 is cobble and gravel, with some exposed bedrock. Some areas have fine sediments mixed with organic matter. There is no riparian corridor along Channel 1. Where present, vegetation in the channel bed is hydrophytic. Vegetation is mostly herbaceous, with a few widely scattered trees. Channel 1 was flowing during fieldwork on 30 November 2017. The ordinary high water mark (OHWM) was identified based on change in sediment and a break in slope (Corps 2014). In addition to stormwater runoff, Channel 1 is likely fed by upstream seeps, based on review of aerial photographs and quad maps. The NWI map identifies Channel 1 as a seasonally flooded streambed.

Channel 1a and 1aa: Channel 1a is an ephemeral tributary to channel 1. The substrate for channel 1a is scoured soil and cobble. The ordinary high water mark (OHWM) was identified based on change in sediment and a break in slope (Corps 2014). Channel 1a was flowing during the fieldwork on 30 November 2017.

Channel 1aa is an ephemeral tributary to channel 1a. The substrate for channel 1a is scoured soil. The OHWM was identified based on change in sediment and a break in slope. Channel 1aa was dry during the fieldwork on 30 November 2017.

Channel 1b-1e: These are ephemeral tributaries to channel 1. The substrate for the channels is scoured soil and cobble. The OHWM was identified based on change in sediment and a break in slope. Channel 1d and 1e are culverted under a dirt driveway in the PSA. The channels were flowing during fieldwork on 30 November 2017.

Channel 1f: Channel 1f is an intermittent tributary to channel 1. The substrate for channel 1f is bedrock, cobble, gravel, and in some places fine sediments mixed with organic matter. The OHWM was identified based on change in sediment and a break in slope (Corps 2014). There is no riparian corridor along Channel 1f. The NWI map identifies channel 1f as "temporarily flooded". The water regime modifier of temporarily flooded means that "surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the season" (Cowardin *et al.* 1979). Channel 1f is culverted under Coulter Lane in the PSA. Channel 1f was flowing during the fieldwork on 30 November 2017.

Table 2. Summary of Waters and Wetlands

Feature	Hydrology/ Cowardin Classification	Length (ft)	Avg. Width (ft)	Area (ac)
Channel 1	Intermittent/ R4SBC	70	17.4	0.028
Channel 1a	Ephemeral/ R4SB3A	62	5.6	0.008
Channel 1aa	Ephemeral/ R4SB3A	22	4.0	0.002
Channel 1b	Ephemeral/ R4SB3A	108	2.0	0.005
Channel 1c	Ephemeral/ R4SB3A	76	2.3	0.004
Channel 1d	Ephemeral/ R4SB3A	30	5.8	0.004
Channel 1e	Ephemeral/ R4SB3A	20	4.4	0.002
Channel 1f	Intermittent/ R4SBC	173	10.3	0.041
Subtotal Waters:		**561**	**–**	**0.094**
	Cowardin Classification			
Wetland 1	PEM1A	--	--	0.004
Subtotal Wetlands:		**–**	**–**	**0.004**
Total Wetlands and Waters:		**561**	**–**	**0.098**

B. Wetlands

Wetland 1: Wetland 1 is a small depression and swale that drains to Channel 1. The wetland has hydrophytic vegetation dominated by rye grass (FAC) and Mediterranean barley (FAC; *Hordeum marinum* ssp. *gussoneanum*). Several inches of inundation were present in the deepest part of the wetland during the fieldwork. Hydrology is seasonal and the wetland is dry most of the year. No hydric soil indicators were observed, but the most common indicators in seasonal wetlands may be obscured during times of saturation. Hydric soil was assumed based on the inundated conditions and vegetation.

Lat: 38°33'15.01"N
Long: 120°59'59.20"W

SOUTH SHINGLE ROAD

COULTER LANE

1

2

DP1

CH1f
(Length = 173 ft;
Avg. Width = 10.3 ft;
Area = 0.041 ac)
Length does not include culvert

OFFSITE ENTRY ROAD
EXISTING 50 FT ROAD AND
PUBLIC UTILITY EASEMENT

Culvert

COULTER LANE

Culvert

CH1e
(Length = 20 ft;
Avg. Width = 4.4 ft;
Area = 0.002 ac)
Length does not include culvert

DP2

Lat: 38°32'55.51"N
Long: 121°0'30.95"W

MATCHLINE
SEE SHEET 2 OF 2

Hoekstra Tentative Map
El Dorado County, CA
30 January 2018

Figure 4. Aquatic Resources
Sheet 1 of 2,
Offsite Entry Road

Project Study Area (PSA)

Channel (CH)

Data point (DP)

Culvert

Photopoint Location and Direction

Feature	Flow	Length (ft)	Average Width (ft)	Area (ac)
Wetland				
Wetland 1	–	–	–	0.004
Channel (CH)				
CH1	Intermittent	70	17.4	0.028
CH1a	Ephermeral	62	5.6	0.008
CH1aa	Ephermeral	22	4.0	0.002
CH1b	Ephermeral	108	2.0	0.005
CH1c	Ephermeral	76	2.3	0.004
CH1d	Ephermeral	30	5.8	0.004
CH1e	Ephermeral	20	4.4	0.002
CH1f	Intermittent	173	10.3	0.041
Total		**561**	**–**	**0.098**

200 100 0 200 Feet

N

Scale: 1 inch = 200 feet

Date	Submittal	Delineators	Agency/Company
30 Jan 18	Original	C. Hughes P. Krause	Sycamore Environmental

SYCAMORE
Environmental
Consultants, Inc.

TM Layout and Basemap:
Preliminary Grading & Drainage Plan (July 2017)
CAD: 2017-10-31 Hoekstra TM.dwg (31 Oct. 2017)
by Lebeck Young Engineering, Inc.

Aerial Photograph: 20 June 2016
NAIP2016 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

17112HoekstraTM_DelinFig4AquaticResourcesMap_Sht1of2OffsiteEntryRoad.mxd

MATCHLINE
SEE SHEET 1 OF 2

Lat: 38°32'56.16"N
Long: 121°0'1.36"W

OFFSITE ENTRY ROAD
EXISTING 50 FT ROAD AND
PUBLIC UTILITY EASEMENT

Culvert

CH1d
(Length = 30 ft;
Avg. Width = 5.8 ft;
Area = 0.004 ac)
Length does not include culvert

ONSITE ACCESS ROADS
PROPOSED 50 FT ROAD AND
PUBLIC UTILITY EASEMENT

Wetland 1
(Area = 0.004 ac)

DP3

DP4

DP8

PARCEL BOUNDARY

CH1c
(Length =76 ft;
Avg. Width = 2.3 ft;
Area = 0.004 ac)

CH1b
(Length =108 ft;
Avg. Width = 2.0 ft;
Area = 0.005 ac)

CH1
(Length =70 ft;
Avg. Width = 17.4 ft;
Area = 0.028 ac)

DP7

DP6

CH1aa
(Length =22 ft;
Avg. Width = 4.0 ft;
Area = 0.002 ac)

DP5

CH1a
(Length =62 ft;
Avg. Width = 5.6 ft;
Area = 0.008 ac)

PARCEL BOUNDARY

Lat: 38°32'36.66"N
Long: 121°0'33.11"W

Hoekstra Tentative Map
El Dorado County, CA
30 January 2018

Figure 4. Aquatic Resources
Sheet 2 of 2,
Onsite Access Road

- Project Study Area (PSA)
- Parcel Boundary
- Channel (CH)
- Wetland
- Data point (DP)
- Culvert
- Photopoint Location and Direction

200 100 0 200 Feet

Scale: 1 inch = 200 feet

N

Date	Submittal	Delineators	Agency/Company
30 Jan 18	Original	C. Hughes P. Krause	Sycamore Environmental

SYCAMORE
Environmental
Consultants, Inc.

TM Layout and Basemap:
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Aerial Photograph: 20 June 2016
NAIP2016 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

17112HoekstraTM_DelinFig4AquaticResourcesMap_Sht2of2OnsiteAccessRd.mxd

V. REGULATORY ANALYSIS AND DISCUSSION

On 5 June 2007, the Corps issued a memorandum providing guidance on implementation of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (Corps and EPA 2008). The guidance distinguishes among traditional navigable waters (TNW), relatively permanent waters (RPW), and non-relatively permanent waters (non-RPW). The Corps will routinely exercise jurisdiction over traditional navigable waters, relatively permanent waters, and wetlands adjacent to those waters. The aquatic resource determination for non-relatively permanent waters and their adjacent wetlands (if any) will be based on whether there exists a significant nexus with a traditional navigable water. Factors evaluated by the Corps during the significant nexus evaluation will include ecology, hydrology, and the influence of the water on the "chemical, physical, and biological integrity of downstream traditional navigable waters" (Corps and EPA 2008). The Corps may exert jurisdiction if the findings of the significant nexus evaluation indicate that "the tributary and its adjacent wetlands are likely to have an effect [on downstream traditional navigable waters] that is more than speculative or insubstantial" (Corps and EPA 2008). Table 3 applies the "significant nexus" status of waters in the PSA.

The Rapanos memorandum (Corps and EPA 2008) does not affect the Court's decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, No. 99-1178 (January 2001; "SWANCC"), which involved statutory and constitutional challenges to the assertion of CWA jurisdiction over isolated, non-navigable, intrastate waters used as habitat by migratory birds. Isolated wetlands and waters are not subject to Clean Water Act jurisdiction.

Wetlands and waters not subject to the Corps' jurisdiction may come under the jurisdiction of CDFW and/or the RWQCB. For example, "isolated" wetlands not subject to Section 404 in accordance with the SWANCC decision are subject to regulation by the RWQCB.

A. TNWs and Adjacent Wetlands

No TNWs or wetlands adjacent to TNWs occur in the PSA.

B. RPWs that flow directly or indirectly into TNWs

Channel 1 is identified as intermittent and seasonally flooded streambed on the NWI map. Intermittent creeks flow seasonally and are considered RPWs by the Corps. Channel 1 was flowing during the field work on 30 November 2017. Channel 1 is a tributary to Indian Creek, which is a tributary to the Cosumnes River, which is a tributary to the Mokelumne River, which is a TNW.

Channel 1f is an intermittent channel. The NWI map identifies it as temporarily flooded. Channel 1f was flowing during the field work on 30 November 2017. Channel 1f is a tributary to channel 1, which is a tributary to Indian Creek, which is a tributary to the Cosumnes River, which is a tributary to the Mokelumne River, which is a TNW.

C. Non-RPWs that flow directly or indirectly into TNWs

Channels 1a–1e including 1aa are non-RPWs that flow directly or indirectly into TNWs. All of these channels are ephemeral, and flow in response to precipitation events. These channels all flow to Channel 1, which indirectly flows into the Mokelumne River, which is a TNW. The Mokelumne River is over 41 river miles distant from the BSA.

The ephemeral channels do not have "continuous flow at least seasonally (e.g., typically three months)" (Corps December 2008). The jurisdictional determination for non-RPWs is based on whether there exists a significant nexus with a TNW (Corps December 2008). The watershed of the Mokelumne River encompasses approximately 1,397,203 acres. The watershed of the largest ephemeral channel in the BSA (Channel 1a) encompasses approximately 30 acres. This acreage represents about 2 one-hundred thousandths (0.00002) of the watershed of the Mokelumne River.

The capacity of ephemeral channels in the BSA to carry or reduce pollutants, flood waters, nutrients, or organic carbon is insubstantial relative to the Mokelumne River watershed. The ephemeral channels do not provide habitat for fish or other aquatic species present in the Mokelumne River. The ephemeral channels in the BSA may not have sufficient volume, duration, or frequency of flow to have a significant nexus with the chemical, physical, or biological integrity of the Mokelumne River based on the negligible contributions of the watersheds, and the lack of a relatively permanent hydrologic connection.

D. Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

The wetland directly abuts upstream channel 1, an RPW that flows indirectly into a TNW.

E. Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

There are no wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into a TNW.

F. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

The are no wetlands adjacent to non-RPWs in the PSA.

G. Impoundments of waters

There are no impoundments of water in the PSA.

H. Isolated (interstate or intrastate) waters, including isolated wetlands

There are no isolated waters.

I. Non-jurisdictional waters

Ephemeral Channels 1a – 1e including Channel 1aa have no more than a speculative or insubstantial nexus to the nearest downstream TNW.

J. Summary of Jurisdictional Acreages

The intermittent channels (channel 1 and channel 1f) are RPWs presumed to have a substantial nexus to the nearest downstream TNW (Corps 2008). Wetland 1 is a wetland abutting an RPW.

Table 3. Rapanos Guidance Correlation of Wetlands and Waters

Feature	Rapanos Guidance Correlation	Jurisdictional Acreage	Non-Jurisdictional Acreage
Channel 1	RPW	0.028	--
Channels 1a–1e	Non-RPWs	--	0.025
Channel 1f	RPW	0.041	--
Wetland 1	Wetland abutting RPW	0.004	--
	Total:	**0.073**	**0.025**

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VII. REPORT PREPARERS

Chuck Hughes, M.S., Plant Biology, Michigan State University, East Lansing, MI. Fifteen years experience preparing biological/botanical resource evaluations, wetland delineations, arborist reports, impact analyses, and mitigation/restoration plans. He is a Professional Wetland Scientist (#2029), an ISA Certified Arborist (WE-6885A), holds a CDFW Plant Voucher Collecting Permit (2081(a)-12-16-V), is a Principal Scientific Investigator on a CDFW Scientific Collecting Permit (SC-7617), and is on a USFWS recovery permit for listed vernal pool branchiopods (TE799564-4). His bachelor's degree from UC Davis is in environmental horticulture and urban forestry, with an emphasis in plant biodiversity. Responsibilities: Fieldwork, report preparation.

Paris Krause, B.S., Biological Sciences (concentration in Field and Wildlife Biology, Minor in Environmental Science), California Polytechnic State University, San Luis Obispo, CA. Ms. Krause conducts preconstruction and construction monitoring, assists with plant and wildlife surveys, wetland delineations, and assists with preparation of biological resource evaluations, Natural Environment Study reports, permit applications, and other documents used in the CEQA/NEPA process. Serving as both field biologist and technical report writer, she conducts database research on special status species' biology, habitat and distribution. She holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-17-105-V). Responsibilities: Fieldwork, report preparation

Aramis Respall, GIS Analyst/ CAD Operator. Over 20 years of experience in drafting and spatial analysis using AutoCAD and ArcGIS for public and private projects. He prepares figures for biological and permitting documents such as project location maps, aerial photograph exhibits, biological resource maps, CNDDB proximity maps, wetlands/waters delineation maps, impact analysis maps, tree location maps and other supporting graphics. Mr. Respall provides geospatial analysis and support for projects involving geodesy, hydrology, watersheds, project impact analysis, CNDDB occurrences, and critical habitat information. Primary experience evolved from conventional surveying and civil engineering practices to advanced GPS and GIS based technology. Responsibilities: Figure preparation and spatial analysis.

Jeffery Little, Vice President, Sycamore Environmental.
Responsibilities: Principal in charge.

Appendix A

Data Sheets

Hoekstra Tentative Map Project

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 1
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Linear-Concave Slope (%): 2
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Auburn very rocky silt loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size: 1 ft. x 6 ft.)			
1. *Trifolium hirtum*	10		UPL
2. *Vicia* sp. (*sativa* or *villosa*)	2		FACU
3. *Festuca perennis*	15		FAC
4. *Elymus caput-medusae*	25	D	UPL
5. *Amsinckia* sp.	1		UPL
6. *Erodium botrys*	5		FACU
7. *Bromus hordeaceus*	25	D	FACU
8.			
Total Cover:	83		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL Species:	x 1 =	
FACW Species	x 2 =	
FAC Species	x 3 =	
FACU Species	x 4 =	
UPL Species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:
Plot along bottom of roadside ditch.

SOIL

Sampling Point: 1

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 4/6	100	--				Loam	Rocky
5-10	10YR 6/4	100	--				Loam	Rocky
>10								Rock

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 2
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Linear-Concave Slope (%): 0
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Auburn very rocky silt loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size: 1 ft. x 6 ft)			
1. *Elymus caput-medusae*	2		UPL
2. *Festuca perennis*	30	D	FAC
3. *Hordeum marinum* ssp. *gussoneanum*	20	D	FAC
4. *Holocarpha virgata*	10		UPL
5. *Avena* sp.	1		UPL
6. *Trifolium hirtum*	1		UPL
7. *Bromus hordeaceus*	20	D	FACU
8.			
Total Cover:	84		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL Species:	x 1 =
FACW Species	x 2 =
FAC Species	x 3 =
FACU Species	x 4 =
UPL Species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:
Plot along bottom of roadside ditch.

SOIL

Sampling Point: 2

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	5YR 4/6	75	--				Clay loam	Rocky
	10YR 5/4	25						

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Data point is in previously disturbed roadside area. Two matrix colors present in artificially mixed soil.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1

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

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Narrow area of inundation present in roadside ditch.

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 3
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Linear-linear Slope (%): 1
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Perkins gravelly loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size: 6 ft. radius)			
1. *Elymus caput-medusae*	60	D	UPL
2. *Carduus pycnocephalus* ssp. *pycnocephalus*	20	D	UPL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	80		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL Species: _____ x 1 = _____
FACW Species _____ x 2 = _____
FAC Species _____ x 3 = _____
FACU Species _____ x 4 = _____
UPL Species _____ x 5 = _____
Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 3

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	5YR 4/6	100	--				Clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Chuck Hughes, Paris Krause State: CA Sampling Point: 4
Investigator(s): Chuck Hughes Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave-concave Slope (%): 0
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Perkins gravelly loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size: 3 ft. radius)			
1. *Hordeum marinum* ssp. *gussoneanum*	20	D	FAC
2. *Hypericum perforatum* ssp. *perforatum*	10	D	FACU
3. *Festuca perennis*	10	D	FAC
4.			
5.			
6.			
7.			
8.			
Total Cover:	40		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL Species: _____ x 1 = _____
FACW Species _____ x 2 = _____
FAC Species _____ x 3 = _____
FACU Species _____ x 4 = _____
UPL Species _____ x 5 = _____
Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 4

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/4	100	--				Clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soil is currently completely saturated, which may obscure redox concentrations. Inundation in this area likely only present for a few weeks this season, and little vegetation growth so far this season. Anaerobic conditions may not have developed yet, but likely will as inundation continues through growing season, hydric soils assumed.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 4

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

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Data point taken on edge of small area of ponded surface water that is about 4 inches deep at deepest point.

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 5
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex-convex Slope (%): 10
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Auburn very rocky silt loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	**Absolute % Cover**	**Dominant Species?**	**Indicator Status**
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size:___ 3 ft. radius _____)			
1. *Avena* sp.	10		UPL
2. *Erodium botrys*	30	D	FACU
3. *Carduus pycnocephalus* ssp. *pycnocephalus*	30	D	UPL
4. *Acmispon americanus* var. *americanus*	10		UPL
5. *Festuca perennis*	2		FAC
6.			
7.			
8.			
Total Cover:	82		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL Species:	x 1 =	
FACW Species	x 2 =	
FAC Species	x 3 =	
FACU Species	x 4 =	
UPL Species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 5

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	5YR 4/6	100	--				Clay loam	
>8							Rock	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 6
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear-Concave Slope (%): 4
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Auburn very rocky silt loam NWI classification: PEM1A
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size:___6 ft. radius_____)			
1. *Elymus caput-medusae*	70	D	UPL
2. *Festuca perennis*	20	D	FAC
3. *Geranium* sp.	10		UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL Species:	x 1 =
FACW Species	x 2 =
FAC Species	x 3 =
FACU Species	x 4 =
UPL Species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL Sampling Point: 6

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	5YR 4/6	100	--				Clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 6

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:
Data point is at the top of a small swale. A3 not met because no restrictive layer within 12 inches of surface and no water table present.

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 7
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Linear-linear Slope (%): 1
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Perkins gravelly loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size:____ 6 ft. radius_____)			
1. *Elymus caput-medusae*	60	D	UPL
2. *Geranium* sp.	20		UPL
3. *Carduus pycnocephalus* ssp. *pycnocephalus*	20		UPL
4. *Vicia* sp. (*sativa* or *villosa*)	1		FACU
5.			
6.			
7.			
8.			
Total Cover:	101		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL Species: _____ x 1 = _____
FACW Species _____ x 2 = _____
FAC Species _____ x 3 = _____
FACU Species _____ x 4 = _____
UPL Species _____ x 5 = _____
Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 7

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	7.5YR 3/4	100	--				Clay loam	Rocky
>7							Rock	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Hoekstra Tentative Map Project City/County: El Dorado Sampling Date: 11/30/2017
Applicant/Owner: Trudy Hoekstra State: CA Sampling Point: 8
Investigator(s): Chuck Hughes, Paris Krause Section, Township, Range: See Report
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear-Concave Slope (%): 3
Subregion (LRR): C Lat: See Report Long: See Report Datum:
Soil Map Unit Name: Auburn very rock silt loam NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

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

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

Remarks:

VEGETATION

Tree Stratum: ((Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	--		
Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	--		
Herb Stratum: (Plot size: 6 ft. radius)			
1. *Elymus caput-medusae*	60	D	UPL
2. *Bromus hordeaceus*	30	D	FACU
3. *Erodium botrys*	2		FACU
4.			
5.			
6.			
7.			
8.			
Total Cover:	92		
Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:	--		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL Species: ____ x 1 = ____
FACW Species ____ x 2 = ____
FAC Species ____ x 3 = ____
FACU Species ____ x 4 = ____
UPL Species ____ x 5 = ____
Column Totals: ____ (A) ____ (B)
Prevalence Index = B/A =

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 8

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

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 3/4	100	--				Clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

Appendix B

Photographs

Hoekstra Tentative Map Project
30 November 2017

Photo 1. View looking south from the north end of the PSA. Located at the Coulter Lane intersection with South Shingle Road.

Photo 2. View looking south along Coulter Lane. The shovel is at DP 1.

Photo 3. View looking south of DP 3 at the shovel.

Photo 4. View of Wetland 1. The shovel is at DP 4. Channel 1 is in the upper right.

Photo 5. View looking southeast of DP 6 at the shovel.

Photo 6. View looking north. The shovel is at DP 7, near Channel 1.

Photo 7. View looking south of DP 8 at the shovel.

Photo 8. View looking south along Channel 1 at the south end of the PSA.

Appendix C

Plant Species Recorded at Data Points

Hoekstra Tentative Map Project

Family	Scientific Name	Common Name	Stratum[1]	Indicator[2]
EUDICOTS				
Asteraceae	*Carduus pycnocephalus* ssp. *pycnocephalus*	Italian thistle	H	UPL
	Holocarpha virgata	Tarweed, tarplant	H	UPL
Boraginaceae	*Amsinckia* sp.	Fiddleneck	H	UPL
Fabaceae	*Acmispon americanus*	Deervetch, deerweed	H	UPL
	Trifolium hirtum	Rose clover	H	UPL
	Vicia sp.	Vetch	H	FACU
Geraniaceae	*Erodium botrys*	Storksbill, filaree	H	FACU
	Geranium sp.	Cranesbill, geranium	H	UPL
Hypericaceae	*Hypericum perforatum* ssp. *perforatum*	Klamathweed	H	FACU
MONOCOTS				
Poaceae	*Avena* sp.	Oat	H	UPL
	Bromus hordeaceus	Soft chess	H	FACU
	Elymus caput-medusae	Medusa head	H	UPL
	Festuca perennis (=*Lolium perenne*)	Rye grass	H	FAC
	Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	H	FAC

[1] H=herb; S=shrub; T=tree, WV=woody vine.

[2] Indicators from 2016 NWPL for the Arid West Region.

Appendix D

FEMA Flood Insurance Rate Map (FIRM)

Hoekstra Tentative Map Project

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction, and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The projection used in the preparation of this map was California State Plane Zone III. The horizontal datum was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NOS Information Services
NOAA, NNGS12
National Geodetic Survey, SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit their website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from multiple sources. This information was compiled from the U.S. Geological Survey, 1990 and 1993, El Dorado County Surveyor Office, 2006, National Geodetic Survey, 2006, California Department of Forestry, 2004, and U.S. Bureau of Reclamation, 2005. Additional information was photogrammetrically compiled at a scale of 1:12,000 from U.S. Geological Survey aerial photography dated 1987 to 2001.

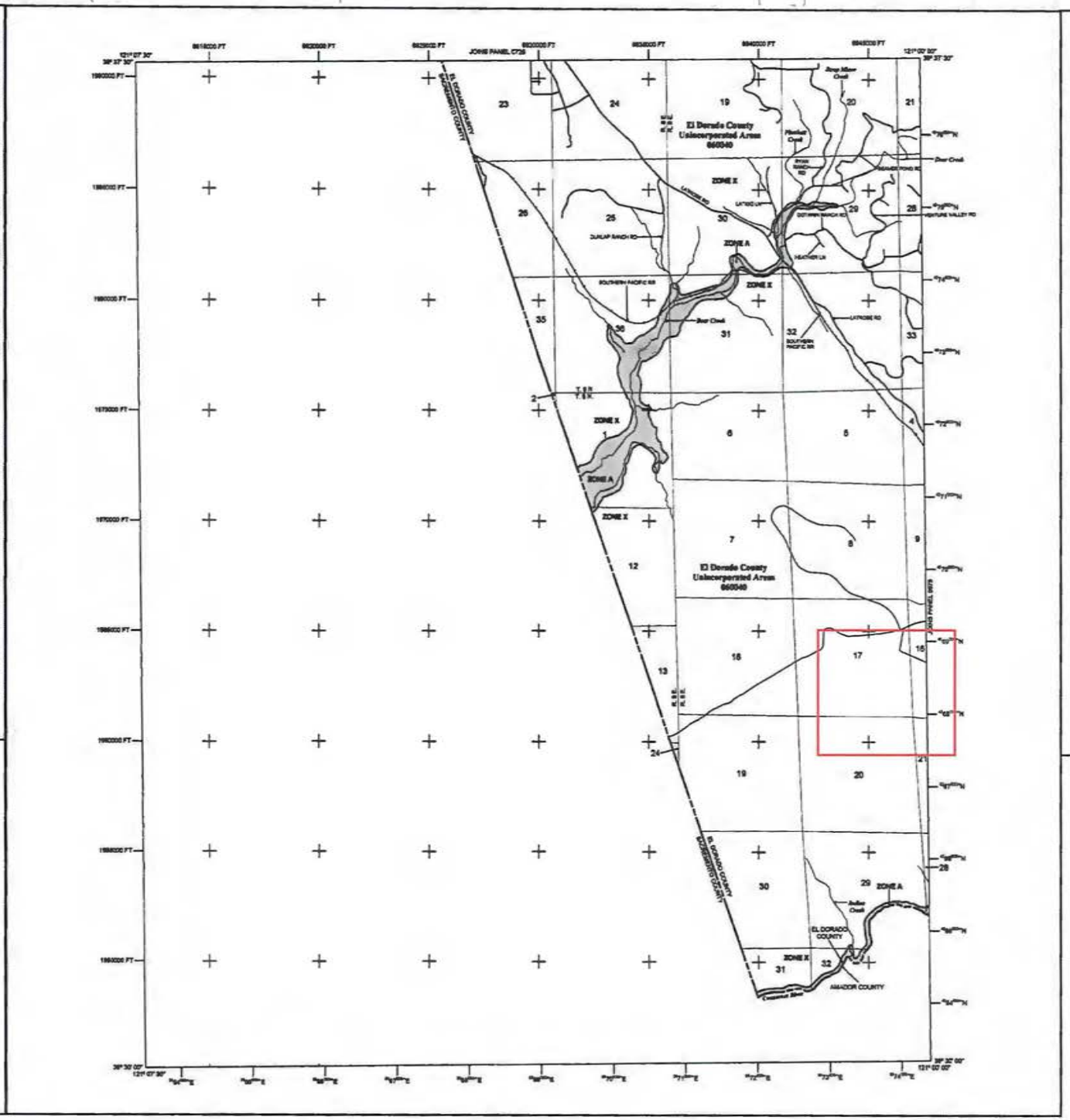
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A1-A30, and V1-V30. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A — No Base Flood Elevations determined.
ZONE AE — Base Flood Elevations determined.
ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCE SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Coastal Barrier Resource System Boundary
- Otherwise Protected Area Boundary
- Zone 3 Boundary
- CBRS and OPA Boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

Base Flood Elevation line and value; elevation in feet*

Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

Cross section line

Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

1000-meter Universal Transverse Mercator grid values, zone 12

5000-foot grid ticks: California State Plane coordinate system, zone III (FIPSZONE 0403), Lambert Conformal Conic Projection

Bench mark (see explanation in Notes to Users section of this FIRM panel)

Bilue Line

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP (IRM)

SEPTEMBER 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

NFIP

PANEL 0950E

FIRM

FLOOD INSURANCE RATE MAP

EL DORADO COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 950 OF 1125

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
EL DORADO COUNTY	060040	0950	E

MAP NUMBER
06017C0950E

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

NOTES TO USERS

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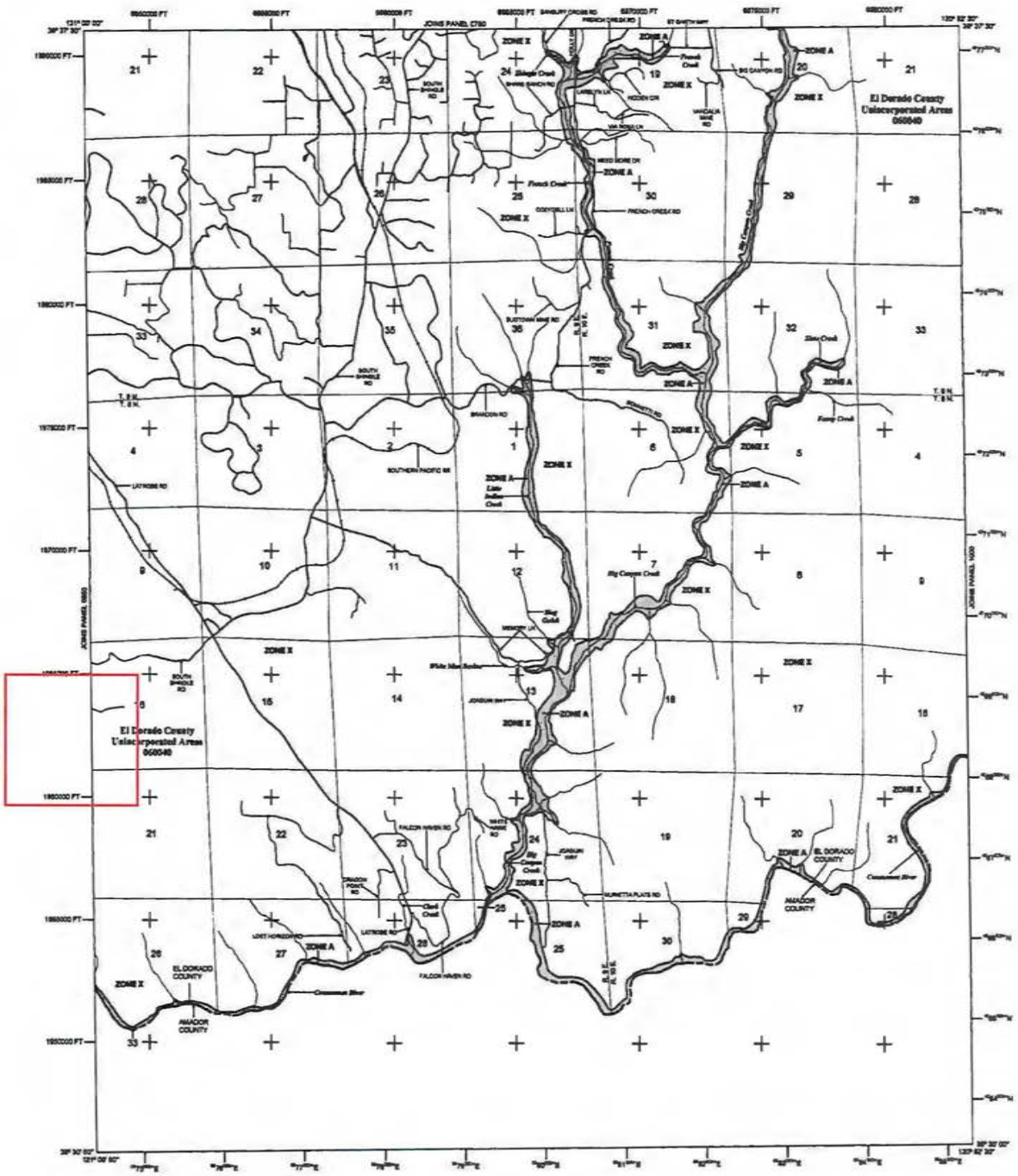

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

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COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line

97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD83), Western hemisphere

1000-meter Universal Transverse Mercator grid values, zone 10

5000-foot grid ticks: California State Plane coordinate system, zone 3 (FIPSZONE 0403), Lambert Conformal Conic Projection

DX5000 — Bench mark (see explanation in Notes to Users section of this FIRM panel)

• M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP (FIRM)
SEPTEMBER 26, 2008

EFFECTIVE DATE OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 2000'

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0975E

FIRM
FLOOD INSURANCE RATE MAP

EL DORADO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 975 OF 1125

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
EL DORADO COUNTY	060040	0975	E

MAP NUMBER
06017C0975E

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

Appendix E

Aquatic Resources Table

Hoekstra Tentative Map Project

Waters_Name	State	Cowardin_	HGM_	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
Channel 1	CALIFORNIA	R4SB		Area	0.028	ACRE	RPW	38.54514300	-121.00483500	WGS 1984
Channel 1a	CALIFORNIA	R4SB		Area	0.008	ACRE	NRPW	38.54387600	-121.00152000	
Channel 1aa	CALIFORNIA	R4SB		Area	0.002	ACRE	NRPW	38.54393000	-121.00145600	
Channel 1b	CALIFORNIA	R4SB		Area	0.005	ACRE	NRPW	38.54495800	-121.00416500	
Channel 1c	CALIFORNIA	R4SB		Area	0.004	ACRE	NRPW	38.54568800	-121.00477500	
Channel 1d	CALIFORNIA	R4SB		Area	0.004	ACRE	NRPW	38.54783700	-121.00514500	
Channel 1e	CALIFORNIA	R4SB		Area	0.002	ACRE	NRPW	38.55024000	-121.00449800	
Channel 1f	CALIFORNIA	R4SB		Area	0.041	ACRE	RPW	38.55123100	-121.00424700	
Wetland 1	CALIFORNIA	PEM		Area	0.004	ACRE	RPWWD	38.54626200	-121.00499200	

Biological Resources Evaluation
for the
Hoekstra Tentative Map Project

El Dorado County, CA

Prepared by:

Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd., Suite C
Sacramento, CA 95831
Phone: 916/ 427-0703
Contact: Mr. Chuck Hughes, M.S.

Prepared for:

Eric and Trudy Hoekstra
4200 Coulter Lane
Latrobe, CA 95682
Phone: 916/ 201-0841
Contact: Ms. Trudy Hoekstra

30 January 2018

Biological Resources Evaluation
for the
Hoekstra Tentative Map Project

El Dorado County, CA

Table of Contents

Figures

Tables

Appendices

I. SUMMARY OF FINDINGS AND CONCLUSIONS

This biological resources evaluation was prepared for the Hoekstra Tentative Map project to identify baseline biological resources in the biological study area (BSA). The approximately 163-acre BSA is characterized by open grassland and gently sloped hills. There are several intermittent and ephemeral channels. The BSA provides potential habitat for some special-status wildlife and plants.

The intermittent channel in the center of the BSA provides habitat for anadromous salmonids. Four chinook salmon were observed in the channel. Central Valley fall/late fall run chinook salmon are a California Department of Fish and Wildlife (CDFW) species of special concern. The presence of chinook salmon suggests the channel may also be accessible to steelhead, at least in some years. California Central Valley steelhead are listed threatened under the federal Endangered Species Act. Avoidance and minimization of impacts to the channel, especially avoidance of any crossing structures that could impede fish movement, could reduce any project impacts to salmonids.

The BSA provides potential nesting habitat for birds listed under the federal Migratory Bird Treaty Act and regulated by California Fish and Game Code. American badgers, a CDFW species of special concern, could den in the grassland. Western pond turtles, a CDFW species of special concern, could move seasonally along the intermittent channels when water is present. Avoidance and minimization of impacts to all of these wildlife species may be accomplished with pre-construction surveys to determine if they are present at the time of impact, and then avoidance of any active nests or dens until young become self-sufficient.

Specific habitat elements in the BSA provide potential habitat for some special-status plants. Rocky areas near the east and west ends of the BSA provide potential habitat for big-scale balsamroot. Intermittent channels and seeps provide potential habitat for three other special-status plants. If project impacts will occur in these areas, a seasonal survey could determine if they are present, and then more detailed avoidance and minimization planning could occur if necessary based on the results. Botanical surveys need to be conducted when plants are evident and identifiable. The special-status plants with potential to occur in the BSA are all evident and identifiable in May and June.

The channels and wetlands in the BSA are regulated by the federal Clean Water Act, California Fish and Game Code §1600 Streambed Alteration program, and County zoning code setbacks. Avoiding or minimizing impacts to these features may reduce permitting and mitigation needs.

II. INTRODUCTION

A. Purpose of Report

The purpose of this report is to document baseline biological resources in the BSA. This report may be used in support of permit applications and in the California Environmental Quality Act (CEQA) review process.

B. Project Location

The approximately 163-acre BSA is east of Latrobe, an unincorporated community in El Dorado County, CA. The BSA is assessor's parcel number 087-030-36, and the entry road, including a segment of Coulter Lane. The BSA is on the Folsom SE and Latrobe U.S. Geological Survey topographic quads (T8N, R9E, Sections 16, 17, 20, and 21; Figure 1), and is in the Upper Cosumnes hydrologic unit (18040013). Figure 2 is an aerial photograph of the BSA.

The BSA is not located in an El Dorado County rare plant mitigation area. The BSA is not in an area served by the El Dorado Irrigation District (EID).

The BSA is outside the U.S. Fish and Wildlife Service (USFWS) recovery boundary for the Pine Hill plants (USFWS 2002b). The BSA is located outside the El Dorado County Important Biological Corridor (IBC) and Ecological Preserve (EP) overlay areas (El Dorado County 2004b).

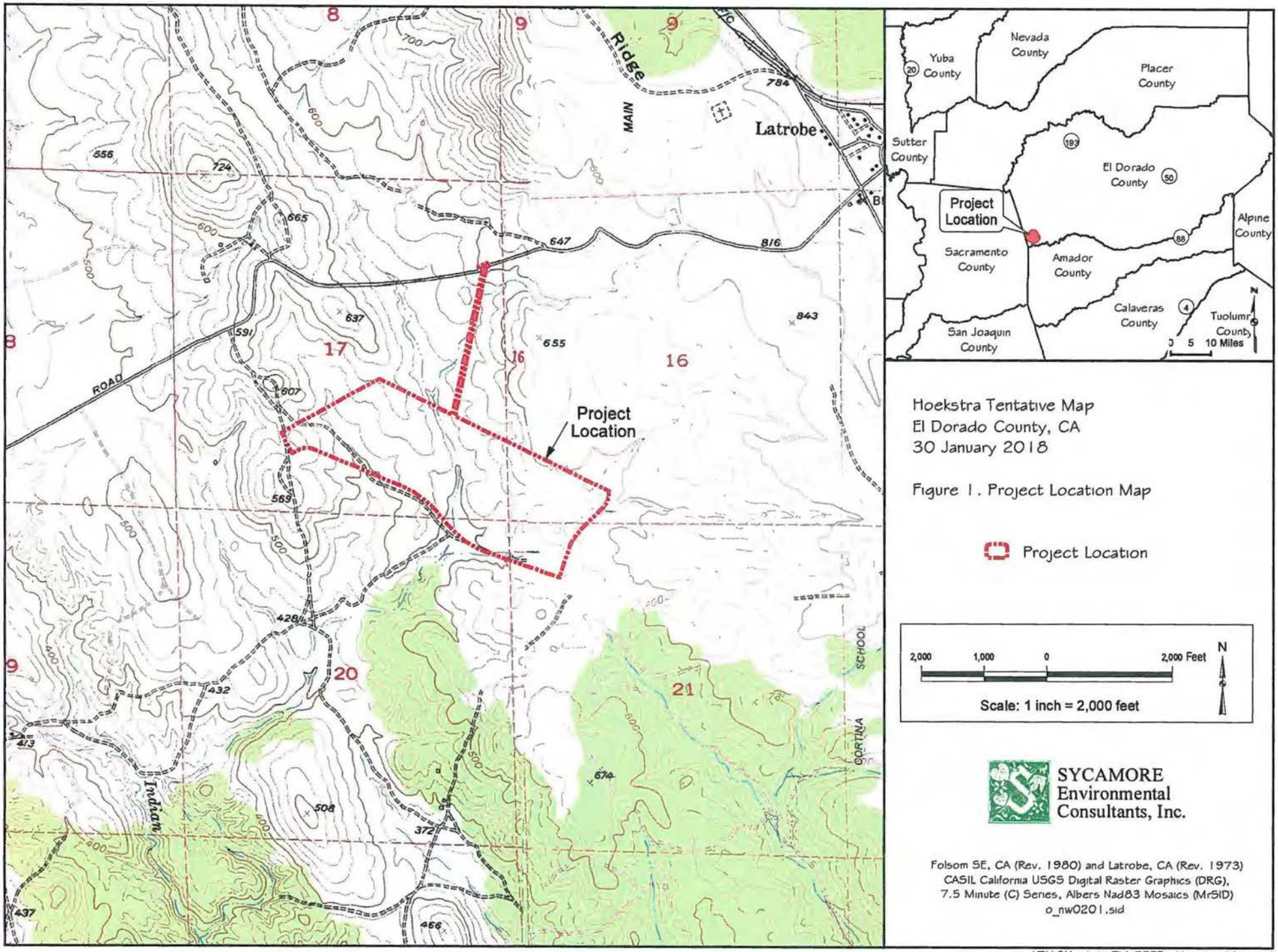
A. Project Applicants

Eric and Trudy Hoekstra
4200 Coulter Lane
Latrobe, CA 95682

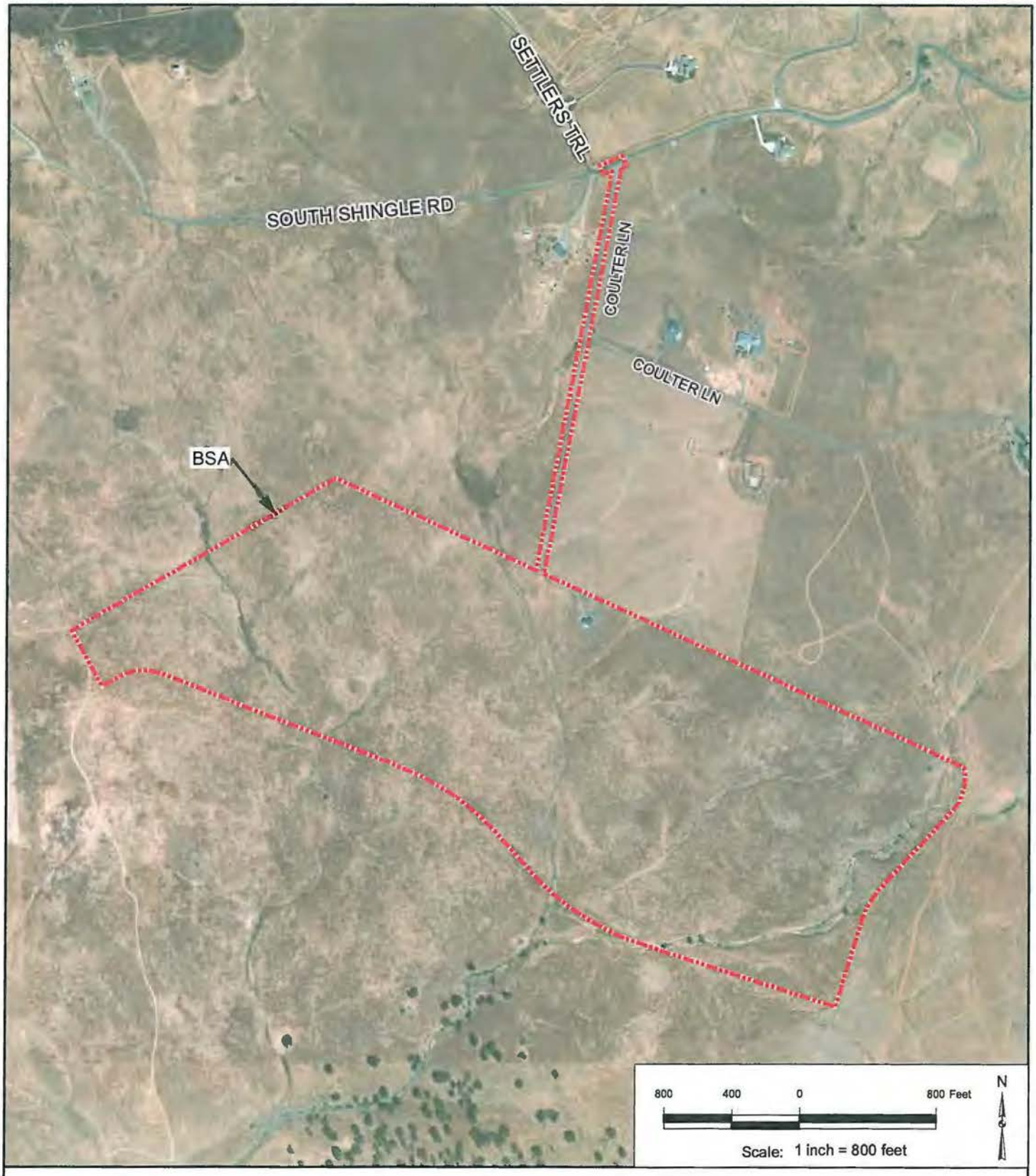
Contact: Ms. Trudy Hoekstra
Phone: 916/ 201-0841

B. Project Description

The preliminary design subdivides the site into eight 20-acre minimum lots, one of which would contain the existing residence at the site. Necessary off-site improvements will consist of widening Coulter Lane from the existing parcel to the intersection with South Shingle Road, a distance of approximately 0.45 mile. Project design has not been finalized, and this report does not quantify impacts or propose mitigation.



17112HoekstraTM_BREFig1LocationMap.mxd



Hoekstra Tentative Map
El Dorado County, CA
30 January 2018

Biological Study Area (BSA)

SYCAMORE Environmental Consultants, Inc.

Figure 2. Aerial Photograph

Aerial Photograph: 20 June 2016
NAIP2016 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

17112HoekstraTM_BREFig2AerialPhoto.mxd

III. STUDY METHODS

A. Studies Conducted

An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, their habitats, or sensitive habitats occurs in the BSA. Data on known special-status species and habitats in the area were obtained from state and federal agencies. Maps and aerial photographs of the BSA and surrounding area were reviewed. A field survey was conducted to determine what habitat types were present. The field survey, map review, and a review of the biology of evaluated species and habitats were used to determine the special-status species and sensitive habitats that could occur in the BSA.

Special-status species in this report are those listed under the federal or state endangered species acts, under the California Native Plant Protection Act, as a California species of special concern or fully protected by the California Department of Fish and Wildlife (CDFW), or that are ranked 1 or 2 on the California Native Plant Society's Inventory of Rare and Endangered Plants of California (CNPS 2017). Special-status natural communities are waters, wetlands, riparian communities, and any natural community ranked S1, S2, or S3 by CDFW (2010).

B. Literature Search

The California Natural Diversity Database (CNDDB) was queried for the Folsom SE, Latrobe and ten surrounding USGS quads to determine known records of special-status species that occur in the vicinity of the BSA. The CNDDB tracks some species that have not been designated by CDFW as a California species of special concern and do not otherwise meet the criteria for special-status species in this BRE; these species were not evaluated as special-status species. The CNPS Inventory of Rare and Endangered Plants of California was also queried for the ten quads.

Sycamore Environmental obtained a list from the U.S. Fish and Wildlife Service (USFWS) Sacramento Field Office that identifies federal-listed species that could potentially occur in or be affected by projects on the Folsom SE and Latrobe USGS quads or in El Dorado County. The results of all database queries are in Appendix A.

C. Survey Dates and Personnel

Fieldwork was conducted by Chuck Hughes, M.S., and Paris Krause on 30 November 2017.

D. Field Survey Methods

The reconnaissance-level biological survey consisted of walking systematically through the BSA to assess potential habitat for special-status species and sensitive communities. Plant and animal species and vegetative communities were identified and recorded. A list of plant and wildlife species observed in the BSA is in Appendix C. Photographs of the BSA are in Appendix D. An aquatic resource delineation of wetlands and waters was conducted for the proposed road improvements and is separately documented (Sycamore Environmental 2018).

E. Problems Encountered and Limitations That May Influence Results

Some special-status plants may not have been evident and identifiable during the autumn when fieldwork was conducted. The reconnaissance survey was not intended to be a floristic survey consistent with agency botanical survey guidelines. A formal delineation of wetlands was not conducted outside the limits of the aquatic resources delineation report (Sycamore Environmental 2018). No other limitations or problems were encountered during the fieldwork that would influence the results of the evaluation.

F. Mapping

Waters and wetland boundaries included in the aquatic resources delineation report (Sycamore Environmental 2018) were imported into the biological resources map. Waters and wetlands from the rest of the site were also mapped based on acquired global positioning system (GPS) data and aerial photographs. An aerial photograph acquired from Google Earth Pro (2017) provided the base layer for Figure 4. The aerial photograph and field notes were used to estimate the boundaries of upland biological communities. Acreages were calculated using ArcMap functions.

IV. ENVIRONMENTAL SETTING

The BSA is located in the low foothills of the western slope of the Sierra Nevada Mountains. The BSA is characterized by low rolling hills covered by grasslands. A few scattered riparian trees are the only trees in the BSA. There are areas of exposed bedrock and boulders, up to a few feet high, mostly on the far eastern and western sides of the BSA. The area surrounding the BSA includes similar low-density rural residential properties and undeveloped land (Figure 2).

A. Soils

Soil mapping units in the BSA (Figure 3) are summarized below (NRCS 1974, USDA-NRCS 2017).

Argonaut Very Rocky Loam, 3–30% Slopes:
The Argonaut series consists of well-drained soils underlain by meta-basic or basic rocks at a depth of 20 to 40 inches. A typical profile has medium acidic silt loam to 10 inches, slightly acidic clay from 10 to 30 inches, and weathered meta-andesite at 30 inches. Permeability is very slow, surface runoff is slow to medium, and the erosion hazard is slight to moderate. A total of 5–25% of the surface is bedrock outcrops.

Auburn Very Rocky Silt Loam, 2–30% Slopes;
Auburn Silt Loam, 2–30% Slopes;
Auburn Extremely Rocky Silt Loam, 3–70 %Slopes:
The Auburn series consists of well-drained soils that are underlain by hard metamorphic rock at a depth of 12 to 26 inches. A typical profile of Auburn very rocky silt loam has slightly acidic silt loam to 14 inches and weathered meta-basic rock at 14 inches.Surface runoff is slow to medium and erosion hazard is slight to moderate. This soil occurs on steep terrain on more prominent foothills and slopes that drop into creek channels and drainageways. Auburn Silt Loam, 2–30% slopes is similar to the representative profile except that less than 5 percent of the surface is exposed bedrock. Auburn Extremely Rocky Silt Loam, 3–70% slopes is similar to the representative profile except that 25–50 percent of the surface has rock outcrops and the depth to bedrock ranges from 12–20 inches.

Perkins Gravelly Loam, Moderately Deep Variant, 2–5% Slopes:
The Perkins series, moderately deep variant, consists of moderately well-drained soils that formed in medium-textured alluvium underlain by unrelated rock at a depth of 24–40 inches. A typical profile has slightly acidic loam or clay loam to 33 inches, mildly alkaline sandy clay from 33 to 37 inches, and greenstone at 37 inches. Permeability of this Perkins soil is moderately low. Surface runoff is slow, and the erosion hazard in slight.

B. Biological Communities

Biological communities are defined by species composition and relative abundance. The biological communities described below correlate, where applicable, with the list of California terrestrial natural communities recognized by the CNDDB (CDFW 2010) and the El Dorado County General Plan EIR (2004a). The communities were identified based on Sawyer *et al.* (2009). Biological communities are mapped on Figure 4 and listed in Table 1. Photographs of the BSA are in Appendix D.

Table 1. Biological Communities.

Biological Community Common Name (Scientific Name [CDFW Code][1])	**El Dorado County Major Habitat Type** [2]	**Area (ac)**
California Annual Grassland (*Bromus* [*diandrus*, *hordeaceus*]–*Brachypodium distachyon* semi-natural herbaceous stands [42.026.00])	Annual Grassland	157.845
Intermittent Channels	--	2.559
Ephemeral Channels	--	0.513
Seeps	--	0.260
Seasonal Wetland	--	0.009
Rural Residential	--	2.100
	Total:	163.286

[1] Sawyer *et al.* 2009, CDFW 2010
[2] El Dorado County 2004a

1. California Annual Grassland

California annual grassland is an upland, herbaceous community dominated by nonnative grasses, and native and nonnative forbs. Shrubs and trees are very sparse and there are almost none in the grassland in the BSA. Common species include bromes (*Bromus* sp.), medusahead (*Elymus caput-medusae*), rye grass (*Festuca perennis*), and clovers (*Trifolium* sp.). California annual grassland is a community dominated by nonnatives and does not have a State rarity ranking (CDFW 2010).

2. Intermittent Channels

The intermittent channels in the BSA have streambeds mostly of scoured cobble, gravel, and exposed bedrock. They contain water from upstream seeps into the late spring or early summer of most years based on review of aerial photography. There are very few trees or shrubs present along the intermittent channels and there are no riparian corridors. Where present, vegetation in the channels is mostly herbaceous. The intermittent channel on the west side of the BSA has more patches of muddy substrate with perennial emergent hydrophytic vegetation of cattails (*Typha* sp.) and spikerush (*Eleocharis macrostachya*).

Existing Entry (gravel) Road

ENTRY ROAD
Existing 50 ft Road and Public Utility Easement
SEE INSET

Existing Residence and Driveway

Seep

Seep

Seep

Seasonal Wetland

CAG

CAG

CAG

CAG

CAG

CAG

Hoekstra Tentative Map
El Dorado County, CA
30 January 2018

Figure 3.
Biological Resources Map

- Biological Study Area (BSA)
- Intermittent Channel
- Ephemeral Channel
- Seasonal Wetland
- Seep
- Rural Residential

Biological Community	Acreage
California Annual Grassland (CAG)	157.845
Intermittent Channels	2.559
Ephemeral Channels	0.513
Seasonal Wetland	0.009
Seep	0.260
Rural Residential	2.100
Total:	163.286

SYCAMORE Environmental Consultants, Inc.

TM Layout and Basemap:
Preliminary Grading & Drainage Plan (July 2017)
CAD: 2017-10-31 Hoekstra TM.dwg (31 Oct. 2017)
by Lebeck Young Engineering, Inc.

Aerial Photograph: 20 June 2016
NAIP2016 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

400 200 0 400 Feet

Scale: 1 inch = 400 feet

N

SETTLERS TRL

SOUTH SHINGLE ROAD

COULTER LANE

Existing Entry (gravel) Road

COULTER LANE

CAG (Alongside Road)

ENTRY ROAD
Existing 50 ft Road and Public Utility Easement

Existing Residence and Driveway

INSET
ENTRY ROAD

Scale: 1 inch = 400 feet

17112HoekstraTM_BREFig3BioresMap(11x17).mxd

3. Ephemeral Channels

The ephemeral channels in the BSA have streambeds mostly of scoured soil and gravel. Ephemeral channels flow for brief periods in response to surface runoff from storm events. Groundwater is not a source of hydrology. The ephemeral channels have little or no hydrophytic vegetation and no riparian corridors. Where vegetation is present it is similar to the surrounding grassland. Two of the ephemeral channels on the eastern side of the BSA are overflow channels of a larger intermittent channel. These channels flow when there is high water in the intermittent channel overtops the banks and flows into the smaller ephemeral overflow channels.

4. Seeps

The primary source of hydrology in the seeps is groundwater. Runoff from surrounding uplands is a secondary source of wetland hydrology. The seeps contain saturated or moist soil into the late spring or early summer based on review of aerial photographs and the perennial hydrophytic plants present. The seeps contain fine-textured soils that were saturated or moist during the fieldwork. Vegetation is dominated by rushes (*Juncus* sp.), sedges (*Carex* sp.), and milkweed (*Asclepias* sp.).

5. Seasonal Wetland

There is a seasonal wetland consisting of a small depression and swale that drains to Channel a nearby intermittent channel. The wetland has hydrophytic vegetation dominated by rye grass and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*). Several inches of inundation were present in the deepest part of the wetland during the fieldwork. Hydrology is seasonal from upland runoff and periodic high flows in the nearby channel. The wetland is dry most of the year.

6. Rural Residential

This area includes the residence and surrounding graded pad, the dirt driveway, and the paved Coulter Lane.

C. The Existing Level of Disturbance

The BSA includes a paved segment of Coulter Lane, and a dirt driveway. A private residence is on the north side of the BSA. A barbed wire fence runs north to south through the BSA, and around much of the perimeter. The BSA does not appear to have been used for grazing recently, and contains little other disturbance.

V. BIOLOGICAL RESOURCES IN THE PROJECT STUDY AREA

A. Determination of Special-Status Species in the Project Study Area

USFWS file data, CNDDB/CNPS records, and field surveys were used to determine the special-status species that could occur in the BSA. A CNDDB and CNPS summary report for the Folsom SE, Latrobe and ten surrounding quads is in Appendix A. The USFWS list of federal-listed species that could occur in or be affected by the project is in Appendix A. Field surveys were conducted to determine whether habitat for special-status species identified in the file data is present in the BSA. Special-status species for which suitable habitat is present in the BSA are listed in Table 2.

Table 2. Special-Status Species and Natural Communities.

Special-Status Species	Common Name	Federal Status [a]	State Status [a] & other codes [b]	Source [c]	Habitat Present? / Species Observed?
Fish					
Oncorhynchus mykiss irideus	California Central Valley steelhead DPS	T, CH	--	1, 2	Yes/No
Oncorhynchus tshawytscha	Central Valley fall/late fall-run chinook salmon ESU	--	SSC	4	Yes/Yes
Reptiles					
Emys marmorata	Western pond turtle	--	SSC	2	Yes/No
Birds					
Nesting Birds (MBTA or CA regulated)		--	--	3	Yes/No
Ammodramus savannarum	Grasshopper sparrow	--	SSC	2	Yes/No
Athene cunicularia	Burrowing owl	--	SSC	2	Yes/No
Elanus leucurus	White-tailed kite	--	FP	2	Yes/No
Mammals					
Taxidea taxus	American badger	--	SSC	2	Yes/No
Plants			/ CNPS List [b]		
Balsamorhiza macrolepis	Big-scale balsamroot	--	--/ 1B.2	2, 3	Yes/No
Eryngium pinnatisectum	Tuolumne button-celery	--	--/ 1B.2	2, 3	Yes/No
Sagittaria sanfordii	Sanford's arrowhead	--	--/ 1B.2	2, 3	Yes/No
Sphenopholis obtusata	Prairie wedge grass	--	--/ 2B.3	2, 3	Yes/No
Natural Communities					
Waters and Wetlands		--	--	4	Yes/ Yes

[a] **Listing Status** Federal status determined from USFWS letter. State status determined from CDFW (2017a, b, c, d). Codes used in table are: **E** = Endangered; **T** = Threatened; **P** = Proposed; **C** = Candidate; **R** = California Rare; ***** = Possibly extinct.

[b] **Other Codes** Other codes determined from USFWS letter; CDFW (2017); and CNPS (2017). Codes used in table are as follows: **SSC** = CDFW Species of Special Concern; **FP** = CDFW Fully Protected; **Prot** = CDFW Protected; **CH** = Critical habitat designated.

CNPS List (plants only): **1A** = Presumed Extinct in CA; **1B** = Rare or Endangered (R/E) in CA and elsewhere; **2** = R/E in CA and more common elsewhere; **3** = Need more information; **4** = Plants of limited distribution

CNPS List Decimal Extensions: .1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat); **.2** = Fairly endangered in CA (20-80% of occurrences threatened); **.3** = Not very endangered in CA (< 20% of occurrences threatened or no current threats known).

[c] **Source:** 1 = USFWS letter. 2 = CNDDB. 3 = CNPS. 4 = Observed or included by Sycamore Environmental.

B. Special-Status Species not in the Project Study Area

Special-status species for which suitable habitat is not present, or whose distributional limits preclude the possibility of their occurrence in the BSA, are not discussed in Section V of this report. An evaluation of these species is in Appendix B.

C. Evaluation of Special-Status Wildlife Species

1. Fish

California Central Valley steelhead DPS (*Oncorhynchus mykiss irideus*)

HABITAT AND BIOLOGY: Steelhead are the anadromous form of the rainbow trout (McGinnis 1984). California Central Valley steelhead DPS was reaffirmed as threatened in 2006 (71 FR 834). This DPS includes all naturally spawned populations of steelhead (and their progeny) in the Sacramento and San Joaquin rivers and their tributaries. Critical habitat for this DPS was federally designated in 2005 (70 FR 52488).

Steelhead hatch in freshwater and emigrate to the ocean, where they grow until they are ready to return to freshwater to spawn. Unlike Pacific salmon, some steelhead survive after spawning. Survival rates after spawning are quite low (McEwan 1996), and the ones that do survive are more often females (NMFS 2009). Steelhead typically migrate during high water flows. Natural channel water depth is usually not a hindrance, but altered streams can pose a significant barrier. Since the construction of major dams in this region, rivers of the Central Valley only contain winter-run steelhead. Although, termed winter-run, these steelhead enter freshwater in fall, beginning in August and peaking between September and October. Steelhead will remain in the main stem until flows are sufficient to allow passage to tributaries where spawning occurs (Moyle 2002).

Spawning occurs mainly from January through March, though it can begin as early as December and extend through April. Spawning water depth ranges from 6 to 24 inches (preferred depth of 14 inches) typically in gravel-sized substrate, but also in a mixture of sand-gravel and gravel-cobble. Females dig a redd (nest) at a site where there is good inter-gravel flow. High permeability of the gravel is needed to continue incubating and oxygenating the eggs. Eggs are deposited in the redd while an attendant male fertilizes them. The redd is then covered with gravel when the female digs another redd just upstream. Eggs typically hatch in 30 days. Fry initially move to shallow protected areas along the stream margin, then move to other areas of the stream and establish feeding locations in riffles with slightly larger cobble and rubble. Steelhead require one to three years of freshwater rearing before emigrating to the ocean where they typically remain at sea for one to four years before returning to freshwater to spawn (McEwan 1996).

For the first year or two of life, steelhead are found in cool, clear, fast-flowing permanent streams and rivers where riffles predominate over pools, where there is ample cover from riparian vegetation or undercut banks, and where invertebrate life is diverse and abundant. In streams, the smallest fish are most often found in riffles; intermediate size fish in runs; and

large fish in pools. A key characteristic of these habitats is that they have cool daytime temperatures. Steelhead have been found in waters ranging from nearly 32° F in winter to 80° F in summer, although extremely low (<39° F) and extremely high (>73° F) temperatures can be lethal if the fish have not been previously acclimated (Moyle 2002).

RANGE: This DPS is historically distributed throughout the Sacramento and San Joaquin river drainages. While steelhead are found elsewhere in the Sacramento River system, the principal remaining wild population are a few hundred fish that spawn annually in Deer and Mill Creeks in Tehama County and a population of unknown size in the lower Yuba River. The Cosumnes River is within the present range of this DPS (Moyle *et al.* 2008). Latrobe Falls in the Cosumnes River is considered to be a natural barrier to anadromous fish (NMFS July 2009, Robertson-Bryan, Inc. 2006). The BSA is in the Cosumnes River watershed below Latrobe Falls.

KNOWN RECORDS: The nearest CNDDB record of steelhead is in the Cosumnes River. Several observations of steelhead juveniles and adults have been made in the lower Cosumnes River, although some were hatchery fish.

HABITAT PRESENT IN THE BSA: Four adult chinook salmon were observed in the intermittent channel in the center of the BSA during fieldwork on 30 November 2017 (see further discussion below; Channel 1 in the aquatic resources delineation report). Steelhead may be able to reach the same channel, at least in some years. The chinook were observed near the northern BSA boundary. This is the largest channel in the BSA, but a smaller channel than adult anadromous salmonids are typically found in. Several areas of flow in Channel 1 in the BSA were less than 6 inches deep. The BSA is likely near the upper limit of areas that are accessible to anadromous fish. The other two intermittent channels in the BSA are smaller, have shallower sections, and have either very rocky areas or shallow areas of emergent vegetation that block fish passage. The other two intermittent channels are less likely to provide habitat for anadromous fish.

DISCUSSION: Central Valley steelhead may be able to reach the intermittent channel in the center of the BSA, at least in some years, since chinook salmon were observed during late November. Avoidance and minimization of impacts to the channel would reduce potential impacts to chinook salmon.

Central Valley fall/late-fall run chinook salmon ESU (*Oncorhynchus tshawytscha*)
HABITAT AND BIOLOGY: Chinook salmon are an anadromous salmonid hatched in freshwater that migrates to the ocean, where they grow until they are ready to return to freshwater to spawn. Chinook salmon do not survive after spawning. Female chinook prepares the nest (redd) in a stream. Stream characteristics include larger gravel and more water flow than sites used by other pacific salmon. After the females lay eggs, the males fertilize them, and the adults guard the nest from a few days up to a month before dying. Depending on water temperature, chinook salmon eggs hatch after three to five months. Juveniles spend from three months to two years in freshwater before migrating to estuarine areas as smolts, and then into the ocean to feed and mature. As out-migration approaches,

juveniles change their scale markings. Parr marks, a pattern of vertical bars and spots used for camouflage, are lost and replaced with a dark back and light belly coloration used by fish in open water. Gills and kidneys also begin to change to process salt water. Ocean rearing time varies between one and six years, commonly two to four (NMFS 16 June 2009, 2010).

Central Valley fall/late fall-run chinook salmon inhabit the ocean for much of their life cycle, returning to rivers to spawn. Fall-run chinook migrate upstream as adults from July through December and spawn from early October through late December. The timing of runs varies from stream to stream. Late fall-run chinook migrate into the rivers from mid-October through December and spawn from January through mid-April. The majority of young salmon of these runs migrate to the ocean during the first few months following emergence, although some may remain in freshwater and migrate as yearlings (NMFS 16 June 2009, 2010).

RANGE: The Central Valley fall and late-fall run chinook salmon ESU includes all naturally spawning populations in the Sacramento and San Joaquin river basins and their tributaries, east of Carquinez Strait, California (NMFS 1999, NMFS 2010, CDFW 2001). Latrobe Falls in the Cosumnes River is considered to be a natural barrier to anadromous fish (NMFS July 2009, Robertson-Bryan, Inc. 2006). The BSA is in the Cosumnes River watershed below Latrobe Falls.

KNOWN RECORDS: CNDDB generally does not track anadromous fish. Moyle *et al.* (2008) reports that a fall run chinook salmon population is still present in the San Joaquin system where dams and controlled flows still allow passage.

HABITAT PRESENT IN THE BSA: Four adult Central Valley fall/late-fall run chinook salmon ESU were observed in the intermittent channel in the center of the BSA during fieldwork on 30 November 2017 (Channel 1 in the aquatic resource delineation report). The fish were observed near the northern BSA boundary. This is the largest channel in the BSA, but a smaller channel than adult anadromous salmonids are typically found in. Several areas of flow in Channel 1 in the BSA were less than 6 inches deep. The BSA is likely near the upper limit of areas that are accessible to anadromous fish. The other two intermittent channels in the BSA are smaller, have shallower sections, and have either very rocky areas or shallow areas of emergent vegetation that block fish passage. The other two intermittent channels are less likely to provide habitat for anadromous fish. If spawning occurs in Channel 1, the channel may be large enough for fry to hatch, at least in years with sufficient abundance and duration of flow.

DISCUSSION: Central Valley fall/late-fall run chinook salmon occur in the intermittent channel in the center of the BSA, at least in some years. Spawning may occur. Avoidance and minimization of impacts to the channel would reduce potential impacts to chinook salmon.

2. Reptiles

Western pond turtle (WPT; *Emys marmorata*)

HABITAT AND BIOLOGY: WPT is a CDFW species of special concern (CDFW 2015c). WPT prefers aquatic habitats with abundant vegetative cover and exposed basking sites such as logs. Mating occurs in April or May, after which females build nests along wetland margins or in adjacent uplands. The female will travel up to 325 feet to find suitable nest sites in uplands with southern exposure away from flood-prone areas. In late spring, one to 13 eggs are laid in a shallow hole at least 4 inches deep and covered with organic, silty soil. Hatchlings emerge in approximately 12 weeks. They are associated with permanent or nearly permanent water in a wide variety of habitat types, normally in ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams. Hatchlings may be subject to rapid death by desiccation if exposed to hot, dry conditions (CWHR 2017). They are omnivorous generalists and opportunistic predators whose prey includes small insects, aquatic invertebrates, fish, frogs, snakes, and small mammals. They also eat aquatic plant material, aquatic invertebrates, and carrion (Stebbins 2003).

RANGE: WPT occur throughout most of California except much of the desert and some areas east of the Sierra Nevada crest (CWHR 2017).

KNOWN RECORDS: There are 22 CNDDB records of WPT in the 12 quad area surrounding the BSA. The closest CNDDB record of WPT is approximately 3.8 miles north of the BSA in Deer Creek from 1988.

HABITAT PRESENT IN THE BSA: The intermittent channels in the BSA do not provide year-round habitat for WPT because they are dry in the summer and early autumn. The intermittent channels could provide seasonal dispersal habitat for WPT when water is present.

DISCUSSION: WPT occur regionally in the vicinity of the BSA. No WPT were observed during field surveys. Avoidance and minimization of impacts to intermittent channels would reduce potential impacts to WPT.

3. Birds

Nesting Birds Listed Under the MBTA or Regulated by CA Fish and Game Code

California Fish and Game Code §3503 protects most birds and their nests. CA Fish and Game Code §3503.5 further protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). Birds of prey include raptors, falcons, and owls. The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) also protects most birds and their nests, including most non-migratory birds in California. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is regulated under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law.

HABITAT PRESENT IN THE BSA: The BSA provides potential nesting habitat for birds listed under the MBTA or regulated by California Fish and Game Code. Depending on species, birds may nest on trees, shrubs, on or in the ground, and on artificial structures such as buildings, poles, and signs.

DISCUSSION: Initiating construction during the non-breeding season (generally 15 February to 31 August) could avoid potential impacts to nesting birds. If construction begins during the breeding season, conducting a pre-construction nest survey, and avoidance of any active nests, could reduce potential impacts.

Grasshopper sparrow (*Ammodramus savannarum*)

HABITAT AND BIOLOGY: Grasshopper sparrow is a CDFW species of special concern (CDFW 2018). Grasshopper sparrows occur in California primarily as a summer resident from March to September (Shuford and Gardali 2008). Most migrate south in August or September. Grasshopper sparrows that winter in California are secretive and chiefly occur along the southern coast (CWHR 2017). The grasshopper sparrow's ecology varies substantially from region to region within its wide range, and has received very little study in California. In general, grasshopper sparrows in California prefer short to middle-height, moderately open grasslands with scattered shrubs. In some parts of the sparrow's California range, native bunchgrasses appear to be important habitat components, although this is probably not the case in most of the state, given that non-native annuals dominate most grasslands. These sparrows are generally absent from areas with extensive shrub cover, though some shrubs are tolerated and perhaps preferred. Patchy bare ground has also been noted as an important habitat component elsewhere. Grasshopper sparrows are more likely to be found in large tracts of habitat than in small ones (Shuford and Gardali 2008).

Grasshopper sparrows breed from early April to mid-July, with a peak in May and June. A thick cover of grasses and forbs is essential for concealment. Pairs are generally solitary and build a nest of grasses and forbs in a slight depression in the ground, hidden at the base of an

overhanging clump of grasses or forbs. They search for food on the ground and in low foliage within relatively dense grasslands (CWHR 2017).

RANGE: In California, grasshopper sparrow is an uncommon and local summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest, and from Mendocino and Trinity counties south to San Diego County (CWHR 2017). Agriculture and urbanization have greatly reduced numbers in the Central Valley, but anecdotal evidence indicates they still breed very locally, primarily at the edges and in low foothills, but also very sparingly on the valley floor (Shuford and Gardali 2008).

KNOWN RECORDS: There are two CNDDB records of grasshopper sparrow in the 12 quad area surrounding the BSA. There is a CNDDB record approximately 4.9 miles west of the BSA in habitat described as grassland, rolling hills, and swales. Two adults were observed in May 2007.

HABITAT PRESENT IN THE BSA: California annual grassland in the BSA provides potential habitat for grasshopper sparrow.

DISCUSSION: Following avoidance and minimization measures described above for nesting birds regulated by the MBTA and CA Fish and Game Code would also avoid and minimize potential impacts to grasshopper sparrow.

Burrowing Owl (*Athene cunicularia*)

HABITAT AND BIOLOGY: Burrowing owl is a CDFW species of special concern (CDFW 2018). Burrowing owls inhabit open, dry grassland and desert habitats, and grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. Main habitat components include burrows for roosting and nesting, and relatively short vegetation with sparse shrubs and taller vegetation. Burrowing owls most commonly use ground squirrel burrows, but they may also use badger, coyote, and fox holes or dens; or artificial structures such as culverts, piles of concrete rubble, pipes and nest boxes. An active nest chamber is often lined with excrement, pellets, debris, grass and feathers (CWHR 2017, Shuford and Gardali 2008).

Burrowing owl may thrive in highly altered human landscapes. In agricultural areas, owls nest along roadsides, under water conveyance structures, and near and under runways and similar structures. In urban areas, burrowing owls persist in low numbers in highly developed areas, busy urban parks, and adjacent to roads with heavy traffic. In the Imperial Valley, owls are able to excavate their own burrows in soft earthen banks of ditches and canals (Shuford and Gardali 2008).

Burrowing owls are a semi-colonial species that breeds from March through August, peaking in April and May, though breeding can begin as early as February and extend into December. The female typically lays two to ten eggs and young emerge from the burrow in about two weeks. The young are able to fly by week four. A large proportion of adults show strong nest site fidelity, though both young and adults have a high dispersal rate. Burrowing owls will

perch in open sunlight in the early morning, and move to shade or the burrow when hot. Owls typically feed on a broad range of arthropods, but also feed on small rodents, birds, amphibians, reptiles, and carrion. Foraging usually occurs close to their burrow. The greatest threat to burrowing owls is habitat loss and degradation from rapid urbanization of farmland in the core of the Central and Imperial valleys (Shuford and Gardali 2008, CWHR 2017).

RANGE: Burrowing owls are a year-round resident in most of the state, particularly in the Central Valley, San Francisco Bay region, Carrizo Plain, and Imperial Valley. It is generally absent from the coastal counties north of Marin and mountainous areas above 5,300 feet. Burrowing owl has declined along the central and southern coast, but large populations remain in agricultural areas in the Central and Imperial valleys, often on private lands (CWHR 2017, Shuford and Gardali 2008).

KNOWN RECORDS: There are 11 CNDDB records in the 12 quad area surrounding the BSA. The closest CNDDB record is approximately 2.4 miles west of the BSA along the side of Latrobe Road and Michigan Bar Road. One to three owls were observed in 2005. Two adults were observed at same location in 2007. Owls were not observed at a burrow either time.

HABITAT PRESENT IN THE BSA: California annual grassland in the BSA provides potential habitat for burrowing owl.

DISCUSSION: Burrowing owl was not observed in the BSA. Ground squirrels were also not observed in the BSA. Burrowing owl occurrences often coincide with ground squirrel colonies. The BSA is not currently occupied by burrowing owl, although colonization could occur. Following avoidance and minimization measures described above for nesting birds regulated by the MBTA and CA Fish and Game Code would also avoid and minimize potential impacts to burrowing owl.

White-tailed kite (*Elanus leucurus*)

HABITAT AND BIOLOGY: White-tailed kite is a California fully-protected species (CDFW 2018). White-tailed kites occur in herbaceous and open stages of most habitats in cismontane California. Areas with substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting. They also roost in saltgrass and Bermuda grass in southern California. White-tailed kites breed from February to October, with peak activity from May to August. Nests are typically located near the top of dense oak, willow, or other tree stands from 20 to 100 feet above the ground, and are often located near an open foraging area with a dense population of voles (CWHR 2017).

RANGE: White-tailed kites are a year-round resident of coastal and valley lowlands in cismontane California. They are absent from higher elevations in the Sierra Nevada, the Modoc Plateau, and from most desert regions (CWHR 2017).

KNOWN RECORDS: There are ten CNDDB record of white-tailed kite in the 12 quad area surrounding the BSA. The closest CNDDB record is approximately 7.8 miles northwest of the BSA on the north side of Scott Road, 0.5 mile north of the bridge over Coyote Creek. A nest with two adults was observed in a live oak tree surrounded by oak woodland and grassland from February to June 1989.

HABITAT PRESENT IN THE BSA: The BSA provides foraging habitat, and marginal nesting habitat, for white-tailed kite.

DISCUSSION: White-tailed kite was not observed in the BSA. The only potential nesting habitat for white-tailed kite is a few trees near the southern edge of the BSA. It is more likely white-tailed kite would nest off-site and forage in the BSA. Following avoidance and minimization measures described above for nesting birds regulated by the MBTA and CA Fish and Game Code would also avoid and minimize potential impacts to white-tailed kite.

4. Mammals

American Badger (*Taxidea taxus*)

HABITAT AND BIOLOGY: American badger is a CDFW species of special concern (CDFW 2018). Badgers inhabit drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Burrows are excavated in areas with dry, often sandy, soils with sparse overstory cover. The burrows are often reused. American badgers feed mostly on small rodents, but also consume reptiles, insects, earthworms, eggs, birds, and carrion (CWHR 2017).

Mating occurs in summer and early fall, with delayed implantation. Two to five young are born in burrows in March and April. Young may begin venturing away from the den in early May and the mother and young may use several dens after that time. The young disperse and begin taking care of themselves in late May or June (Messick and Hornocker 1981). Home ranges in California may be up to 5,000 acres (Quinn 2008). Badgers are tolerant of human activities, but are threatened by indiscriminate predator trapping and poisoning (CWHR 2017).

RANGE: American badger is found throughout California except in the northern coast area (CWHR 2017).

KNOWN RECORDS: There are two CNDDB records of American badger within the 12-quad area surrounding the BSA. The nearest CNDDB record is approximately 12.5 miles west of the BSA, 0.4 mile east of Sunrise Boulevard in Sacramento County. The habitat is described as annual grassland in a vernal pool landscape. Three individuals were observed at a den in 1990.

HABITAT PRESENT IN THE BSA: The BSA provides potential habitat for American badger.

DISCUSSION: American badger occurs regionally in the vicinity of the BSA. Neither American badger nor suitable burrows were observed in the BSA. The BSA is not currently occupied by American badger, although colonization could occur. If construction begins when young could be present, conducting a pre-construction survey and avoidance of any active burrows could reduce potential impacts.

D. Evaluation of Special-Status Plants

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*)

HABITAT AND BIOLOGY: Big-scale balsamroot is a perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine and rocky soils, from 295 to 5,100 feet. Blooms March through June (Baldwin *et al.* 2012; CNPS 2017).

RANGE: Known from the Sierra Nevada foothills, central high Sierra Nevada, Sacramento Valley, and eastern San Francisco Bay (Baldwin *et al.* 2012; CNPS 2017).

KNOWN RECORDS: There is one CNDDB record of big-scale balsamroot in the 12 quad area surrounding the BSA. The location data is imprecise but is likely near Stoney Creek approximately 15.2 miles southeast of the BSA in 1895.

HABITAT PRESENT IN THE BSA: Areas of small rock outcroppings in the annual grassland provide marginal habitat for big-scale balsamroot. The areas of rock outcroppings are in the extreme east and west ends of the BSA.

DISCUSSION: Avoiding the areas of rock outcroppings would avoid potential impacts to big-scale balsamroot. If work will occur in the areas of rock outcroppings, a survey during the evident and identifiable season for big-scale balsamroot could determine if it is present. If it were present, then more detailed avoidance and minimization planning could occur.

Tuolumne button-celery (*Eryngium pinnatisectum*)

HABITAT AND BIOLOGY: Tuolumne button-celery is an annual to perennial herb found in mesic areas in cismontane woodland, lower montane coniferous forest, and vernal pools from 230 to 3,000 feet. Blooms May through August (Baldwin *et al.* 2012; CNPS 2017).

RANGE: Currently known from the northern and central Sierra Nevada foothills including Amador, Calaveras, Sacramento, and Tuolumne counties (Baldwin *et al.* 2012; CNPS 2017).

KNOWN RECORDS: There are five CNDDB records of Tuolumne button-celery in the 12 quad area surrounding the BSA. The nearest CNDDB record is a geographically imprecise 1941 record approximately 3.8 miles southwest of the BSA.

HABITAT PRESENT IN THE BSA: Intermittent channels and the edges of seeps in the BSA may provide potential habitat for Tuolumne button-celery.

DISCUSSION: Avoiding the intermittent channels and seeps in the BSA would avoid potential impacts to Tuolumne button-celery. If work will occur in the intermittent channels or seeps, a survey during the evident and identifiable season for Tuolumne button-celery could determine if it is present. If it were present, then more detailed avoidance and minimization planning could occur.

Sanford's arrowhead (*Sagittaria sanfordii*)

HABITAT AND BIOLOGY: Sanford's arrowhead is a perennial rhizomatous herb found in shallow freshwater marshes and swamps from 0 to 2,133 feet. Blooms May through November (Baldwin *et al.* 2012, CNPS 2017).

RANGE: Known from the North Coast, Klamath Region, Cascade foothills, Central Valley, and South Coast areas of California (Baldwin *et al.* 2012, CNPS 2017).

KNOWN RECORDS: There are five CNDDB records in the 12 quad area surrounding the BSA. The closest CNDDB record is approximately 5.2 miles southwest of the BSA. Approximately 30 plants were observed in an old stock pond in 2005.

HABITAT PRESENT IN THE BSA: Some areas of the intermittent channels that contain water into the summer, may provide marginal potential habitat for Sanford's arrowhead. The habitat is marginal because Sanford's arrowhead usually occurs in areas with deeper inundation than is likely to occur in the channels in the BSA.

DISCUSSION: Avoiding the intermittent channels in the BSA would avoid potential impacts to Sanford's arrowhead. If work will occur in the intermittent channels, a survey during the evident and identifiable season for Sanford's arrowhead could determine if it is present. If it were present, then more detailed avoidance and minimization planning could occur.

Prairie wedge grass (*Sphenopholis obtusata*)

HABITAT AND BIOLOGY: Prairie wedge grass is a perennial herb found in mesic cismontane woodland, meadows, and seeps from 980 to 6,600 feet in elevation. Blooms April through July (CNPS 2017).

RANGE: Known from the northern Sierra Nevada Foothills, southern high Sierra Nevada, areas east of the Sierra Nevada and the White and Inyo Mountains, South Coast, San Bernardino Mountains, and Peninsular Ranges. More common outside California (CNPS 2017).

KNOWN RECORDS: There is one CNDDB record of prairie wedge grass in the 12 quad area surrounding the BSA. The CNDDB record is a geographically imprecise record near the north side of Oneida Creek, approximately 15.5 miles southeast of the BSA where more than 200 plants were observed in 1998.

HABITAT PRESENT IN THE BSA: Seeps, and the edges of intermittent channels in the BSA, may provide potential habitat for prairie wedge grass.

DISCUSSION: Avoiding the intermittent channels and seeps in the BSA would avoid potential impacts to prairie wedge grass. If work will occur in the intermittent channels or seeps, a survey during the evident and identifiable season for prairie wedge grass could determine if it is present. If it were present, then more detailed avoidance and minimization planning could occur.

E. Evaluation of Sensitive Natural Communities

Waters and Wetlands

HABITAT PRESENT IN THE BSA: There are an estimated 3.341 acres of waters and wetlands in the BSA (Figure 3). The waters and wetlands are also discussed in the aquatic resources delineation report (Sycamore Environmental 2018).

DISCUSSION: Fill of waters and wetlands generally requires a permit under Sections 404 and 401 of the federal Clean Water Act. The U.S. Army Corps of Engineers issues permits under Section 404. The Regional Water Quality Control Board issues permits under Section 401. The California Department of Fish and Wildlife could require a Streambed Alteration Agreement for work in the channels under Section 1600 of the Fish and Game Code. There are no riparian communities in the BSA, although there are a few widely scattered trees along some of the channels.

County Zoning Code §130.30.030(G) establishes standards for avoidance and minimization of impacts to wetlands and sensitive riparian habitat as provided in General Plan Policies 7.3.3.4 and 7.4.2.5. The standards apply to most waterbodies, wetlands, and riparian areas, but not to ephemeral channels. The County Zoning Code identifies some specific setbacks for major waterbodies (§130.30.030(G)(7)), but none of the specific major waterbodies listed are in the BSA.

There are very few riparian resources next to the intermittent creeks in the BSA. In most areas California annual grassland is immediately adjacent to the edge of the creeks. A few widely scattered trees grow along the edge of the intermittent creeks. The seasonal wetland is adjacent to the edge of the largest intermittent creek, in the center of the BSA. A setback of 25 feet from the ordinary high water mark of the intermittent channels in the BSA is sufficient to avoid the few trees present, and the seasonal wetland.

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VII. PREPARERS

Chuck Hughes, M.S., Plant Biology, Michigan State University, East Lansing, MI. Fifteen years of experience preparing biological/botanical resource evaluations, wetland delineations, arborist reports, impact analyses, and mitigation/restoration plans. He is a Professional Wetland Scientist (#2029), an ISA Certified Arborist (WE-6885A), holds a CDFW Plant Voucher Collecting Permit (2081(a)-12-16-V), is a Principal Scientific Investigator on a CDFW Scientific Collecting Permit (SC-7617), and is on a USFWS recovery permit for listed vernal pool branchiopods (TE799564-4). His bachelor's degree from UC Davis is in environmental horticulture and urban forestry, with an emphasis in plant biodiversity.
Responsibilities: Field work and report preparation.

Paris Krause, B.S., Biological Sciences (concentration in Field and Wildlife Biology, Minor in Environmental Science), California Polytechnic State University, San Luis Obispo, CA. Ms. Krause conducts preconstruction and construction monitoring, assists with plant and wildlife surveys, wetland delineations, and assists with preparation of biological resource evaluations, Natural Environment Study reports, permit applications, and other documents used in the CEQA/NEPA process. Serving as both field biologist and technical report writer, she conducts database research on special status species' biology, habitat and distribution. She holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-17-105-V).
Responsibilities: Field work and report preparation.

Aramis Respall, GIS Analyst/ CAD Operator. Over 20 years of experience in drafting and spatial analysis using AutoCAD and ArcGIS for public and private projects. He provides geospatial analysis and support for projects involving geodesy, hydrology, watersheds, project impact analysis, CNDDB occurrences, and critical habitat information. Primary experience evolved from conventional surveying and civil engineering practices to advanced GPS and GIS based technology.
Responsibilities: Figure preparation and spatial analysis.

Jeffery Little, Vice President, Sycamore Environmental.
Responsibilities: Principal in charge.

APPENDIX A.

Database Queries

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Latrobe (3812058) OR Folsom SE (3812151) OR Folsom (3812162) OR Clarksville (3812161) OR Shingle Springs (3812068) OR Placerville (3812067) OR Fiddletown (3812057) OR Buffalo Creek (3812152) OR Sloughhouse (3812142) OR Carbondale (3812141) OR Irish Hill (3812048) OR Amador City (3812047))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Accipiter cooperii Cooper's hawk	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	150 200	113 S:2	0	1	1	0	0	0	2	0	2	0	0
Agelaius tricolor tricolored blackbird	G2G3 S1S2	None Candidate Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	70 1,200	951 S:41	5	8	3	0	2	23	18	23	39	1	1
Allium jepsonii Jepson's onion	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,175 1,200	27 S:2	1	0	0	0	0	1	0	2	2	0	0
Ambystoma californiense California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	150 250	1164 S:6	3	3	0	0	0	0	0	6	6	0	0
Ammodramus savannarum grasshopper sparrow	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	232 240	23 S:2	1	1	0	0	0	0	0	2	2	0	0
Andrena blennospermatis Blennosperma vernal pool andrenid bee	G2 S2	None None		160 1,235	15 S:2	0	0	0	0	0	2	2	0	2	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	250 600	411 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Aquila chrysaetos golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	775 850	312 S:2	0	2	0	0	0	0	0	2	2	0	0
Arctostaphylos myrtifolia lone manzanita	G1G2 S1S2	Threatened None	Rare Plant Rank - 1B.2	350 400	15 S:6	1	3	0	0	0	2	3	3	6	0	0
Arctostaphylos nissenana Nissenan manzanita	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,600 2,100	13 S:4	0	0	1	1	0	2	2	2	4	0	0
Ardea alba great egret	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	60 1,513	41 S:4	0	2	1	0	1	0	1	3	3	1	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	60 800	147 S:6	2	1	1	0	1	1	3	3	5	1	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	180 750	1955 S:11	2	2	1	0	0	6	3	8	11	0	0
Balsamorhiza macrolepis big-scale balsamroot	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,000 1,000	50 S:1	0	0	0	0	0	1	1	0	1	0	0
Branchinecta lynchi vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	100 400	763 S:46	8	5	1	0	3	29	13	33	43	0	3
Branchinecta mesovallensis midvalley fairy shrimp	G2 S2S3	None None		110 230	128 S:12	0	0	1	0	0	11	1	11	12	0	0
Buteo regalis ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	454 454	107 S:1	0	1	0	0	0	0	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Buteo swainsoni Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	80 400	2443 S:24	6	9	4	0	0	5	17	7	24	0	0
Calystegia stebbinsii Stebbins' morning-glory	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	1,400 1,500	15 S:7	0	1	4	0	2	0	3	4	5	1	1
Carex xerophila chaparral sedge	G2 S2	None None	Rare Plant Rank - 1B.2	1,360 2,000	15 S:6	2	3	0	0	0	1	1	5	6	0	0
Ceanothus roderickii Pine Hill ceanothus	G1 S1	Endangered Rare	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	860 2,059	8 S:7	0	3	1	0	0	3	3	4	7	0	0
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	GNR SNR	None None		800 800	11 S:1	0	0	1	0	0	0	1	0	1	0	0
Chlorogalum grandiflorum Red Hills soaproot	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,260 1,800	127 S:9	1	4	2	0	0	2	2	7	9	0	0
Chrysis tularensis Tulare cuckoo wasp	G1G2 S1S2	None None		1,075 1,075	5 S:1	0	0	0	0	0	1	1	0	1	0	0
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	G4G5T4 S4	None None	Rare Plant Rank - 4.2 BLM_S-Sensitive	270 2,400	89 S:6	0	2	1	0	0	3	2	4	6	0	0
Cosumnoperla hypocrena Cosumnes stripetail	G2 S2	None None		1,263 1,742	12 S:2	0	0	0	0	0	2	2	0	2	0	0
Crocanthemum suffrutescens Bisbee Peak rush-rose	G2?Q S2?	None None	Rare Plant Rank - 3.2	250 1,800	31 S:17	2	6	5	1	0	3	9	8	17	0	0
Desmocerus californicus dimorphus valley elderberry longhorn beetle	G3T2 S2	Threatened None		60 480	271 S:15	0	1	2	2	1	9	9	6	14	1	0
Downingia pusilla dwarf downingia	GU S2	None None	Rare Plant Rank - 2B.2	270 270	126 S:1	0	0	0	0	0	1	1	0	1	0	0
Dumontia oregonensis hairy water flea	G1G3 S1	None None		130 130	2 S:1	0	0	0	0	0	1	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Elanus leucurus white-tailed kite	G5 S3S4	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	100 585	165 S:10	1	7	1	0	0	1	9	1	10	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	80 2,200	1291 S:22	1	14	2	0	1	4	6	16	21	1	0
Erethizon dorsatum North American porcupine	G5 S3	None None	IUCN_LC-Least Concern	399 1,894	508 S:4	0	0	0	0	0	4	1	3	4	0	0
Eriogonum apricum var. apricum Ione buckwheat	G2T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	280 280	6 S:1	0	0	1	0	0	0	0	1	1	0	0
Eriogonum apricum var. prostratum Irish Hill buckwheat	G2T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	300 330	2 S:2	1	1	0	0	0	0	0	2	2	0	0
Eryngium pinnatisectum Tuolumne button-celery	G2 S2	None None	Rare Plant Rank - 1B.2	220 350	24 S:5	0	0	3	0	0	2	2	3	5	0	0
Falco columbarius merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	130 130	35 S:1	1	0	0	0	0	0	0	1	1	0	0
Fremontodendron decumbens Pine Hill flannelbush	G1 S1	Endangered Rare	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden	1,400 1,800	12 S:7	1	1	1	0	0	4	4	3	7	0	0
Galium californicum ssp. sierrae El Dorado bedstraw	G5T1 S1	Endangered Rare	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	1,050 1,920	16 S:13	3	5	0	1	0	4	3	10	13	0	0
Gratiola heterosepala Boggs Lake hedge-hyssop	G2 S2	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive	160 290	99 S:5	2	2	0	0	0	1	2	3	5	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	610 1,250	327 S:2	0	1	1	0	0	0	1	1	2	0	0
Horkelia parryi Parry's horkelia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	280 1,860	44 S:3	0	1	0	0	0	2	2	1	3	0	0
Hydrochara rickseckeri Ricksecker's water scavenger beetle	G2? S2?	None None		140 390	13 S:2	0	0	0	0	0	2	2	0	2	0	0
Ione Chaparral Ione Chaparral	G1 S1.1	None None		300 400	12 S:4	1	0	0	0	0	3	3	1	4	0	0
Juncus leiospermus var. ahartii Ahart's dwarf rush	G2T1 S1	None None	Rare Plant Rank - 1B.2	150 150	13 S:1	0	0	0	0	1	0	1	0	0	1	0
Lasionycteris noctivagans silver-haired bat	G5 S3S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		139 S:3	0	0	0	0	0	3	3	0	3	0	0
Laterallus jamaicensis coturniculus California black rail	G3G4T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	550 550	303 S:1	0	0	0	0	0	1	0	1	1	0	0
Legenere limosa legenere	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	120 250	78 S:11	1	5	1	0	0	4	4	7	11	0	0
Lepidurus packardi vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	100 330	321 S:40	12	4	3	0	5	16	14	26	35	4	1
Linderiella occidentalis California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	105 330	434 S:17	0	4	1	0	0	12	14	3	17	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Navarretia myersii ssp. myersii pincushion navarretia	G2T2 S2	None None	Rare Plant Rank - 1B.1	200 270	14 S:5	1	2	0	0	0	2	2	3	5	0	0
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	G3 S3.1	None None		90 350	126 S:30	0	0	0	0	0	30	30	0	30	0	0
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	G1 S1.1	None None		240 240	7 S:1	0	0	0	0	0	1	1	0	1	0	0
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened		31 S:3	0	0	0	2	0	1	0	3	3	0	0
Orcuttia tenuis slender Orcutt grass	G2 S2	Threatened Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	175 175	97 S:1	0	1	0	0	0	0	0	1	1	0	0
Orcuttia viscida Sacramento Orcutt grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	150 270	12 S:10	3	4	1	0	1	1	1	9	9	0	1
Packera layneae Layne's ragwort	G2 S2	Threatened Rare	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	880 2,000	52 S:26	2	11	5	2	2	4	8	18	24	2	0
Pekania pennanti fisher - West Coast DPS	G5T2T3Q S2S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	2,000 2,000	737 S:1	0	0	0	0	0	1	1	0	1	0	0
Phalacrocorax auritus double-crested cormorant	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	150 150	38 S:1	0	1	0	0	0	0	0	1	1	0	0
Phrynosoma blainvillii coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,400 1,880	770 S:4	0	0	2	0	0	2	1	3	4	0	0
Rana draytonii California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	485 820	1448 S:2	0	0	1	0	0	1	1	1	2	0	0
Riparia riparia bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	150 2,000	297 S:3	0	0	0	0	0	3	3	0	3	0	0
Sagittaria sanfordii Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	100 427	108 S:8	2	1	2	0	2	1	2	6	6	2	0

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California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Spea hammondii western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	150 260	461 S:8	3	3	0	0	0	2	3	5	8	0	0
Sphenopholis obtusata prairie wedge grass	G5 S2	None None	Rare Plant Rank - 2B.2	1,500 1,500	19 S:1	0	1	0	0	0	0	0	1	1	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	170 450	543 S:2	0	0	0	1	1	0	1	1	1	0	1
Thamnophis gigas giant gartersnake	G2 S2	Threatened Threatened	IUCN_VU-Vulnerable	180 180	365 S:1	0	0	0	0	0	1	1	0	1	0	0
Valley Needlegrass Grassland Valley Needlegrass Grassland	G3 S3.1	None None		270 270	45 S:1	0	0	0	0	0	1	1	0	1	0	0
Viburnum ellipticum oval-leaved viburnum	G4G5 S3?	None None	Rare Plant Rank - 2B.3		38 S:1	0	0	0	0	0	1	1	0	1	0	0
Wyethia reticulata El Dorado County mule ears	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	530 2,059	25 S:21	2	9	4	1	0	5	3	18	21	0	0

United States Department of the Interior

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

In Reply Refer To:
Consultation Code: 08ESMF00-2018-SLI-1043
Event Code: 08ESMF00-2018-E-03063
Project Name: Hoekstra Tentative Map Project

January 30, 2018

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(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 08ESMF00-2018-SLI-1043

Event Code: 08ESMF00-2018-E-03063

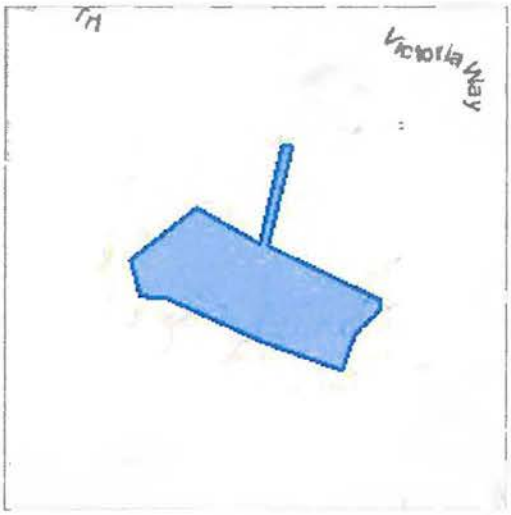
Project Name: Hoekstra Tentative Map Project

Project Type: DEVELOPMENT

Project Description: The preliminary design subdivides the site into eight 20-acre minimum lots, one of which would contain the existing residence at the site. Necessary off-site improvements will consist of widening Coulter Lane from the existing parcel to the intersection with South Shingle Road, a distance of approximately 0.45 mile. Project design has not been finalized.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.54686030734986N121.00931733136923W



Counties: El Dorado, CA

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Reptiles

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

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

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

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

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

APPENDIX B.

Species Evaluated Table

Special-Status Species from USFWS Letter, CNDDB Data, CNPS Data

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Invertebrates					
Branchinecta lynchi Vernal pool fairy shrimp	T, CH	--	1,2	Exist only in vernal pools or vernal pool-like habitats. Individuals have never been found in riverine, marine, or other permanent bodies of water. Water movement within complexes allows movement between individual pools. Currently found in 28 counties across the Central Valley and coast ranges of CA. Occupies a variety of vernal pool habitats (USFWS 2005).	No. There are no vernal pools in the BSA.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T, CH	--	1,2	Requires an elderberry shrub (*Sambucus* spp.) as a host plant (USFWS 1999a). The beetle's range extends throughout CA's Central Valley and associated foothills from about the 3,000 ft levels on the east and the watershed of the Central Valley on the west (USFWS 1991; 1999a). Occurs throughout the Central Valley, from approximately Shasta Co. to Fresno Co. Their range includes the valley floor and lower foothills, with a majority documented below 500 ft above sea level (USFWS 2017).	No. There are no elderberry shrubs in the BSA.
Lepidurus packardi Vernal pool tadpole shrimp	E, CH	--	1,2	Occurs in vernal pools and sometimes other areas of similar hydrology across the Central Valley of CA and in the San Francisco Bay area. Requires a minimum of about 25 days to mature, and usually inhabits large, deep vernal pools that pool continuously for many months (USFWS 2005). They can also make use of smaller pools that are present as part of a larger vernal pool complex (Witham *et al.* 1998), and they may be able tolerate temporary dry conditions (USFWS 2005).	No. There are no vernal pools in the BSA.
Fish					
Hypomesus transpacificus Delta smelt	T, CH	T	1	Euryhaline (tolerant of a wide salinity range) species that spawns in freshwater dead-end sloughs and shallow edge-waters of channels of the Delta (USFWS 1994). This species is confined to the San Francisco Estuary, principally in the Delta and Suisun Bay. Currently found only from the San Pablo Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo cos. Can be washed into San Pablo Bay during high-outflow periods, but do not establish permanent populations there (Moyle 2002).	No. The project is outside the range.
Oncorhynchus mykiss irideus Central Valley steelhead DPS	T, CH	--	1,2	Anadromous salmonid historically distributed throughout the Sacramento and San Joaquin river drainages. While steelhead are found elsewhere in the Sacramento River system, the principal remaining wild populations are a few hundred fish that spawn annually in Deer and Mill Creeks in Tehama County and a population of unknown size in the lower Yuba River. With the possible exception of a small population in the lower Stanislaus River, steelhead appear to have been extirpated from the San Joaquin system (Moyle 2002). Spawning occurs in small tributaries on coarse gravel beds in riffle areas (Busby *et al.* 1996).	Yes. See text.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Oncorhynchus tshawytscha Central Valley fall/late fall-run chinook salmon ESU	--	SSC	4	This ESU includes all naturally spawned populations of fall-run Chinook salmon in the Sacramento and San Joaquin River Basins and their tributaries east of Carquinez Strait (NMFS 2009). They are ocean-type salmon adapted for spawning in lowland reaches of big rivers and their tributaries. This anadromous species moves up from the ocean in late summer and early fall in mature condition and spawns within a few days or weeks of arriving on the spawning grounds. Juveniles emerge from the gravel in spring and move downstream within a few months to rear in the mainstem of rivers or estuaries before heading out to sea (Moyle *et al.* 2002). Adult female Chinook will prepare a spawning bed in a stream with suitable gravel composition, water depth, and velocity (McGinnis 1984).	Yes. See text.
Amphibians					
Ambystoma californiense California tiger salamander (central population)	T, CH	T/ WL	1,2	Occurs in annual grasslands, oak savannah, and edges of mixed woodland and along stream courses in valley-foothill riparian habitat. Spends much time underground in mammal burrows. (CWHR 2017). Requires pools lasting approximately 10 weeks or longer to complete larval development (Jennings and Hayes 1994). Usually breeds in temporary ponds such as vernal pools but may also breed in slower parts of streams and some permanent waters (Stebbins 2003). The state listing refers to the entire range of the species. The federal threatened listing is only for the Central Valley population. The Sonoma and Santa Barbara populations are federally listed as endangered.	No. The BSA is outside the range (CWHR 2017) and there is no suitable habitat.
Rana draytonii California red-legged frog	T, CH	SSC	1, 2	Inhabits quiet pools of streams, marshes, and occasionally ponds with dense, shrubby, or emergent vegetation. Requires permanent or nearly permanent pools for larval development (CWHR 2017; USFWS 2010). The range of CA red-legged frog extends from near sea level to approximately 5,200 ft, though nearly all sightings have occurred below 3,500 ft. CA red-legged frog was probably extirpated from the floor of the Central Valley before 1960 (USFWS 2002a).	No. There is no breeding habitat in the BSA and there are no known extant populations within dispersal distance.
Spea (=Scaphiopus) hammondii Western spadefoot	--	SSC	2	Ranges throughout the Central Valley and adjacent foothills, and is usually quite common where it occurs. Occurs primarily in grasslands, but occasionally occurs in valley-foothill hardwood woodlands (CWHR 2017). Primarily found in the lowlands frequenting washes, floodplains of rivers, alluvial fans, playas, and alkali flats. Also ranges into foothills and mountains. Prefers areas of open vegetation and short grasses with sandy or gravelly soil (Stebbins 2003). Spends most of the year in underground burrows up to 36 inches deep, which they generally construct themselves. Most surface movements by adults are associated with rains or high humidity at night. Breeding and egg laying occur almost exclusively in shallow, temporary pools formed by heavy winter rains (CWHR 2017).	No. The BSA does not occur in or near a vernal pool landscape that provides habitat.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Reptiles					
Emys marmorata Western pond turtle	--	SSC	2	Prefers aquatic habitats with abundant vegetative cover and exposed basking sites such as logs. Associated with permanent or nearly permanent water in a wide variety of habitat types, normally in ponds, lakes, streams, irrigation ditches, or permanent pools along intermittent streams (CWHR 2017).	Yes. See text.
Phrynosoma blainvillii Coast (California) horned lizard	--	SSC	2	Occurs in valley and foothill hardwood, conifer, and riparian habitats, as well as in pine-cypress, juniper and annual grasslands up to 4,000 ft in the Sierra Nevada and 6,000 ft in southern CA Basks in the early morning. Often associated with sandy or loose soil areas (CWHR 2017). Feeds mostly on native ants. Tends not to persist where the argentine ant invades (Suarez *et al.* 2000, Suarez and Case 2002).	No. all records of coast horned lizard in El Dorado County are in gabbroic northern mixed chaparral.
Thamnophis gigas Giant garter snake	T	T	1,2	Known from low basins in the Central Valley. Habitat requisites consist of 1) adequate water during the snake's active season (early spring through mid-fall) to provide food and cover; 2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; 3) grassy banks and openings in waterside vegetation for basking; and 4) higher elevation uplands for cover and refuge from flood waters during the snake's winter dormant season (USFWS 1999b).	No. The BSA is outside the range (CWHR 2017) and there is no habitat.
Birds					
Agelaius tricolor Tricolored blackbird	--	CE/ SSC	2	Forages on ground in cropland, grassland, and on pond edges. Nests near freshwater, preferably in emergent marsh densely vegetated with cattails or tules, but also in thickets of willow, blackberry, and wild rose. Highly colonial; nesting area must be large enough to support a minimum colony of about 50 pairs (CWHR 2017). Chooses areas with widespread water and large, thick patches of vegetation for colonies to reduce predation (Hamilton 2004).	No. The BSA is outside the range and does not contain adequate riparian habitat.
Ammodramus savannarum Grasshopper sparrow	--	SSC	2	An uncommon local summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity cos south to San Diego Co. Occurs in dry, dense grasslands, especially with scattered shrubs for sitting perches. A thick cover of grasses and forbs is essential for concealment. Nests are built of grasses and forbs in slight depressions in ground hidden by a clump of grasses or forbs. Usually nests solitarily from early April to mid-July. May form semicolonial breeding groups of 3-12 pairs (CWHR 2017).	Yes. See text.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Aquila chrysaetos Golden eagle	--	FP	2	Uncommon permanent resident and migrant throughout California, except in the central portion of the Central Valley. Perhaps more common in southern California than in northern California. Ranges from sea level up to 11,500 ft (Grinnell and Miller 1944). Typically inhabits rolling foothills, mountainous areas, sage-juniper flats, and deserts. Uses secluded cliffs with overhanging ledges and large trees for cover. Nest on cliffs of all heights and in large trees in open areas. Rugged, open habitats with canyons and escarpments are used most frequently for nesting. Needs open terrain for hunting (CWHR 2017).	No, there are no suitable nesting trees or cliffs in or near the BSA.
Athene cunicularia *Burrowing owl*	--	SSC	2	Yearlong resident of open, dry grassland and desert habitat, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. Uses small mammal burrows, often ground squirrel, for roosting and nesting cover (CWHR 2017).	Yes. See text.
Buteo swainsoni Swainson's hawk	--	T	2	Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen Co., and Mojave Desert. Nests in stands with few trees in juniper-sage flats, in riparian areas and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Feeds on small birds, rodents, mammals, reptiles, large arthropods, amphibians, and, rarely, fish (CWHR 2017).	No. The BSA is outside of a suitable area that provides habitat.
Elanus leucurus White-tailed kite	--	FP	2	Yearlong resident in coastal and valley lowlands. Rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats, mostly in cismontane California. Substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting. Nest placed near top of dense oak, willow, or other tree stand located near open foraging area. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands (CWHR 2017).	Yes. See text
Haliaeetus leucocephalus Bald eagle	D	E/ FP	2	Occurs along coasts, rivers, and large, deep lakes and reservoirs in California. Nests mostly in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity cos. More widespread as a winter migrant. Requires large bodies of water or free flowing rivers with abundant fish and perching sites. Nests in large old growth and dominant live trees with open branchwork. Favors ponderosa pine (CWHR 2017).	No. There are no lakes or large bodies of water in or near the BSA.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Laterallus jamaicensis coturniculus California black rail	--	T/ FP	2	Scarce, rarely seen, yearlong resident of saline, brackish, and fresh emergent wetlands in the Bay area, Sacramento-San Joaquin Delta, coastal southern California at Morro Bay and a few other locations, the Salton Sea, and the lower Colorado River area. Typically occurs in tidal emergent wetlands dominated by pickleweed and in brackish marshes supporting bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass. Usually found in the immediate vicinity of tidal sloughs. Typically occurs in the high wetland zones near upper limit of tidal flooding, not in low wetland areas with considerable annual or daily fluctuations of water levels (CWHR 2017). Also occurs in the northern Sierra foothills of Butte, Nevada, Placer, and Yuba cos. PEM1 wetlands have been identified as important habitat in the Sierra Nevada foothills. Black rails use wetland zones with shallower water than other North American rails, generally less than 1.2 inches. Wetlands in the Sacramento Valley that are managed for waterfowl or rice typically lack sufficient shallow water zones. Water regime is a critical habitat factor; black rails were most often found in wetlands with perennial standing or flowing water (permanently or semi-permanently flooded). In the Sierra foothills, irrigation water and perennial springs and streams provide water sources during the driest part of the year (Richmond *et al.* 2010).	No. The BSA is outside the range (CWHR 2017) and there is no habitat.
Riparia riparia Bank swallow	--	T	2	Found primarily west of California's deserts in riparian and other lowland habitats during the spring-fall period. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine textured sandy soils, into which it digs nesting holes. Approximately 75% of the breeding population in CA occurs along banks of the Sacramento and Feather Rivers in the northern Central Valley. Other colonies are known from the central coast from Monterey to San Mateo cos., and in northeastern CA in Shasta, Siskiyou, Lassen, Plumas, and Modoc cos. Breeding colonies can have between 10 and 1,500, but typically between 100 and 200, nesting pairs (CWHR 2017).	No. There are no banks, cliffs, or other suitable nesting habitat.
Mammals					
Antrozous pallidus Pallid bat	--	SSC	2	Occupies many habitats including desert, grasslands, shrublands, woodlands, rocky canyons, oak savannah, redwood, open farmland and mixed conifer forest from sea level up to 3,000 ft (Bolster 1998, CWHR 2017). Prefers open, dry habitats with rocky areas for roosting, and rock outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts in caves, crevices, mines, and occasionally buildings and hollow trees. Night roosts may be more open, such as porches and open buildings. Social, often roosting in groups of 20 or more. Absent in the northwest from Del Norte and western Siskiyou cos. south to northern Mendocino Co. (CWHR 2017). May be more dependent on tree roosts than was previously realized. They have been located in tree cavities in oak, ponderosa pine, coast redwood and giant sequoia (Bolster 1998).	No. There is no suitable roosting habitat in the BSA.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Pekania pennanti Fisher	--	CT/ SSC	2	Permanent resident of the Sierra Nevada, Cascades, Klamath Mountains, and the North Coast Range. Occurs above 3,200 ft in the Sierra Nevada and Cascades (Jameson and Peeters 2004). Occurs in coniferous or deciduous riparian habitats with intermediate to large trees and closed canopies. Dens in protected cavities, brush piles, logs, or under an upturned tree. Hollow logs, trees, and snags are especially important. Mostly nocturnal and crepuscular (CWHR 2017).	No. The BSA is below the elevation range (CWHR 2017) and there is no habitat.
Taxidea taxus American badger	--	SSC	2	Found throughout most of California except the northern North Coast. Abundant in drier open stages of many shrub, forest, and herbaceous habitats with friable soils. Feeds on fossorial rodents, some reptiles, insects, earthworms, bird eggs, and carrion (CWHR 2017).	Yes. See text.
Plants		**/ CNPS [d]**			
Allium jepsonii Jepson's onion	--	--/ 1B.2	2,3	Bulbiferous herb found in serpentine or volcanic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 985 to 4,330 ft. Known from Butte, El Dorado, Placer, and Tuolumne cos. Blooms April through August (Baldwin *et al.* 2012; CNPS 2017).	No. There are no serpentine or volcanic soils.
Arctostaphylos myrtifolia Ione Manzanita	T	--/ 1B.2	2,3	An evergreen shrub found on clay or sandy acidic and Ione soil, in chaparral and cismontane woodland from 200 to 1,900 ft. Known from Amador and Calaveras cos. Blooms November through March (CNPS 2017).	No. The BSA does not contain suitable soils or habitat and the BSA is outside the range.
Arctostaphylos nissenana Nissenan Manzanita	--	--/ 1B.2	2,3	Perennial evergreen shrub found on highly acidic rocky (slate and shale) soils. Often associated with closed-cone conifer forest and chaparral from 1,475 to 3,600 ft (USFS 2009; CNPS 2017). Known from approximately 15 occurrences in El Dorado and Tuolumne cos. Blooms February through March (CNPS 2017).	No. The BSA is below the elevation range, does not contain highly acidic rocky soils, or chaparral communities.
Balsamorhiza macrolepis Big-scale balsamroot	--	--/ 1B.2	2,3	Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils, from 295 to 5,100 ft. Known from Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne cos. Blooms March through June (Baldwin *et al.* 2012; CNPS 2017).	Yes. See text.
Calystegia stebbinsii Stebbins' morning-glory	E	E/ 1B.1	2,3	Perennial rhizomatous herb found in serpentine or gabbroic soils in openings in chaparral and cismontane woodland from 607 to 3,576 ft. Known from El Dorado and Nevada cos. Blooms April through July (Baldwin *et al.* 2012, CNPS 2017).	No. There are no serpentine or gabbroic soils.
Carex xerophila Chaparral sedge	--	--/ 1B.2	2,3	Chaparral sedge is a cespitose herb known from serpentine or gabbro soils, in uplands in full sun to partial shade, in open forest or chaparral from 1,475 to 2,525 feet. Known from Butte, El Dorado, Nevada, and Yuba counties. Blooms March through June (Baldwin *et al.* 2012, CNPS 2017).	No. There are no serpentine or gabbroic soils.
Ceanothus roderickii Pine Hill ceanothus	E	R/ 1B.1	1,2,3	Perennial evergreen shrub found on serpentine or gabbroic (nutrient deprived) soils in chaparral and cismontane woodland from 800 to 2,070 ft. Known from less than 10 occurrences in El Dorado Co. Blooms April through June (Baldwin *et al.* 2012, CNPS 2017).	No. There are no serpentine or gabbroic soils.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Chlorogalum grandiflorum Red Hills soaproot	--	--/ 1B.2	2,3	Perennial bulbiferous herb found in serpentine, gabbroic, and other soils in chaparral, cismontane woodland, and lower montane coniferous forest from 800 to 4,070 ft. Known from Amador, Butte, Calaveras, El Dorado, Placer, and Tuolumne cos. Blooms May through June (Baldwin *et al.* 2012, CNPS 2017).	No. There are no serpentine or gabbroic soils.
Crocanthemum suffrutescens Bisbee Peak rush-rose	--	--/ 3.2	2	Perennial evergreen shrub found often in gabbroic or Ione soils, burned or disturbed areas, and chaparral from 246 to 2198 ft. Known from Amador, Calaveras, and El Dorado cos. Blooms April through August (Baldwin *et al.* 2012, CNPS 2017).	No. There are no gabbroic or Ione soils, or chaparral.
Downingia pusilla Dwarf downingia	--	--/ 2B.2	2,3	Annual herb found in mesic valley and foothill grassland and vernal pools from 3 to 1,460 ft. Known from Amador, Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba cos. Blooms March through May (Baldwin *et al.* 2012, CNPS 2017).	No. There are no vernal pools or vernal pool complexes in or near the BSA.
Erigeron miser Starved daisy	--	--/ 1B.3	3	Perennial herb found on rocky substrates in upper montane coniferous forest from 6,000 to 8,600 ft. Known from the northern high Sierra Nevada. Blooms June through October (CNPS 2017).	No. The BSA is below elevation range and there is no habitat.
Eriogonum apricum var. *apricum* Ione buckwheat	E	E / 1B.1	2,3	Perennial herb found in chaparral openings in Ione soil from 190 to 480 ft. Blooms July through October (CNPS 2017).	No. There is no Ione soil and the BSA is outside the range.
Eriogonum apricum var. *prostratum* Irish Hill buckwheat	E	E / 1B.1	2,3	Perennial herb found in chaparral openings in Ione soil from 290 to 480 ft. Known from two occurrences near Irish Hill and Carbondale Mesa in Amador County. Blooms June through July (CNPS 2017).	No. There is no Ione soil and the BSA is outside the range.
Eryngium pinnatisectum Tuolumne button-celery	--	--/ 1B.2	2,3	Annual to perennial herb found in mesic areas of cismontane woodland, lower montane coniferous forests, and vernal pools/swales, and intermittent streams from 230 to 3,000 ft. Known from Amador, Calaveras, Sacramento, Sonoma, and Tuolumne cos. Blooms May through August (Baldwin *et al.* 2012, CNPS 2017).	Yes. See text.
Fremontodendron decumbens Pine Hill flannelbush	E	R/ 1B.2	2,3	Perennial evergreen shrub found on rocky, gabbroic, and serpentine soil in chaparral and cismontane woodland from 1,394 to 2,494 ft. Known from 12 occurrences in El Dorado, Nevada, and Yuba cos. Uncertain about distribution or identity in Nevada and Yuba cos. Blooms April through July (Baldwin *et al.* 2012, CNPS 2017).	No. There are no serpentine or gabbroic soils.
Galium californicum ssp. *sierrae* El Dorado bedstraw	E	R/ 1B.2	2,3	Perennial herb found in gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 330 to 1,920 ft. Known from El Dorado County. Blooms March through July (Baldwin *et al.* 2012, CNPS 2017).	No. There are no gabbroic soils.
Gratiola heterosepala Boggs Lake hedge-hyssop	--	E/ 1B.2	2,3	Annual herb found in clay soils in marshes and swamps on lake margins and vernal pools from 30 to 7,800 ft. Known from Fresno, Lake, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, Sonoma, and Tehama cos. Blooms April through September (Baldwin *et al.* 2012, CNPS 2017).	No. There are no clay soils, vernal pools, or larger areas of habitat such as lake/playa shorelines.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Horkelia parryi Parry's horkelia	--	--/ 1B.2	2,3	Perennial herb found on Ione formations and in other soils in chaparral and cismontane woodland from 260 to 3,510 ft. Known from Amador, Calaveras, El Dorado, and Mariposa cos. Blooms April through September (Baldwin *et al.* 2012, CNPS 2017).	No. There are no Ione formation soils or suitable habitat. Only known in El Dorado County east of Placerville.
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--	--/ 1B.2	2,3	Annual herb found in mesic areas in valley and foothill grassland from 100 to 750 ft. Known from Butte, Calaveras, Placer, Sacramento, Tehama, and Yuba cos. Blooms March through May (Baldwin *et al.* 2012, CNPS 2017).	No. There are no vernal pools or vernal pool complexes in or near the BSA.
Legenere limosa *Legenere*	--	--/ 1B.1	2,3	Annual herb found in vernal pools from 3 to 2900 ft. Known from Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Tehama, and Yuba cos. Presumed extirpated in Stanislaus Co. Blooms April through June (Baldwin *et al.* 2012, CNPS 2017).	No. There are no vernal pools or vernal pool complexes in or near the BSA.
Navarretia myersii ssp. *myersii* Pincussion navarretia	--	--/ 1B.1	2,3	Annual herb found in vernal pools, often with acidic conditions, from 65 to 1,100 ft. Known from Amador, Calaveras, Merced, Placer, and Sacramento cos. Blooms April through May (Baldwin *et al.* 2012, CNPS 2017).	No. There are no vernal pools or vernal pool complexes in or near the BSA.
Orcuttia tenuis Slender Orcutt grass	T	E/ 1B.1	2,3	Annual herb found in vernal pools, often gravelly, from 115 to 5,800 ft. Known from Butte, Lake, Lassen, Modoc, Plumas, Sacramento, Shasta, Siskiyou, and Tehama cos. Blooms May through October (Baldwin *et al.* 2012, CNPS 2017).	No. There are no vernal pools or vernal pool complexes in or near the BSA.
Orcuttia viscida Sacramento Orcutt grass	E, CH	E/ 1B.1	2,3	Annual herb found in vernal pools from 98 to 328 ft. Known only from Sacramento County. Blooms April through September (Baldwin *et al.* 2012, CNPS 2017).	No. There are no vernal pools or vernal pool complexes in or near the BSA.
Packera(=Senecio) layneae Layne's ragwort	T	R/ 1B.2	2,3	Perennial herb found in rocky serpentine or gabbroic soils in chaparral and cismontane woodland from 650 to 3,560 ft. Known from Butte, El Dorado, Placer, Tuolumne, and Yuba cos. Blooms April through August (Baldwin *et al.* 2012, CNPS 2017).	No. There are no serpentine or gabbroic soils.
Sagittaria sanfordii Sanford's arrowhead	--	--/ 1B.2	2,3	A perennial emergent rhizomatous herb found in assorted shallow freshwater marshes and swamps from 0 to 2,130 ft. Known from Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Placer, Sacramento, San Bernardino, Shasta, San Joaquin, Solano, Tehama, and Yuba cos. Presumed extirpated in Orange and Ventura cos. Blooms May through November (Baldwin *et al.* 2012, CNPS 2017).	Yes. See text.
Sphenopholis obtusata Prairie wedge grass	--	--/ 2B.2	2,3	Perennial herb found in mesic cismontane woodland, meadows and seeps from 980 to 6,560 ft. Blooms April through July (CNPS 2017).	Yes. See text.
Viburnum ellipticum Oval-leaved viburnum	--	--/ 2B.3	2,3	Deciduous shrub found in chaparral, cismontane woodland, and lower montane coniferous forest from 700 to 4,600 ft. Known from Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama cos. Blooms May through August (Baldwin *et al.* 2012, CNPS 2017).	No. There is no suitable habitat.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Wyethia reticulata El Dorado County mule ears	--	--/ 1B.2	2,3	Perennial rhizomatous herb found on clay or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 600 to 2,100 ft. Known from El Dorado and Yuba cos. Blooms April through August (Baldwin *et al.* 2012, CNPS 2017).	No. There are no clay or gabbroic soils.
Natural Communities					
Central Valley drainage hardhead/ squawfish stream	--	--	2	Hardhead occur in low- to mid-elevation streams in the main Sacramento-San Joaquin drainage and in the Russian River. Their range extends from the Kern River in Kern County, in the south, to the Pit River in Modoc County in the north. In the San Joaquin drainage, the species is scattered in tributary streams and absent from valley reaches of the San Joaquin River. In the Sacramento drainage, the hardhead is present in most large tributary streams as well as in the Sacramento River. Hardhead are typically found in undisturbed areas of larger low- to mid-elevation streams, although they are also found in the mainstem Sacramento River at low elevations and in its tributaries to about 4,920 ft. They prefer clear, deep (>32 inches) pools and runs with sand-gravel-boulder substrates and slow velocities. Hardhead are always found in association with Sacramento pikeminnow (squawfish) and usually with Sacramento sucker. They tend to be absent from streams where introduced species, especially centrarchids (sunfish), predominate and from streams that have been severely altered by human activity. Sacramento pikeminnow occur in clear rivers and creeks of central California and occur in small numbers in the Sacramento-San Joaquin Delta. They are most characteristic of low- to mid-elevation streams with deep pools, slow runs, and undercut banks, and overhanging vegetation. They are most abundant in lightly disturbed, tree-lined reaches that also contain other native fish (Moyle 2002).	No. This community does not occur in the BSA.
Ione Chaparral	--	--	2	A chaparral community of low shrubs and scattered herbs dominated by Ione manzanita (*Arctostaphylos myrtifolia*). Shrub cover in mature stands usually exceeds 50%. Edaphically restricted to acidic, nutrient-poor, and coarse soils. This community occurs across the Central Valley directly east of the Golden Gate. This creates milder summer high temperatures and higher relative humidity than elsewhere in the Sierra foothills. Additional characteristic species include: *Adenostoma fasciculatum, Ceanothus tomentosus, Eriodictyon californicum, Eriogonum apricum, Pinus* spp., and *Quercus* spp. Occurs in western Amador and northern Calaveras counties (Holland 1986).	No. This community does not occur in the BSA.
Northern hardpan vernal pool	--	--	2	A low emergent wetland community dominated by annual herbs and grasses on very acidic soils with an iron-silicon cemented hardpan. Evaporation (not runoff) dries pools in spring creating concentric bands of vegetation. Occurs primarily on old alluvial terraces on the east side of the Great Valley from Tulare or Fresno County north to Shasta County (Holland 1986).	No. There are no vernal pools in the BSA.

Special-Status Species/ Common Name	Federal Status [a,b]	State Status [a,b]	Source [c]	Habitat Requirements	Potential to Occur in the BSA
Northern volcanic mudflow vernal pool	--	--	2	A very low, open mixture of amphibious annual herbs and grasses. Pools are typically small, covering at most a few square meters. Restricted to irregular depressions in shallow soil in tertiary pyroclastic flows. Pools form in small depressions following winter rains. Characteristic species include: *Downingia bicornuta, Lasthenia glaberrima, Limnanthes douglasii rosea, Navarretia tagetina.* Distribution is scattered on flat-topped mesas along the Sierra foothills, mostly between 500-2000 ft in the Blue Oak Woodland and Gray-Pine Chaparral Woodland (Holland 1986).	No. There are no vernal pools in the BSA.
Valley needlegrass grassland	--	--	2	Grassland dominated by *Stipa pulchra,* a perennial tussock-forming bunchgrass. Annual herbs and grasses occur between bunches. Usually occurs on fine-textured (often clay) soils. May intergrade with oak woodlands. Historically occurred around the Sacramento, San Joaquin, and Salinas valleys, as well as the Los Angeles Basin (Holland 1986).	No. No significant stands of purple needlegrass (*S. pulchra*) occur in the BSA.

[a] **Listing Status** **E** = Endangered; **T** = Threatened; **P** = Proposed; **C** = Candidate; **R** = California Rare; **D** = Delisted; * = Possibly extinct.

[b] **Other Codes** **SSC** = CA Species of Special Concern; **FP** = CA Fully Protected; **Prot** = CA Protected; **WL** = Watch List; **CH** = Critical habitat designated.
CNPS Rank (plants only): **1A** = Presumed Extinct in CA; **1B** = Rare or Endangered (R/E) in CA and elsewhere; **2** = R/E in CA and more common elsewhere; **3** = Need more information; **4** = Plants of limited distribution

CNPS List Decimal Extensions: **.1** = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat); **.2** = Fairly endangered in CA (20-80% of occurrences threatened); **.3** = Not very endangered in CA (< 20% of occurrences threatened or no current threats known).

[c] **Source:** **1** = USFWS letter. **2** = CNDDB. **3** = CNPS. **4** = Observed or included by Sycamore Environmental.

APPENDIX C.

Plant and Wildlife Species Observed

Plant species observed.

FAMILY	SCIENTIFIC NAME	COMMON NAME	NATIVE/ INTRODUCED	CAL-IPC PEST RATING [1]
FERNS & ALLIES				
Pteridaceae	*Pellaea* sp.	Cliff-brake	N	--
	Pentagramma triangularis	Goldback fern	N	--
EUDICOTS				
Apiaceae	*Daucus carota*	Queen Anne's lace	I	--
	Eryngium castrense	Coyote-thistle	N	
	Torilis arvensis	Hedge parsley	I	Moderate
Apocynaceae	*Asclepias* sp.	Milkweed	--	--
Asteraceae	*Carduus pyncocephalus*	Italian thistle	I	Moderate
	Centaurea solstitialis	Yellow star-thistle	I	High
	Centromadia sp.	Spikeweed	N	
	Chondrilla juncea	Skeleton weed	I	Moderate
	Cirsium sp.	Thistle	--	--
	Holocarpha virgata	Tarplant	N	--
	Lactuca serriola	Prickly lettuce	I	--
	Senecio vulgaris	Common groundsel	I	--
	Silybum marianum	Milk thistle	I	Limited
	Sonchus sp.	Sow thistle	I	--
	Tragopogon sp.	Salsify	I	--
Boraginaceae	*Amsinckia* sp.	Fiddleneck	N	--
	Plagiobothrys sp.	Popcornflower	N	--
Brassicaceae	*Raphanus* sp.	Radish	I	--
Crassulaceae	*Dudleya cymosa*	Dudleya, liveforever	N	
Euphorbiaceae	*Croton setigerus*	Turkey-mullein	N	
Fabaceae	*Acmispon americanus* var. *americanus*	Deervetch	N	--
	Medicago sp.	Alfalfa	I	--
	Trifolium hirtum	Rose clover	I	Moderate
	Vicia sp.	Vetch	I	--
Gentianaceae	*Centaurium* sp.	Centaury	I	--
Geraniaceae	*Erodium botrys*	Storksbill, filaree	I	--
	Geranium sp.	Cranesbill	--	--
Hypericaceae	*Hypericum perforatum*	Klamathweed	I	Moderate
Lamiaceae	*Stachys* sp.	Hedge-nettle	N	--
	Trichostema sp.	Blue curls	N	
Linaceae	*Linum bienne*	Flax	I	--
Lythraceae	*Lythrum hyssopifolia*	Loosestrife	I	Limited
Moraceae	*Ficus carica*	Edible fig	I	Moderate
Myrsinaceae	*Lysimachia arvensis*	Scarlet pimpernel	I	--
Onagraceae	*Clarkia purpurea*	Four-spot	N	--
	Epilobium sp.	Willowherb	--	--
	Epilobium brachycarpum	Willowherb	N	--
Phrymaceae	*Mimulus guttatus*	Monkeyflower	N	--
Plantaginaceae	*Kickxia* sp.	Kickxia	I	--
Polygonaceae	*Persicaria sp.*	Smartweed	--	
	Pterostegia drymarioides	Woodland threadstem	N	--
	Rumex crispus	Curly dock	I	Limited
	Rumex pulcher	Fiddle dock	I	--

FAMILY	SCIENTIFIC NAME	COMMON NAME	NATIVE/ INTRODUCED	CAL-IPC PEST RATING [1]
Ranunculaceae	*Ranunculus muricatus*	Buttercup	I	--
Rhamnaceae	*Frangula californica* ssp. *tomentella*	California coffee berry	N	--
Rosaceae	*Horkelia californica*	Horkelia	N	--
Rubiaceae	*Cephalanthus occidentalis*	Button bush	N	--
	Galium parisiense	Wall bedstraw	I	--
	Sherardia arvensis	Field madder	I	--
Salicaceae	*Populus fremontii* ssp. *fremontii*	Fremont cottonwood	N	--
	Salix exigua	Willow	N	--
	Salix sp.	Willow	--	--
MONOCOTS				
Agavaceae	*Chlorogalum pomeridianum*	Soaproot	N	--
Araceae	*Lemna* sp.	Duckweed	N	
Cyperaceae	*Carex* sp.	Sedge		--
	Eleocharis macrostachya	Spikerush	N	--
Juncaceae	*Juncus balticus* ssp. *ater*	Baltic rush	N	--
	Juncus effusus	Soft or lamp rush	N	--
	Juncus xiphioides	Iris-leaved rush	N	
Liliaceae	*Calochortus* sp.	Calochortus	N	--
Poaceae	*Aristida* sp.	Three-awn	--	--
	Avena sp.	Oat	I	--
	Brachypodium distachyon	False brome	I	Moderate
	Briza maxima	Large quaking grass	I	Limited
	Briza minor	Small quaking grass	I	--
	Bromus diandrus	Ripgut grass	I	Moderate
	Bromus hordeaceus	Soft chess	I	Limited
	Cynodon dactylon	Bermuda grass	I	Moderate
	Cynosurus echinatus	Hedgehog dogtail	I	Moderate
	Elymus caput-medusae	Medusa head	I	High
	Festuca perennis	Rye grass	I	Moderate
	Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	I	Moderate
	Polypogon sp.	Beard grass	I	--
Themidaceae	*Dichelostemma* sp.	Dichelostemma	N	--
	Triteleia sp.	Triteleia	N	--
Typhaceae	*Typha* sp.	Cattail	--	--

[1] High/Moderate/Limited = CA-IPC Inventory; reflects level of each species' negative ecological impact in California.

Wildlife species observed.

COMMON NAME	SCIENTIFIC NAME
AMPHIBIANS	
Sierran treefrog	*Pseudacris sierra*
BIRDS	
American kestrel	*Falco sparverius*
Black phoebe	*Sayornis nigricans*
Killdeer	*Charadrius vociferus*
Mourning dove	*Zenaida macroura*
Northern harrier	*Circus cyaneus*
Turkey vulture	*Cathartes aura*
Western meadowlark	*Sturnella neglecta*
FISH	
Central Valley fall and late-fall run chinook salmon	*Oncorhynchus tshawytscha*

APPENDIX D.

Photographs
30 November 2017

Photo 1. View looking southeast across the BSA. Open grassland, with almost no trees or shrubs, is typical.

Photo 2. View looking upstream of the largest intermittent channel (Channel 1). This spot is near the northern edge of the BSA. The arrows indicated two chinook salmon.

Photo 3. A chinook salmon in the largest intermittent channel (Channel 1).

Photo 4. A chinook salmon in the largest intermittent channel (Channel 1).

Photo 5. The intermittent channel on the west side of the BSA.

Photo 6. The intermittent channel on the east side of the BSA.

Photo 7. A typical ephemeral channel in the BSA.

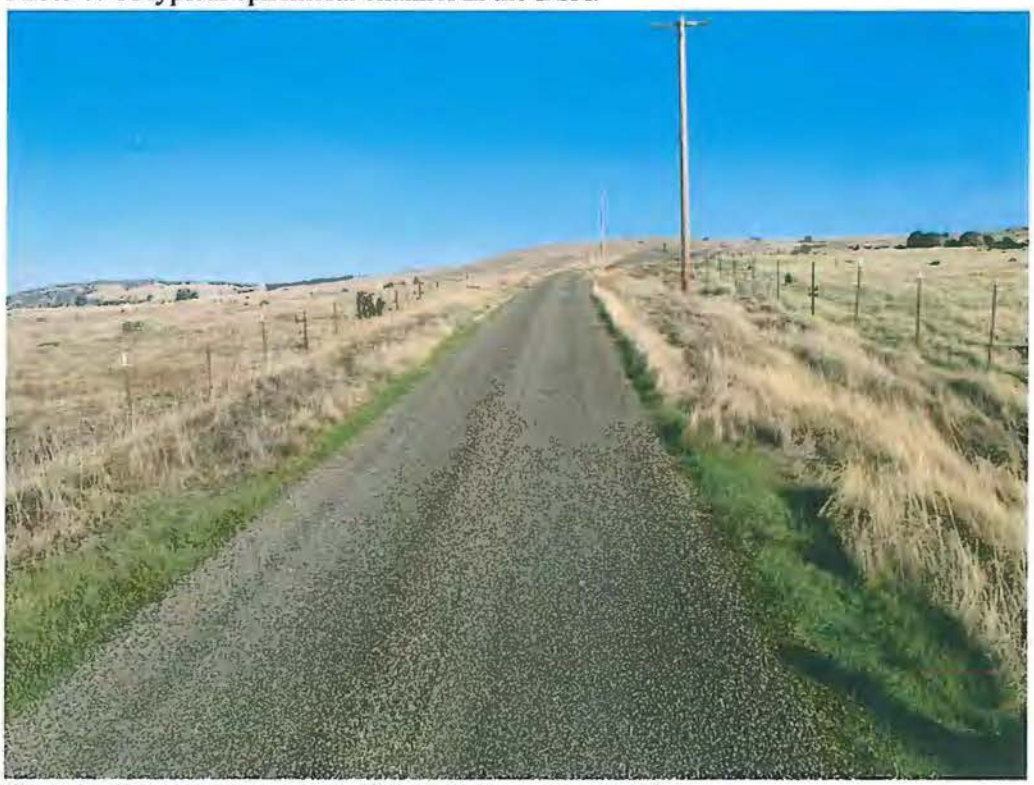


Photo 8. View looking north of the existing access road.

EL DORADO HILLS FIRE DEPARTMENT

"Serving the Communities of El Dorado Hills, Rescue and Latrobe"

March 14, 2020

Mr. Tom Purciel, County Planner
El Dorado County Planning Department
2850 Fair Lane
Placerville, CA 95667

PROJECT: **Hoekstra Tentative Parcel Map, Creation of 4 lots ranging in size from 40.01 to 40.10 Acres APN # 087-030-036, File # P19-0010.**

Dear Mr. Purciel:

The El Dorado Hills Fire Department (EDHFD) has reviewed the above referenced tentative parcel map project on behalf of the El Dorado Hills County Water District (EDHCWD). Our review of the project is intended to ensure this agency can provide fire and emergency medical services that are consistent with the El Dorado County General Plan, State Fire Safe Regulations, as adopted by El Dorado County, and the California Fire Code as amended locally. See Table 1 and the comments provided that describes our review of the project in conformance with these standards.

Table 1: El Dorado County General Plan Policies Related to Fire Protection

Policy	Topic	Standard	Does the Project Comply		Comments
			Yes	No	
5.1.2.2	Fire District Response	Rural Center or Region – 15 to 45 Minutes.	X		1
5.7.2.1	Fire Protection	Sufficient emergency water supply, storage and conveyance facilities for fire protection. Adequate access is provided.		X	2, 3
6.2.1	Defensible Space	Tentative maps shall be conditioned to attain and maintain defensible space.		X	4, 5
6.2.2	Limits to Development	Development in areas of high and very high fire hazard areas shall have a WUI Plan.	X		6
6.2.3	Adequate Fire Protection	Development shall meet uniform fire protection standards.	X		7
6.2.4	Area Wide Fire Management	Reduce fire hazards through cooperative fuel management activities.	X		8

1. **Fire District Response:** The nearest staffed fire station to the project location is EDHFD Station No. 91 located in Latrobe. The average response time to the project site from this fire station is approximately 4 minutes or less to 80% of the population in the area.

2. **Emergency Water Supply:** The project area is not currently provided with an adequate means of emergency water supply, storage or conveyance facilities. Prior to new buildings or structures being placed on one or more of these parcels the applicant will need to demonstrate that they can meet the required emergency water supply provisions found in Chapter 5 of the California Fire Code, along with local ordinances and standards of the EDHFD.

3. **Roads and Driveways:** Roads and driveways, whether public or private, serving three or more parcels shall comply with California Code of Regulations (CCR) Title 14 §§ 1273.00 - 1273.09. The project road shall provide for safe access for emergency fire equipment and civilian evacuation concurrently, and must provide unobstructed traffic circulation during a wildfire emergency.

   a. The project is located on a dead-end road greater than 150-feet in length. The road shall be provided with an approved turnaround meeting the requirements of CCR Title 14 § 1273.05 at the road terminus. Coulter Lane shall be widened to provide a minimum of two - ten (10) foot traffic lanes, not including shoulder and striping, to provide access to all seven parcels served by the road.

   b. Coulter Lane is a dead-end road and shall be provided with an approved turnaround meeting the requirements of CCR Title 14 § 1273.05 at the road terminus. Where parcels are zoned five (5) acres or larger, approved turnarounds shall be provided along the road at a maximum of 1320-foot intervals.

   c. Fire apparatus access roads from 20 to 29 feet in width shall be posted on both sides as a fire lane, with no parking on either side of the roadway, as required by Section 503.4.3 of the Fire Code for the EDHFD.

4. **Natural Hazard Disclosure:** The project is located in a Fire Hazard Severity Zone within a CAL FIRE Responsibility Area. The applicant shall provide a Wildfire Hazard Real Estate Disclosure to all future property owners regarding this risk.

5. **Defensible Space:** The project shall submit a Wildfire Urban Interface (WUI) Fire Safe Plan to EDHFD for review and approval as required by California Fire Code Section 4903.1 [as amended by EDHCWD Ordinance 2019-1] prior to the recording of the final map by the County of El Dorado. The plan shall demonstrate that the project complies with the Vegetation Management and Defensible Space requirements of El Dorado County Ordinance No. 5101, California Public Resources Code Section 4291 and local fire safe requirements of EDHFD.

6. **Limits to Development:** The project is not currently identified in an area of high or very-high wildland fire hazard or in an area identified as a wildland-urban interface (WUI) community within the vicinity of federal land that are a high risk of a wildfire.

7. **New Buildings and Structures:** New buildings and structures placed on a parcel shall comply with all applicable fire safety regulations found in California Code of Regulations Titles 14, 19 and 24 and EDHFD ordinances and regulations.

8. **Area Wide Fire Management:** The project is not currently identified in an area of high or very-high wildland fire hazard. No fuel breaks are currently identified in the project area.

We recommend that Comment Nos. 2, 3, 4, and 5 be placed as conditions of approval for the project.

EDHFD reserves the right to update the following comments to comply with all current Codes, Standards, Local Ordinances, and Laws in respect to the official documented time of project application and/or building application to the County. Any omissions and/or errors in respect to this letter, as it relates to the aforementioned codes, regulations and plans, shall not be valid, and does not constitute a waiver to the responsible party of the project from complying as required with all Codes, Standards, Local Ordinances, and Laws.

Please do not hesitate to contact me at (916) 933-6623, Extension 1018, with any questions pertaining to the contact of this review letter.

Sincerely,

Ronald A. Phillips
Interim Fire Marshal/Division Chief