MITIGATED NEGATIVE DECLARATION

FILE: P21-0010

PROJECT NAME Kukharets Parcel Map

NAME OF APPLICANT: Anatoliy Kukharets

ASSESSOR'S PARCEL NO.: 120-150-002 **SECTION:** 02 **T:** 09N **R:** 08E, MDM

LOCATION: The project is located on the west side of El Dorado Hills Drive, approximately 0.83 miles west of the intersection with Serrano Parkway, in the El Dorado Hills area.

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

☐ **REZONING: FROM: TO:**

☒ **TENTATIVE PARCEL MAP** To subdivide a 2.86-acre parcel into four (4) parcels ranging in size from 24,595 SF (Parcel 1), 21,122 SF (Parcel 2), 43,208 SF (Parcel 3), and 35,656 SF (Parcel 4) (Attachment 6). The property is currently developed with an existing primary residence and an accessory dwelling unit (ADU). Access to the existing residences is from a private driveway located off of Park Drive; access to the proposed Parcel 2 would be from a new driveway encroachment located off of Park Drive; and access to proposed Parcels 3 and 4 would be from a new private driveway off of Park Drive, for a total of three (3) driveways from Park Drive, which is a County-maintained roadway. The existing residences shown on Parcel 1 have existing connection for public water/sewer service; proposed Parcels 2, 3, and 4 would need to connect to the existing line from El Dorado Irrigation District for new public water/sewer services. Electric service would be provided by connecting to PG&E. ☐ **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 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 (20) days from the date of filing this mitigated negative declaration will be provided to enable public review of the project specifications and this document prior to action on the project by COUNTY OF EL DORADO. A copy of the project specifications is on file at the County of El Dorado Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Mitigated Negative Declaration was adopted by _____ on _____.

_____
Executive Secretary

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

Project Title: P21-0010/Kukharets Parcel Map

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

Contact Person: Bianca Dinkler, Associate Planner | **Phone Number:** (530) 621-5875

Owner's Name and Address: Anatoliy Kukharets, 3630 Park Drive, El Dorado Hills, CA 95762

Applicant's Name and Address: Anatoliy Kukharets, 3630 Park Drive, El Dorado Hills, CA 95762

Project Engineer's Name and Address: CTA Engineering & Surveying, 3233 Monier Circle, Rancho Cordova, CA 95742

Project Location: The project is located on the west side of El Dorado Hills Boulevard, approximately 0.83 miles west of the intersection with Serrano Parkway in El Dorado Hills.

Assessor's Parcel Number: 120-150-002 **Acres:** 2.86 acres

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

General Plan Designation: High Density Residential (HDR)

Zoning: Single-unit, Residential (R1)

Description of Project: A Tentative Parcel Map to subdivide a 2.86-acre parcel into four (4) parcels ranging in size from 24,595 SF (Parcel 1), 21,122 SF (Parcel 2), 43,208 SF (Parcel 3), and 35,656 SF (Parcel 4) (Attachment 6). The property is currently developed with an existing primary residence and an accessory dwelling unit (ADU). Access to the existing residences is from a private driveway located off of Park Drive; access to the proposed Parcel 2 would be from a new driveway encroachment located off of Park Drive; and access to proposed Parcels 3 and 4 would be from a new private driveway off of Park Drive, for a total of three (3) driveways from Park Drive, which is a County-maintained roadway. The existing residences shown on Parcel 1 have existing connection for public water/sewer service; proposed Parcels 2, 3, and 4 would need to connect to the existing line from El Dorado Irrigation District for new public water/sewer services. Electric service would be provided by connecting to PG&E.

Environmental Setting: The subject parcel is 2.86 acres. The elevation ranges from 680 feet to 731 feet above mean sea level. The site topography has moderate to steep slopes and slopes downwards from the northern property line to the southern property line. The soil types present on-site are Auburn very rocky silt loam, two to 30 percent slopes. A Wetland and Biological Resources Assessment was prepared by Barnett Environmental with the field survey conducted by Dr. Barnett on March 1, 2021 with report dated April 12, 2021 (Attachment 12). Based on the results of this report, water enters the property primarily from rainfall or runoff. Drainage water was directed onto the site sometime on the 1960s via two outfall pipes when the area was first developed for residential use. One culvert enters the site from the northeast corner, the other 140-ft to the south along the eastern property line. Over time, this drainage water has created/sustained distinct riparian woodland (total 0.73 acres) along most of the flowline. Wetlands totaling approximately 0.23-acre of historic drainage runs in a N/S direction for 400-ft, from the culvert on the property's NE corner, through the entire eastern half of the Study Area, before exiting the parcel through the culvert at the SW corner. Another drainage enters the parcel through a culvert on the property's eastern boundary and joins the N/S drainage about halfway along its course. This N/S drainage supports a healthy riparian woodland in the northeastern and southern portion of the property and an open, wet, grassland sump where the eastern drainage joins in the center of the site. The drainage contained flowing water at the time the field survey conducted. Vegetation on the parcel's eastern side supports two healthy stands of oak trees in the northeastern and southern portions of the parcel. There are 54 overstory trees in these stands consisting of 44 interior live oaks and 10 blue oaks. One live oak at the southern end of the parcel could potentially qualify as a heritage tree but is in poor health. The predominant shrub layer under the oaks is Himalayan blackberry. The adjacent parcels are developed with residences to the north and east; an elementary school to the west (Williams Brook Elementary); and a community park to the south (Peter Bertelsen Memorial Park). Further discussion and analysis of these topics are contained within this Initial Study.

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

1. El Dorado County Stormwater, West Slope
2. El Dorado County Surveyor's Office
3. El Dorado County Building Services
4. El Dorado County Air Quality Management District
5. El Dorado County Department of Transportation
6. El Dorado Hills Fire Protection District
7. El Dorado Irrigation District
8. PG&E
9. State of California Fish & Wildlife

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, seven Tribes were notified of the proposed project: Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, Tsi Akim Maidu, United Auburn Indian Community (UAIC), and Washoe Tribe of California and Nevada had requested to be notified of proposed projects for consultation in the project area. Further discussion is included in the Cultural Resources and Tribal Cultural Resources sections of this Initial Study.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

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

Signature: Bianca Dinkler Date: 8/2/22

Printed Name: Bianca Dinkler, Associate Planner For: El Dorado County

Signature: [signature] Date: 8/2/22

Printed Name: Gina Hamilton, Current Planning Manager For: El Dorado County

PROJECT DESCRIPTION

Introduction
This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts resulting from the proposed project.

Throughout this Initial Study, please reference the following Attachments:

Project Specific Plans:

Attachment 1: Location Map
Attachment 2: Aerial Photo
Attachment 3: Assessors Parcel Page
Attachment 4: General Plan Land Use Map
Attachment 5: Zoning Map
Attachment 6: Tentative Parcel Map
Attachment 7: Preliminary Grading & Drainage Plan
Attachment 8: Preliminary Sewer and Water Plan
Attachment 9: Slope Map
Attachment 10: Tree Preservation Plan
Attachment 11: Aerial Overlay Map

Project Specialty Reports:

Attachment 12: Wetland and Biological Resources Assessment with Soil Resource Report
Attachment 13: Arborist Report
Attachment 14: Preliminary Drainage Memo

Project Description: A Tentative Parcel Map to subdivide a 2.86-acre parcel into four (4) parcels ranging in size from 24,595 SF (Parcel 1), 21,122 SF (Parcel 2), 43,208 SF (Parcel 3), and 35,656 SF (Parcel 4) (Attachment 6). The property is currently developed with an existing primary residence and an accessory dwelling unit (ADU). Access to the existing residences is from a private driveway located off of Park Drive; access to the proposed Parcel 2 would be from a new driveway encroachment located off of Park Drive; and access to proposed Parcels 3 and 4 would be from a new private driveway off of Park Drive, for a total of three (3) driveways from Park Drive, which is a County-maintained roadway. The existing residences shown on Parcel 1 have an existing connection for public water/sewer services; proposed Parcels 2, 3, and 4 would need to connect to the existing line from El Dorado Irrigation District for new public water/sewer services. Electric service would be provided by connecting to PG&E.

Site Description: The subject property is 2.86 acres. subject parcel is 2.86 acres. The elevation ranges from 680 feet to 731 feet above mean sea level. The site topography has moderate to steep slopes and slopes downwards from the northern property line to the southern property line. The soil types present on-site are Auburn very rocky silt loam, two to 30 percent slopes. A Wetland and Biological Resources Assessment was prepared by Barnett Environmental with the field survey conducted by Dr. Barnett on March 1, 2021 with report dated April 12, 2021 (Attachment 12). Based on the results of this report, water enters the property primarily from rainfall or runoff. Drainage water was directed onto the site sometime on the 1960s via two outfall pipes when the area was first developed for residential use. One culvert enters the site from the northeast corner, the other 140-ft to the south along the eastern property line. Over time, this drainage water has created/sustained distinct riparian woodland (total 0.73 acres) along most of the flowline. Wetlands totaling approximately 0.23-acre of historic drainage runs in a N/S direction for 400-ft, from the culvert on the property's NE corner, through the entire eastern half of the Study Area, before exiting the parcel through the culvert at the SW corner. Another drainage enters the parcel through a culvert on the property's eastern boundary and joins the N/S drainage about halfway along its course. This N/S drainage supports a healthy riparian woodland in the northeastern and southern portion of the property and an open, wet, grassland sump where the eastern drainage joins in the center of the site. The drainage contained flowing water at the time the field survey conducted. Vegetation on the parcel's eastern side supports two healthy stands of oak trees in the northeastern and southern portions of the parcel. There are 54 overstory trees in these stands consisting of 44 interior live oaks and 10

blue oaks. One live oak at the southern end of the parcel could potentially qualify as a heritage tree but is in poor health. The predominant shrub layer under the oaks is Himalayan blackberry.

Project Location and Surrounding Uses:

The project site is 2.86 acres and located in the El Dorado Hills Community Region. The adjacent-neighboring parcels are developed with single-unit residences to the north and east; an elementary school to the west (Williams Brook Elementary); and a community park to the south (Peter Bertelsen Memorial Park).

Project Characteristics

1. Transportation/Circulation/Parking

The project was reviewed by the County Department of Transportation (DOT) who provided project-specific and standard conditions. **On-site access improvements**: construct the on-site access driveway as shown on the proposed tentative map, and as required by the Fire District. **Access easement**: since this project is within the El Dorado Hills Community Region, and the lots are less than one acre, pave the access driveway with a minimum 2 inches of Asphalt Concrete or Hot Mix Asphalt. Record the access easement shown on the Tentative Map on the Final Map, to the benefit of Lots 3 and 4. This access easement should include Public Utility Easement rights to Lots 3 and 4 as required by the various Utility Companies. **Encroachment permit**: obtain an encroachment permit from DOT and construct the roadway encroachment from the project access roadway onto Park Drive to the provisions of County Standard Plan 103C. Additional standard conditions of approval would also be included. Further, the El Dorado Hills Fire Protection District reviewed the project and provided comments which have been incorporated as conditions of approval that would apply to future residential development and reviewed at time of grading and building permit submittal specifically for the following areas: **Emergency water supply**: The project area 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. An approved fire hydrant capable of meeting a fire flow requirement of 1,000 gallons per minute or more at 20 PSI residual pressure shall be provided within 250-feet of Parcels 3 and 4 along the private road. **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 §§ 1270.00 - 1276.04 and the El Dorado Hills Fire Code (EDHFC). 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. To meet this standard the project must perform the following: (a) Parcels 2-4 shall be served by a two-way private road that provides a minimum of two ten (10) foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress. Road curb radii and clearances shall meet the requirements of the EDHFC. Traffic calming measures along the private road are prohibited unless approved by the EDHFC; (b.) The private road shall be identified as a fire lane in accordance with the California Fire Code and shall be properly marked to restrict parking along the length of it at all times in accordance with the requirements of the EDHFC; (c.) The private road shall be named in accordance with the requirements identified by the County of El Dorado Surveyors Office. An approved street sign shall be placed at the entrance onto the private road from Park Drive; (d.) All parcels shall be provided with an approved address number as issued by the County Surveyors Office. An approved street address sign shall be installed on the residence or at an approved location along the private road as required by the EDHFC; and (e.) All essential private road improvements shall be complete and meet all of the requirements of the EDHFC, or bonded in accordance with County of El Dorado DOT requirements, prior to approval of the final map for the project. **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. **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, 24 and EDHFD ordinances and regulations. All parcels shall provide a minimum thirty (30) foot setback for all buildings from all property lines and/or the center of a road in accordance with California Code of Regulations Title 14 - Section 1276 (Setback for Structure Defensible Space).

2. Utilities and Infrastructure

The El Dorado Irrigation District (EID) reviewed the project and provided comments. **Water facilities**: A 10-inch water line exists in Park Drive. The Fire Department determined that the minimum fire flow for this project would be 1,000 gallons per minute (gpm) for one hour duration while maintaining 20-psi minimum residual pressure. According to the Fire Departments hydraulic model, the project meets the required fire flow. The existing system can deliver the required fire flow. Construction of a water line extension connecting to the 10-inch waterline would be required to provide the fire flow and to receive service. **Sewer facilities**: There are 6-inch sewer lines located near the western, eastern, and southern boundaries. These sewer lines have adequate capacity to serve the project. It does not appear likely that a sewer line extension is required to service the project; however, the location and number of new sewer services required would need to be reviewed once improvement plans are submitted. As of date, the proposed project would require 3 additional EDUs of sewer service. **Utilities/electric services**: Electric service for the proposed parcels would be provided by connecting to Pacific Gas & Electric (PG&E).

3. Construction Considerations

The proposed parcels would maintain the current zoning designation of single-unit residential (R1), which allows for single-unit residential development. The minimum parcel size allowed in R1 is 6,000-square feet. Any future construction activities, such as new/additional residential units and/or accessory structures, would be completed in conformance with applicable agency requirements, and subject to grading and building permits 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:** 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. Any new structures would require permits for construction and would comply with the General Plan and the Zoning Ordinance. 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. There would be no impact.

c. **Visual Character:** Each resulting parcel would have the capability for single-family residential development. The property is currently developed with an existing primary residence and an accessory dwelling unit (ADU). Each new parcel would be allowed to develop residential structures, including a primary residence and accessory dwelling unit (ADU), and accessory structures. The project site is adjacent to other residences, an elementary school, and community park. The proposed project would not affect the visual character of the surrounding area. Impacts would be less than significant.

d. **Light and Glare:** The proposed project does not include any substantial new light sources; however, the project would allow for residential development on each of the new parcels in the future which could produce minimal new light and glare. 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; 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 property is zoned Single-unit residential (R1). The project site is not designated as Farmland of Local Importance that would require a monitoring program. The proposed tentative parcel map to create four residential parcels would not negatively impact farmland. There would be no impact.

b. **Agricultural Uses:** The property is not located within a Williamson Act Contract, nor adjacent to land under a Williamson Act Contract. There would be no impact to agricultural uses.

c.-d. **Loss of Forest Land or Conversion of Forest Land:** The site is not designated as Timberland Preserve Zone (TPZ) or other forest land according to the General Plan and Zoning Ordinance. There would be no impact to forest lands.

e. **Conversion of Prime Farmland or Forest Land:** The project would not convert prime farmland or forest land to non-agriculture use. There would be no impact.

FINDING: For this Agriculture category, there would be no impacts.

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:** The El Dorado County Air Quality Management District (EDCAQMD) has adopted Rules and Regulations 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 grading and construction would require a Fugitive Dust Mitigation Plan (FDMP). The FDMP 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 impact would be less than significant.

b.-c. **Air Quality Standards and Cumulative Impacts:** No construction is proposed as part of the project. There is the potential for future development on the parcels for construction of 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 contributions would not result in exceedance of any air quality standards or a cumulatively considerable net increase of any criteria pollutant. 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 (EDCAQMD) reviewed the project and provided standard conditions of approval that will be incorporated into the project. The impact 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. Although the proposed Parcel Map project is adjacent to an existing elementary school, no sources of substantial pollutant concentrations would be emitted by any future 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 for a Tentative Parcel Map would not be a source of objectionable odors. The impact would be less than significant.

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

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

Regulatory Setting:

Federal Laws, Regulations, and Policies

Endangered Species Act

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

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

threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit.

Migratory Bird Treaty Act

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

Bald and Golden Eagle Protection Act

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

Clean Water Act

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

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

State Laws, Regulations, and Policies

California Fish and Game Code

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

CESA (California Fish and Game Code Section 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered or

threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

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

Streambed Alteration Agreement

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

California Native Plant Protection Act

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

Forest Practice Act

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

Local Laws, Regulations, and Policies

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

- Increased minimum parcel size;
- Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;
- Lower thresholds for grading permits;
- Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;
- Increased riparian corridor and wetland setbacks;
- Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Wildlife);
- Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;

- Building permits discretionary or some other type of "site review" to ensure that canopy is retained;
- More stringent standards for lot coverage, floor area ratio (FAR), and building height; and
- No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).

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

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

a. **Special Status Species:** The project site is 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 Wetland and Biological Resources Assessment was prepared by Barnett Environmental with the field survey conducted by Dr. Barnett on March 1, 2021 with report dated April 12, 2021. Based on the results, there are six (6) special-status plant species that have the potential to occur on site: El Dorado County mule ears, El Dorado bedstraw, Layne's ragwort, Stebbins' morning glory, Sanford's Arrowhead, and Red hills soaproot. As for special-status wildlife, the oak groves on site provide food and shelter for wildlife, including tree frogs, gopher snakes, acorn woodpeckers, oak titmice, white-breasted nuthatches, California quail, and western gray squirrels. Wildlife species observed during field review included western fence lizard, black-tailed jackrabbit, mockingbird, scrub jay, house finch, white-crowned sparrow, American goldfinch, dark-eyed junco, chipping sparrow, spotted towhee, and mourning dove. The following mitigation measures are required:

MM BIO-1 Special Status Species - Plants and Wildlife Protection, Preconstruction Survey:

When future residential development is proposed, the following mitigation measures shall be implemented to avoid impacts to special status species:

a) A qualified biologist shall conduct a preconstruction survey for the possible presence of special status species plants and wildlife identified in the Biological Resources Assessment. If any of these special status species are found within the construction work area, the biologist shall contact California Department Fish & Wildlife as appropriate;

b) Install temporary fencing between the work area and environmentally sensitive habitat. The fencing shall be checked regularly and maintained until all construction is complete. No construction activity shall be allowed until the fencing is installed; and

c) All temporarily disturbed areas shall be stabilized upon completion of construction. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

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 Special Status Species - Rare Plants Protection, Preconstruction Survey:

If future residential development is proposed, a qualified biologist shall conduct a pre-construction survey within 14-days prior to clearing or grading operations to look for potential presence of rare plant species, particularly these six (6) species: El Dorado County mule ears, El Dorado bedstraw, Layne's ragwort, Stebbins' morning glory, Sanford's Arrowhead, and Red hills soaproot. 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. **Riparian Habitat and Wetlands:** Based on the Wetland and Biological Resources Assessment prepared by Barnett Environmental, the Study Area contains 0.23 acres of what could be considered Waters of the U.S. and/or Waters of the State. Any activity causing direct adverse impacts to the draining running through the eastern side of this parcel could require resource permits from the Army Corps of Engineers, the Regional Water Quality Control Board (401;WDR), and/or the California Department of Fish & Wildlife (1602). Further, Zoning Ordinance Section 130.30.050 - Setback Requirements and Exceptions would require a minimum setback distance of 25 feet from any intermittent stream, wetland, or sensitive riparian habitat, which would apply to any future residential development. These setbacks shall be required as a condition of approval and recorded on the final parcel map. Therefore, the impacts would be less than significant.

c. **Federally Protected Wetlands:** Based on the Wetland and Biological Resources Assessment prepared by Barnett Environmental, the Study Area contains 0.23 acres of what could be considered Waters of the U.S. and/or Waters of the State. Any activity causing direct adverse impacts to the draining running through the eastern side of this parcel could require resource permits from the Army Corps of Engineers, the Regional Water Quality Control Board (401;WDR), and/or the California Department of Fish & Wildlife (1602). Further, Zoning Ordinance Section 130.30.050 - Setback Requirements and Exceptions would require a minimum setback distance of 25 feet from any intermittent stream, wetland, or sensitive riparian habitat, which would apply to any future residential development. These setbacks shall be required as a condition of approval and recorded on the final parcel map. Therefore, the impacts would be less than significant.

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

e. **Local Policies:** Local protection of biological resources includes the Important Biological Corridor (IBC) overlay, 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. Any future tree removal of oak woodlands, individual native oak trees, or heritage trees, as defined in Section 130.39.030, 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 grading and building permit submittal.

Based on the conclusion of the Arborist Report prepared by California Tree and Landscape Consulting, Inc. dated October 12, 2021 based on a field review conducted on March 26, 2021 (Attachment 13), there are a combination of 0.73 acres of riparian oak woodland and five (5) individual oak trees. There is no oak woodland impacted by the proposed project. One individual oak tree (tree #9136), diameter 13 inches, is proposed for removal. The other 53 trees are proposed to be retained and protected. There would be a required planting of 13-inches of native oak trees or an in-lieu fee mitigation payment of $1,989.00 (may be recalculated to current in-lieu rate). No Heritage trees requiring mitigation would be impacted by the proposed development.

The property is not located in the El Dorado County Important Biological Corridors (IBC) and not in an Ecological Preserve (EP) overlay area. Future development would be required to comply with all applicable County ordinances and policies regarding oak woodland conservation, payment of rare plant mitigation fee as applicable, and mitigated to require a pre-construction survey (Mitigation Measures BIO-1 and BIO-2) to detect and protect if any special status species plants or wildlife exist at the building site. Any future development would also need to adhere to the County's setbacks from any intermittent stream or wetlands. With implementation of the mitigation measures and development standards, the impacts would be less than significant.

f. **Adopted Plans**: The project site may support habitat for special status species plant and wildlife however no species were identified during the site survey. With the incorporation of the recommended mitigation measures to require a preconstruction survey (Mitigation Measures BIO-1 and BIO-2) and payment of the in-lieu fee for oak tree removal (tree #9136), would reduce potential impacts from future development. Further, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan. The impacts would be less than significant.

Finding: With the implementation of Mitigation Measures BIO-1, BIO-2, and payment of the in-lieu fees, potential impacts to biological resources from 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:

A. Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
B. Are associated with the lives of persons important in our past;
C. 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
D. Have yielded, or may be likely to yield, information important in prehistory or history.

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

The California Register of Historic Places

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

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

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

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

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

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

CEQA and CEQA Guidelines

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

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

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

Section 15064.5 of the CEQA Guidelines notes that "a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Substantial adverse changes include physical changes to the historic resource or to its immediate surroundings, such that the significance of the historic resource would be materially impaired. Lead agencies are

expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historic resource before they approve such projects. Historic resources are those that are:

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

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

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

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

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

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

a.-d. **Historic, Archeological Resources, Human Remains.** A Cultural Resource Study was prepared for the project by Historic Resource Associates with the field survey conducted on February 6, 2021 and report dated February 9, 2021. Following a review of the project area, no significant prehistoric archaeological or historical archaeological sites, features, or artifacts were identified, nor were any historic buildings, structures, or objects discovered, therefore no further archaeological work was recommended. 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. Further, the project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which requires Native American outreach. Pursuant to AB52, the County solicited input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community. At the time of the initial review consultation, seven tribes were notified of the proposed project: Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, Tsi Akim Maidu, United Auburn Indian Community (UAIC), and Washoe Tribe of California and Nevada. The Shingle Springs Band of Miwok Indians responded within 30 days to initiate

consultation. Staff provided the tribe with the cultural resources study for their review. No comments were received from the tribe. Staff confirmed conclusion of consultation via email on August 1, 2022. Standard protective conditions of approval will be incorporated with the project. The 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:				
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, the impacts would be less than significant.

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. The impacts would be less than significant.

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

iv) All grading activities onsite would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. The impacts would be less than significant.

b. **Soil Erosion:** A Preliminary Drainage Memo was included with the application (Attachment 14). There could be the potential for erosion, or changes in topography during future construction however concerns would be addressed during the grading permit process. Development activities would need to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance, including the implementation of pre- and post-construction Best Management Practices (BMPs). Implemented BMPs are required to be consistent with the County's California Stormwater Pollution Prevention Plan (SWPPP) issued by the State

Water Resources Control Board to eliminate run-off and erosion and sediment controls. Any grading activities exceeding 250 cubic yards of graded material or grading completed for the purpose of supporting a structure must meet the provisions contained in the County of El Dorado Grading, Erosion, and Sediment Control Ordinance. Any future construction would require similar review for compliance with the County SWPPP. If construction would 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. The existing residential development on Parcel 1 and future residential development on the new lots would be located at sufficient distances away from any natural water features. Future development would need to adhere to the County's setback distance of 25-feet from any intermittent stream or wetland including primary dwellings, accessory dwelling units, and/or accessory structures. Therefore, the potential impacts related to soil erosion from future development would be considered 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. The impacts would be less than significant.

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. The impacts would be less than significant.

e. **Septic Capability:** The El Dorado County Environmental Management Department reviewed the project and provided comments. The existing residence on Parcel 1 and future residential development on the proposed parcels would be served by connection to public water and sewer service. Therefore there would be no impact to septic capability.

FINDING: 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 Uniform Building Code (UBC) which would address any potential seismic related impacts. The impacts are therefore 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**	

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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 parcels from a 2.86-acre parcel. The resultant parcel sizes would be 24,595 SF (Parcel 1), 21,122 SF (Parcel 2), 43,208 SF (Parcel 3), and 35,656 SF (Parcel 4). There is an existing residence and accessory dwelling unit (ADU) on Parcel 1. Each resulting parcel would be allowed to have a primary residence and accessory dwelling unit by right, for a total of eight residences possible. 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 ADU possible), the proposed project's GHG emissions would have a negligible cumulative contribution towards statewide and global GHG emissions. The proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. According to the SLOAPCD Screening Table, the GHG emissions from this project are estimated at less than 1,150 metric tons/year. Cumulative GHG emissions impacts are considered to be less than significant. Therefore, the proposed project would have a less than significant impact.

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

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the				**X**

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
project area?				
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. 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 El Dorado Hills Fire Protection District reviewed the project and provided comments which will be incorporated as conditions of approval. Further, the County Department of Transportation reviewed the project and provided comments which will be incorporated as conditions of approval. The Traffic Impact Study (TIS) - Initial Determination was waived and no further transportation studies were required. With the incorporation of the conditions of approval, the proposed project would not impair implementation of any emergency response plan or emergency evacuation plan. The impacts would be less than significant.

h. **Wildfire Hazards:** The project site is not in an area of high fire hazard for wildland pursuant to Figure HS-1 of the Fire Hazard rating in the El Dorado County General Plan (2015). Further, the El Dorado Hills Fire Protection District reviewed the project and provided comments which will be incorporated into the project as conditions of approval. The conditions of approval would ensure compliance with applicable Fire Safe Regulations. Impacts would be less than significant.

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

IX. HYDROLOGY AND WATER QUALITY. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			**X**	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			**X**	

IX. HYDROLOGY AND WATER QUALITY. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or -off-site?			**X**	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			**X**	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			**X**	
f. Otherwise substantially degrade water quality?			**X**	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			**X**	
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			**X**	
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			**X**	
j. Inundation by seiche, tsunami, or mudflow?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

Clean Water Act

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

Section 303(d) — Listing of Impaired Water Bodies

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

Section 402—NPDES Permits for Stormwater Discharge

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

The NPDES program provides for both general (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits. General Permit for Construction Activities: Most construction projects that disturb 1.0 or more acre of land are required to obtain coverage under SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). The general permit requires that the applicant file a public notice of intent to discharge stormwater and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). SWPPP must include a site map and a description of the proposed construction activities, demonstrate compliance with relevant local ordinances and regulations, and present a list of Best Management Practices (BMPs) that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Permittees are further required to monitor construction activities and report compliance to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

Municipal Stormwater Permitting Program

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

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

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

National Flood Insurance Program

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

elevation or to elevate above the 100-year flood elevation. The regulations also apply to substantial improvements of existing structures.

State Laws, Regulations, and Policies

Porter–Cologne Water Quality Control Act

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

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter–Cologne Act, basin plans must be updated every 3 years.

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

- Expose residents to flood hazards by being located within the 100-year floodplain as defined by the Federal Emergency Management Agency;
- Cause substantial change in the rate and amount of surface runoff leaving the project site ultimately causing a substantial change in the amount of water in a stream, river or other waterway;
- Substantially interfere with groundwater recharge;
- Cause degradation of water quality (temperature, dissolved oxygen, turbidity and/or other typical stormwater pollutants) in the project area; or
- Cause degradation of groundwater quality in the vicinity of the project site.

a. **Water Quality Standards:** Some waste discharge may occur as part of the 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 comply with County Ordinances and standards regarding waste discharge therefore the project would not be expected 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. The project is not anticipated to affect potential groundwater supplies above pre-project levels. Water for the project would be provided by public water connection to the El Dorado Irrigation District (EID). Impacts to groundwater supplies 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. Preliminary Grading and Drainage Plans are included with the project. With the implementation of standard requirements, impacts on drainage patterns 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. The impacts would be less than significant.

FINDING: The project would be required to address any potential changes to the drainage pattern on site during the grading and building permit review process for future residential development of primary residences, ADUs, and/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 within the El Dorado Hills Community Region. The project parcel is surrounded by similar 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. Impacts would be less than significant.

b. **Land Use Consistency:** The subject parcel has a General Plan land use designation of High Density Residential (HDR), and in the single-unit residential (R1) Zone District. The purpose of the HDR designation identifies those areas suitable for intensive single-family residential development at densities from one to five dwelling units per acre. Allowable residential structure types include single-family attached (i.e., air-space condominiums, townhouses) and detached dwellings and manufactured homes. Except as provided in Policy 2.2.2.3, this designation is considered appropriate only within Community Regions and Rural Centers. The R1 Zone District has a 6,000 sq. ft. minimum parcel size. Parcel sizes for the proposed tentative parcel map would range from 24,595 SF (Parcel 1), 21,122 SF (Parcel 2), 43,208 SF (Parcel 3), and 35,656 SF (Parcel 4). Therefore, the proposed tentative parcel map project is compatible with both the General Plan land use designation and Zone District. Impacts would be less than significant.

c. **Habitat Conservation Plan:** The project site is not within the boundaries of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or any other conservation plan. As such, the proposed project would not conflict with an adopted conservation plan. Impacts would be less than significant.

FINDING: The proposed use of the land would be consistent with uses allowed in the El Dorado Hills Community Region, with the General Plan, and with the Zoning Ordinance. The impacts associated with the Land Use Planning section would therefore be considered 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 tentative parcel map project would not expose people to noise levels in excess of standards established in the General Plan or Zoning Ordinance. Future construction may require the use of trucks and other equipment, which may result in short-term noise impacts to surrounding neighbors. These activities would require grading and building permits and would be restricted to construction hours pursuant to the General Plan. There could be additional noise associated with potential future residential development. However, the project is not expected to generate noise levels exceeding the performance standards contained within the Zoning Ordinance. The noise associated with the project would be less than significant.

b. **Groundborne Shaking:** The site is currently developed with a primary residence and accessory dwelling unit (ADU) on Parcel 1. Future residential development is anticipated for Parcels 2, 3, and 4. Future construction may generate short-term ground borne vibration or shaking events during project construction; however, this would be temporary. Impacts would be considered less than significant.

c. **Permanent Noise Increases:** The long term noise associated with residential uses 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 site is currently developed with a primary residence and accessory dwelling unit (ADU) on Parcel 1. Future residential development is anticipated for Parcels 2, 3, and 4. Each of which would be allowed a primary residence and an accessory dwelling unit (ADU) by right, for a total of eight (8) residences (four primary dwellings/four accessory dwelling units). This potential additional housing and population would not be considered a significant population growth. Impacts would be less than significant.

b. **Housing Displacement:** The proposed tentative parcel map project would result in the creation of four (4) parcels, each of which would be allowed a primary residence and an accessory dwelling unit by right. No existing housing would be displaced as a result of the project. The impacts would be less than significant.

c. **Replacement Housing:** The proposed project could provide up to a total of eight (8) residences possible (four primary dwellings/four accessory dwelling units). No persons would be displaced by the proposed project necessitating for the construction of housing elsewhere. The impacts would be less than significant.

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 Protection District reviewed the project and provided comments which are incorporated as conditions of approval. The project must adhere to these applicable requirements for emergency vehicle access including roadway widths and turning radii, fire flow and sprinkler requirements, and vehicle ingress/egress. Compliance with these requirements will assure adequate emergency access and evacuation routes. If any additional dwelling units are proposed in the future the Fire District would review the grading and building permit application and include any fire protection measures at that time. Impacts would be less than significant.

b. **Police Protection:** Police services would 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, new residential dwelling units could be constructed in the future which could add a small number of additional students; however, payment of school impact fees would be required at time of future grading and building permit issuance. The impact would be less than significant.

d. **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 through120.12.110, as a condition of approval for any parcel map which creates parcels less than 20 acres in size. With the payment of park in-lieu fees, impacts would be less than significant.

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

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

XV. RECREATION.				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			**X**	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Regulatory Setting:

National Trails System

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

The National Trails System includes four classes of trails:

1. National Scenic Trails (NST) provide outdoor recreation and the conservation and enjoyment of significant scenic, historic, natural, or cultural qualities. The Pacific Coast Trail falls under this category. The PCT passes through the Desolation Wilderness area along the western plan area boundary.

2. National Historic Trails (NHT) follow travel routes of national historic significance. The National Park Service has designated two National Historic Trail (NHT) alignments that pass through El Dorado County, the California National Historic Trail and the Pony Express National Historic Trail. The California Historic Trail is a route of approximately 5,700 miles including multiple routes and cutoffs, extending from Independence and Saint Joseph, Missouri, and Council Bluffs, Iowa, to various points in California and Oregon. The Pony Express NHT commemorates the route used to relay mail via horseback from Missouri to California before the advent of the telegraph.

3. National Recreation Trails (NRT) are in, or reasonably accessible to, urban areas on federal, state, or private lands. In El Dorado County there are 5 NRTs.

State Laws, Regulations, and Policies

The California Parklands Act

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

The California state legislature approved the California Recreational Trail Act of 1974 (Public Resources Code Section 2070-5077.8) requiring that the Department of Parks and Recreation prepare a comprehensive plan for California trails. The California Recreational Trails Plan is produced for all California agencies and recreation providers that manage trails. The Plan includes information on the benefits of trails, how to acquire funding, effective stewardship, and how to encourage cooperation among different trail users.

The 1975 Quimby Act (California Government Code Section 66477) requires residential subdivision developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act gave authority for passage of land dedication ordinances to cities and counties for parkland dedication or in-lieu fees paid to the local jurisdiction. Quimby exactions must be roughly proportional and closely tied (nexus) to a project's impacts as identified through traffic studies required by CEQA. The exactions only apply to the acquisition of new parkland; they do not apply to the physical development of new park facilities or associated operations and maintenance costs.

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

Local Laws, Regulations, and Policies

The 2004 El Dorado County General Plan Parks and Recreation Element establishes goals and policies that address needs for the provision and maintenance of parks and recreation facilities in the county, with a focus on providing recreational opportunities and facilities on a regional scale, securing adequate funding sources, and increasing tourism and recreation-based businesses. The Recreation Element describes the need for 1.5 acres of regional parkland, 1.5 acres of community parkland, and 2 acres of neighborhood parkland per 1,000 residents. Another 95 acres of park land are needed to meet the General Plan guidelines.

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

- Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or
- Substantially increase the use of neighborhood or regional parks in the area such that substantial physical deterioration of the facility would occur.

a. **Parks.** 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 may be required pursuant to the provisions of Sections 120.12.090 through120.12.110 as a condition of approval. The impacts would be less than significant.

b. **Recreational Facilities.** The proposed project does not include additional recreational facilities or require the construction or expansion of recreational facilities. There would be no impact.

FINDING: No significant impacts to parks or recreational facilities would result from the proposed project. The proposed project would not result in the need for the construction or expansion of new parks or recreational facilities. 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.

On October 6, 2020 El Dorado County Board of Supervisors adopted Resolution 141-2020 setting thresholds of significance for VMT resulting from proposed development projects. The VMT threshold for a residential tentative parcel map is 15% below the baseline County-wide VMT.

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:** The project would not worsen traffic as defined in General Plan Policy TC-Xe as the total potential new development would be limited to a maximum of eight (8) residences possible (four primary dwellings/four accessory dwelling units). Trip generation for the project using the 11th Edition of the ITE Trip Generation Manual resulted in 75 trips daily, 6 trips during the AM peak hour, and 8 trips during the PM peak hour. Access would be from Park Drive, a County-maintained roadway. Construction of the proposed project would not necessitate construction of road improvements to meet or maintain General Plan policy level of service standards. Impacts would be less than significant.

b. **Vehicle Miles Travelled (VMT):** Per Resolution 141-2020, there is a presumption of less than significant impacts for projects that generate or attract less than 100 trips per day. The proposed project would create four (4) parcels. Construction activities associated with the project would temporarily generate additional vehicle traffic in the project area but would not be expected to exceed 100 trips per day during the construction period. Once construction has been completed, long-term traffic is anticipated to increase by 75 trips daily. Therefore, in accordance with Resolution 141-2020 and OPR's direction regarding determining transportation impacts for land use projects, this impact is presumed to 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 standard comments which would be incorporated as conditions of approval. The impact for design hazards would be less than significant.

d. **Emergency Access:** The project site is currently developed with a primary residence and accessory dwelling unit which utilizes an existing driveway from Park Drive, which is a County-maintained roadway. Driveway improvements for access to the newly proposed parcels would be required as shown on the proposed tentative parcel map (Attachment 6). Future development would require a grading permit and would be required to be compliant with fire and building code emergency access requirements. Further, the El Dorado Hills Fire Protection District reviewed the project and provided comments which have been incorporated as conditions of approval. The Fire District would also review the improvement plans at time of grading and building permit submittal to ensure compliance with all safety protocols. 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:

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

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies

mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

Discussion:

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

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

a,-b. **Tribal Cultural Resources:** A Cultural Resource Study was prepared for the project by Historic Resource Associates with the field survey conducted on February 6, 2021 and report dated February 9, 2021. Following a review of the project area, no significant prehistoric archaeological or historical archaeological sites, features, or artifacts were identified, nor were any historic buildings, structures, or objects discovered, therefore no further archaeological work was recommended. 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. Further, the project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which requires Native American outreach. Pursuant to AB52, the County solicited input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community. At the time of the initial review consultation, seven tribes were notified of the proposed project: Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, Tsi Akim Maidu, United Auburn Indian Community (UAIC), and Washoe Tribe of California and Nevada. The Shingle Springs Band of Miwok Indians responded within 30 days to initiate consultation. Staff provided the tribe with the cultural resources study for their review. No comments were received from the tribe. Staff confirmed conclusion of consultation via email on August 1, 2022. Standard protective conditions of approval will be incorporated with the project. The 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.

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 WaterSense labeled (USGBC, 2014). Outdoor water use reduction may be achieved by showing that the landscape does not require a permanent irrigation system beyond a maximum 2.0-year establishment period, or by reducing the project's landscape water requirement by at least 30% from the calculated baseline for the site's peak watering month (USGBC, 2014). C&D waste management points may be obtained by diverting at least 50% of C&D material and three material streams, or generating less than 2.5 pounds of construction waste per square foot of the building's floor area (USGBC, 2014).

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

- Breach published national, state, or local standards relating to solid waste or litter control;
- Substantially increase the demand for potable water in excess of available supplies or distribution capacity without also including provisions to adequately accommodate the increased demand, or is unable to provide an adequate on-site water supply, including treatment, storage and distribution;

- Substantially increase the demand for the public collection, treatment, and disposal of wastewater without also including provisions to adequately accommodate the increased demand, or is unable to provide for adequate on-site wastewater system; or
- Result in demand for expansion of power or telecommunications service facilities without also including provisions to adequately accommodate the increased or expanded demand.

a. **Wastewater Requirements**: The project would require connecting to public sewer. The El Dorado Irrigation District (EID) reviewed the project and confirmed service is available. Easements for any new EID facilities constructed by the project must be granted to EID prior to approval of water and sewer improvements, whether onsite or offsite. The El Dorado Irrigation District (EID) reviewed the project and provided comments. There are 6-inch sewer lines located near the western, eastern, and southern boundaries. These sewer lines have adequate capacity to serve the project. It does not appear likely that a sewer line extension is required to service the project; however, the location and number of new sewer services required would need to be reviewed once improvement plans are submitted. The proposed project would require 3 additional EDUs of sewer service. 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 would connect to public sewer and water service and utilities/electric services from Pacific Gas & Electric (PG&E). The impact would be less than significant.

c. **New Stormwater Facilities:** Any stormwater drainage facilities needed for any future construction would be built in conformance with the County of El Dorado Drainage Manual and would be reviewed during the grading and building permit processes. The impact would be less than significant.

d. **Sufficient Water Supply:** The project would be served by public water infrastructure. The El Dorado Irrigation District (EID) reviewed the project and provided comments. A 10-inch water line exists in Park Drive. The Fire Department determined that the minimum fire flow for this project would be 1,000 gallons per minute (gpm) for one hour duration while maintaining 20-psi minimum residual pressure. According to the Fire Departments hydraulic model, the project meets the required fire flow. The existing system can deliver the required fire flow. Construction of a water line extension connecting to the 10-inch waterline would be required to provide the fire flow and to receive service. Impacts would be less than significant.

e. **Adequate Wastewater Capacity:** The project would be served by connection to public sewer. The El Dorado Irrigation District (EID) reviewed the project and provided comments. There are 6-inch sewer lines located near the western, eastern, and southern boundaries. These sewer lines have adequate capacity to serve the project. It does not appear likely that a sewer line extension is required to service the project; however, the location and number of new sewer services required would need to be reviewed once improvement plans are submitted. The proposed project would require 3 additional EDUs of sewer service. 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 and/or with the grading and 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 proposed project and site-specific environmental conditions, which have been disclosed in the Project Description and analyzed in Items I through XVIII, show there would be no significant impacts anticipated related to aesthetics, agriculture/forest resources, air quality, 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, traffic/transportation, tribal cultural resources, or utilities/service systems that would combine with similar effects such that the project's contribution would be cumulatively considerable. For all categories (except biological resources which have incorporated mitigation measures MM BIO-01 and MM BIO-02), a determination of either less than significant impacts or no 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 of approval 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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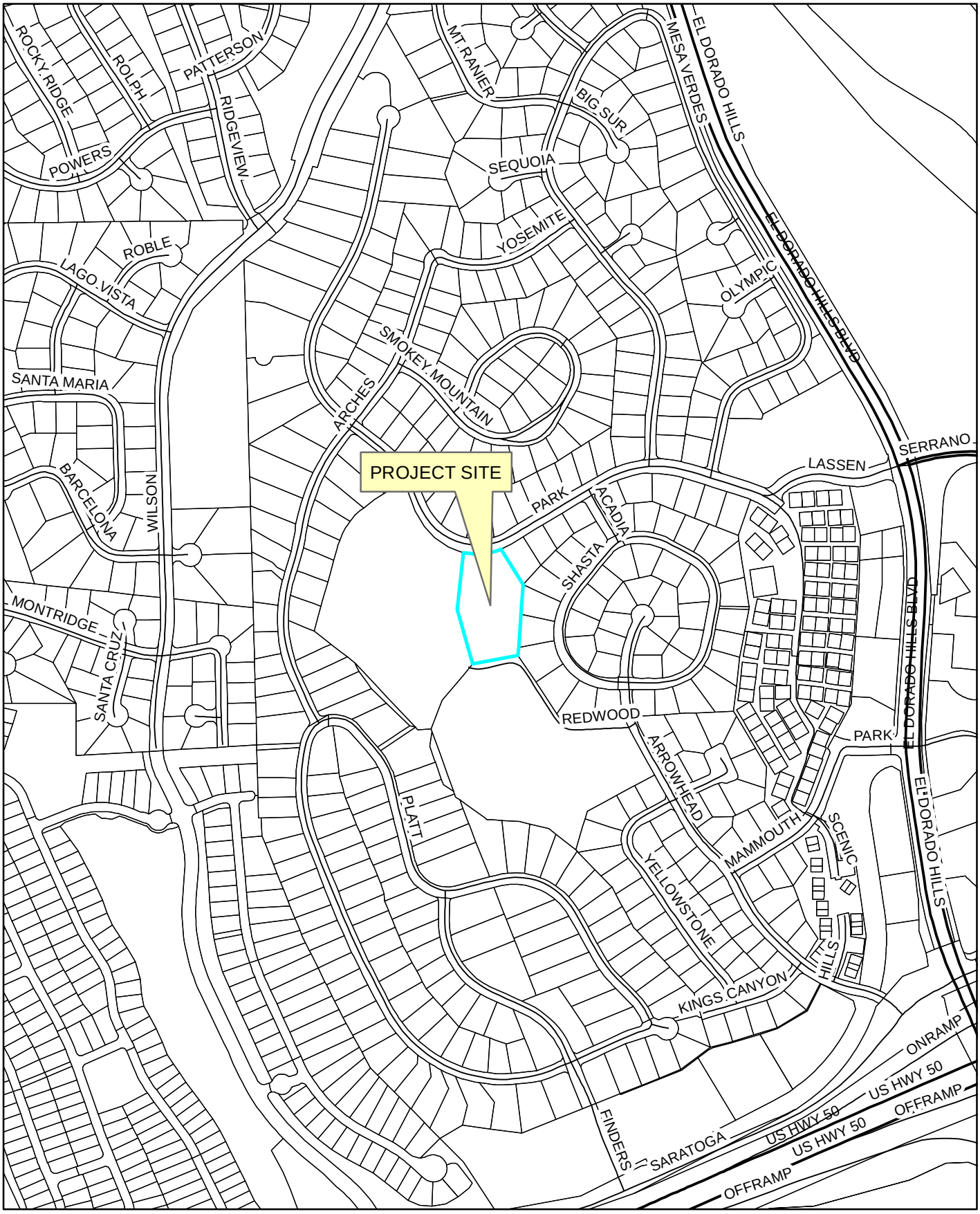
P21-00**10** KUKHARETS PARCEL MAP
ATTACHMENT **1** - LOCATION MAP

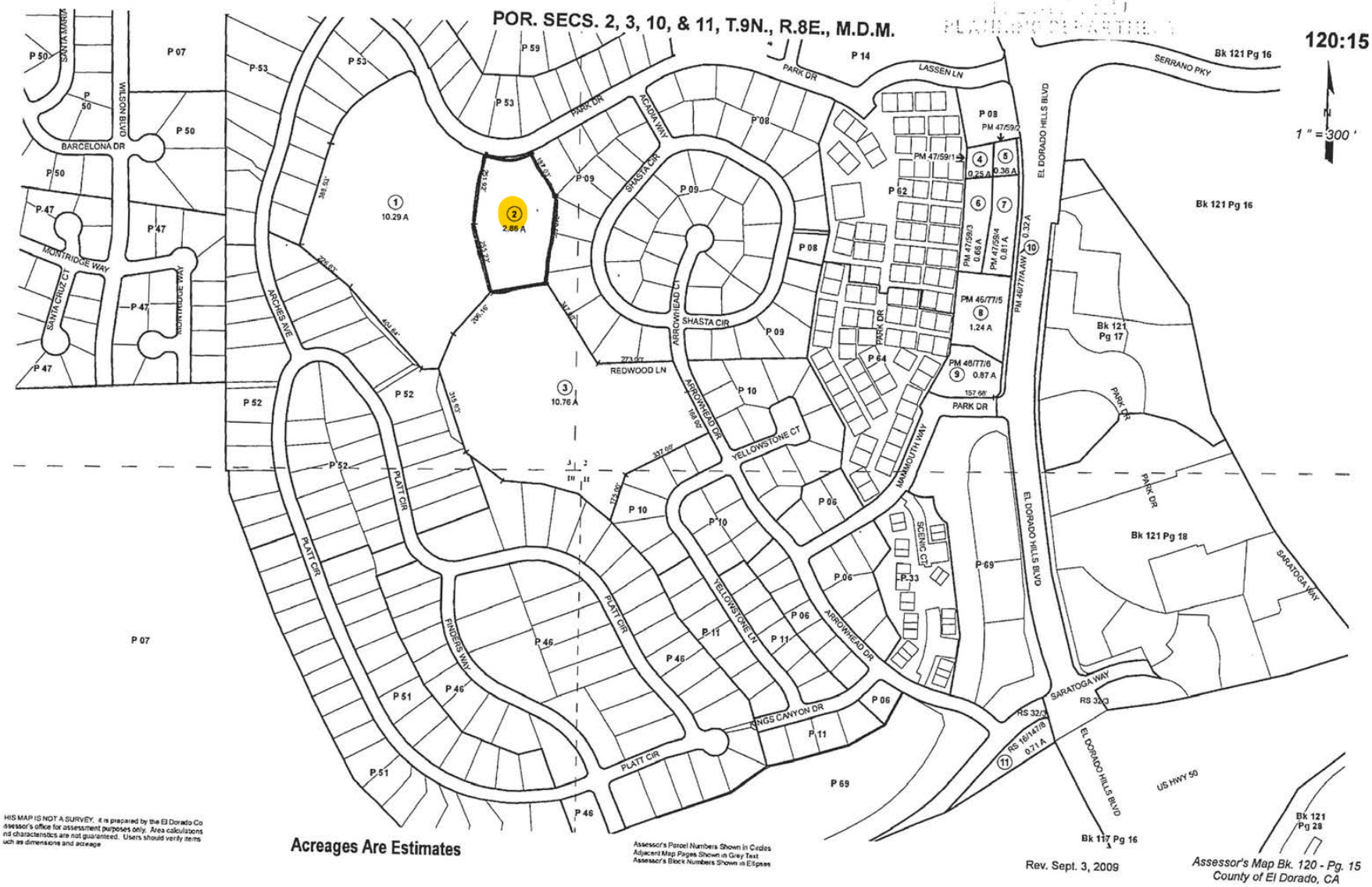


P21-00**10** KUKHARETS PARCEL
MAP ATTACHMENT **2** - AERIAL MAP

0 130 260 520 780 1,040
Feet
Scale

N

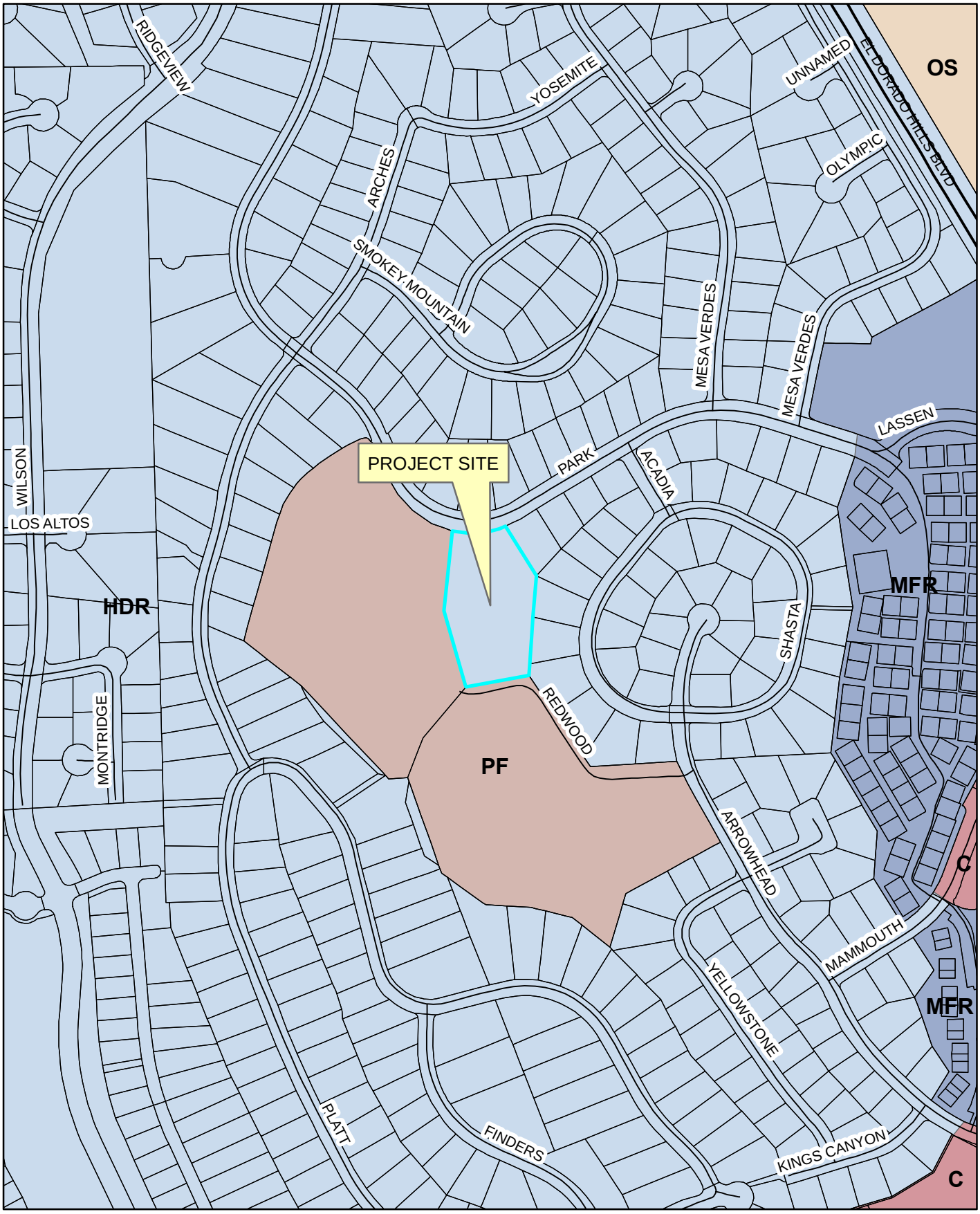
22-2014 C 62 158



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

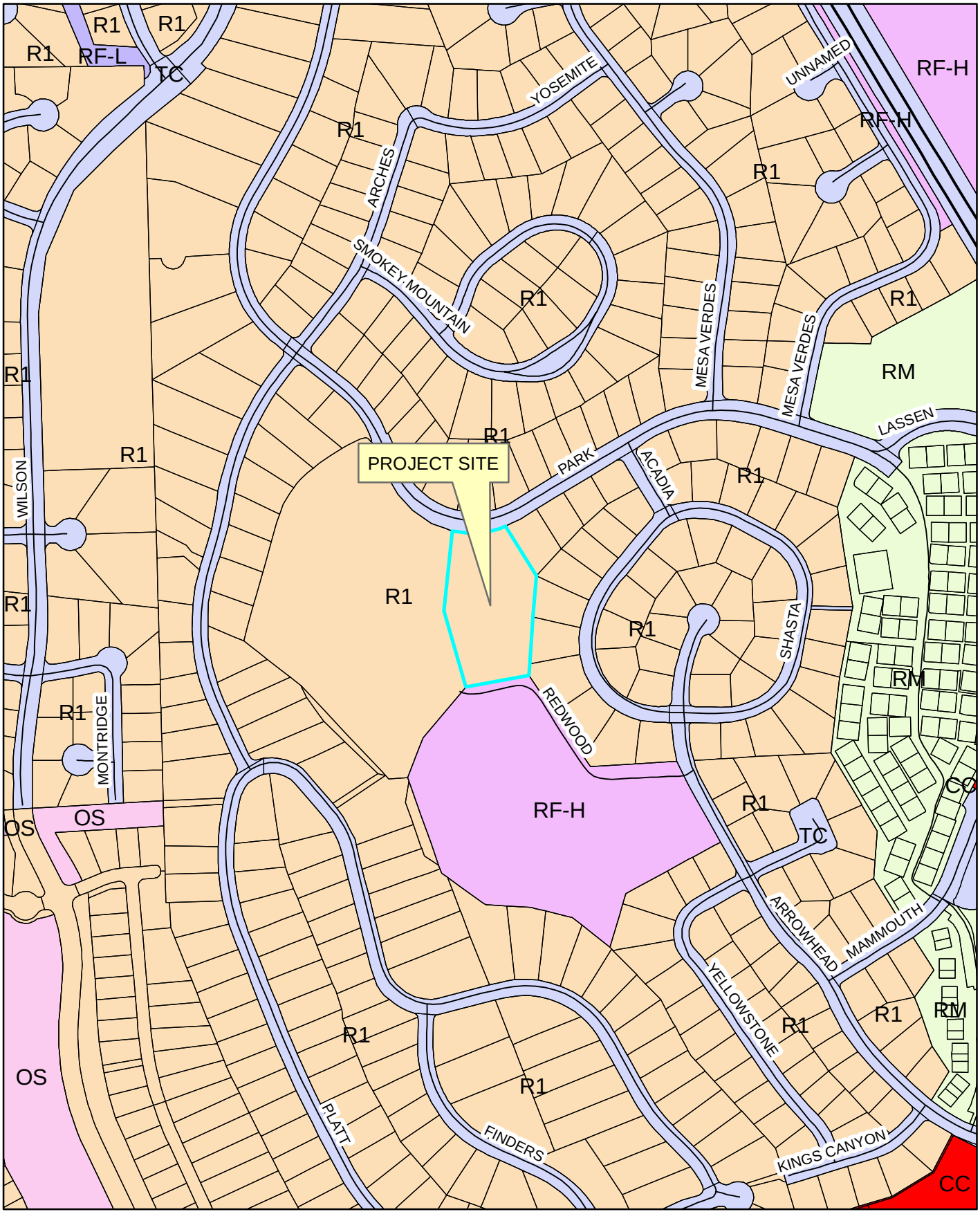
P21-0010

P21-0010 KUKHARETS PARCEL MAP
ATTACHMENT 4 - GENERAL PLAN LAND USE MAP



P21-00**10** KUKHARETS PARCEL

MAP ATTACHMENT **5** - ZONING MAP



0 130 260 520 780 1,040 Feet

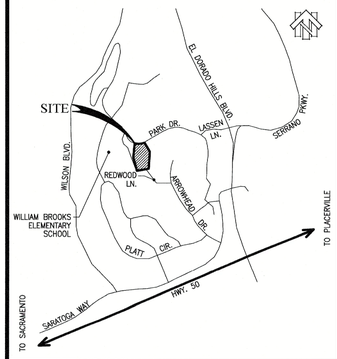
Scale

N

22-2014 C 65 158

TENTATIVE PARCEL MAP
PARK DRIVE

COUNTY OF EL DORADO — OCTOBER, 2021 — STATE OF CALIFORNIA



VICINITY MAP
NOT TO SCALE

APPLICANT/OWNER
ANATOLIY & YULIYA KUKHARETS
3630 PARK DRIVE
EL DORADO HILLS, CA, 95762

ENGINEER

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MAP SCALE
1" = 30'

CONTOUR INTERVAL
CONTOUR INTERVAL = 1 FOOT

SOURCE OF TOPOGRAPHY
CTA ENGINEERING & SURVEYING FIELD SURVEY – ASSUMED ELEVATION

SECTION, TOWNSHIP and RANGE
SECTION 3, T.9 N., R.8 E M.D.M.

ASSESSOR'S PARCEL NUMBER
120-150-002

PRESENT ZONING
R1

TOTAL AREA
2.86± ACRES

TOTAL NUMBER OF PARCELS
RESIDENTIAL LOTS – 4

MINIMUM PARCEL AREA
21,122 SQUARE FEET

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE LAND DEVELOPMENT KNOWN AS "PARK DRIVE PARCEL MAP" HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES ESTABLISHED BY THE COUNTY OF EL DORADO.

60764 Exp. 12-31-22 CIVIL STATE OF CALIFORNIA

BRIAN M. ALLEN P.E. 60764 — DATE 10-28-21

KEY NOTES
1. 20' FRONT YARD SETBACK
2. SEASONAL WETLAND
3. 5' SIDE YARD SETBACK
4. 15' REAR YARD SETBACK
5. 20' FRONT YARD SETBACK & PUE
6. (E) RETAINING WALL

GENERAL NOTES
1. SEE PRELIMINARY GRADING & DRAINAGE PLAN FOR ANTICIPATED LOCATION OF PROPOSED EASEMENTS.

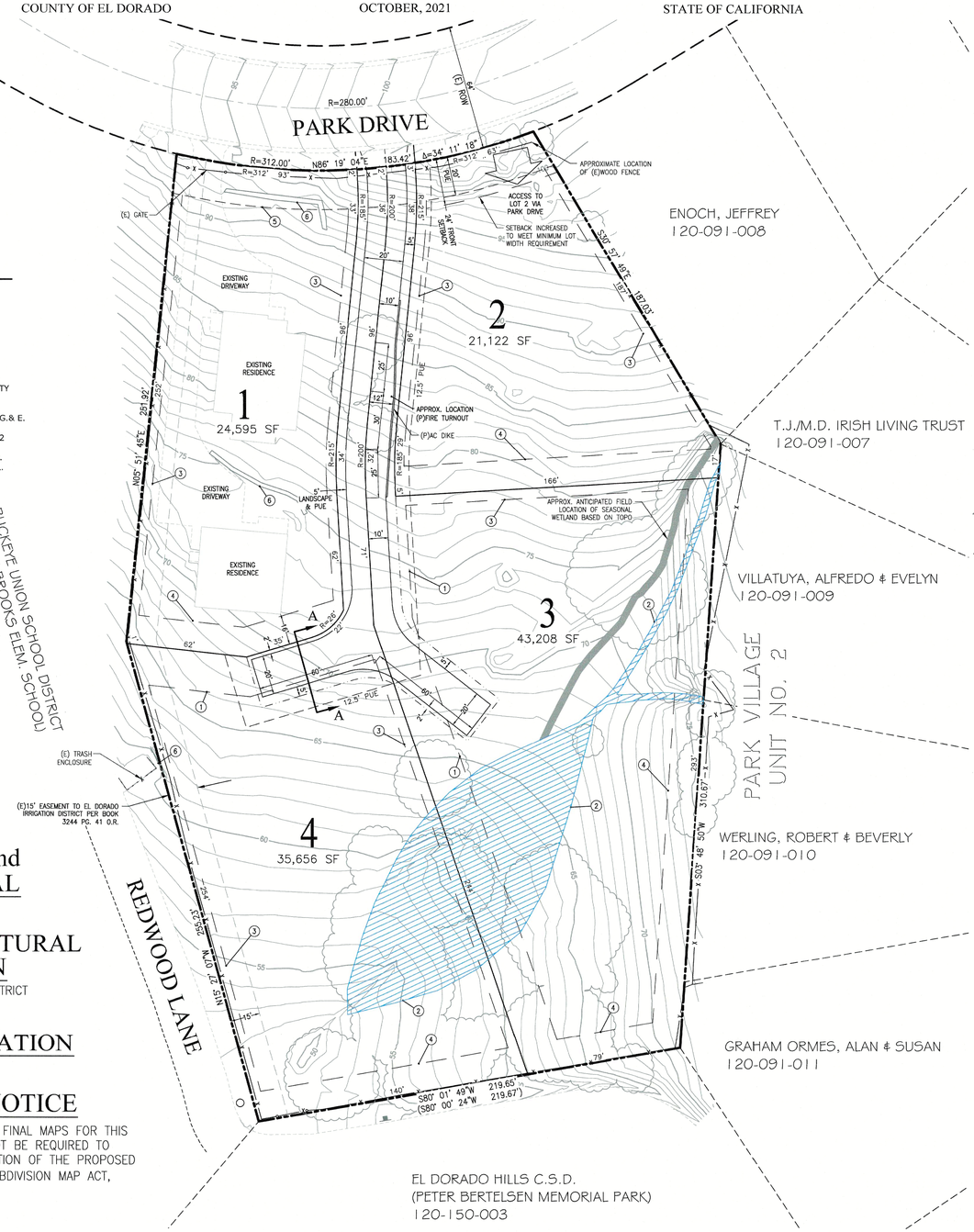
THE FOLLOWING EASEMENTS MAY AFFECT THE PROPERTY SHOWN HEREON BUT THE EXACT LOCATION IS NOT DISCLOSED BY THE RECORD DOCUMENTS:
1. EASEMENT TO AMERICAN RIVER ELECTRIC, NOW P.G.& E. PER BK. 62 OF DEEDS, PG. 71
2. 10' R/W TO P.T.& T. PER BOOK 85 OF DEEDS, PG. 12
3. EASEMENT TO P.G.& E. PER BOOK 225, PG. 18 O.R.
4. EASEMENT TO P.T.& T. PER BOOK 394, PG. 232 O.R.
5. EASEMENT TO P.G.& E. PER BOOK 836, PG. 539 O.R.

WATER SUPPLY and SEWAGE DISPOSAL
EL DORADO IRRIGATION DISTRICT

PROPOSED STRUCTURAL FIRE PROTECTION
EL DORADO HILLS COUNTY WATER DISTRICT (FIRE DEPARTMENT)

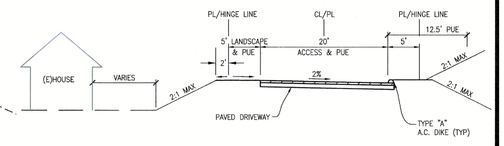
DATE OF PREPARATION
OCTOBER, 2021

PHASING PLAN NOTICE
THE SUBDIVIDER MAY FILE MULTIPLE FINAL MAPS FOR THIS PROJECT. THE SUBDIVIDER SHALL NOT BE REQUIRED TO DEFINE THE NUMBER OR CONFIGURATION OF THE PROPOSED MULTIPLE FINAL MAPS. (PER THE SUBDIVISION MAP ACT, SECTION 66456.1)

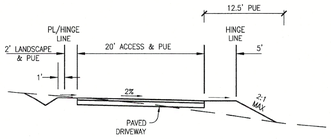


0 15' 30' 60'
SCALE: 1" = 30'

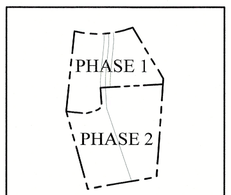
LEGEND
- PROJECT BOUNDARY
- (P) DRIVEWAY EP
- (P) HINGE LINE
- (P) SETBACK
- (P) EASEMENT
- (P) CENTERLINE
- (P) LOT LINE
- SEASONAL WETLAND SEE REPORT PREPARED BY BARNETT ENVIRONMENTAL CONSULTANTS
- (E) EASEMENT
- (E) CENTERLINE
- (E) LOT LINE
- (E) CURB & GUTTER



TYPICAL DRIVEWAY
SCALE: 1" = 10'



SECTION A-A
SCALE: 1" = 10'



PHASING PLAN
SCALE: 1"=200'

ZONING ADMINISTRATOR: _____

APPROVAL/DENIAL DATE: _____

BOARD OF SUPERVISORS: _____

APPROVAL/DENIAL DATE: _____

M:\21-007-001 Park Drive Parcel Map\PLANNING\TENTATIVE MAP\21-007-001-TM-COVER.dwg, 10/27/2021 2:15:43 PM, tjaime, 1:1

PRELIMINARY GRADING & DRAINAGE PLAN

PARK DRIVE PARCEL MAP

COUNTY OF EL DORADO | OCTOBER, 2021 | STATE OF CALIFORNIA

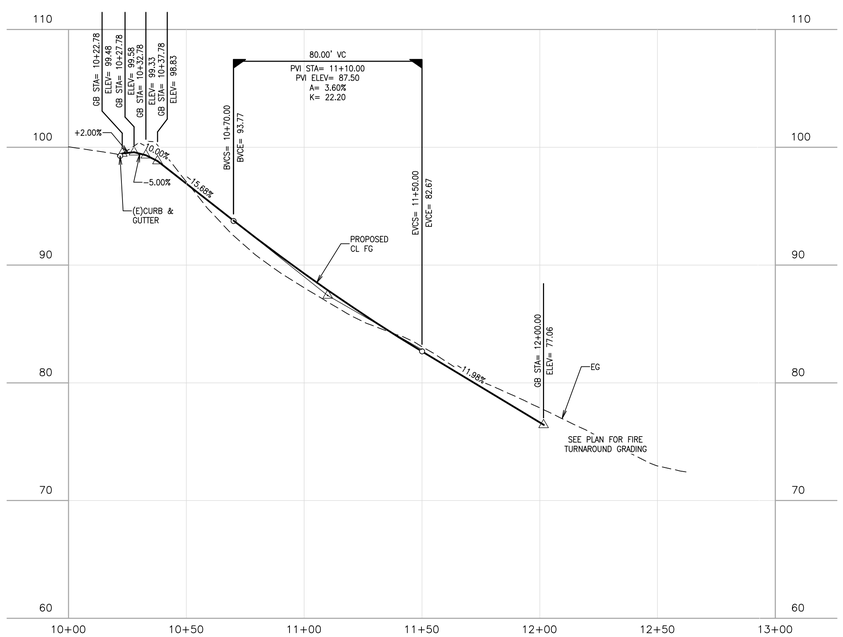
APPROXIMATE EARTHWORK

EXCAVATION: 205 CY

EMBANKMENT: 205 CY

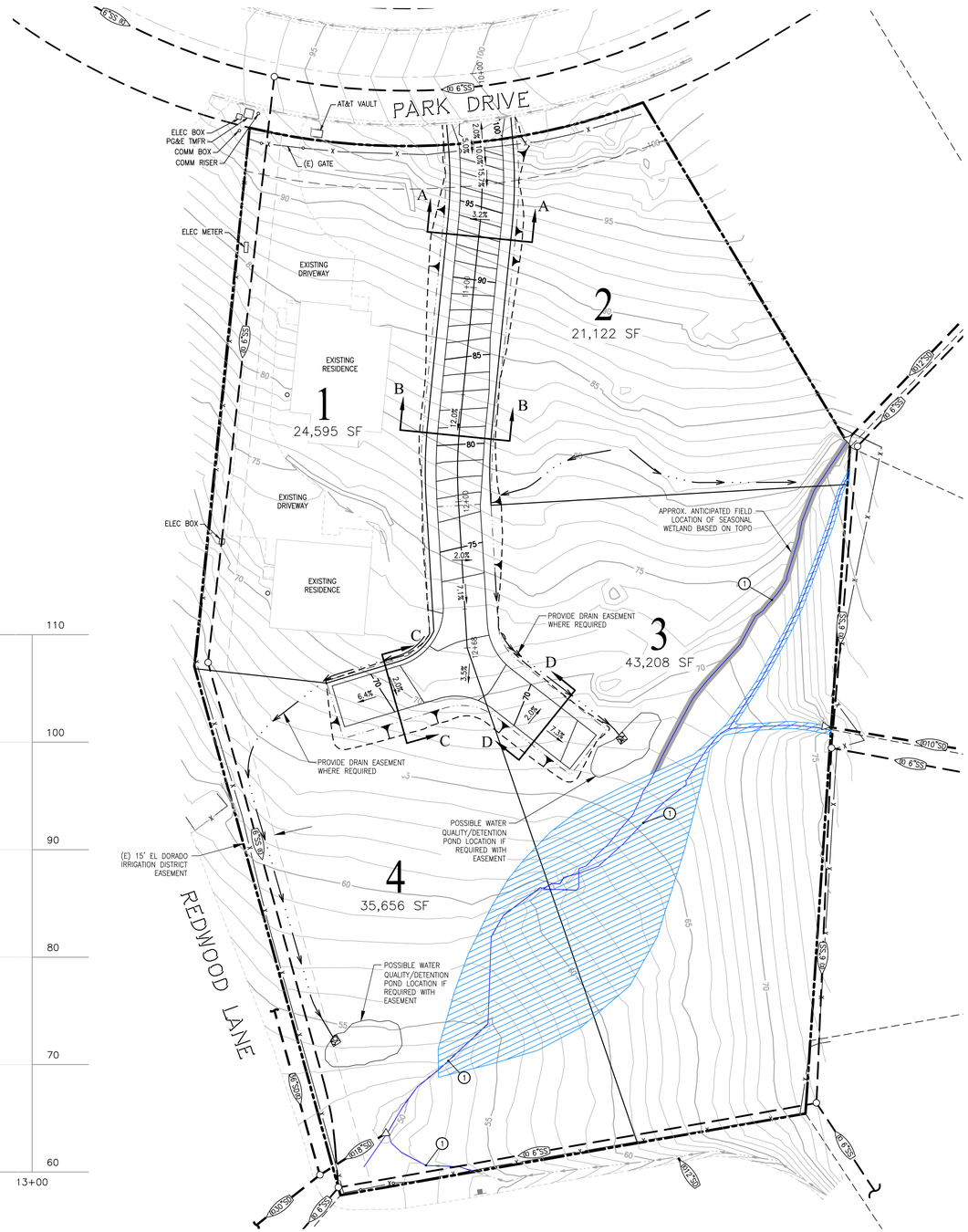
LEGEND

- 1035 — PROPOSED CONTOUR
- 1125 — EXISTING CONTOUR
- 2:1 UNLESS OTHERWISE NOTED — PROPOSED SLOPE BANK
- PROPOSED DAYLIGHT LINE
- PROPOSED DITCH
- EXISTING DITCH
- SEASONAL WETLAND SEE REPORT PREPARED BY BARNETT ENVIRONMENTAL CONSULTANTS



DRIVEWAY PROFILE

HORIZ: 1"=30'
VERT: 1"=6'



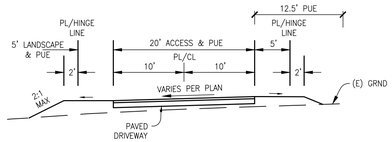
0 15' 30' 60'

SCALE: 1" = 30'

KEY NOTES

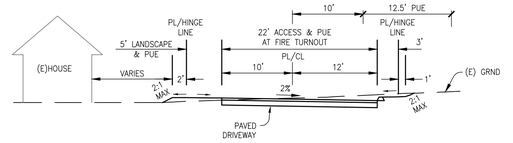
1. APPROX. CL PROPOSED DRAINAGE EASEMENT

FEMA FLOOD MAP: PANEL NO. 06017C0712E
ZONE X – AREA OF MINIMAL FLOOD HAZARD



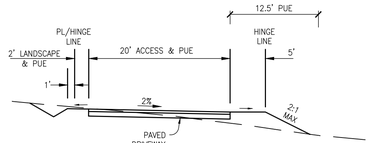
SECTION A

SCALE: 1" = 10'



SECTION B

SCALE: 1" = 10'



SECTION C

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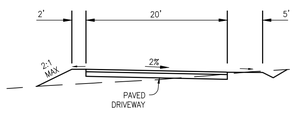

SECTION D

SCALE: 1" = 10'

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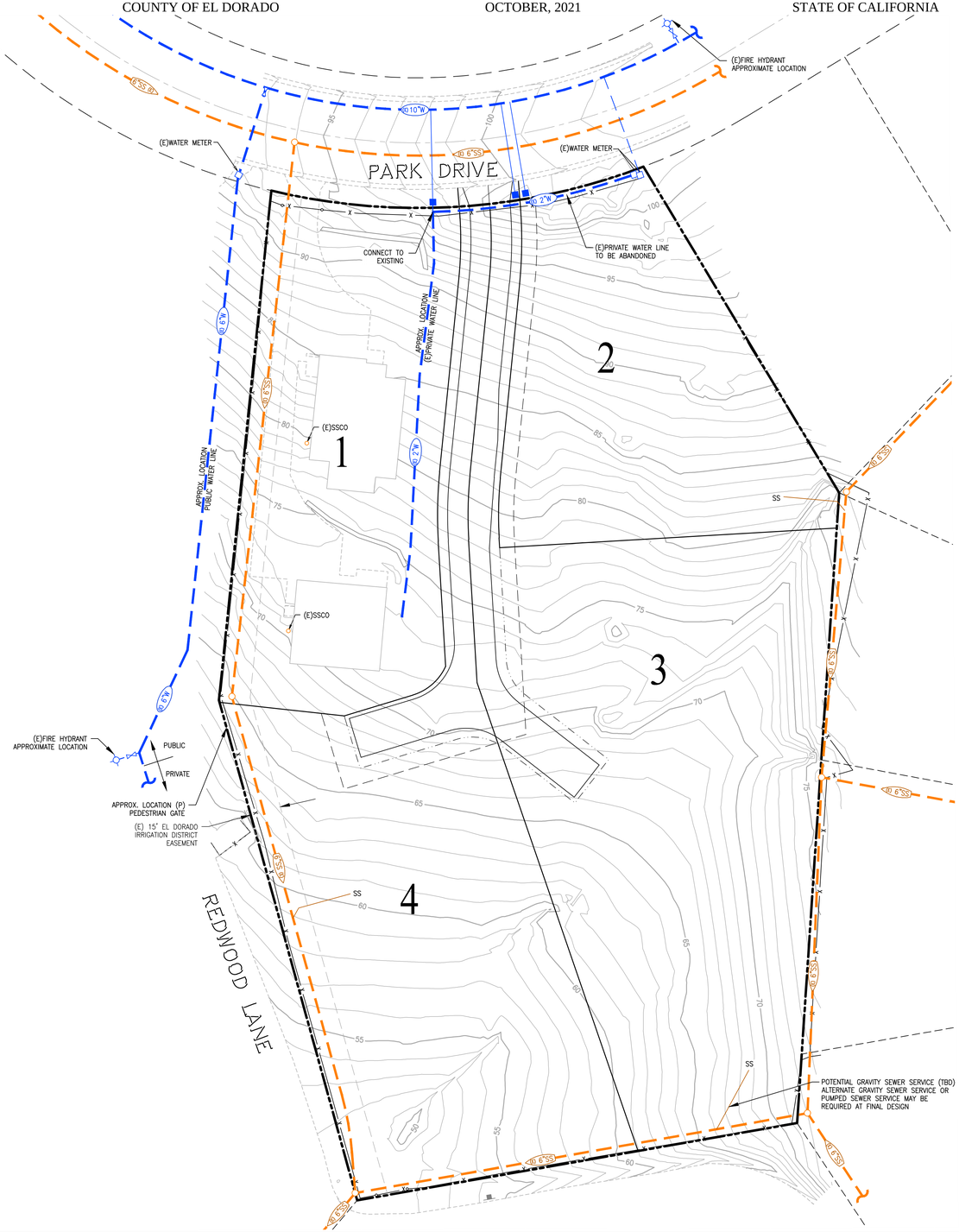
PRELIMINARY SEWER & WATER PLAN

PARK DRIVE PARCEL MAP

COUNTY OF EL DORADO | OCTOBER, 2021 | STATE OF CALIFORNIA



LEGEND

- PROJECT BOUNDARY
- PROPERTY LINE
- EXISTING DOMESTIC WATER (Ø 8"W)
- EXISTING FIRE HYDRANT
- PROPOSED DOMESTIC WATER (W)
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER
- EXISTING WATER METER
- EXISTING SEWER (6"SS Ø)
- PROPOSED SEWER (6"SS)
- PROPOSED SEWER SERVICE
- PROPOSED MANHOLE
- EXISTING MANHOLE
- PROPOSED CLEANOUT
- EXISTING CLEANOUT

NOTE:

WATER AND SEWER IMPROVEMENTS SHOWN ARE CONCEPTUAL ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

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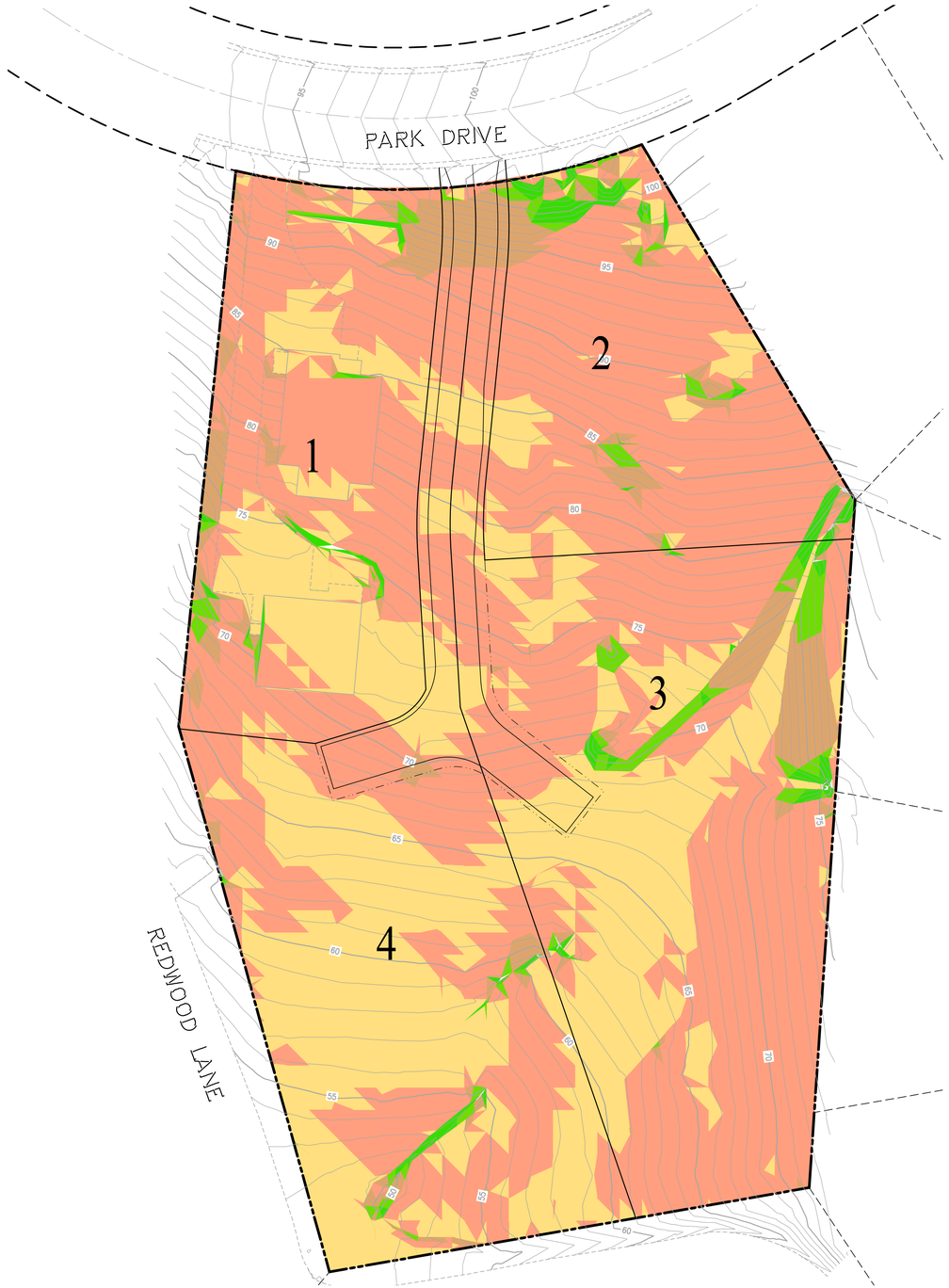
SLOPE MAP

PARK DRIVE PARCEL MAP

COUNTY OF EL DORADO | OCTOBER, 2021 | STATE OF CALIFORNIA



0 15' 30' 60'

SCALE: 1" = 30'

Slopes Table					
Number	Minimum Slope	Maximum Slope	Color	Area	Percentage of Area Shown
1	0.00%	10.00%		0.99	34.62%
2	10.00%	20.00%		1.62	56.64%
3	20.00%	30.00%		0.16	5.59%
4	30.00%	40.00%		0.05	1.75%
5	40.00%+			0.04	1.40%

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TREE PRESERVATION PLAN

PARK DRIVE PARCEL MAP

COUNTY OF EL DORADO | OCTOBER, 2021 | STATE OF CALIFORNIA

0 15' 30' 60'

SCALE: 1" = 30'

LEGEND

- PROJECT BOUNDARY
- TREE NO. 712 — OAK TREE
- TREE NO. 712 — OAKS ≥ 24"
- TREE NO. 712 — HERITAGE OAKS ≥ 36"
- TREE NO. 712 — OAK TREE - APPROX. LOCATION
- TREES (OTHERS)
- TREE TO BE REMOVED
- RIPARIAN WOODLAND

NOTES: SEE ARBORIST REPORT PREPARED BY CALIFORNIA TREE AND LANDSCAPE CONSULTING, INC. FOR TREE INVENTORY. APPROXIMATE TREE LOCATIONS ARE BASED ON THIS REPORT, A FIELD WALK, AND AN AERIAL MAP OF THE SITE. SEE A WETLAND & BIOLOGICAL RESOURCES ASSESSMENT AT 3630 PARK DR. (APN 120-150-002) PREPARED BY BARNETT ENVIRONMENTAL CONSULTANTS FOR RIPARIAN WOODLAND EXTENTS.

NOTE:

ADDITIONAL REMOVALS OR IMPACTS MAY OCCUR SUBJECT TO FINAL DESIGN.

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AERIAL OVERLAY

PARK DRIVE PARCEL MAP

COUNTY OF EL DORADO | OCTOBER, 2021 | STATE OF CALIFORNIA

0 20' 40' 80'

SCALE: 1" = 40'

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M:\21-007-001 Park Drive Parcel Map\PLANNING\TENTATIVE MAP\21-007-001-TM-AM.dwg, 10/26/2021 11:52:10 AM, tjaime, 1:1

A Wetland & Biological Resources Assessment

at 3630 Park Dr. (APN 120-150-002) in El Dorado Hills, CA 96752

Prepared By:

BARNETT ENVIRONMENTAL

Prepared For:
Anatoliy Kukharets
3630 Park Drive
El Dorado Hills, CA 95672

P21-0010

Table of Contents

Figures

Tables

Appendices

1.0 Introduction

Barnett Environmental has prepared this Wetland & *Biological Resources* Assessment (W/BRA) of an approximately 2.6-acre area ("Study Area") at 3630 Park Drive in El Dorado Hills, California (APN: 120-150-002) 95762 (Figure 1). The parcel is within Section 3, Township 9 North, Range 8 East of the California 7.5-minute USGS Clarksville quadrangle (Figure 1) and lies within the Upper Consumes River watershed (HUC 18040013) at approximately 680 – 731 feet above mean sea level (msl) and is centered at latitude 38°39'30.86"N and longitude 121°442.49"W. The parcel currently contains a single family dwelling on the NW corner. The parcel is bounded on the north and east by residential properties, on the west by a school, and on the south by a baseball field.

Beyond an in informal delineation of wetlands and "other waters of the U.S." and "waters of the State" according to U.S. Army Corps of Engineers (1987) and California Regional Water Quality Control Board (2020) protocol, this report also:

- Identifies and describes extant vegetation communities;
- Records all plant and animal species observed during the field survey(s);
- Evaluates and identifies sensitive habitats and special status plant and animal species that may occur in the Study Area and could be affected by project activities; and
- Provides conclusions and recommendations for mitigating potential adverse impacts to identified resources.

2.0 Regulatory Setting

The following federal laws, regulations and/or policies provide the legal framework guiding the protection of biological resources. We have included those laws most relevant to biological and wetland resources in and around the Study Area.

2.1 Federal Laws & Regulations

Federal Endangered Species Act (FESA)

The FESA, enacted in 1973, prohibits the taking, possession, sale, or transport of endangered species. Under the FESA, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered. Both the National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service (USFWS) administer FESA. NMFS is accountable for animals that are threatened or endangered (16 United States Code [USC] 1533[c]) and spend most of their lives in marine waters, including marine fish, most marine mammals, and anadromous fish such as Pacific salmon. The USFWS is accountable for all other federally listed plants and animals.

Pursuant to the requirements of FESA, a federal agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species could be present in the Study Area and whether the project will have a potentially significant impact on such species. In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed

under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]).

Projects that would result in a "take" of any federally listed threatened or endangered species are required to obtain authorization from NMFS and/or USFWS through either Section 7 (interagency consultation) or section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The Section 7 authorization process is used to determine if a project with a federal nexus would jeopardize the continued existence of a listed species and what mitig.ation measures would be required to avoid jeopardizing the species. The Section 10(a) process allows take of endangered species or their habitat in non-federal activities.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

Bald & Golden Eagle Protection Act

The federal Bald & Golden Eagle Protection Act regulates or prohibits taking, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3).

Federal Clean Water Act (CWA)

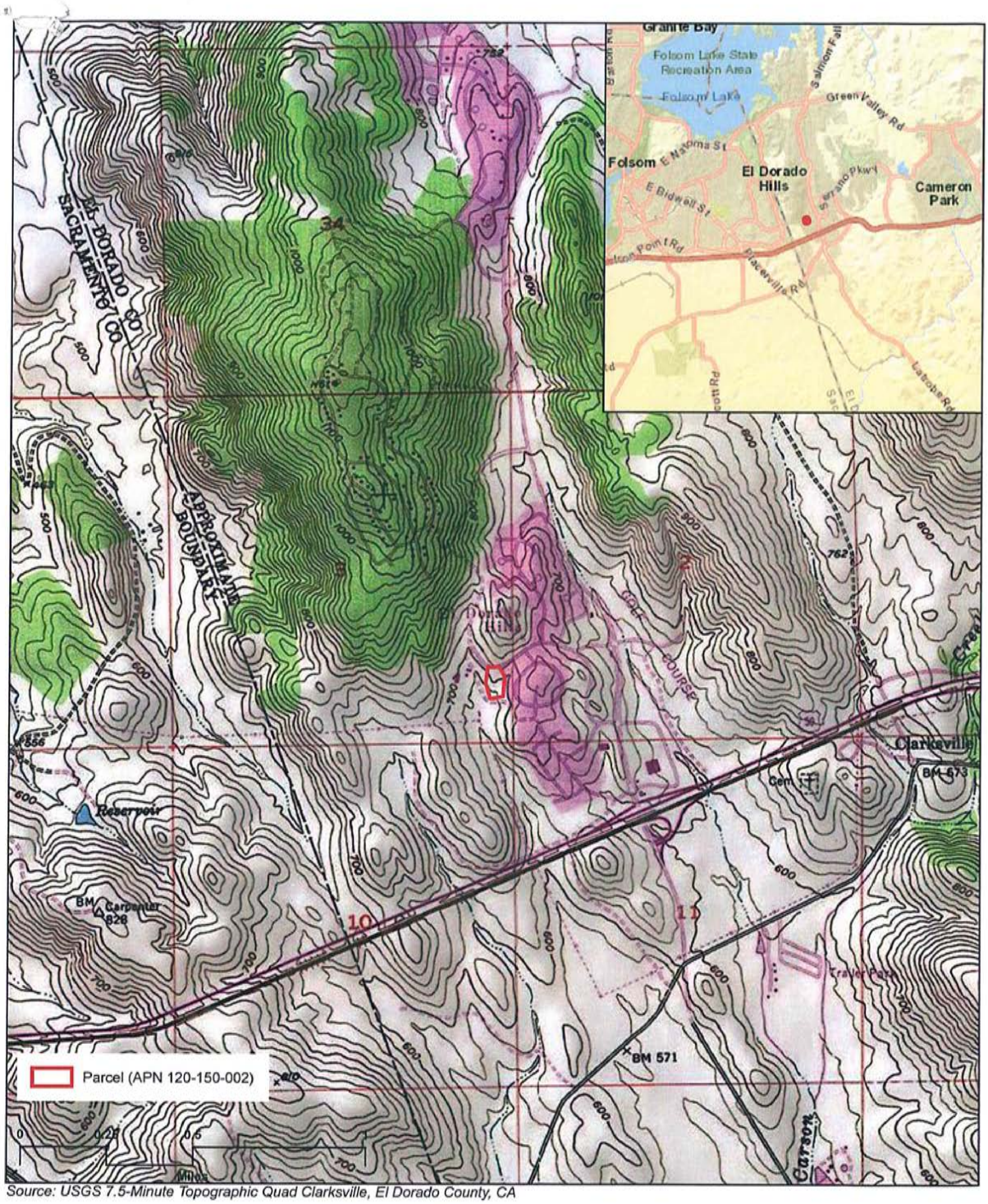
Section 404

Section 404 of the CWA identifies the U.S. Army Corps of Engineers (USACE) as the principal authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or Waters of the U.S. (WOUS). The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function. U.S. Congress has authorized the Environmental Protection Agency (EPA) to have a specific oversight role over USACE's authority.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy.

The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a certificate from the appropriate state agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant certification or waive



Source: USGS 7.5-Minute Topographic Quad Clarksville, El Dorado County, CA

FIGURE 1 - PROJECT VICINITY

Date: March 02, 2021

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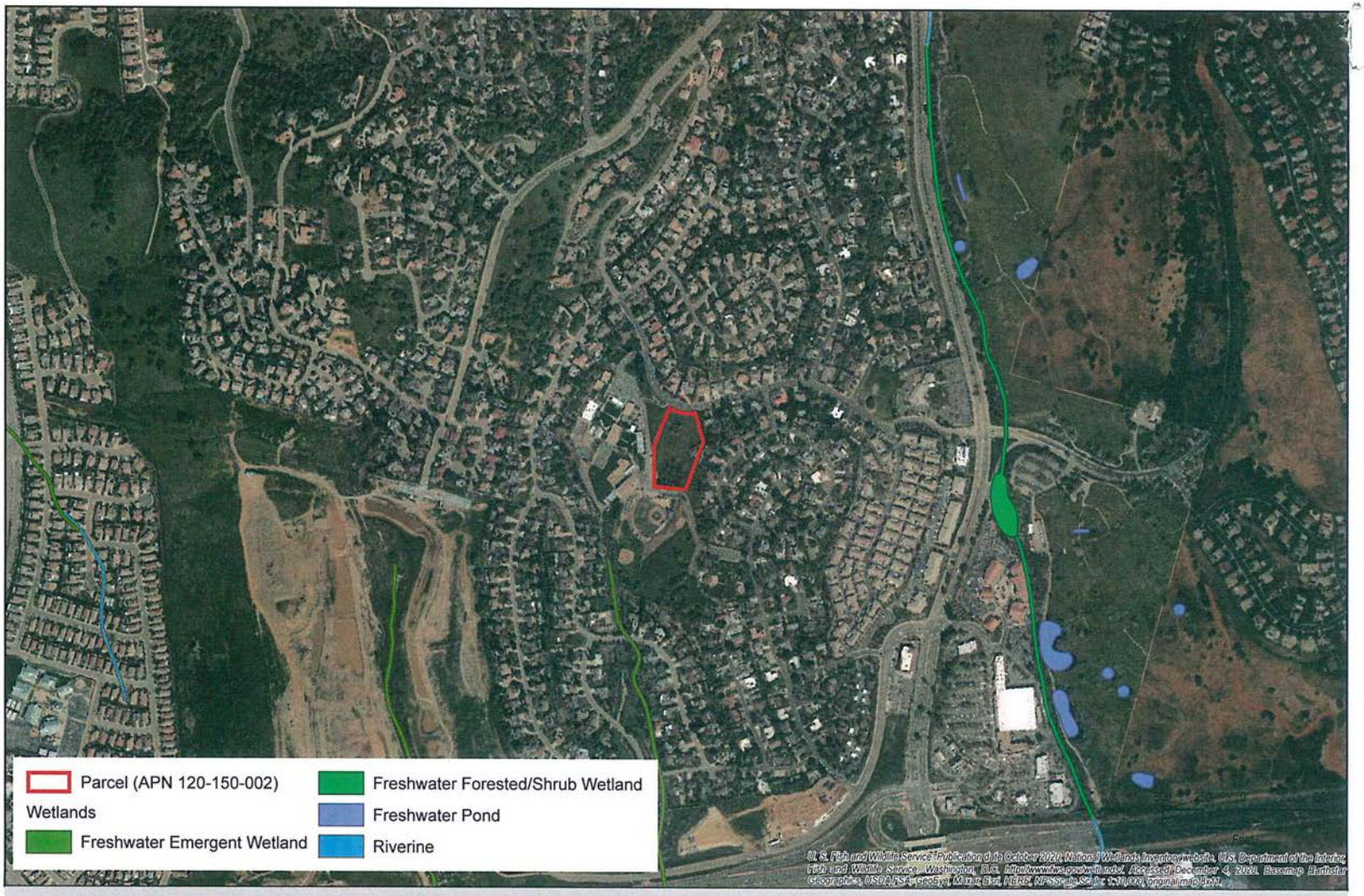

FIGURE 2 - U.S. NATIONAL WETLANDS INVENTORY RECORDED WATERS/WETLANDS

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the requirement for permits is delegated by the SWRCB to the nine regional boards. The Central Valley Regional Water Quality Control Board (CVRWQCB) is the appointed authority for Section 401 compliance in the project site. The SWRCB additionally requires additional Waste Discharge Requirements under Porter-Cologne to protect aquatic resources that are outside federal jurisdiction.

A request for certification or waiver is submitted to the Regional Board at the same time an application is filed with the USACE. The regional board has 60 days to review the application and act on it. Because no USACE permit is valid under the CWA unless "certified" by the state, these boards may effectively veto or add conditions to any USACE permit.

2.2 State Laws & Regulations

California Endangered Species Act (CESA)

The CESA was enacted in 1984. Under the CESA, the California Fish and Wildlife Commission (CFWC) has the responsibility for maintaining a list of threatened and endangered species, while The California Department of Fish & Wildlife (CDFW) is responsible for enforcement. CDFW also maintains lists of species of special concern. A Species of Special Concern (CSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role;
- is listed as federally-, but not state-, threatened or endangered;
- meets the state definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

CESA prohibits the take of California listed animals and plants in most cases, but CDFW may issue incidental take permits under special conditions. Pursuant to the requirements of CESA, a State agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the site and determine whether the project would have a potentially significant impact on such species. In addition, CDFW encourages consultation on any project that could affect a listed or candidate species.

Fish and Game Code – Sections 1600-1616

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the *"... bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit ..."* (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

The CDFW also derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the Fish and Game Code (lake and streambed alteration agreements), Section 30411 of the California Coastal Act (CDFW becomes the lead agency for the study and identification of degraded wetlands within the Coastal Zone), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

Fish and Game Code – Sections 1900-1913

These Sections embody the Native Plant Protection Act, which is intended to preserve, protect, and enhance endangered or rare native plants in the state. The act directs CDFW to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Under the act, CDFW may adopt regulations governing the taking, possessing, propagation or sale of any endangered or rare native plant.

Section 1913 of that Act allows landowners in conducting certain activities to take actions that will destroy rare or endangered plants, provided that, where the Department of Fish and Game (DFG) has previously notified the owner "that rare or endangered plants are growing" on his or her land, the owner notifies CDFW "at least 10 days in advance of changing the land" to allow the state agency to come and "salvage" the plants. Subject to this requirement, section 1913 states that "the presence of rare or endangered plants" on a property shall not restrict (1) timber operations conducted pursuant to an approved timber harvest plan, (2) "required mining assessment work pursuant to federal or state mining laws," (3) "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, other right-of-way by the owner of the land or his agent," or (4) "the performance by a public agency or publicly or privately owned public utility of its obligation to provide service to the public."

Fish and Game Code – Sections 3503, 3503.5, 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

Fish and Game Code – Sections 3511, 4700, 5050, and 5515

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the CFWC or any other law may be construed to authorize the issuance of permits of licenses to take any fully protected species. No such permits or licenses heretofore

issued may have any force or effect for any such purpose, except that the CFGC may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof ay be possessed under a permit issued by CDFW. Porter-Cologne Water Quality Control Act

California Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and each Regional Water Quality Control Board (RWQCB) as the principal state agencies for coordinating and controlling water quality in California. Responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. Pursuant to the Act, each of California's nine regional boards must prepare and periodically update basin plans that set forth water quality standards for surface and groundwater, as well as actions to control point and non-point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to achieve wetlands protection through enforcement of water quality standards.

The Porter-Cologne Water Quality Control Act provides that "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as "...any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter-Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction, which would include the project site. As noted above, the RWQCB is the appointed authority for Section 401 compliance in the project site. If the USACE determines that they have no regulatory authority on the project site and they also determine that a CWA Section 404 permit is not required, the project proponent could still be responsible for obtaining the appropriate CWA Section 401 permit or waiver from RWQCB for impacts to Waters of the State.

In 2019, the State Water Resource Control Board extended their water quality certification to include waste discharge requirements as adopted in the "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State," which include elements of the Clean Water Act. These procedures also lay out the steps for the submission, review, and approval of applications for activities related to these activities.

California Environmental Quality Act

Although specific federal and state statutes protect threatened and endangered species, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce

the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

2.3 Local Laws and Regulations

El Dorado County Setbacks

The County of El Dorado establishes standards for avoidances and minimization of impacts to wetlands and sensitive riparian habitat through General Plan Policies 7.3.3.4, 7.4.2.5, and 7.4.2.8. Section 7.3.3.4 states *"Until standards for buffers and special setbacks are established in the Zoning Ordinance, the County shall apply a minimum setback of 100 feet from all perennial streams, rivers, lakes and 50 feet from intermittent."* However, section 130.30.050 G of the El Dorado County Zoning Code states that *"single family dwelling and accessory structures shall be set back a distance of 25 feet from any intermittent stream, wetland, or sensitive riparian habitat, or a distance of 50 feet from any perennial lake, river, or stream."* This, then, would appear to supersede Section 7.3.3.4 of the General Plan, as it was issued subsequent to this document.

Setbacks from wetlands and sensitive riparian habitat in Section 130.30.030 G of the El Dorado County Zoning Code, however, *"do not apply to culverted creeks and engineered systems developed or approved by the County or other agency for the collection of storm or floodwaters."* The wetlands on this parcel are directly due to artificial drainage directed onto the site from neighboring parcels. Consequently, the need for any setbacks from these features is questionable.

3.0 Methodology

Prior to our field surveys, we queried the U.S. Fish & Wildlife Service's *National Wetland Inventory* (NWI; Figure 3); EcoAtlas' *California Aquatic Resources Inventory* (CARI; Figure 3); NRCS Web Soil Survey (Appendix A; Figure 5); and Hydric Soil Map Units for Los Angeles County, California to determine whether any wetlands or "other waters of the U.S.," "waters of the State," or soils compatible with wetland resources had been historically recorded on or around, or are likely to occur on the site, as defined by the 1987 U.S. Army Corps of Engineers (USACE, 1987) *Wetlands Delineation Manual and its 2008 Arid West Regional Supplement.* We also assessed potentially federal and/or state jurisdictional wetlands and "other waters of the U.S." in the Study Area in accordance with the 2014 *Corps Field Guide to the Identification of the Ordinary High Water Mark (OHWM) for Non-perennial Streams in the Arid West Region of the Western United States.*

To provide a vision of what potential biological resources may be present on the property, we queried the following online sources for information on the Study Area's potential plant and wildlife communities.

1. California Department of Fish & Wildlife's Natural Diversity Database (RareFind 5) for observations of special status plant and animal species within five miles of the Study Area (Figure 6; Appendix D),
2. U.S. Fish and Wildlife Service's *iPac* Database of federally-listed special status species in Sacramento County (Appendix E),

3. The California Native Plant Society's Inventory of Rare & Endangered Plants in California

Dr. Barnett surveyed the Study Area on March 1, 2021 for special status plant and wildlife species and their habitats that could be supported onsite. The survey included recorded observations of: (1) dominant plant communities, (2) plant and animal species (with emphasis on rare and endangered species) observed or their sign (nests, burrows, tracks, scat) and (3) the suitability of onsite habitats and those immediately adjoining the Study Area to support special status plant or animal species. We used generalized plant community classification schemes to classify onsite habitat types (Sawyer, Keeler-Wolf, and Evens, 2009).

Dr. Barnett also examined the eastern drainage to confirm that its course and size had not changed over the 50+ years since its establishment and characterized the riparian woodlands surrounding this feature.

4.0 Existing Conditions

4.1 Soils

According to Natural Resource Conservation Service (NRCS), the Study Area is comprised of only one soil type, Auburn very rocky silt loam, two to 30 percent slopes (Figure 5 and Appendix A).

Auburn very rocky silt loam, two to 30 percent slopes. This type of soil consists is derived from residuum weathered from basic igneous rock or metamorphic rock. Silt loams make up the first layer from the surface down to 14 inches, underlaid by up to four inches of unweathered bedrock. Rock outcrop makes up 15 percent of this soil. Found on hills at elevations between 120-3000 feet, Auburn very rocky silt loams are well-drained and have a medium run-off class. The depth to the water table is typically more than 80 inches, and the capacity to transmit water is very low (0.00 inches/hour) to moderately low (0.06 inches/hour).

While serpentitic soils were not observed on the property at the time of the field survey, there is a large swath of these soils running parallel to the site's western border across Redwood road, within 10-20 feet of the site.

4.2 Hydrology

The project site sits at an elevation of roughly Upper Consumes watershed (HUC 18040013) at approximately 680 to 731 feet above mean sea level. Water enters the property primarily from rainfall or from runoff from adjacent properties. Drainage water was directed onto the site sometime in the 1960s, via two outfall pipes, when the area was first developed for residential use. One culvert enters the site from the northeast corner of the parcel and the other 140' to the south along the eastern property line. Over the ensuring 50+ years, the drainage water has created/sustained a distinct riparian woodland along the majority of the flowline.

4.3 Wetlands and "Other Waters of the U.S." and "Waters of the State"

An approximately 0.23-acre historic drainage runs in a N-S direction for approximately 400 feet, from a culvert on the property's NE corner, through the entire eastern half of the Study Area (see Table 1 and Figure 5), before

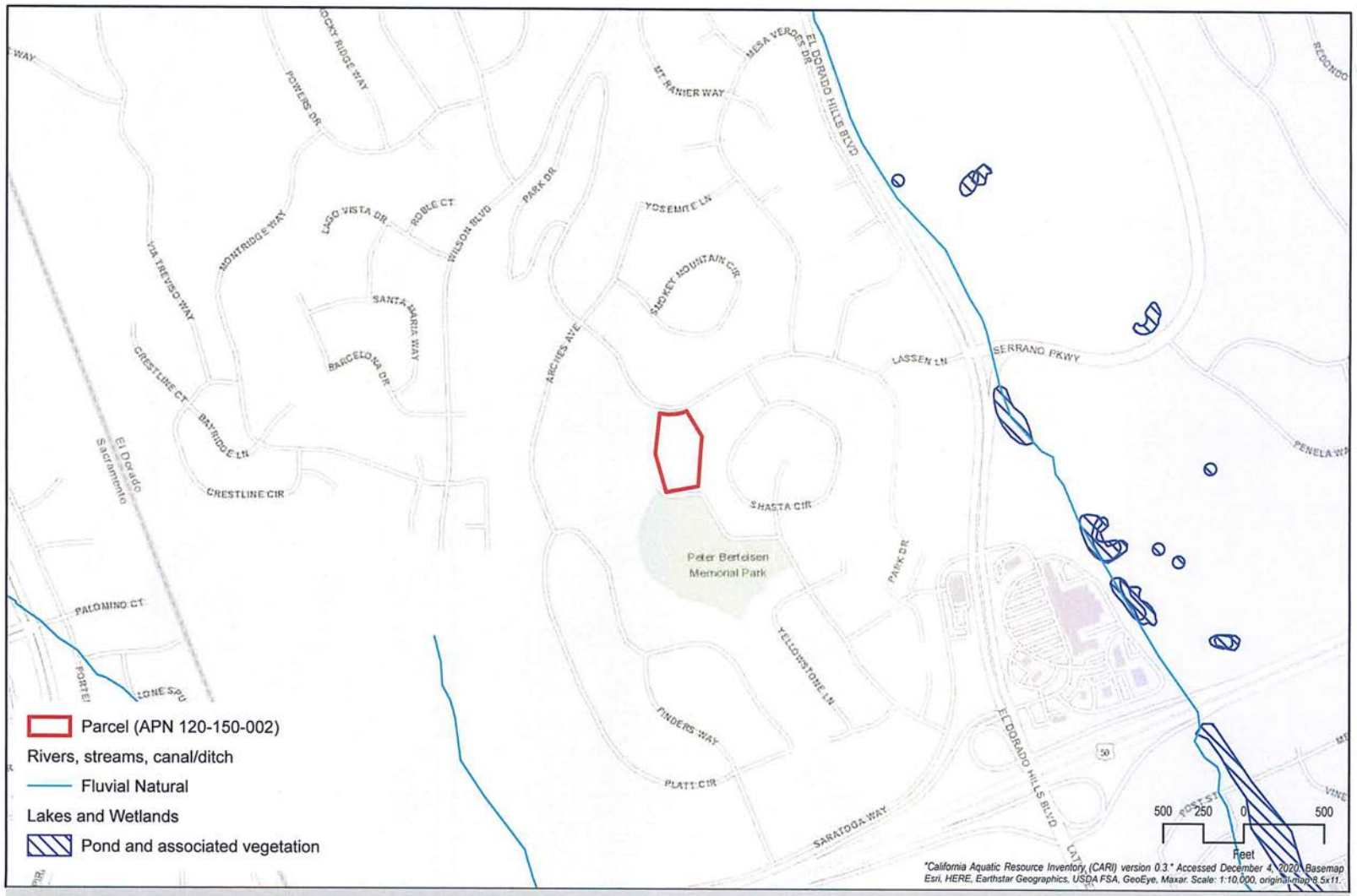

FIGURE 3 - CALIFORNIA AQUATIC RESOURCES INVENTORY RECORDED WATERS/WETLANDS

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FIGURE 4 - NRCS PROJECT AREA MAPPED SOILS

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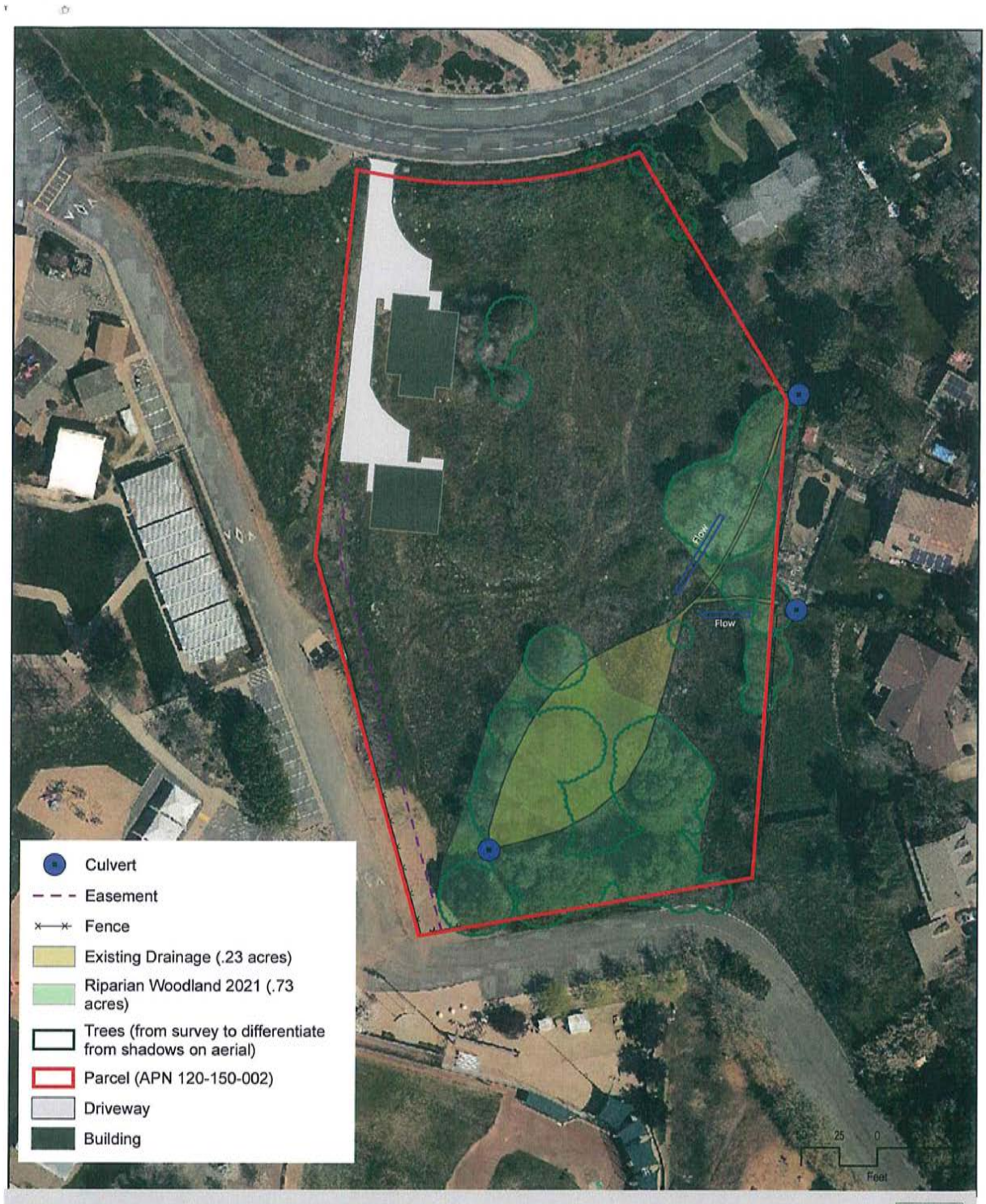

FIGURE 5 - EXISTING CONDITIONS

Date: April 19, 2021

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exiting the parcel through a culvert at the parcel's SW corner. Another drainage enters the parcel through a culvert on the property's eastern boundary and joins with the N-S drainage about ½-way along its course.

This N-S drainage supports a healthy riparian woodland in the northeastern and southern portions of the property and an open, wet, grassland sump where the eastern drainage joins in the center of the site. The drainage did contain some "flowing" (~1cfs) water at the time of the field survey.

Table 1: Mapped Wetlands by Type

Name	Area (SF)	Area (acres)
Seasonal Wetland	10019	0.23
Total	*10019*	*0.23*

4.4 Vegetation Communities

The approximately 400'-long (0.23-acre) N-S drainage through the parcel's eastern side supports two relatively healthy stands of oak trees in the northeastern (0.17-acre) and southern (0.5-acre) portions of the parcel. The 54 overstory trees in these stands consist of 44 interior live oaks (*Quercus wislizenii*) and 10 blue oaks (*Q. douglasii*). Only one of the live oaks at the southern end of the parcel could potentially qualify as a heritage tree (54" DBH), but is experiencing severe basal decay and inclusion and is generally in very poor health. The predominant shrub layer under these oak trees is Himalayan blackberry (*Rubus armeniacus*), and there was no detectable herbaceous layer in these woodlands at the time of the Barnett Environmental survey.

4.5 Wildlife

Oak groves provide food, cover, reproductive sites and corridors for numerous wildlife species, including tree frogs, gopher snakes, acorn woodpeckers, oak titmice, white-breasted nuthatches, California quail, and western gray squirrels. We observed the following wildlife species (or sign of their presence) during our field visit, including: western fence lizard (*Sceloporus occidentalis*), black-tailed jackrabbit (*Lepus californicus*), mockingbird (*Mimus polyglottis*), scrub jay (*Aphelocoma coerulescens*), house finch (*Carpodacus mexicanus*), white-crowned sparrow (*Zonotrichia leucophrys*), American goldfinch (*Carduelis tristis*), dark-eyed junco (*Junco hyemalis*), chipping sparrow (*Spizella passerina*), spotted towhee (*Pipilo erythrophthalmus*), and mourning dove (*Zenaida macroura*).

5.0 Special Status Species

Special status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the Federal Endangered Species Act (FESA) (50 CFR 17.11/17.12) (or formally proposed for listing) (64 FR 205, October 25, 1999; 57533-57547),
- Listed as endangered or threatened under the California Endangered Species Act (CESA) (or proposed for listing) (14 California Code of Regulations [CCR] 670.5),
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code (FGC, Section

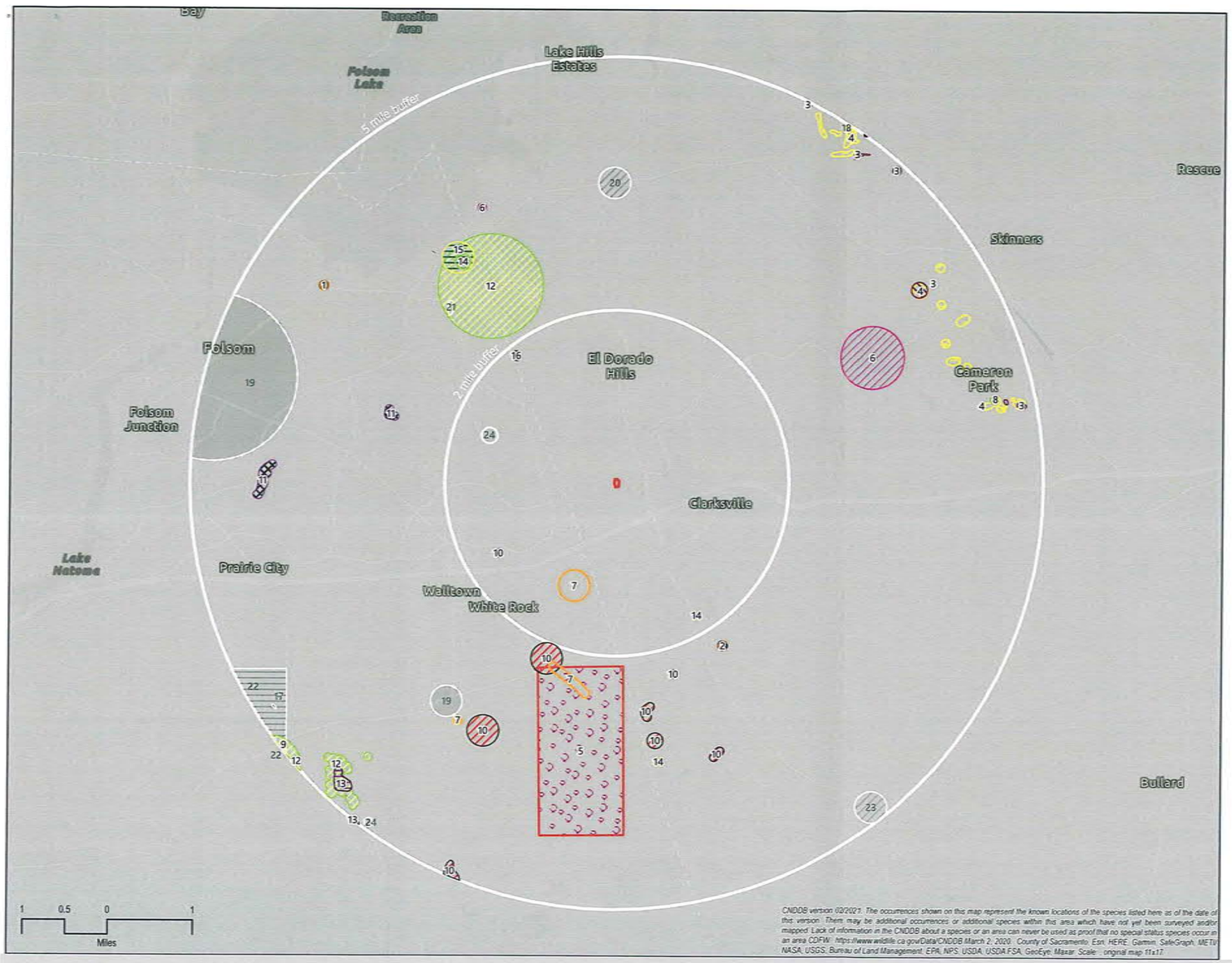
3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

- Designated a Species of Concern by the California Department of Fish and Game,
- Defined as rare or endangered under the California Environmental Quality Act (CEQA), or
- Occurring on List 1 or 2 maintained by the California Native Plant Society.

We reviewed California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Inventory, and U.S. Fish & Wildlife Service (FWS) iPAC database for special status species potentially occurring within the project vicinity (i.e. five-mile radius). While there may be a number of plant and animal species occurring within five miles of the Study Area (Figure 6), we can refine the list of those species with any real potential of occurring in the Study Area by filtering our query for relevant onsite habitats, locations, and elevations. A summary of the results of this query can be found in Table 1. Species that were evaluated but have no potential for occurrence are listed in Appendix D.

5.1 Critical Habitat for Special Status Species

The Federal Endangered Species Act (FESA) requires the federal government to designate critical habitat for any listed species. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. There is no designated critical habitat within the Study Area.



- Parcel (APN 120-150-002)
- American badger, 1
- California black rail, 2
- El Dorado County mule ears, 3
- Layne's ragwort, 4
- Sanford's arrowhead, 5
- bald eagle, 6
- burrowing owl, 7
- coast horned lizard, 8
- legenere, 9
- tricolored blackbird, 10
- valley elderberry longhorn beetle, 11
- vernal pool fairy shrimp, 12
- vernal pool tadpole shrimp, 13
- western pond turtle, 14
- western spadefoot, 15
- white-tailed kite, 16

CNDDB Occurrences over 30 years ago

- Boggs Lake hedge-hyssop, 17
- Red Hills soaproot, 18
- Swainson's hawk, 19
- foothill yellow-legged frog, 20
- tricolored blackbird, 21
- vernal pool tadpole shrimp, 22
- western pond turtle, 23
- white-tailed kite, 24

FIGURE 6 - CALIFORNIA NATIONAL DIVERSITY DATABASE (CNDDB) RECORDED SPECIES OBSERVATION

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Table 2: Special Status Species with Potential to Occur in the Study Area

Birds						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
white-tailed kite *Elanus leucurus*		FP		Found in a wide variety of open habitats in North America, including open oak grassland, desert grassland, farm country, marshes. The main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents.	Low	There is marginal foraging habitat for this species. There are three CNDDB reported occurrences within five miles of the Study Area. The closest was 1.86 miles to the northwest, and the most recent was in 2008. There was no sign of this species during the Barnett Environmental site survey in March 2021.
grasshopper sparrow *Ammodramus savannarum*		SSC		Grasshopper sparrows utilize prairie and cultivated grasslands, weedy fallow fields and alfalfa fields.	Low	There is marginal habitat on site for this species. There have been no CNDDB reported occurrences within five miles of the Study Area. There was no sign of this species during the Barnett Environmental site survey in March 2021.
loggerhead shrike (mainland) *Lanius ludovicianus*		SSC		In California, loggerhead shrike breed primarily in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They require tall shrubs, trees, fences, or powerlines for hunting perches and pair maintenance.	Low	The open field and adjacent trees provide marginal foraging habitat on site for this species. However, there have been no CNDDB reported occurrences within five miles of the Study Area. In addition, there was no sign of this species during the Barnett Environmental site survey in March 2021.
yellow warbler *Dendroica petechia*		SSC		Yellow warblers prefer moist habitats because they offer a large variety of insects. These habitats include the edges of marshes and swamps, willow-lined streams, and leafy bogs. Yellow warblers also inhabit dry areas such as thickets, orchards, farmlands, forest edges, and suburban yards and gardens.	Low	There is marginal foraging but not breeding habitat on site for this species. There are no CNDDB reported occurrences within five miles of the Study Area. There was no sign of this species during the Barnett Environmental site survey in March 2021.
yellow-breasted chat *Icteria virens*		SSC		This species is a skulker, favoring low, impenetrable vegetation along forest edges and in riparian areas, powerline cuts, and old fields.	Low	There is marginal habitat on site for this species within the riparian area on the site. There are no CNDDB reported occurrences within five miles of the Study Area. There was no sign of this species during the Barnett Environmental site survey in March 2021.

Birds						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
yellow-headed Blackbird *Xanthocephalus xanthocephalus*		SSC		This species always build their nests over water/ mainly marshes. They form large flocks and forage in agricultural fields where they feed on rice and weed seeds.	Very low	Due to the ongoing disturbance, there is only marginal foraging habitat on site for this species. There are no CNDDB reported occurrences within five miles of the Study Area. There was no sign of this species during the Barnett Environmental site survey in March 2021.

Plants						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
Layne's ragwort *Packera layneae*	FT	Rare	1B.2	This species grows in cismontane chaparral and oak woodlands habitats of the California Interior chaparral and woodlands ecoregion, often on serpentine soils and weathered gabbro.	Low	There are serpentine soils within 15 feet of the site, providing the possibility for a suitable habitat. There are three reported CNDDB occurrences within five miles of the Study Area. The closest was four miles to the northeast, the most recent in 2017. Barnett Environmental saw no sign of this species during its March 2021 field survey.
El Dorado County mule ears *Wyethia reticulata*			1B.2	El Dorado County mule ears can be found in chapparal, foothill woodland, and yellow pine forest communities	Very low	There is marginal suitable habitat on site. There have been five reported CNDDB occurrences within five miles of the Study Area. The closest was four miles to the southwest, and the most recent was in 2007. There were no observances of this species during the Barnett Environemental March 2021 site survey.
Red Hills soaproot *Chlorogalum grandiflorum*			1B.2	This species endemic to the Sierra Nevada foothills, such as the Red Hills (Tuolumne County), of California, where it grows in chaparral, woodland, and forest communities. It sometimes grows in ultramafic soils.	Very low	There is very marginal habitat for this species on site. There has been only one reported CNDDB occurrences within five miles of the Study Area. It was 4.9 miles to the southeast over 30 years ago. Barnett Environmental saw no sign of this species during its March 2021 survey.
Sanford's arrowhead *Sagittaria sanfordii*			1B.2	Sanford's arrowhead occurs in wetlands, shallow freshwater marshes, and wetland -riparian areas. It has mostly disappeared from the Central Valley and is not present in southern California.	Very low	There is marginal habitat on site for this species in the drainageway in the southern portion of the Study Area. The is only one CNDDB reported occurrences within five miles of the Study Area. It was encountered 2.15 to

Plants						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
el dorado bedstraw *Galium californicum H. & A. ssp. sierrae*			1B.2	This species grows in gabbro soils, and in chaparral, cistmontane woodland and kower montane coniferous forest	Very low	There is marginal habitat on site for this species. There are no CNDDB reported occurrences within five miles of the Study Area. There was no sign of this species during the Barnett Environmental site survey in March 2021.
Stebbins' morning-glory *Calystegia stebbinsii*	FE		1B.1	This species grows on the gabbro soil as well as the similar serpentine soil that can also be found on the Pine Hill intrusion. The plant does not tolerate shade, and when the brush around it grows too high and shades it out, it does not survive.	Very low	The Study Area is within the Pine Hill intrusion in El Dorado County, and the lack of tall vegetation on the property prevents shade from precluding this species. However, there have been no reported CNDDB occurrences within five miles of the Study Area, and there was no sign of this species during the Barnett Environmental March 2021 site survey.

Amphibians						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
western spadefoot *Spea hammondii*		SSC		The western spadefoot is predominantly a grassland species, although some populations can be found in pine-oak woodlands of the valley foothills. Western spadefoots require shallow, temporary pools or streams during the breeding season.	Low	The drainage in the Study Area provides marginal habitat on site for this species. There is only one CNDDB reported occurrence within five miles of the Study Area. It was encountered 3.03 miles to the northwest in 1999. There was no sign of this species during the Barnett Environmental site survey in March 2021.
foothill yellow-legged frog *Rana boylii*		CE		The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types	Very low	While normally occurring in streams and rivers with rocky substrate and on open, sunny streambanks in forests, chaparral, and woodlands, which do not occur here, they are sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools, habitat that does occur in the Study Area.

Special Status Species Codes:

FE = Federally listed as Endangered
FT = Federal listed as Threatened
CE = State listed as Endangered
CT = State listed as Threatened
Rare = State listed as Rare
FP = State, Fully Protected
SSC = State Species of Special Concern

1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
2B.1 = Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

Potential for Occurrence Codes:

None: No suitable habitat for the special status species within the Study Area

Very Low: Either the special status species is known to occur within five miles and there is marginal suitable habitat exists in the Study Area, or the Study Area provides suitable habitat, but the species is not known to occur within a five-mile radius.

Low: Marginally suitable habitat exists in the Study Area and the special status species occurs within 5 miles but surrounding urban land use conditions and regularity of human activity make it unlikely that the species occurs in the Study Area.

Moderate: The special status species is known to occur within a five-mile radius and the Study Area contains suitable habitat, however surrounding urban land use conditions and onsite disturbance reduce the likelihood of occurrence.

High: The Study Area provides suitable habitat and there is either documentation of species occurrence within a five-mile radius or evidence gathered by a professional surveyor during an onsite field assessment.

Present: Species known to occur within the Study Area based on record search and/or evidence collect during onsite field surveys.

5.2 Special Status Plants and Wildlife

There are six special status plant species that have any potential to occur onsite.

1. **El Dorado county mule ears** (*Wyethia reticulata*) – This small perennial herb, listed as rare in California (1B.1), is a dicot producing a hairy, glandular, sticky-textured stem growing from 15.7 to 27.5 inches high, sometimes reaching three feet in height. The leaves have triangular or lance-shaped blades up to 15 centimeters long. The inflorescence is a usually solitary sunflower-like head with up to 21 yellow ray florets measuring up to 2. 5 centimeters long. At the center are yellow disc florets. The flowers are pollinated by native bees. The fruit is an achene a few millimeters long which usually lacks a pappus. El Dorado County mule ears can be found in chapparal, foothill woodland, and yellow pine forest communities. There have been five reported CNDDB occurrences within five miles of the Study Area. The closest was four miles to the southwest, and the most recent was in 2007. No El Dorado county mule ears were observed during the Barnett Environmental March 2021 field survey.
2. **El Dorado bedstraw** (*Galium californicum H. & A. ssp. sierrae*) – This herb is federally listed as endangered and is classified as a rare 1B.2 plant in California. This species is a member of the coffee (Rubiaceae) family. It is a soft hairy perennial with pale yellow flowers, which are clustered at the tips of stems. Minute hairs cover the fleshy fruit. The blooming period is between May and June. This species grows in gabbro soils, chaparral, cistmontane woodland and lower montane coniferous forest. There were no CNDDB reported occurrences within five miles of the Study Area. No El Dorado bedstraw were observed during the March 2021 field survey.
3. **Layne's ragwort** (*Packera layneae*) – Listed both as federally threatened and a California rare plant species (1B.2), this plant is perennial herb in the aster family. is a perennial herb producing an erect stem or a small cluster of stems up to 27.5 inches tall. The thick leaves have wide lance-shaped blades a few centimeters long which are borne on long petioles; smaller leaves occur farther up the stems. The inflorescence bears several flower heads containing many yellow disc florets and several narrow yellow ray florets. This species grows in cismontane chaparral and oak woodlands habitats of the California Interior chaparral and woodlands ecoregion, often on serpentine soils and weathered. There are three reported CNDDB occurrences within five miles of the Study Area. No Layne's ragworts were observed during the Barnett Environmental March 2021 field survey.
4. **Stebbins' morning glory** (*Callestegia stebbinsii*) – Stebbins' morning glory is classified as a 1B.1 rare plant in California and is also listed as federally endangered. This species is a low-growing perennial herb with white flowers that bloom from May to June. This species grows on the gabbro soil as well as the similar serpentine soil that can also be found on the Pine Hill intrusion. The plant does not tolerate shade, and when the brush around it grows too high and shades it out, it does not survive. Historically, Stebbins' morning-glory has only been found in two areas of the northern California foothills in El Dorado and Nevada counties. The Study Area is within the Pine Hill intrusion in El Dorado County, and the lack of tall vegetation on the property prevents shade from precluding this species. There have been no CNDDB reported occurrences within five miles of the Study Area. No Stebbins' morning glory were observed during the Barnett Environmental March 2021 field survey.
5. **Sanford's Arrowhead** (Sagittaria sanfordii) – Classified as a 1.B2 rare plants species in California, Sanford's Arrowheads is a perennial rhizomatous herb that blooms May through October. It grows up to 51 inches tall, and the leaves are very often submerged, variable in shape, usually long and strap-shaped or narrowly

lanceolate, growing up to 10 inches long from the underwater stem. The plant is monoecious, with individuals bearing both male and female flowers. The flower is up to 1.4 inches wide with white petals. The species grows in wetlands, shallow freshwater marsh, wetland -riparian. There is marginal habitat on site for this species in the drainageway in the southern portion of the Study Area. The is only one CNDDB reported occurrence within five miles of the Study Area. It was encountered 2.15 to the south in 2005. No Sanford's arrowheads were observed during the Barnett Environmental March 2021 field survey.

6. **Red hills soaproot** (*Chlorogalum grandiflorum*) – The red hills soaproot, a perennial bulbiferous herb, is classified as a 1B.2 rare plant species in California. The basal leaves have very wavy edges. The inflorescence may be a three feet long and is composed of many flowers, each with six tepals which are white with a purple midvein. The tepals are narrow, up to 1 ½" inch long, and curl back as they spread open. Each ephemeral flower opens in the evening and closes by the following morning. There are six stamens tipped with yellow anthers. The species is found on serpentitic and gabbrotic soils in chapparal, cismontane, and lower montane coniferous forest. There is very marginal habitat for this species on site. There has been only one reported CNDDB occurrence within five miles of the Study Area. It was 4.9 miles to the south over 30 years in the past. No red hills soaproots were observed during the Barnett Environmental March 2021 field survey.

5.3 Special Status Wildlife

California Listed Species

There is only one California threatened or endangered species that has the potential to occur within the Study Area (Table 2):

1. **Foothill yellow-legged frog** (*Rana boylii*) –This California endangered species is a small-sized frog, 1.5 to 3.23 inches, in the family Ranidae. Its coloring is gray, brownish, or olive, and the undersides of the legs and belly are yellow. It is usually active in daylight. The foothill yellow-legged frog is found near or in rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chapparal, and wet meadow types. There has been only one reported CNDDB occurrence within five miles of the Study Area. It was 3.3 miles to the north in 1970. No yellow-legged frogs were observed during the Barnett Environmental March 2021 field survey.

California Species of Special Concern (CEQA)

Six state species of special concern have the potential to occur within the Study Area (Table 2):

1. **Western spadefoot toad** (*Anniella pulchra*) – A amphibian species in the Scaphiopodidae family, this toad is listed as a species of special concern in California. It is a medium-sized toad with a head as wide as its body. Forelimbs and hindlimbs are short and stout, and the feet have well-developed webbing between the toes. The dorsal color ranges from light green to gray with scattered darker splotches. The western spadefoot is predominantly a grassland species, although some populations can be found in pine-oak woodlands of the valley foothills. Western spadefoots require shallow, temporary pools or streams during the breeding season. There has been one reported CNDDB occurrences within five miles of the Study Area 1.8 miles to the northwest in 2008. No western spadefoots were observed within the Study Area during Barnett Environmental's March 2021 field surveys.

2. **Yellow-breasted chat** (*Icteria virens*) – The yellow-breasted chat is a large songbird found in North America and is the only member of the family Icteriidae. Chats are olive-green with a bright yellow breast and bold face markings. The fact is gray, with a white eyerling that connect to the bills, forming spectacles. The lower belly is white. It breeds from Southern British Colombia to southern Saskatchewan and North Dakota south to south-central Baja California and west Texas. In California, it occurs as a migrant and summer resident primarily from late March to late September. For habitat, this species favors low, impenetrable vegetation along forest edges and in riparian areas, powerline cuts, and old fields. There have been no reported CNDDB occurrences within a five-mile radius. No yellow-breasted chats were observed within the Study Area during Barnett Environmental's March 2021 field survey.
3. **Yellow warbler** (*Dendroica petechia*). The yellow warbler, a species of concern in California, are uniformly yellow birds. They measure between 4.7 to 5.1 inches in length and have a wingspan of between 6.3 to 7.9 inches. Yellow warblers prefer moist habitats because they offer a large variety of insects. These habitats include the edges of marshes and swamps, willow-lined streams, and leafy bogs. Yellow warblers also inhabit dry areas such as thickets, orchards, farmlands, forest edges, and suburban yards and gardens. There have been no reported CNDDB occurrences within a five-mile radius, and no yellow warblers were observed within the Study Area during the Barnett Environmental March 2021 field survey.
4. **Loggerhead shrike** (*Lanius ludovicianus*). This species of special concern is a loggerhead passerine shrike in the family Liniidae. The loggerhead shrike is a chunky songbird averaging eight to ten inches in length and has a thick, hooked bill, and a blue-gray head and back. Their breasts and bellies are white and faintly barred, and their rumps are gray to white. A broad black mask extends across and slightly above the eyes approaching the bill. The bird's bill is black and hooked. The wings are dark with large white wing bars and white scapulars or feathers along the base of the upper wing. The tail is also dark with white along the edges. . Loggerhead shrikes inhabit open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses and cemeteries. There have been no reported CNDDB occurrences within a five-mile radius, and no loggerhead shrike were observed within the Study Area during Barnett Environmental's Match 2021 field surveys.
5. **Yellow-headed blackbird** (*Xanthocephalus xanthocephalus*). The yellow-headed blackbird is a medium-sized blackbird and the only member of the genus Xanthocephalus. This species has a golden head, a white patch on black wings. The yellow-headed blackbird always builds their nests over water, principally marshes. They form large flocks and forage in agricultural fields, open country, plowed fields and feedlots where they feed on rice and weed seeds. There have been no reported CNDDB occurrences within a five-mile radius, and no yellow warblers were observed within the Study Area during Barnett Environmental's March 2021 field surveys.
6. **Grasshopper sparrow** (*Ammodramus savannarum*). The yellow warbler, a species of special concern in California, are uniformly yellow birds. They measure between 4.7 to 5.1 inches in length and have a wingspan of between 6.3 to 7.9 inches. Yellow warblers prefer moist habitats because they offer a large variety of insects. These habitats include the edges of marshes and swamps, willow-lined streams, and leafy bogs. Yellow warblers also inhabit dry areas such as thickets, orchards, farmlands, forest edges, and suburban yards and gardens. There have been no reported CNDDB occurrences within a five-mile radius, and no yellow warblers were observed within the Study Area during Barnett Environmental's March 2021 field surveys.

California Fully Protected Species

There is only one fully protected animal species that has the potential to occur within the Study Area (Table 2):

1. **White-tailed kite** (*Elanus leucurus*). The white-tailed kite, a small to medium sized species, is a fully protected species in California. It ranges in length between 12.6 to 15.0 inches in length, and 10.6 to 12.7 ounces in weight. This species is largely pale with a white tail, black shoulder patches, white heads, and red eyes. They hover above open areas while hunting small animals. During the nonbreeding season, it gathers in communal roosts. There have been no reported CNDDB occurrences within a five-mile radius, and no white-tailed kites were observed within the Study Area during the Barnett Environmental field survey.

6.0 Effects if Proposed Action

6.1 Effects of Proposed Action on Wetlands, "Other Waters of the U.S." or "Waters of the State"

Any work done within the drainage or the riparian area would require resource permitting with federal (U.S. Army Corps of Engineers) and state (Central Valley Regional Water Quality Control Board & California Department of Fish & Wildlife) agencies if this feature would be modified during project development. Consequently, should the parcel's eastern half be developed, we would strongly recommend communicating with these agencies to determine whether CA Dredge & Fill Procedures (aka Waste Discharge Requirement; WDR) permitting would be required and with the California Department of Fish & Wildlife to inquire about a possible 1602 Lake & Streambed Alteration Agreement. In addition, the Army Corps of Engineers Sacramento division should be contacted to determine which permit would be appropriate for the proposed work.

Any resource permitting with these agencies could also require mitigation of any wetland habitat loss through purchase of equivalent wetland credits at an approved mitigation bank within the project's service area.

6.2 Effects of Proposed Action on Rare Plants and Habitat

The following discussion of biological resources impacts, and mitigation measures is based on implementation of the proposed project in comparison to existing conditions.

Rare plants

There are only six plant species, El Dorado County mule ears, El Dorado neststraw, Layne's ragwort, Sanford's Arrowhead, Red hills soaproot, and Stebbin's morning glory, that have a potential (very low) to occur because the habitat is only marginally suitable for these species. Two of these species, Layne's ragwort and Stebbin's morning glory, are federally listed as endangered. None of these species were observed during Barnett's Environmental's March 2021 field survey.

In order to ensure there are no impacts to these species, the applicant should conduct a survey within the blooming period of these species to establish the presence or lack of these plants in the Study Area.

6.3 Effects of Proposed Action on Wildlife and Habitat

There is one California endangered species, one California fully protected species and six California species of special concern that have the potential to occur in the Study Area. However, there have been no occurrences reported within the Study Area itself. We would recommend pre-construction surveys within two weeks of planned construction to confirm the presence or absence of any of these species.

7.0 Conclusions

The Study Area contains approximately 0.23 acres of what could potentially be considered Waters of the U.S. and/or Waters of the State. Any activity causing direct adverse impacts to the drainage running through the eastern side of this parcel could therefore require resource permits from the Army Corps of Engineers, the Regional Water Quality Control Board (401; WDR), and California Department of Fish & Wildlife (1602). Until permits are issued from these regulatory bodies, we recommend avoiding development on the southeastern part of the parcel.

There are six special plant species with the potential to occur in the Study Area: the El Dorado County mule ears, Layne's ragwort, Sanford's arrowhead, red hills soaproot, and Stebbins' morning glory. In order to confirm presence or absence of these plant species, we recommend surveys for them during their respective blooming periods.

8.0 References

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Appendix A:
NRCS Soil Report

United States Department of Agriculture

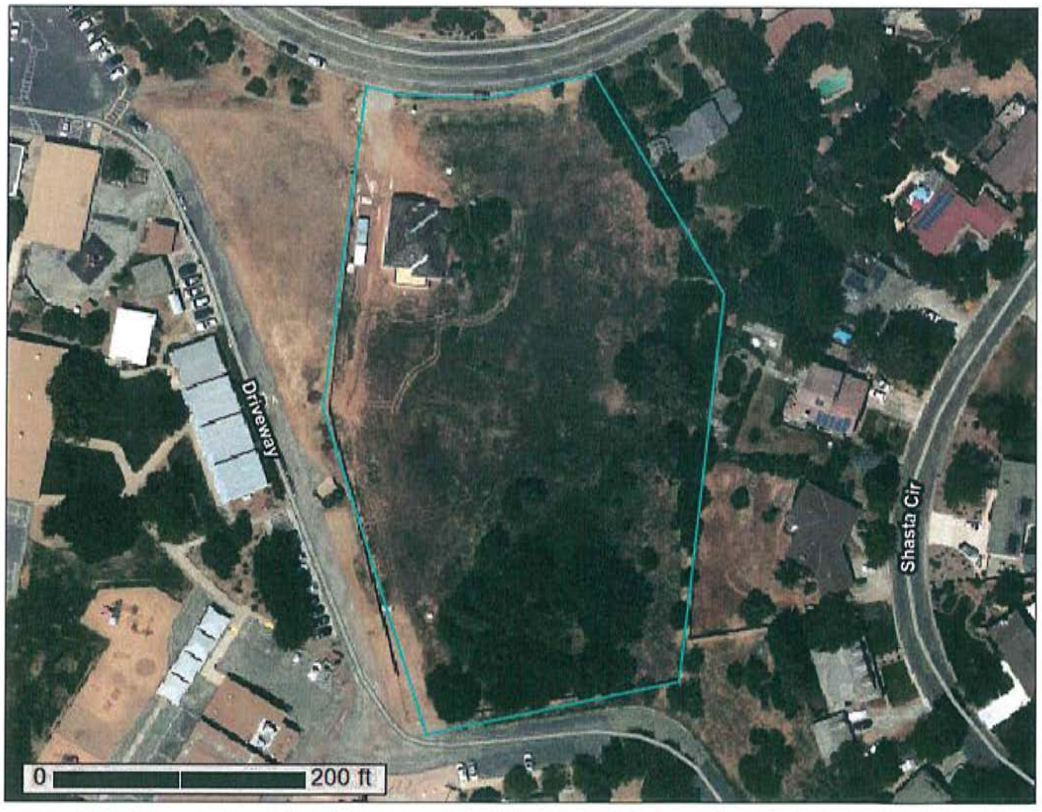
NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for El Dorado Area, California

3630 Park Drive, El Dorado Hills CA 95762



February 19, 2021

Preface

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

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

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

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

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

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

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Contents

Soil Map

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

Custom Soil Resource Report
Soil Map

6

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

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

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AxD	Auburn very rocky silt loam, 2 to 30 percent slopes	3.0	100.0%
Totals for Area of Interest		**3.0**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

El Dorado Area, California

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

Map Unit Setting

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

Map Unit Composition

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

Description of Auburn

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

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

Description of Rock Outcrop

Setting

Parent material: Metamorphic rock

Interpretive groups

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

Minor Components

Boomer

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

Argonaut

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

Sobrante

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

Unnamed

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

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Appendix B: California Natural Diversity Database (CNDDB)

3630 Park Drive, El Dorado Hills CA 95762

California Department of Fish and Wildlife California

Natural Diversity Database

Query Criteria: Quad IS (Clarksville (3812161))
 AND County IS (El Dorado)
 AND Elevation IS greater than OR equal to "600"
 AND Elevation IS less than OR equal to "700"
 AND Habitat IS (Broadleaved upland forest OR Pavement plain OR Ultramafic OR Valley & foothill grassland)

3630 Park Dr, El Dorado Hills CA 95762

Erethizon dorsatum **Element Code:** AMAFJ01010

North American porcupine

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5
	State:	None		**State:**	S3
	Other:	IUCN_LC-Least Concern			
Habitat:	**General:**	FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.			
	Micro:	WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.			

Occurrence No.	349 **Map Index:** A5760	**EO Index:**	107503	**Element Last Seen:**	2010-12-XX
Occ. Rank:	Unknown	**Presence:**	Presumed Extant	**Site Last Seen:**	2010-12-XX
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	2017-08-07

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.6541 / -121.0713	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4280158 E667827	**Elevation (ft):**	649
PLSS:	T09N, R08E, Sec. 11, NW (M)	**Acres:**	70.0

Location:	NEAR THE INTERSECTION OF HWY 50 AT EL DORADO HILLS BLVD, 0.8 MI WSW OF HWY 50 AT SILVA VALLEY PKWY, W OF CLARKSVILLE.
Detailed Location:	MAPPED TO INCLUDE BOTH SETS OF PROVIDED COORDINATES. ROADKILLS APPEAR TO HAVE HAPPEN ON EL DORADO HILLS BLVD AND HWY 50 ACCORDING TO THE COORDINATES.
Ecological:	OAK WOODLAND.
General:	1 PORCUPINE OBSERVED AS ROADKILL IN MAR 2010. 1 PORCUPINE OBSERVED AS ROADKILL IN DEC 2012.
Owner/Manager:	UNKNOWN

Appendix C: U.S. Fish and Wildlife Service iPAC

IPaC U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

El Dorado County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS

Giant Garter Snake Thamnophis gigas — Threatened
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii	Threatened
California Tiger Salamander Ambystoma californiense	Threatened

Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2891

Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus	Threatened

Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus	Threatened

Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi	Threatened

Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is final critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS
El Dorado Bedstraw Galium californicum ssp. sierrae	Endangered
Layne's Butterweed Senecio layneae	Threatened
Pine Hill Ceanothus Ceanothus roderickii	Endangered
Pine Hill Flannelbush Fremontodendron californicum ssp. decumbens	Endangered
Stebbins' Morning-glory Calystegia stebbinsii	Endangered

Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/5209

Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4062

Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3293

Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4818

Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3991

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES

THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe Aechmophorus clarkii — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Song Sparrow Melospiza melodia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any

week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix D: Special Species with No Potential for Occurrence

Species with potential to occur as "none"							
Scientific Name	**Common Name**	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale**
Taxidea taxus	American badger		SSC		Badgers live in dry, open grasslands, fields, and pastures. They can also live in deserts and marshes. They are found from high alpine meadows to sea level. Mostly nocturnal, but	None	The Study Area is highly disturbed, and its position within an urban environment, preclues the presence of this species. There were no badgers observed during the Barnett Environmental January 2021 site visit.
Haliaeetus leucocephalus	bald eagle	Delisted	CE		They prefer lakes and reservoirs with lots of fish and surrounding forests. In the winter, bald eagles can be seen around unfrozen lakes and hunting along coastlines,	None	The Study Area is highly disturbed an provides no lakes or forrests that could provide foraging habitat for this species. There were no badgers observed during the Barnett Environmnetal January 2021 site visit.
Athene cunicularia	burrowing owl		SSC		Burrowing owls live in burrows dug by other animals in open, treeless spaces. Favored nest burrow sites are those with sandy locations and areas with low vegetation around the burrows.	None	There were no burrows observed on the site during the Barnett Environmental January 2021 site survey which could provide habitat for this species.
Laterallus jamaicensis coturniculus	California black rail		CT		California rails inhabit tidal marshes and freshwater marshes. They inhabit the drier parts of wetlands.	None	There are no freshwater marshes or wetlands on site to provide habitat for this species. In addition, there was no sign of this species during the Barnett Environmental January 2021 site survey.
Phrynosoma blainvillii	coast horned lizard		SSC		This species occurs in valley-foothill hardwood, conifer and riparian habitats, as well as pine-cypress, juniper, and annual grassland habitats. Its elevational range extends up to 5900 feet the mountains of southern California.	None	There is only one reported CNDDB occurrence of this species within five miles of the Study Area. In addition, there was no sign of this species during the Barnett Environmental site survey.
Legenere limosa	legenere			1B.1	Legene is found in valley grasslands, freshwater wetlands, and wetland-riparian communities.	None	The Study Area is outside of this species' area of occurrence.
Buteo swainsoni	Swainson's hawk		CT		Swainson's hawk favors open areas like savannas, grasslands, steppes, and cultivated lands.	None	The parcel is too small and too disturbed to be an effective foraging ground for Swainson's hawk. In addition, there are no historical or current nests in the on site trees to suggest that Swainson's hawk.
Agelaius tricolor	tricolored blackbird		CT		This species forages in open habitat such as farm fields, pastures and large lawns. It often found in cattails or bulrushes in freshwater marshes and must have open water within 1600 feet for colony establishment. Open	None	There are no open waters within 1600 feet for colony establishment. In addition, there was no sign of this species during the Barnett Environmental
Branchinecta lynchi	vernal pool fairy shrimp	FT			Vernal pool fairy shrimp occur primarily in vernal pools, seasonal wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer.	None	There are no vernal pools or other wetlands that could provide habitat for this species on site. In addition, there was no sign of this species during the Barnett Environmental January 2021 site survey.
Branchinecta lynchi	vernal pool fairy shrimp	FT			Vernal pool fairy shrimp occur primarily in vernal pools, seasonal wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer.	None	There are no vernal pools or other wetlands that could provide habitat for this species on site. In addition, there was no sign of this species during the Barnett Environmental 2021 site survey.
Lepidurus packardi	vernal pool tadpole shrimp	FE			Found in vernal pools that is clear to murky and 50-84 degrees Fahrenheit, and the pools range from 55 square feet (5 square meters) to almost 90 acres (36 hectares)	None	There are no vernal pools that could provie habitat for this species on site. In addition, there was no sign of this species during the Barnett Environmental 2021 site survey.
Emys marmorata	western pond turtle		SSC		The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches and reservoirs. Turtles bask on land or near water	None	The wetlands on site only contain water shortly after rain events, and thus, the do not provide suitable habitat for this species.
Ambystoma californiense	California tiger salamander	FT	CT		The species is restricted to grasslands and low foothills with pools or ponds that are necessary for breeding	None	The waters on site are not natural streams, but outfalls from neighboring property runoff. Therefore, there is no land or water connection to natural breeding pond habitat for this species.

Rana draytonii	California red-legged frog	FT	SSC		This species inhabits aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dunes, and lagoons.	None	The waters on site are not natural streams, but outfalls from neighboring property runoff. Therefore, there is no land or water connection to natural breeding pond habitat for this species.
Thamnophis gigas	giant gartersnake	FT	CT		Agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley.	None	The short stormwater residence time in the onsite wetlands is only several days after rain events and precludes the development of habitat for this species.
Oncorhynchus mykiss pop. 11	steelhead - Central Valley DPS	FT			Freshwater, brackish, or marine waters of temperate zones. The anadromous form, called steelhead, spawn and complete their early development in freshwater mountain streams, then migrate to spend their adult life in the ocean. In freshwater, they prefer cool water but	None	There are no permanent sources of water on the Study Area that could provide habitat for this species on site. Barnett Environmental encountered no sign of this species during thr January 2021 site visit.
Oncorhynchus tshawytscha	chinook salmon - central valley spri	FT	CT		Chinook salmon are an anadromous species which at different phases of their life history, inhabit marine, brackish	None	There are no permanent sources of water on the Study Area that could provide habitat for this species on site. Barnett Environmental encountered no sign of this species during thr January 2021 site visit.
Strix occidentalis occidentalis	california spotted owl		SSC		California spotted owls generally inhabit older forests that contain structural characteristics necessary for nesting, roosting, and foraging. Nests are typically found in areas	None	There are no old forests on site that could provide habitat for this species. In addition, the urban disturbance precludes occurrence of the California spotted owl on site.
Asio otus	long-eared owl		SSC		Long-eared owls live in forests and shrub lands that are near to open areas, such as grasslands. They can be found from sea level up to 2000 m elevation. They are common in tree belts along streams in dry habitats.	None	There are no forests or shrub lands on the site that could provide habitat for this species. In addition, there was no sign of this species during the Barnett Enviromental site visit.
Pooecetes gramineus affinis	Oregon vesper sparrow		SSC		This species is migratory and overwinters in California west of the Sierra Nevada Mountains and south of San Francisco Bay, and historically into northwestern Baja California, Mexico. Within the breeding range, it is restricted to grassland and savannah habitat types in lowland valleys and foothills, except for the Klamath Mountains ecoregion where it occurs in montane meadows. Within these habitat types, breeding habitat conditions can be generally characterized as moderately short and patchy grass and forb cover with some bare ground, low to moderate shrub or tall forb cover, and low tree cover. They typically avoid mesic areas or sites with tall, dense herbaceous vegetation.	None	The Study Area is not in the geographical range for this species, and there were no CNDDB reported occurences within five miles of the Study Area. There was no sign of this species during the Barnett Environmental site survey.
Circus cyaneus	northern harrier		SSC		These birds inhabit grasslands, fields, marshes, upland prairies, savannas and alpine meadows. They also occur in wetland habitats and upland habitats such as desert steppe. They avoid forested and mountainous areas.	None	The Study Area is outside of any desert steppe habitat that could provide habitat for this speciess. There were no CNDDB reported occurences within five miles of the Study Area. No sign of this species was observed during the Barnett Environmental site survey.
Melospiza melodia	song sparrow (modesto population)		SSC		Brushy fields, streamsides, shrubby marsh edges, woodland edges, hedgerows, well-vegetated gardens. Some coastal populations live in salt marshes.	None	This species primarily find habitat at elevations less than 200 feet. There were no CNDDB reported occurences within five miles of the Study Area, an there was no sign of this species during the Barnett Environmental site survey.
Ceanothus roderickii	pine hill ceanothus	FE			This species is found almost exclusively on soils of gabbro origin in the Pine Hill geological formation. It grows in chapparal and woodlands of the Sierra Nevada Foothills.	None	There are no gabbro soils on site to provide habitat for this species. In addition, there was no sign of this species during the Barnett Environmental site visit.
Fremontodendron californicum ssp. decumbens	pine hill flannelbush	FE			The Pine hill flannelbush grows in dry sandy washes, primarily in the High Sierra Nevada.	None	The Study Area is out of the pine hill flannelbush's habitat elevational range. In addition, there are no sandy washes on site that could provide habitat for this species. There was no sign of this species during the Barnett Environmental site survey

Hypomesus transpacificus	delta smelt	FT			The Delta Smelt inhabits the freshwater-saltwater mixing zone of the Sacramento-San Joaquin estuary of California, except during the spawning season, when it migrates to fresh water following winter "first flush" events.	None	The Study Area is not within this species' geographical habitat in the Sacramento-San Joaquin estuary.
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT			The species is nearly always found on or close to its host plant, red or blue elderberry (Sambucus species), along rivers and streams. arly always found on or close to its host plant, red or blue elderberry (Sambucus species), along rivers and streams.	None	The site contains no elderberry bushes, and thus there is no habitat on site for this species. There are two CNDDB reported occurences within five miles of the Study Area. The closest was 2.63 miles to the west, and the most recent was in 1999. There was no sign of this species during the Barnett Environmental site survey in March 2021.
Gratiola heterosepala	Boggs Lake hedge-hyssop		CE	1B.2	It grows in mud and valley shallow water within an area of open juniper and sagebrush. Freshwater wetlands, wetland-riparian.	None	The lack of juniper or sagebrush on the property preclude the presence of this species. The has been only one CNDDB occurrence reported within five miles of the site. This occurence was 4.5 miles to the west in 1988. There was no sign of this species during the

California Tree and Landscape Consulting, Inc.

Arborist Report

October 12, 2021

Mr. Anatoliy Kukharets
3630 Park Dr
El Dorado Hills, CA 95762
c/o CTA Engineering & Surveying

Work location
3630 Park Drive
El Dorado Hills, CA 95762

Amended Arborist Report for Oak Conservation Resources

APN
120-150-02-010

Prepared by:
Gordon Mann, Consulting Arborist

P21-0010

359 Nevada Street, Auburn, suite 201, CA 95603 Office: (530) 745-4086 Direct: (650) 740-3461 www.caltlc.com

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Assignment

The subject site is a single-family lot approximately 3 acres. The property is proposed to be subdivided into 4 lots with a driveway near the center connecting the 2 new south parcels with Park Drive. The remaining north parcel, 2, will come with a private drive off Park Drive on its own. Mr. Kukharets contacted our office and requested we provide the information required to satisfy the County of El Dorado's Oak Conservation Resources, determining if there is any oak woodland area, identifying all individual oak trees and all oak trees on the property 24 inches in diameter and greater, all Heritage Trees 36 inches in diameter and greater, and any individual oak trees 6 inches and greater located outside of the oak woodland designation for mitigation for tree removal based on the County ORMP Oak Resources requirements and Ordinance No. 5061. This report is the result of an onsite inspection performed on March 26, 2021, and the use of Google Maps aerial imagery.

Assignment limits

All the trees were observed while standing on the ground. Data collected is limited to a visual ground inspection. The aerial image was used from Google Maps. Ground inspections and measurements were used to ensure the accuracy of the inspection data. All site information was provided by Mr. Kukharets and Terra Jaime from CTA Engineering and Surveying.

Current Existing Tree Status (Observations)

The site is on Park Drive between bends in Redwood Lane. There are single family homes to the east and north, a school to the west, and a park to the south. The biologist reported riparian woodland calculated as .73 acres in two sections on the property, and there are individual oak trees. There is remnant oak woodland on the property, considered the continuation of other oak trees growing on adjacent developed properties to the east. The two species are Interior Live Oak (*Quercus wislizenii*),

and Blue Oak (*Quercus douglasii*), growing in groves and scattered individual trees. 54 Oak trees were inspected.

A single-family home is existing on Parcel 1. The driveway to connect the proposed 2 southern parcels to Park Drive will require the removal of tree number 9136, a 13-inch Interior Live Oak in Fair condition. Tree number 9136 will need to be removed with some surrounding non-native trees for the proposed driveway.

The development is required to comply with the El Dorado County ORMP Oak Resources requirements and Ordinance No. 5061 for individual oak trees.

The site is approximately 3 acres. The site will be subdivided into 4 parcels. The 3 new parcel layouts have adequate space to construct homes without impacting the remaining oak trees. In the final design, one individual oak tree is proposed for removal. The oak woodland on the site was determined to be riparian. There are native oak trees in the riparian areas, and there are individual oak trees outside of the woodland. All the trees present on the site, with the exception of tree number 9136 which is proposed to be removed, are proposed outside the driveway and are expected to be outside the future home construction zones and are unlikely to be impacted by the future construction. Mitigation for tree #9136 will be 13 inches. If additional trees or oak woodlands are impacted or removed for future home construction or utility service construction, the impact/removal and mitigation shall comply with the El Dorado County oak resource regulations and ordinance no. 5061.

There were 3 oak trees found to be 24 inches diameter or greater, trees number 9161, 9179, and 9187. One tree, #9187, is a Heritage tree 36 inches in diameter or greater in very poor condition and outside of any proposed development. These trees are shown on the tree list and are to be retained and protected for the construction. This tree should be removed for site use safety due to significant basal decay in the multiple stems, and is not related to the construction for the project and should not need to be mitigated based on the very poor condition.

All the tree data is included in the attached 3630 Park Drive El Dorado Hills Tree List.

Technical Recommendations

It is recommended that all tree care follow specifications written in accordance with ANSI A-300 standards. Pruning of the trees should be performed in the outer edge of the canopy to reduce leverage and end weights and allow the center of the canopies to grow and fill in with foliage. If roots are encountered, prior to excavating the roots the roots shall be pruned at the outside edge of the excavation. When root pruning, the smallest size roots as possible be pruned, cuts shall be performed with handsaws, loppers, chainsaws, or power saws appropriate for the size of the root being cut. The roots shall be exposed by excavating prior to cutting. Roots should be pruned prior to root removal within the tree protection area to limit the damage and tearing of roots back towards the tree. Root pruning should be overseen by a qualified arborist. One tree, #9136 is proposed to be removed. No other oak trees are proposed to be encroached upon and root pruning will only be performed on roots outside the tree protection zone, avoiding impact for the proposed driveway construction. There is one tree, number 9187, that was found to be in very poor condition and should be removed based on the very poor condition that is not related to the site development impacts, and would not require mitigation.

Tree protection shall be accomplished by fencing the trees outside of the work area with either an orange plastic fence or chain link fence that keeps work activities out of the protected area. A sign shall be placed on the fencing every 50 feet or on each side of an angled or polygon fence that states Tree Protection Zone. If any work is proposed in the tree protection area, the soil shall be covered with 4 inches of wood chip mulch to protect against soil compaction. The fencing may be opened to allow the approved work, and after the work is completed, the fencing shall be put back in place.

Tree planting should follow the specifications included in Appendix A.

General Tree Care and Maintenance

The appendix information is given so that an onsite landscape manager can properly take care of the retained trees, and newly planted trees. Established native oak trees do not like to have the base of the trunk or their roots and the surrounding soil disturbed or tampered with. Applying or having unintentional landscape water in the root zone can cause catastrophic and negative affects to most species of native oak trees. Newly planted oak trees do need their root balls watered until established and then may need supplemental watering during extended periods of dry or hot weather. It is, therefore, recommended that the landscape be designed using drought tolerant plants that will require little to no watering after establishment. Irrigation should be delivered using an on-surface drip type system that does not require trenching around the oak trees to install. The plants should be spaced at least 6 feet away from the trunk of native oak trees, and the drainage from irrigation should be managed so water does not flow to the trunks of the oak trees. Trees that are growing in high use areas should be inspected by a qualified arborist for tree risk on a routine basis, the frequency depending on site use and tree condition.

Other testing or examination:

No additional testing or examination was requested at the time of the inspection or found necessary.

Mitigation Calculations:

Per ordinance 5061, section 130.39.070.C.1, mitigation for oak woodland removal shall be addressed in the following options:

a. In-lieu Fee payment based on the percent of on-site Oak Woodland impacted by the development as shown in Table 5 (Oak Woodland In-Lieu Fee) in the ORMP to be either used by the County to acquire off-site deed restrictions and/or conservation easements or to be given by the County to a land conservation organization to acquire off-site deed restrictions and/or conservation easements;

b. Off-site Deed Restriction or Conservation Easement acquisition for purposes of off-site oak woodland conservation consistent with Chapter 4.0 (Priority Conservation Areas) of the ORMP;

c. Replacement planting within an area on-site for up to 50 percent of the total Oak Woodland mitigation requirement consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement;

d. Replacement planting within an area off-site for up to 50 percent of the total Oak Woodland mitigation requirement. Off-site replacement planting areas shall be consistent with Section 2.4 (Replacement Planting Guidelines) and Chapter 4.0 (Priority Conservation Areas) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement;

e. A combination of options a through d above.

Per ordinance 5061, section 130.39.070.C.2, mitigation for individual oak tree removal shall be addressed in the following options:

a. In-lieu Fee payment for individual oak tree removal to be either used by the County to plant oak trees or to be given by the County to a land conservation organization to plant oak trees as shown in Table 6 (Individual Oak Tree In-Lieu Fee) in the ORMP;

b. Replacement planting on-site consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP within an area subject to a Deed Restriction or Conservation Easement and utilizing the replacement tree sizes and quantities shown in Table 4 (Oak Tree Replacement Quantities) in the ORMP. On-site replacement planting shall be consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP;

c. Replacement planting off-site within an area subject to a Conservation Easement or acquisition in fee title by a land conservation organization utilizing the replanting sizes and quantities specified in Table 4 (Oak Tree Replacement Quantities) in the ORMP. Off-site replacement planting shall be consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP; or

d. A combination of options a through c above.

The ORMP requires mitigation in 3 areas of a project impacting oak woodland:

A. Acreage of oak woodland impacted
B. Individual Oak Trees 6-inch diameter and greater growing outside of the oak woodland
C. Heritage Trees 36-inch diameter and greater in the project area

A. The project site is approximately 3 acres and the area was considered a riparian woodland by the biologist. There were 54 oak trees found that are of protected size, 6 inches diameter and greater. Tree #9136, an individual oak tree is proposed for removal.

The mitigation ratio chart for El Dorado County ORMP is:

Percent of Oak Woodland Impact	Oak Woodland Mitigation Ratio
0-50%	1:1
50.1 – 75%	1.5:1
75.1-100%	2:1

A total of 0 acres of oak woodland are impacted and there is no required mitigation.

B. The next mitigation required is the individual oak trees. There were 5 trees considered individual oak trees that are of protected size. Four trees, #9136, 9137, 9138 & 9189, are on the subject property and one tree, #9139 is on an adjacent property encroaching across the property line. Tree #9136, a 13-inch diameter Interior Live Oak is proposed for removal and will

need to be mitigated with 13 inches of planting, or an in-lieu fee payment. The in-lieu payment is calculated at 13 inches x $153 per inch, totaling $1,989.00.

c. The final mitigation requirement is the proposed removal of Heritage trees, trees 36 inches and greater. There are no Heritage Trees proposed for removal, and there is no additional mitigation fee.

The total trees to be planted is 13 inches, or an in-lieu mitigation fee for the proposed project would be $1,989.00.

The applicant will determine if they will perform the mitigation planting or pay the in-lieu fee.

The oak woodland and individual oak tree in-lieu fee mitigation requirements for the project was calculated based on the following information:

Total area of the project area: approximately 3 acres
Total area of oak woodland: 0.73 acres
Total percent of existing oak woodland: 24.3%
Total area of total oak woodland to be removed: 0 acres
Total percent of oak woodland to be removed: 0%
Oak Woodland Mitigation Ratio: 1:1
Total area of Oak Woodland to be mitigated: 0 acres
Total number and diameter inches of individual oak trees to be removed: 1 tree, 13 inches
Total number and diameter inches of Heritage Trees to be mitigated: 0 trees
Total area of pre-mitigated oak canopy to be removed: 0 sq. ft.
Total area of oak woodland required to be mitigated: 0 acres
Total Oak Woodland Area Impacted Mitigation: .0 acres @ $8,285 per acre = $0
Individual Oak tree Impacted Mitigation: 1 tree, 13 inches, $153 per inch: $1,989.00
Heritage Tree Impacted Mitigation: 0 trees, 0 inches, $459 per inch: $0.00
Total Amount of In-Lieu Fee Oak Resource Mitigation: $1,989.00

Conclusion:

The site is being subdivided into 4 parcels with one existing home. There will be 3 new parcels. There are a combination of 0.73 acres of Riparian Oak Woodland and 5 individual oak tree. There is no oak woodland impacted by the proposed project. One individual oak tree, 13 diameter inches, is proposed for removal. 53 trees are proposed to be retained and protected.

There is a required planting of 13 inches of native oak trees or an in-lieu mitigation payment of $1,989.00, and the proposed project will be in compliance with the Ordinance 5061, Oak Resources Conservation.

There were no Heritage Trees requiring mitigation impacted by the proposed development.

Please contact Gordon Mann, of California Tree and Landscape Consulting, Inc., if there are any questions about this report.

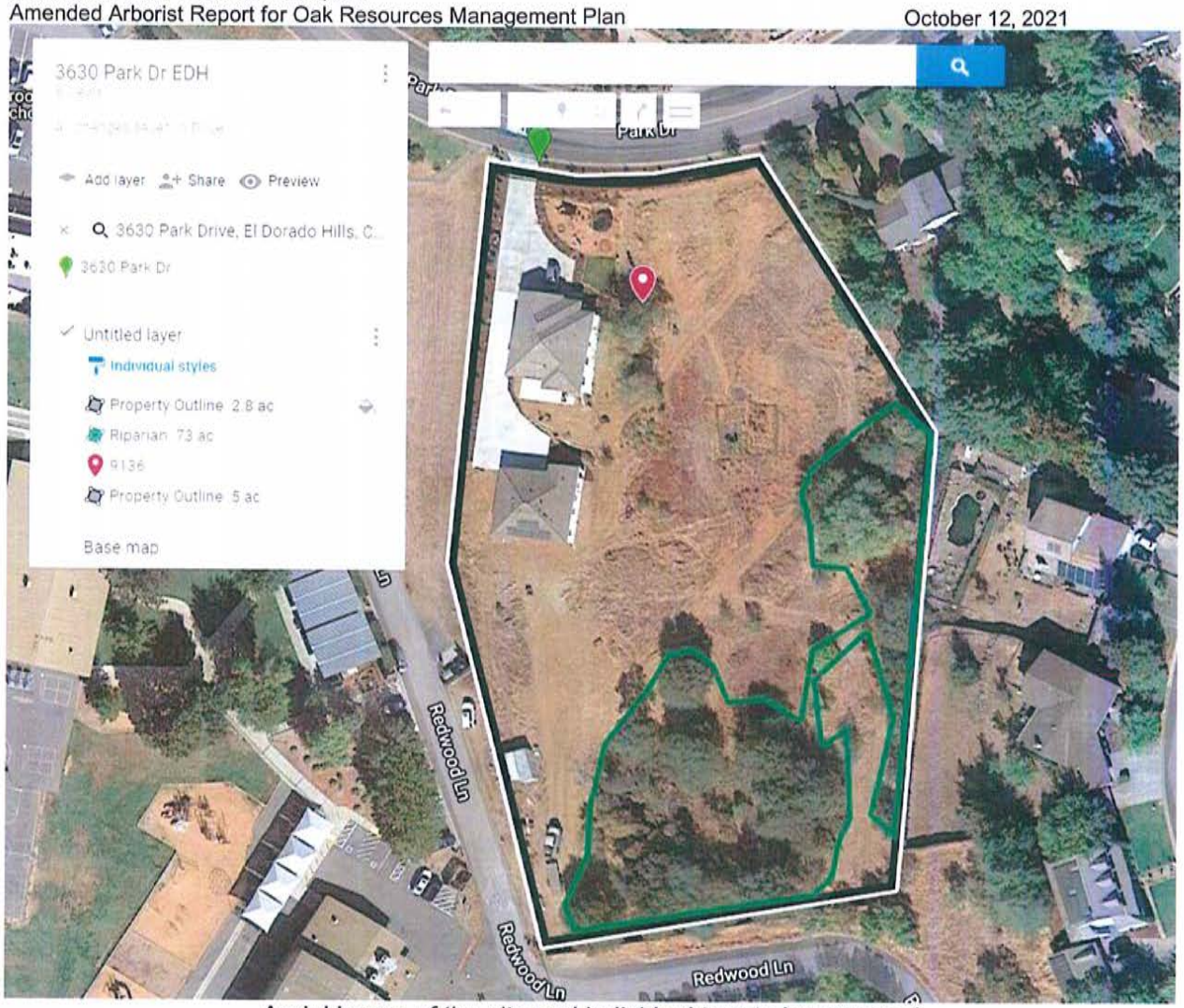
Respectfully submitted,

Gordon Mann
ASCA Registered Consulting Arborist #480
ISA Certified Arborist WE- 0151AM
ISA TRAQ Qualified Tree Risk Assessor
Gordon@caltlc.com
650-740-3461

Attachments:

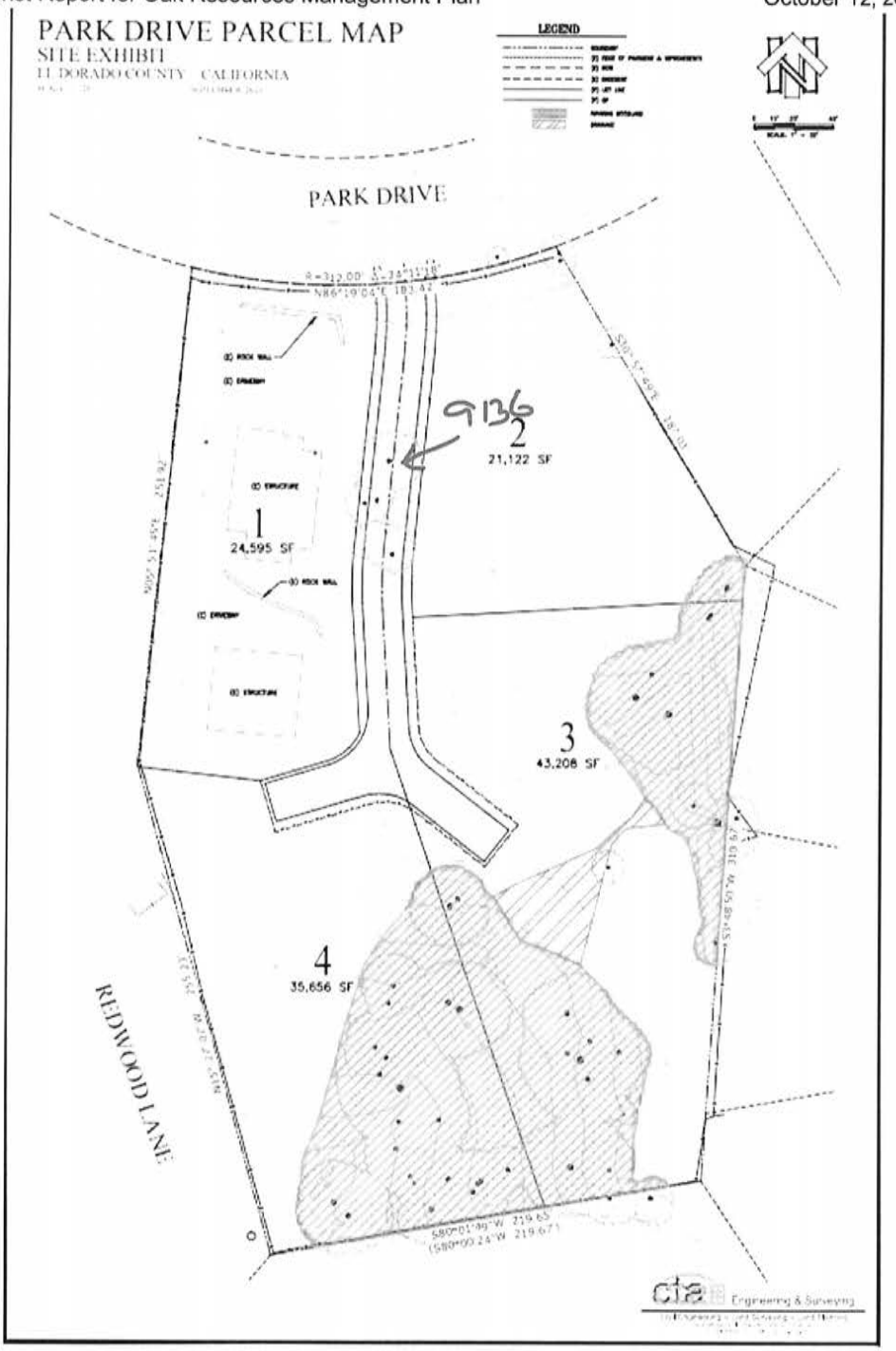
Appendix A Images - Aerial Image with tree numbers in approximate locations; Park Drive Parcel Map Site Exhibit dated April 2021
Appendix B Tree Planting Specifications
Appendix C Nursery Stock and Tree Planting
Appendix D Tree Protection
Appendix E Avoiding Damage During Construction
Resume for Gordon Mann
3630 Park Drive El Dorado Hills Tree List

Appendix A Images

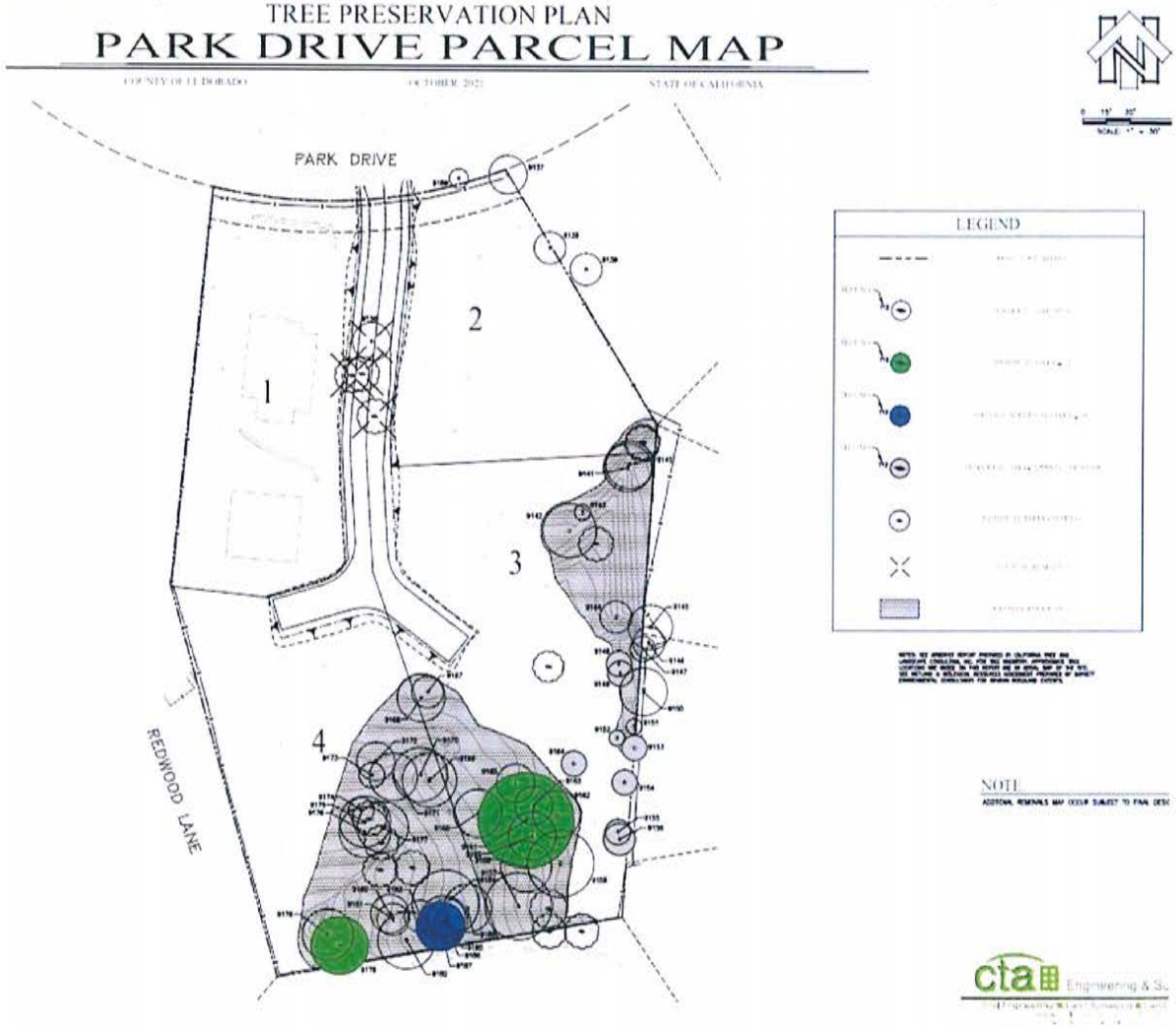


Aerial image of the site and individual tree to be removed

Aerial image with tree numbers in approximate locations



Park Drive Parcel Map Site Exhibit



Tree Preservation Plan

Appendix B
Tree Planting Specifications

Trees shall be free of major injury such as scrapes that remove greater than 20% of the bark circumference, a broken central leader, or constrictions from staking or support. The graft, if present, shall be consistent for the production of the cultivar or species. The trunk flare shall be at grade, not buried by soil, and adventitious roots shall not be growing from above the trunk flare.

The tree shall not be root bound in the container, and the trunk diameter relative to the container sizes, within the limits of American National Standards Institute (ANSI) Z-60 Nursery Standards.

Prior to acceptance, upon delivery, trees may be pulled from the container, so the rootball can be inspected for compliance with the specifications. An agreed upon maximum percent of trees may be checked for compliance. The nursery should provide post delivery care specifications to keep the trees in optimum condition until planting.

Tree Planting

1.0 INSPECT THE TREE

1.1 Carefully remove the soil at the top of the container to locate the trunk flare. Check for girdling roots and damage to the root system and lower trunk.
1.2 Until a relationship is established with the supplying nursery, randomly select an acceptable sample for the delivery. Inspect the root system by taking the rootball out of the container, and remove all the soil from the root system. Inspect the inner roots to verify that the roots were properly pruned when moved from the initial container to the next larger size. Keep the root system moist during the check. If the roots were properly pruned during container transfer, and the roots have been kept moist, the tree can be planted as a bare root tree.
1.3 If the trees are acceptable, each tree shall be removed from the container prior to digging the hole, and the depth of the rootball from the trunk flare to the bottom of the rootball shall be measured. This measurement, less 1" is the depth the pedestal in the center of the planting hole shall be excavated to.

2.0 DIG THE HOLE

2.1 Shave and discard grass and weeds from the planting site.
2.2 The hole should be a minimum 3 times the diameter of the container diameter.
2.2.1 Square containers shall be dug with a circular hole 3 times the container measurement.
2.3 Dig the hole, leaving an undisturbed pedestal in the center that the root ball will be set on.
2.4 The pedestal shall be excavated to the depth measurement determined above

3.0 ROOT BALL PREPARATION

3.1 Loosen and straighten outside and bottom roots prior to placing the rootball on the pedestal. The trunk flare (the point where the trunk meets the roots) should be 1" above ground level.
3.2 Winding and girdling roots shall be pruned to either the point they are perpendicular to the root ball, or a point where they can be straightened and placed perpendicular to the rootball.
3.3 Keep the roots moist during this process so they do not dry out.

4.0 BACKFILL

4.1 Hold the tree so the trunk and central leader are in a straight upright position.
4.2 Backfill soil with the soil you removed around the base of the pedestal and rootball no higher than 2/3, so the tree stands in the upright position
4.3 Tamp the soil to remove air gaps, or fill with water and allow soil to settle and drain. Continue to fill the entire hole with existing soil in layers and tamping, up to finished grade. Backfill soil shall not be placed on top of the rootball.
4.4 Build a berm at the outside edge of the rootball. The berm shall be a minimum 3 inches high and wide.
4.5 Cover the remainder of the backfill soil outside the berm with a set level of mulch (2 to 4 inches deep).

5.0 STAKING

5.1 Remove the nursery stake (the thin stake tied to the trunk) that is secured to the tree.
5.2 Install the appropriate number of stakes – for example, two stakes on the windward and leeward side of the tree, set at least 2 feet into the native soil outside the rootball.
5.2.1If the area is exceptionally windy, high traffic, or when specified, install 3 or 4 stakes spaced evenly around the circumference, outside the rootball.
5.3 One tie per stake shall be placed at the lowest point on the trunk where the tree crown stands upright. Ties shall be placed using a "figure 8" crossing pattern wrapped around the trunk and firmly tied or attached to the stake.
5.3.1 Ties shall be loose enough so the tree crown moves up to 3 times the trunk diameter in the wind, and taut enough that the trunk does not rub the stakes during movement.
5.4 The stakes shall be cut off above the tie point so branches do not rub the stake above the tie point.
5.5 Check the stakes and ties periodically, removing them when the tree is able to stand on its own.

5.6 If a leader that should be vertical is drooping, the leader may be temporarily straightened using a bamboo or small diameter wood splint approximately 25% longer than the drooping section of stem, tied to the stem at the top and bottom of the splint to hold the stem vertical. The splint shall be removed prior to girdling or constricting the stem, and may be re-installed as necessary.

6.0 Mulch

6.1 Apply a set depth (2 to 4 inches) of wood chips or other organic mulch over the planting hole excavated soil.
6.2 Mulch may be placed inside the berm and shall be kept at least 4" away from the trunk flare.
6.3 The soil area of the planting hole shall be kept clear of grass and landscape plantings.

7.0 Water/Irrigation

7.1 Apply water using a low pressure application, i.e.: trickle from a hose, soaker hose, or bubbler.
7.2 Use low water volume to apply the water. Add water long enough to saturate the rootball and planting area.
7.2.1 Lawn sprinklers shall not be considered an acceptable method of applying irrigation to newly planted trees.
7.3 The initial watering frequency shall be checked by monitoring the soil moisture. Based on the temperature and humidity, learn how long the soil retains the moisture.
7.4 After the soil is below field capacity, and before it dries out, repeat the watering process, every so determined days.
7.4.1 As the weather and seasons change, the irrigation frequency may change. This will be evaluated by checking soil moisture following water application.
7.4.1.1 For example: you may learn irrigation should be applied twice a week during the fall, except in cool or rainy weather. Irrigation may need to be applied every two days during hot dry summer periods.
7.5 Irrigation shall be continued for the first three years after planting.
7.5.1 Avoiding drying out the rootball and adjacent soil is critcal for tree growth and establishment.

8.0 Protect the trunk

8.1 Avoid damage from mowers and string trimmers to the tender bark of the young tree.
8.2 Maintain a clear area free of vegetation around the trunk in the berm or basin area.
8.3 Keep the set depth of mulch (2 to 4 inches) coverage of the area around the tree.
8.4 Retain temporary low branches along the trunk to shade and feed the trunk.

9.0 Pruning newly planted trees

9.1 Broken and dead branches shall be pruned.
9.2 A central leader shall be identified and retained if present. If co-dominant leaders are present, they shall be pruned to be shorter than the central leader by 20%.
9.3 All low temporary branches on the lower trunk shall be retained, and if needed shortened for clearance.

Detail for #1, #5 and #15 container planting stock

10. **FUTURE CARE**

10.1 During subsequent years, the berm should be enlarged or removed to in order to provide water to the increasing root growth. The watering area should target new root growth and projected root growth.

10.2 Pruning should retain a dominant central leader; and retain low temporary branches until trunk bark hardens or remove before branch diameter becomes too large.

Appendix C

Nursery Stock and Tree Planting

Nursery Stock purchase

Trees purchased for the subject project shall be the Genus, species, and cultivar specified in the purchase documents. Trees shall be grown to be free of bound root systems caused by winding roots or kinked roots from a previous smaller container. As trees are moved to larger containers, circling roots shall be either pruned to a point where they can grow straight, straightened in the new container, or removed. Kinked roots shall be pruned to a point where they will grow straight outward or downward.

The trunk and branches shall be of a structure where a central leader is defined, or the central leader can be easily selected. The competing leaders have a smaller diameter, and can be pruned shorter.

Appendix D

Tree Protection

The edge of the tree canopy outside of the construction area shall be fenced off with construction fencing, either temporary orange fence or chain link fence. The fence shall be placed as far from the trees as possible, targeting outside the dripline. If the fence cannot be placed outside of the dripline, the project arborist shall determine if the distance is acceptable or some other soil protection is necessary. A certified arborist must approve the placement of the tree fence. The fence will be marked with weather appropriate signage clearly stating the area as "Protected! Do not enter! Tree preservation zone." Sign(s) will be placed on every face or direction of fence line.

No storage of supplies or materials, parking, or other construction activity shall occur within the fenced area. If a construction activity is required within the construction area, specific specifications and mitigation shall be written to cover the work, and the fencing may be entered during the necessary construction activity, then the fencing shall be replaced after the activity is completed for the day.

The construction protection shall remain in place until the project is completed, including landscape activities. Landscape activities shall have specifications that protect the trees during the landscape activities.

Any bare soil around protected trees should be covered with a 4-inch layer of mulch consisting of ground-up tree parts.

If the protected trees appear to show signs of yellowing leaves, dead leaves, or other abnormal appearance, contact the project arborist for inspection and mitigation.

Long Term Landscape Maintenance Plan and Specifications

General

Trees shall be pruned to establish a central leader, to provide the best structure by managing size relationships between parent and subordinate trunk and branches, and to encourage growth into a large shade canopy. These trees shall not be

topped or rounded over. Trees may have competing leaders headed back to promote the strong central leader necessary to eliminate co-dominant stems and weak branching.

Design Intent
The trees planted around the perimeter and alongside the sidewalk or street are intended to replicate natural areas and to screen the project and adjacent properties. The native oaks shall be more tightly spaced at planting and thinned over time to promote the growth of the final or climax trees on the site. The thinning for spacing shall be performed as the trees get larger and their crowns begin to overlap. When the desired tree crowns are being impacted by an adjacent tree, the adjacent tree should either be pruned or removed, to provide the optimum screening while enhancing the desired tree growth. Pruning shall retain a dominant central leader and for decurrent tree structures, remove competing leaders, and maintain the appropriate size relationships between parent and subordinate trunk and branches.

Pruning Small Trees
Branches are to be pruned by either reduction, thinning, or raising cuts to achieve the appropriate clearance over the area. The smallest diameter branches should be removed, working from the branch tips towards the center, removing none to minimal interior foliage inside the final outward branch cut. Trees shall be cleaned to remove dead branches, weakly attached branches, and branches where significant damage has occurred by rubbing, animals, insects, or critical disease. All pruning cuts shall be made in accordance with American National Standards Institute (ANSI) A300 Part 1 Pruning Standards and International Society of Arboriculture (ISA) Best Management Practices for Pruning.

On trees up to six inches in diameter, all dead branches greater than one-half inch diameter shall be removed. All weakly attached branches and potential co-dominant branches shall either be reduced by at least 20% or be removed, as most appropriate for the long term structure of the tree. The weakest or most damaged branch of a pair or group of rubbing branches shall be shortened to avoid rubbing, or removed. All temporary branches along the trunk should be retained and shortened to obtain necessary clearance. When either temporary branches exceed one-inch diameter, or the trunk forms mature bark, the temporary branches should be removed.

Stakes shall be installed as necessary to support a straight growing tree, and reduce crooked growth caused by high wind. The trunk shall be supported at the lowest point to keep the crown supported straight, and the portions of the stake above the tie point cut off to avoid rubbing branches. After the tree becomes firmly rooted, and the stake is no longer necessary to support the tree, the stakes shall be removed.

Clearance pruning shall be carefully performed until the permanent branches are identified. Up to 25% of the total foliage on any tree should be the maximum removed during any planned pruning cycle. Follow-up pruning for structure or clearance on young trees can be performed at any time if pruning small amounts of foliage (up to 10%) and retaining the central leader and branch size relationships.

Pruning Large Trees
Branches are to be pruned by either reduction, thinning, or raising cuts to achieve the appropriate clearance over the area. The smallest diameter branches should be removed, working from the branch tips towards the center, removing none to minimal interior foliage inside the final outward branch cut. Trees shall be cleaned to remove dead branches, weakly attached branches, and branches where significant damage has occurred by rubbing, animals, insects, or critical disease. All pruning cuts shall be made in accordance with American National Standards Institute (ANSI) A300 Part 1 Pruning Standards and International Society of Arboriculture (ISA) Best Management Practices for Pruning.

On trees larger than six inches in diameter, all dead branches greater than one-inch diameter shall be removed. Long heavy branches that are either growing flat or bending down shall have approximately 15% of the end weight reduced, accomplished by a combination of pruning the downward growing branches, shortening long tips, and thinning end weights. If any structural issues are observed by the climber working in the tree, they shall notify the property manager immediately to discuss the tree's needs.

Depending on the location and site needs, clearance should be performed by pruning the smallest branches inward from the branch tips until the permanent branches are in place. Clearance minimums should be set, for example: 7.5' over sidewalks, 10 feet over driveways and parking spaces, and 14.5 feet over truck traffic streets. Clearance pruning shall be carefully performed until the permanent branches are identified. Up to 20% of the total foliage on any tree should be the maximum removed during any planned pruning cycle.

Any special site issues for utility clearance or conflicts with other objects shall be managed by early pruning to direct growth away from the target lines, overhead lights, flags, or buildings.

Thinning of Dense Planting

Many landscape plantings and natural landscape areas are over-planted by installing a greater number of plants at closer spacing than optimum for the full-sized plants. Over time, plants will grow into each other, the crowns will conflict, and the spacing will need to be corrected. Correct spacing is obtained by removing the least desirable plants to meet the final spacing target, within reasonable tolerances.

If conflicting plants are all healthy, it won't matter which plants are removed to achieve the spacing distances. Spaced thinning should be performed before the foliar crowns are intertwined or overlapping. The thinning may be performed over two or three cycles as the trees grow over time, depending on the density and desired final spacing.

The trees initially will be planted on approximate 10 foot centers, with the long term spacing to be approximately 20 foot centers. The healthiest and best specimens should be retained on site. As trees are thinned, they may be transplanted or removed, as best suits the remaining trees on the site.

Appendix E

Avoiding Tree Damage During Construction

Edited from the ISA's tree protection guidelines

As cities and suburbs expand, wooded lands are being developed into commercial and residential sites. Homes are constructed in the midst of trees to take advantage of the aesthetic and environmental value of the wooded lots. Wooded properties can be worth as much as 20 percent more than those without trees, and people value the opportunity to live among trees.

Unfortunately, the processes involved with construction can be deadly to nearby trees. Unless the damage is extreme, the trees may not die immediately but could decline over several years. With this delay in symptom development, you may not associate the loss of the tree with the construction.

It is possible to preserve trees on building sites if the right measures are taken. The most important step is to hire a professional arborist during the planning stage. An arborist can help you decide which trees can be saved and can work with the builder to protect the trees throughout each construction phase.

How Trees Are Damaged During Construction

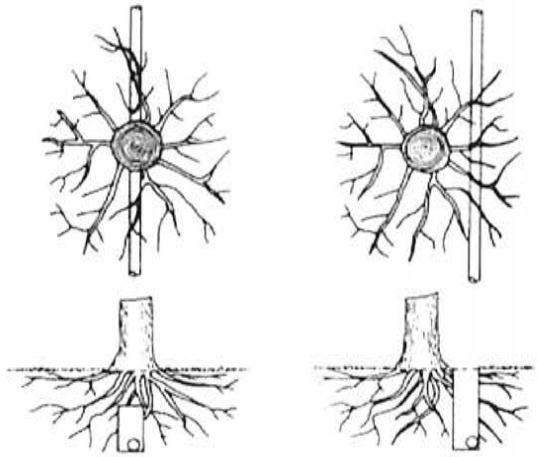
Physical Injury to Trunk and Crown. Construction equipment can injure the aboveground portion of a tree by breaking branches, tearing the bark, and wounding the trunk. These injuries are permanent and, if extensive, can be fatal.

Cutting of Roots. The digging and trenching that are necessary to construct a house and install underground utilities will likely sever a portion of the roots of many trees in the area. It is easy to appreciate the potential for damage if you understand where roots grow. The roots of a tree are found mostly in the upper 6 to 24 inches of the soil. In a mature tree, the roots extend far from the trunk. In fact, roots typically are found growing a distance of one to three times the height of the tree. The

amount of damage a tree can suffer from root loss depends, in part, on how close to the tree the cut is made. Severing one major root can cause the loss of 5 to 20 percent of the root system.

The roots of a tree extend far from the trunk and are found mostly in the upper 6 to 12 inches of soil.

Another problem that may result from root loss caused by digging and trenching is that the potential for the trees to fall over is increased. The roots play a critical role in anchoring a tree. If the major support roots are cut on one side of a tree, the tree may fall or blow over.



Less damage is done to tree roots if utilities are tunneled under a tree (right, top and bottom) rather than across the roots (left, top and bottom).

Less damage is done to tree roots if utilities are tunneled under a tree rather than across the roots.

Soil Compaction. An ideal soil for root growth and development is about 50 percent pore space. These pores—the spaces between soil particles—are filled with water and air. The heavy equipment used in construction compacts the soil and can dramatically reduce the amount of pore space. This compaction not only inhibits root growth and penetration but also decreases oxygen in the soil that is essential to the growth and function of the roots, and water infiltration.

Smothering Roots by Adding Soil. Most people are surprised to learn that 90 percent of the fine roots that absorb water and minerals are in the upper 6 to 12 inches of soil. Roots require space, air, and water. Roots grow best where these requirements are met, which is usually near the soil surface. Piling soil over the root system or increasing the grade smothers the roots. It takes only a few inches of added soil to kill a sensitive mature tree.

Exposure to the Elements. Trees in a forest grow as a community, protecting each other from the elements. The trees grow tall, with long, straight trunks and high canopies. Removing neighboring trees or opening the shared canopies of trees during construction exposes the remaining trees to sunlight and wind. The higher levels of sunlight may cause sunscald on the trunks and branches. Also, the remaining trees are more prone to breaking from wind or ice loading.

Getting Advice

Hire a professional arborist in the early planning stage. Many of the trees on your property may be saved if the proper steps are taken. Allow the arborist to meet with you and your building contractor. Your arborist can assess the trees on your property, determine which are healthy and structurally sound, and suggest measures to preserve and protect them.

One of the first decisions is determining which trees are to be preserved and which should be removed. You must consider the species, size, maturity, location, and condition of each tree. The largest, most mature trees are not always the best choices to preserve. Younger, more vigorous trees usually can survive and adapt to the stresses of construction better. Try to maintain diversity of species and ages. Your arborist can advise you about which trees are more sensitive to compaction, grade changes, and root damage.

Planning

Your arborist and builder should work together in planning the construction. The builder may need to be educated regarding the value of the trees on your property and the importance of saving them. Few builders are aware of the way trees' roots grow and what must be done to protect them.

Sometimes small changes in the placement or design of your house can make a great difference in whether a critical tree will survive. An alternative plan may be more friendly to the root system. For example, bridging over the roots may substitute for a conventional walkway. Because trenching near a tree for utility installation can be damaging, tunneling under the root system may be a good option.

Erecting Barriers

Because our ability to repair construction damage to trees is limited, it is vital that trees be protected from injury. The single most important action you can take is to set up construction fences around all of the trees that are to remain. The fences should be placed as far out from the trunks of the trees as possible. As a general guideline, allow 1 foot of space from the trunk for each inch of trunk diameter. The intent is not merely to protect the aboveground portions of the trees but also the root systems. Remember that the root systems extend much farther than the drip lines of the trees.

Instruct construction personnel to keep the fenced area clear of building materials, waste, excess soil, and equipment. No digging, trenching, or other soil disturbance such as driving vehicles and equipment over the soil should be allowed in the fenced area.

Protective fences should be erected as far out from the trunks as possible in order to protect the root system prior to the commencement of any site work, including grading, demolition, and grubbing.

Limiting Access

If at all possible, it is best to allow only one access route on and off the property. All contractors must be instructed where they are permitted to drive and park their vehicles. The construction access drive should be the route for utility wires; underground water, sewer, or storm drain lines; roadways; or the driveway.

Protective fences should be erected as far out from the trunks as possible in order to protect the root systems.

Specify storage areas for equipment, soil, and construction materials. Limit areas for burning (if permitted), cement wash-out pits, and construction work zones. These areas should be away from protected trees.

Specifications

Specifications are to be put in writing. All of the measures intended to protect your trees must be written into the construction specifications. The written specifications should detail exactly what can and cannot be done to and around the trees. Each subcontractor must be made aware of the barriers, limitations, and specified work zones. It is a good idea to post signs as a reminder.

Fines and penalties for violations should be built into the specifications. Not too surprisingly, subcontractors are much more likely to adhere to the tree preservation clauses if their profit is at stake. The severity of the fines should be proportional to the potential damage to the trees and should increase for multiple infractions.

Maintaining Good Communications

It is important to work together as a team. You may share clear objectives with your arborist and your builder, but one subcontractor can destroy your prudent efforts. Construction damage to trees is often irreversible.

Visit the site at least once a day if possible. Your vigilance will pay off as workers learn to take your wishes seriously. Take photos at every stage of construction. If any infraction of the specifications does occur, it will be important to prove liability.

Final Stages

It is not unusual to go to great lengths to preserve trees during construction, only to have them injured during landscaping. Installing irrigation systems and roto-tilling planting beds are two ways the root systems of trees can be damaged. Remember also that small increases in grade (as little as 2 to 6 inches) that place additional soil over the roots can be devastating to your trees. ANSI A300 Standards Part 5 states that tree protection shall be in place for the landscape phase of the site development. Landscape tree protection may be different than other construction process tree protection, and a conference with the landscape contractor should be held prior to the commencement of the landscape work. Careful planning and communicating with landscape designers and contractors is just as important as avoiding tree damage during construction.

Post-Construction Tree Maintenance

Your trees may require several years to adjust to the injury and environmental changes that occur during construction. The better construction impacts are avoided, the less construction stress the trees will experience. Stressed trees are more prone to health problems such as disease and insect infestations. Talk to your arborist about continued maintenance for your trees. Continue to monitor your trees, and have them periodically evaluated for declining health or safety hazards.

Despite the best intentions and most stringent tree preservation measures, your trees still might be injured from the construction process. Your arborist can suggest remedial treatments to help reduce stress and improve the growing conditions around your trees. In addition, the International Society of Arboriculture offers a companion to this brochure titled "Treatment of Trees Damaged by Construction".

California Tree and Landscape Consulting, Inc.

GORDON MANN

EDUCATION AND QUALIFICATIONS

1977	Bachelor of Science, Forestry, University of Illinois, Champaign.
1982 - 1985	Horticulture Courses, College of San Mateo, San Mateo.
1984	Certified as an Arborist, WE-0151A, by the International Society of Arboriculture (ISA).
2004	Certified as a Municipal Specialist, WE-0151AM, by the ISA.
2011	Registered Consulting Arborist, #480, by the American Society of Consulting Arborists (ASCA).
2003	Graduate of the ASCA Consulting Academy.
2006	Certified as an Urban Forester, #127, by the California Urban Forests Council (CaUFC).
2011	TRACE Tree Risk Assessment Certified, continued as an ISA Qualified Tree Risk Assessor (T.R.A.Q.).

PROFESSIONAL EXPERIENCE

2016 – Present CALIFORNIA TREE AND LANDSCAPE CONSULTING, INC (CalTLC). President and Consulting Arborist.
Auburn. Mr. Mann provides consultation to private and public clients in health and structure analysis, inventories, management planning for the care of trees, tree appraisal, risk assessment and management, and urban forest management plans.

1986 - Present MANN MADE RESOURCES. Owner and Consulting Arborist. Auburn.
Mr. Mann provides consultation in municipal tree and risk management, public administration, and developing and marketing tree conservation products.

2015 – 2017 CITY OF RANCHO CORDOVA, CA. Contract City Arborist.
Mr. Mann serves as the City's first arborist, developing the tree planting and tree maintenance programs, performing tree inspections, updating ordinances, providing public education, and creating a management plan,

1984 – 2007 CITY OF REDWOOD CITY, CA. City Arborist, Arborist, and Public Works Superintendent.
Mr. Mann developed the Tree Preservation and Sidewalk Repair Program, supervised and managed the tree maintenance program, performed inspections and administered the Tree Preservation Ordinance. Additionally, he oversaw the following Public Works programs: Streets, Sidewalk, Traffic Signals and Streetlights, Parking Meters, Signs and Markings, and Trees.

1982 – 1984 CITY OF SAN MATEO, CA. Tree Maintenance Supervisor.
For the City of San Mateo, Mr. Mann provided supervision and management of the tree maintenance program, and inspection and administration of the Heritage Tree Ordinance.

1977 – 1982 VILLAGE OF BROOKFIELD, IL. Village Forester.
Mr. Mann provided inspection of tree contractors, tree inspections, managed the response to Dutch Elm Disease. He developed an in-house urban forestry program with leadworker, supervision, and management duties to complement the contract program.

1979 - Present INTERNATIONAL SOCIETY OF ARBORICULTURE. Member.
- Board of Directors (2015 - Present)

- True Professional of Arboriculture Award (2011); In recognition of material and substantial contribution to the progress of arboriculture and having given unselfishly to support arboriculture.

1982 - Present WESTERN CHAPTER ISA (WCISA). Member.

- Chairman of the Student Committee (2014 - 2017)
- Member of the Certification Committee (2007 - Present)
- Chairman of the Municipal Committee (2009 - 2014) Award of Merit (2016) In recognition of outstanding meritorious service in advancing the principles, ideals and practices of arboriculture.
- Annual Conference Chair (2012)
- Certification Proctor (2010 – Present)
- President (1992 - 1993)
- Award of Achievement and President's Award (1990)

1985 - Present CALIFORNIA URBAN FORESTS COUNCIL (CaUFC). Member; Board Member (2010 - Present)

1985 - Present SOCIETY OF MUNICIPAL ARBORISTS (SMA). Member. e Legacy Project of the Year (2015) o In recognition of outstanding meritorious service in advancing the principles, ideals and practices of arboriculture.

- Board Member (2005 - 2007)

2001 - Present AMERICAN SOCIETY OF CONSULTING ARBORISTS.
Member. e Board of Directors (2006 - 2013)
• President (2012)

2001 - Present CAL FIRE. Advisory Position.
• Chairman of the California Urban Forestry Advisory Committee (2014 - 2017)

2007 – Present AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI): A300 TREE MAINTENANCE STANDARDS
COMMITTEE. SMA Representative and Alternate.

- Alternative Representative for SMA (2004 - 2007; 2012 - Present)
- Representative for SMA (2007 - 2012)

2007 - Present SACRAMENTO TREE FOUNDATION. Member and Employee.

- Co-chair/member of the Technical Advisory Committee (2012 - Present)
- Urban Forest Services Director (2007 - 2009) e Facilitator of the Regional Ordinance Committee (2007 - 2009)
- 1988 - 1994 TREE CLIMBING COMPETITION.
  - Chairman for Northern California (1988 - 1992)
  - Chairperson for International (1991 - 1994)

PUBLICA TIONS AND LECTURES

Mr. Mann has authored numerous articles in newsletters and magazines such as Western Arborist, Arborist News, City Trees, Tree Care Industry Association, Utility Arborists Association, CityTrees, and Arborists Online, covering a range of topics on Urban Forestry, Tree Care, and Tree Management. He has developed and led the training for several programs with the California Arborist Association. Additionally, Mr. Mann regularly presents at numerous professional association meetings on urban tree management topics.

Assumptions and Limiting Conditions

1. Consultant assumes that any legal description provided to Consultant is correct and that title to property is good and marketable. Consultant assumes no responsibility for legal matters. Consultant assumes all property appraised or evaluated is free and clear, and is under responsible ownership and competent management.
2. Consultant assumes that the property and its use do not violate applicable codes, ordinances, statutes or regulations.
3. Although Consultant has taken care to obtain all information from reliable sources and to verify the data insofar as possible, Consultant does not guarantee and is not responsible for the accuracy of information provided by others.
4. Client may not require Consultant to testify or attend court by reason of any report unless mutually satisfactory contractual arrangements are made, including payment of an additional fee for such Services as described in the Consulting Arborist Agreement.
5. Unless otherwise required by law, possession of this report does not imply right of publication or use for any purpose by any person other than the person to whom it is addressed, without the prior express written consent of the Consultant.
6. Unless otherwise required by law, no part of this report shall be conveyed by any person, including the Client, the public through advertising, public relations, news, sales or other media without the Consultant's prior express written consent.
7. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event or upon any finding to be reported.
8. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.
9. Unless otherwise agreed, (1) information contained in this report covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing or coring. Consultant makes no warranty or guarantee, express or implied that the problems or deficiencies of the plans or property in question may not arise in the future.
10. Loss or alteration of any part of this Agreement invalidates the entire report.

Certificate of Performance

I, Gordon Mann, certify that:

I have personally inspected the trees and site referred to in this report and have stated my findings accurately. The extent of the inspection is stated in the attached report under Assignment;

I have no current or prospective interest in the vegetation, or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved;

The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts;

My analysis, opinions, and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices;

No one provided significant professional assistance to me, except as indicated within the report;

My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client, or any other party, nor upon the results of the assignment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of the International Society of Arboriculture (ISA) and an ISA Certified Arborist and Municipal Specialist. I am also a Registered Consulting Arborist member in good standing of the American Society of Consulting Arborists. I have been involved in the practice of arboriculture and the care and study of trees for over 43 years.

Signed:

Gordon Mann
Date: October 12, 2021

PRELIMINARY DRAINAGE MEMO

PARK DRIVE PARCEL MAP

(3630 Park Drive, El Dorado Hills, CA)

P21-0010

INTRODUCTION

The Park Drive Parcel Map (Project) is located on an approximately 2.8 acre site in El Dorado Hills, California. The Project site is bounded by residential properties to the east, an El Dorado Hills Community Services District park site to the south, William Brooks Elementary School to the west, and Park Drive to the north. Redwood Lane separates the Project and school/park sites and connects Park Drive to Arrowhead Drive to the southeast. The existing parcel contains two existing structures with a shared driveway and is proposed to be divided into four total lots with the existing structures remaining on a single lot.

The purpose of this memo is to present a preliminary discussion of site drainage, water quality, and hydro-modification. A final project drainage report completed in conformance with the requirements of the County of El Dorado Drainage Manual and other applicable storm water regulations, including but not limited to evaluation of detailed drainage calculations, determination of drainage flow limits, selection of Low Impact Development (LID) practices, water quality treatment method selections, evaluation of offsite drainage system capacity (as needed), and evaluation of onsite detention/hydromodification design needs (if needed), will be prepared during the project improvement plan phase.

EXISTING CONDITIONS

The Project site currently consists of a mixture of grasses, trees, and developed conditions. There are two existing structures with a shared driveway on the northwest of the parcel. The land slopes from the northeast to the southwest with slopes generally between 10-20% and lower for most of the site, which allows the natural runoff to follow this same general pattern. Runoff is generally accepted onto the site from the east, with the site also accepting discharge from two existing culverts (10" and 12") from the east. These two drainages converge on the site and flow to the southwest, where drainage exits the site at an existing 18" culvert. An existing drainage ditch that flows along the north side of Redwood Lane also enters the site in the southwestern corner.

PREVIOUS STUDY

The Carson Creek Regional Drainage Study (CCRDS) was previously prepared for the project area and included a much larger surrounding study area. The Carson Creek watershed encompassed within the CCRDS generally flows south within tributaries to Carson Creek through El Dorado Hills and encompasses areas on both sides of US 50.

The Park Drive Parcel Map site was included within the drainage sheds analyzed in the CCRDS and the study did not anticipate detention of drainage for the project site.

The final project drainage report at time of improvement plans should consider the proposed Park Drive Parcel Map project in context with prior CCRDS assumptions to the satisfaction of El Dorado County.

WATER QUALITY & HYDROMODICATION

The ultimate development of the site would be expected to create additional impervious area. This area could include new homes, driveways, walkways, patios, etc. A significant portion of the site is expected to remain pervious in a landscaped or natural condition. At final design, consideration should be given to Low Impact Development (LID) opportunities and water quality treatment opportunities as a part of site design.

Site design considerations could include, but are not limited to, the following:

- Minimize impervious areas
- Maintain and use existing drainage courses
- Minimize site clearing and grading
- Runoff storage measures including a variety of detention, retention, and runoff practices
- Landscape design and management practices
- Conservation of natural areas
- Minimize directly connected impervious area

Detention and hydro-modification will be evaluated in a final project drainage report at the time of improvement plan preparation, if required. Two conceptual locations for water quality/detention are identified on the Tentative Parcel Map Preliminary Grading and Drainage Plan, but no sizing of facilities has been evaluated. These locations and sizes are subject to change and would be determined at final improvement plan design, if applicable.

CONCLUSIONS

A final project drainage report completed in conformance with the requirements of the County of El Dorado Drainage Manual and other applicable storm water regulations, including but not limited to evaluation of detailed drainage calculations, determination of drainage flow limits, selection of Low Impact Development (LID) practices, water quality treatment method selections, evaluation of offsite drainage system capacity (as needed), and evaluation of onsite detention/hydro-modification design needs (if needed), will be prepared during the project improvement plan phase.

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