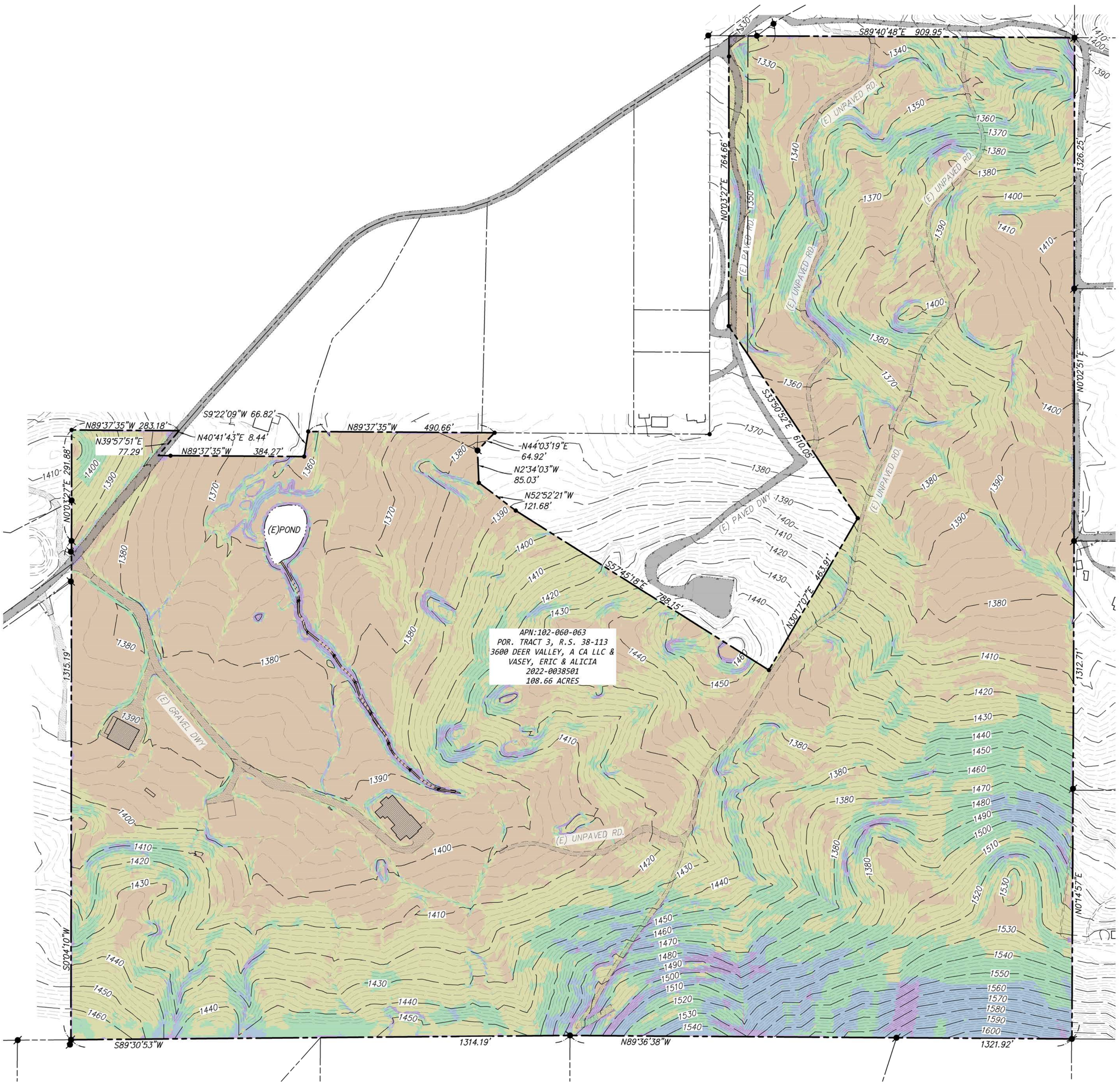
Vasey Trust

Slope Analysis

3600 Deer Valley Road, Rescue, CA 95672
Por. of Tract 3, RS 38/113
APN:102-060-063 - El Dorado County, CA

LEBECK
ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. 530-677-4080



Slope Analysis		
Slope Range	Map Color	% of Site
0-10%		40.0%
>10-20%		36.3%
>20-30%		15.6%
>30-40%		5.8%
>40%		2.3%

Exhibit G - Slope Analysis
P23-0008
Deer Valley & Ridge Road
APN: 102-060-063

Vasey Trust
Slope Analysis

S1
Plot Date: Oct 08, 2024

WILDFIRE SERVICES

Wildland Fire Safe Plan

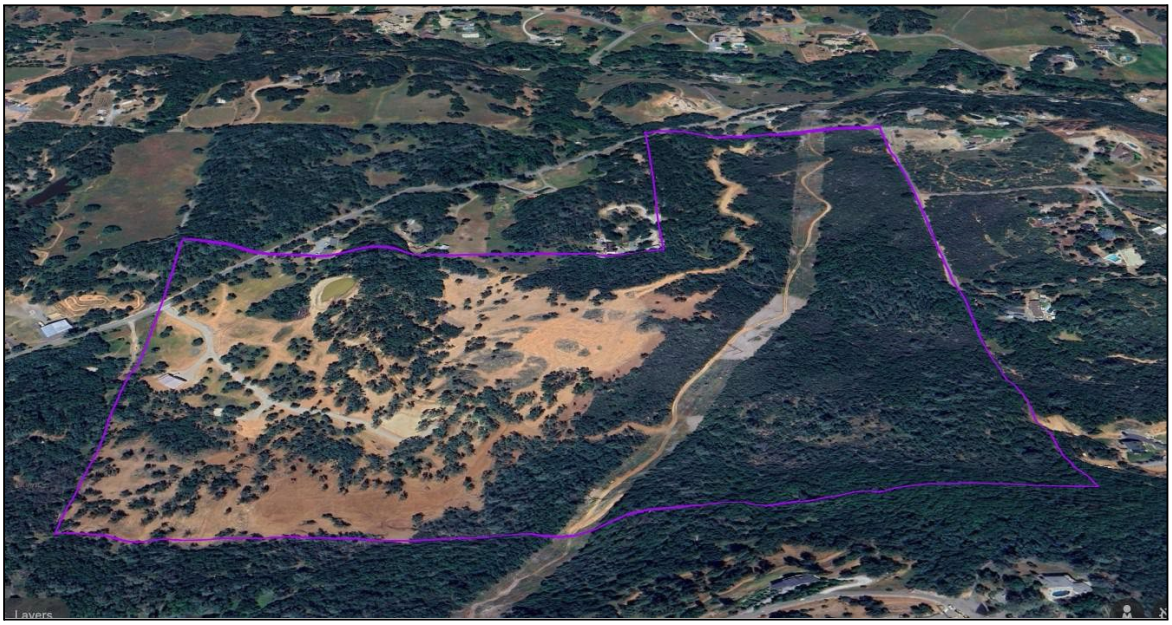
Address:
3600 Deer Valley Road
Rescue, California 95672

Prepared for:
Thomas Vasey

Prepared by:
Chris Dietz, CWMS #20-58
Wildfire Services Group
930 Shiloh Rd, Bldg. 44-A
Windsor, CA 95492
(707) 401-0773

WWW.WILDFIRESERVICES.COM

WILDFIRE SERVICES



3600 Deer Valley Road - APN 102-050-063 - Parcel Application Number P23-0008

2. Signature Page

Signed:

DocuSigned by:
Jeff Hoag
EF9F8B40873747E...

7/16/2024

Jeff Hoag - Battalion Chief — date

CAL FIRE Amador & El Dorado Unit (AEU) Representative

07-16-2024

Joel Warman - Fire Marshal/Fire Prevention Specialist — date

Rescue FD

Prepared by:

Chris Dietz

7/10/2024

Chris Dietz, Wildfire Services Group — date

CWMS #20-58

WILDFIRE SERVICES

CONTENTS

WILDFIRE SERVICES

Purpose and Scope

The purpose of this plan is to assess the wildfire hazards and risks of the 3600 Deer Valley Road Parcel Split (Parcel Map Application # P23-0008), to identify measures to reduce these hazards and risks, and to protect the native vegetation. This plan is prepared in accordance with the El Dorado County Fire Department Fire Protection Standard Wildland Urban Interface Fire Protection Plans STANDARD #W-001 EFFECTIVE 5-25-2022.

Communities are increasingly concerned about wildfire safety. Drought years coupled with flammable vegetation and annual periods of severe fire weather insure the potential for periodic wildfires. The possibility of large fires occurring when the parcel split is complete will be greatly reduced, due to the planned implementation of all recommended fire-safe codes. However, small wildfires in the open space areas and on the lots may occur due to the increase in public uses. Incorporation of the fire hazard reduction measures into the design and maintenance of the future parcels will reduce the size and intensity of wildfires and help prevent catastrophic fire losses. State and County regulations provide the basic guidelines and requirements for fire safe mitigation measures and defensible space around dwellings. This plan builds on these basic rules and provides additional fire hazard reduction measures customized to the topography and vegetation of the development.

The scope of the 3600 Deer Valley Road Parcel Split Wildland Fire Safe Plan is to provide a guide to all project stakeholders, including the developer, builders, property owners, and local fire officials regarding fire mitigation procedures. More detailed information about codes and standards can be found in the documents referenced above. More restrictive standards may be applied by approving El Dorado County Authorities. Approval of this plan does not by itself guarantee approval of this project.

The Wildland Fire Safe Plan for the 3600 Deer Valley Road Parcel Split does not guarantee that wildfire will not threaten, damage or destroy natural resources, homes or endanger residents. However, the full implementation of the mitigation measures will greatly reduce the exposure of homes to potential loss from wildfire and provide defensible space for firefighters and residents as well as protect the native vegetation.

3. Project Overview

3600 Deer Valley Road Parcel Split is a proposed parcel split of four (4) residential parcels zoned RL-10 located on the southwestern side of Deer Valley Road in Rescue, California. The site is situated at an elevation range of approximately 1320 to 1600 feet on terrain that slopes gently downward to the north and west.

The primary vegetation is characterized by the California Department of Forestry and Fire Protection as Blue Oak-Foothill Pine (see Appendix C). A Blue Oak-Foothill Pine habitat is typically diverse in structure both vertically and horizontally, with a mix of hardwoods, conifers, and shrubs. The shrub component is typically composed of several species that tend to be clumped, with interspersed patches of annual grassland. Woodlands of this type generally have small accumulations of dead and downed woody material and relatively few snags, compared with other tree habitats in California. Approximately 40 to 50 percent of the 3600 Deer

Valley Road Parcel Map is of this vegetation type. Approximately 20 percent is characterized by Coastal Oak Habitat The remainder of the parcel can be characterized by mixed chaparral and desert riparian. This parcel is in a moderate fire hazard severity zone in the State Responsibility Area (see Appendix C).

a. Total Size of the Project

The project is proposing to split parcel APN: 102-060-063 (Zoned RL 10) totaling 108 acres into 4 residential lots: 3650 Deer Valley Road - Lot A, Lot B, Lot C, Lot D. See parcel map.

b. Adjoining properties

Several Parcels adjoin 3600 Deer Valley Road. On the eastern boundary, abutting proposed Lot B are 4 developed, residential parcels, ranging from 9.5 acres to 10 acres in size. Of the 4 properties, only one has a structure within 100 feet of the parcel boundary of 3600 Deer Valley Road. The vegetation habitat generally mimics what is found on 3600 Deer Valley Road: Predominantly Blue Oak-Foothill Pine habitat along with mixed chaparral and undetermined shrubs.

Along the southern parcel boundary there are five adjoining residential properties all approximately 10 acres in size. Structure density is quite low here; 4 of the parcels only have one structure on them, one parcel at the southwest corner has 2 structures with the closest being 600 feet from the shared property boundary. There is only one home within 500 feet of the southern parcel boundary of 3600 Deer Valley Road.

The western parcel boundary sees 3 more properties adjoining 3600 Deer Valley Road. These residential properties range in size from 10 acres to 13.56 acres. Only 1 structure on these adjoining properties is within 100 feet of the western parcel boundary for 3600 Deer Valley Road.

The northern boundaries of this adjoin 8 residential properties ranging from as large as 27.94 acres to as small as .51 acres. There are several structures here that are built to within 100 feet of the parcel boundary for 3600 Deer Valley Road, the closest being approximately 25 feet from the west by northwest boundary.

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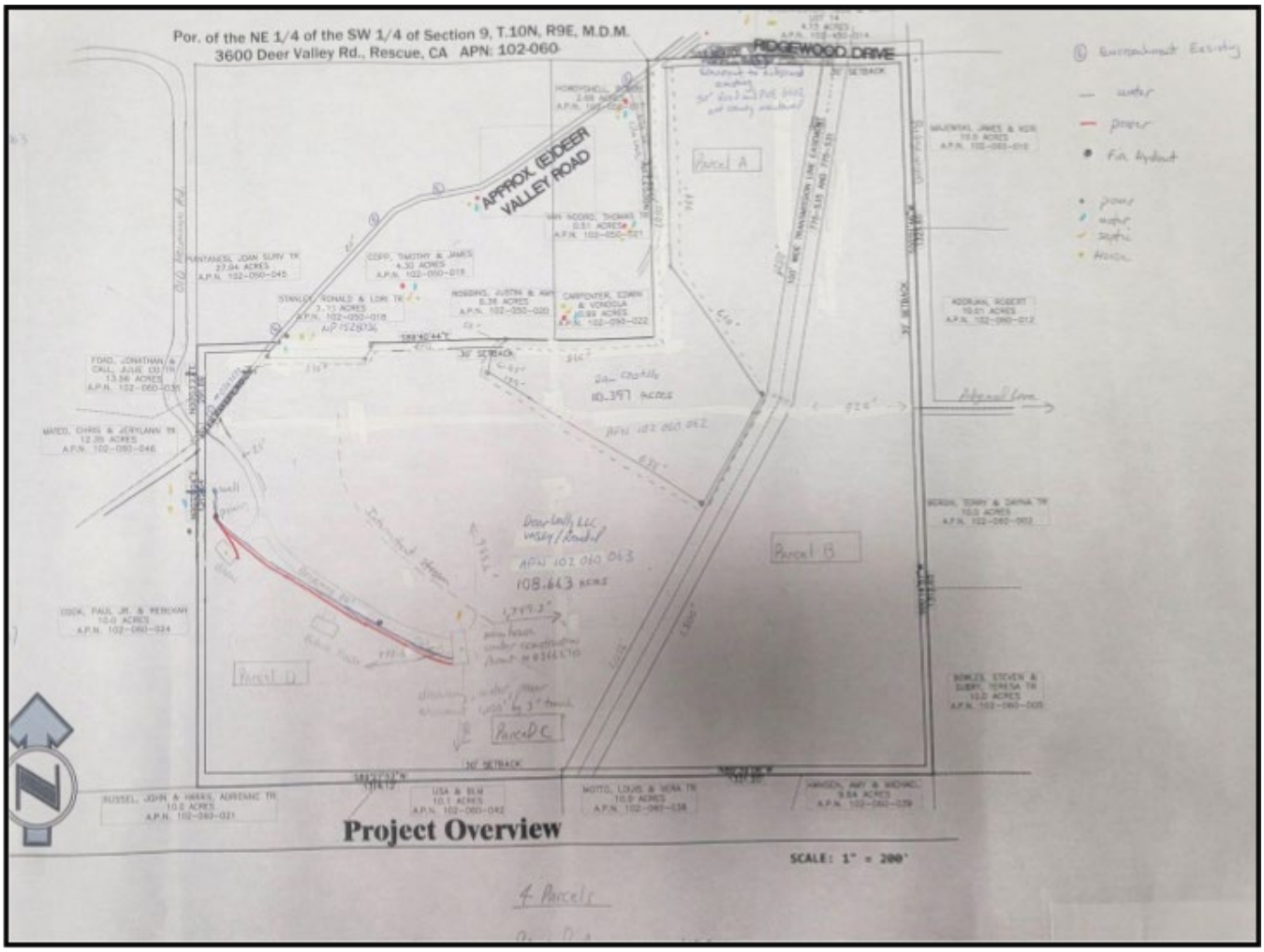
c. Project Maps



Parcel Map with proposed lot lines

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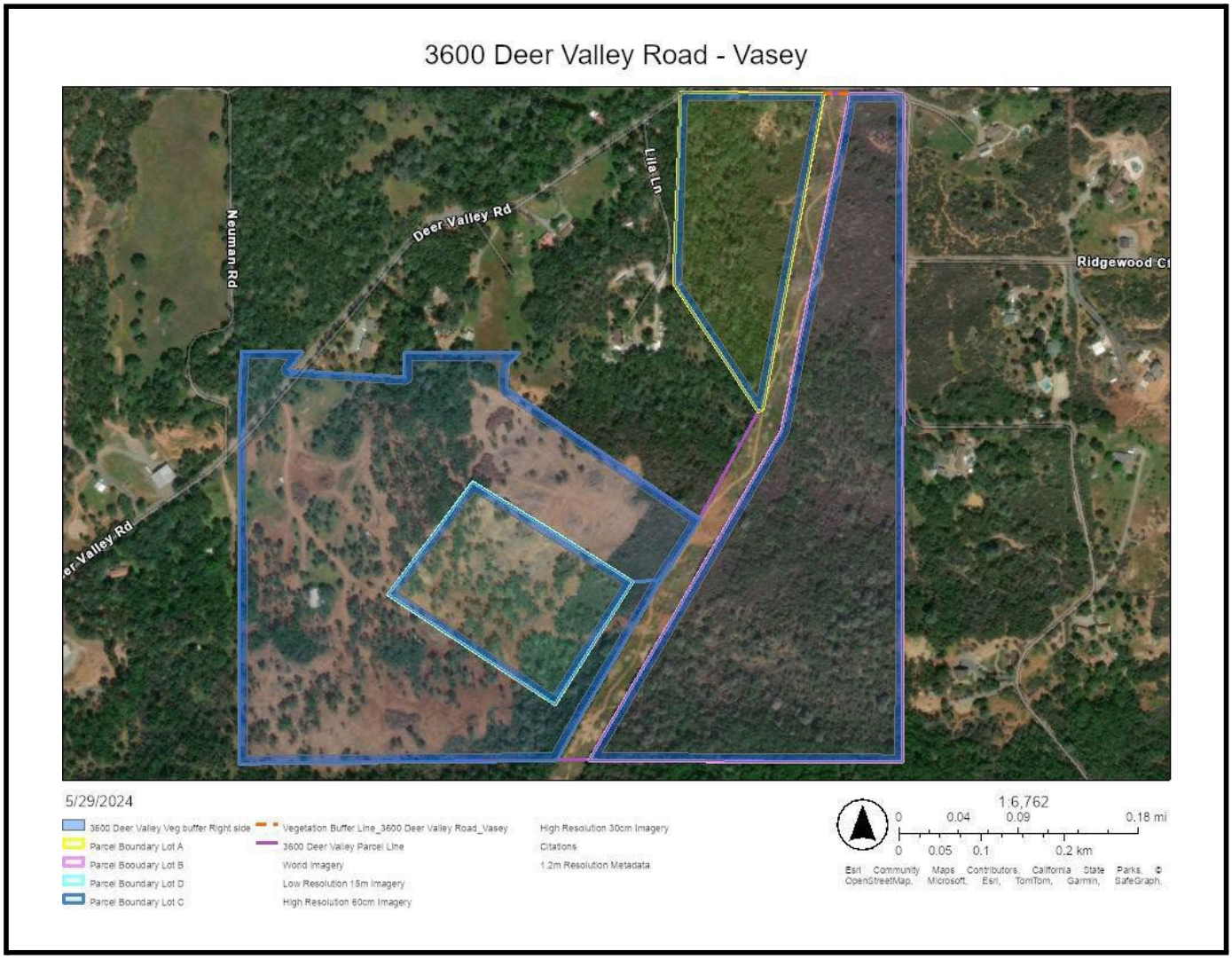
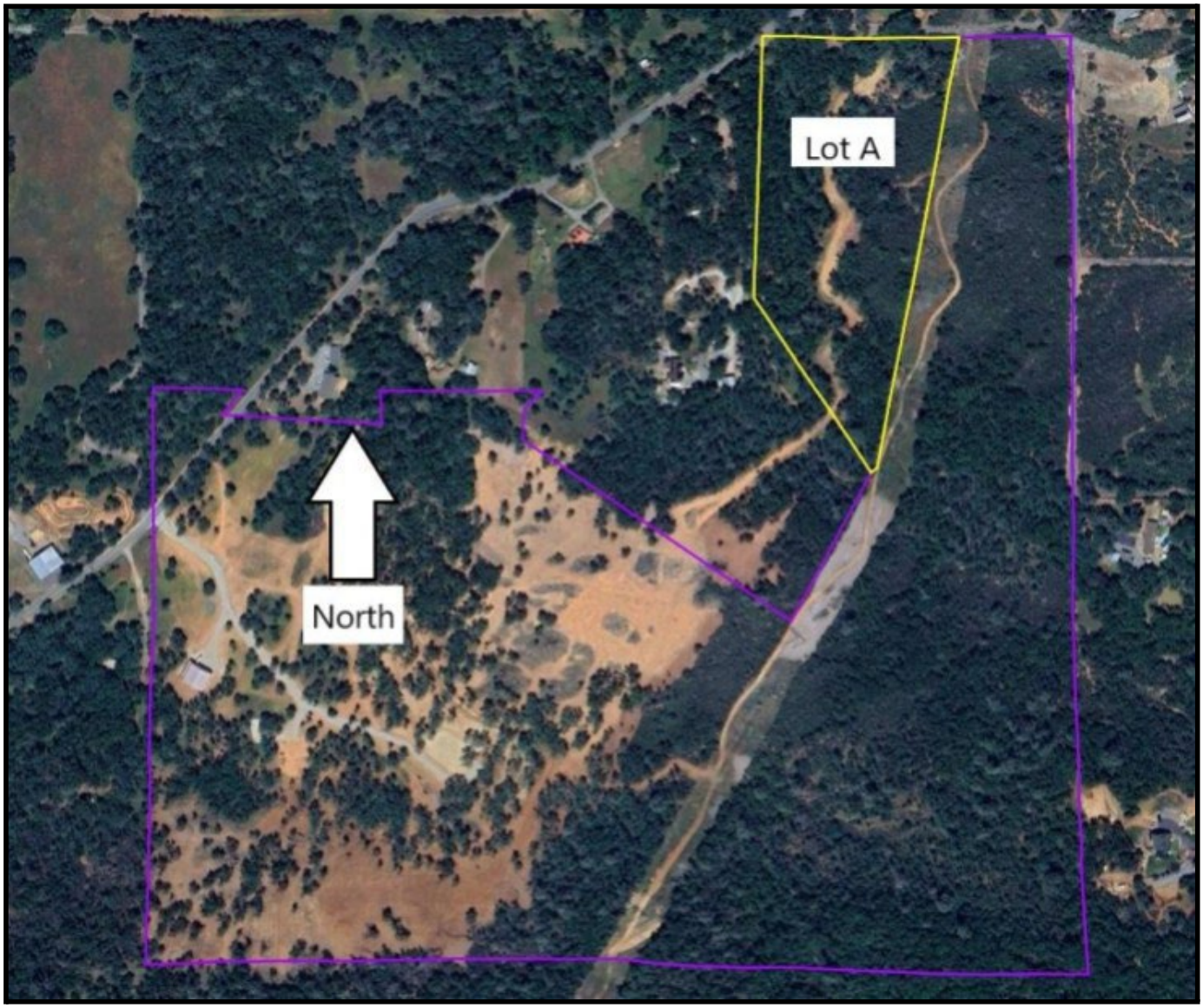


Aerial image showing lot lines and Fuel Modification Zones around properties and roads.

Exhibit H
P23-0008 Deer Vally and Ridge Road Tentative Parcel Map

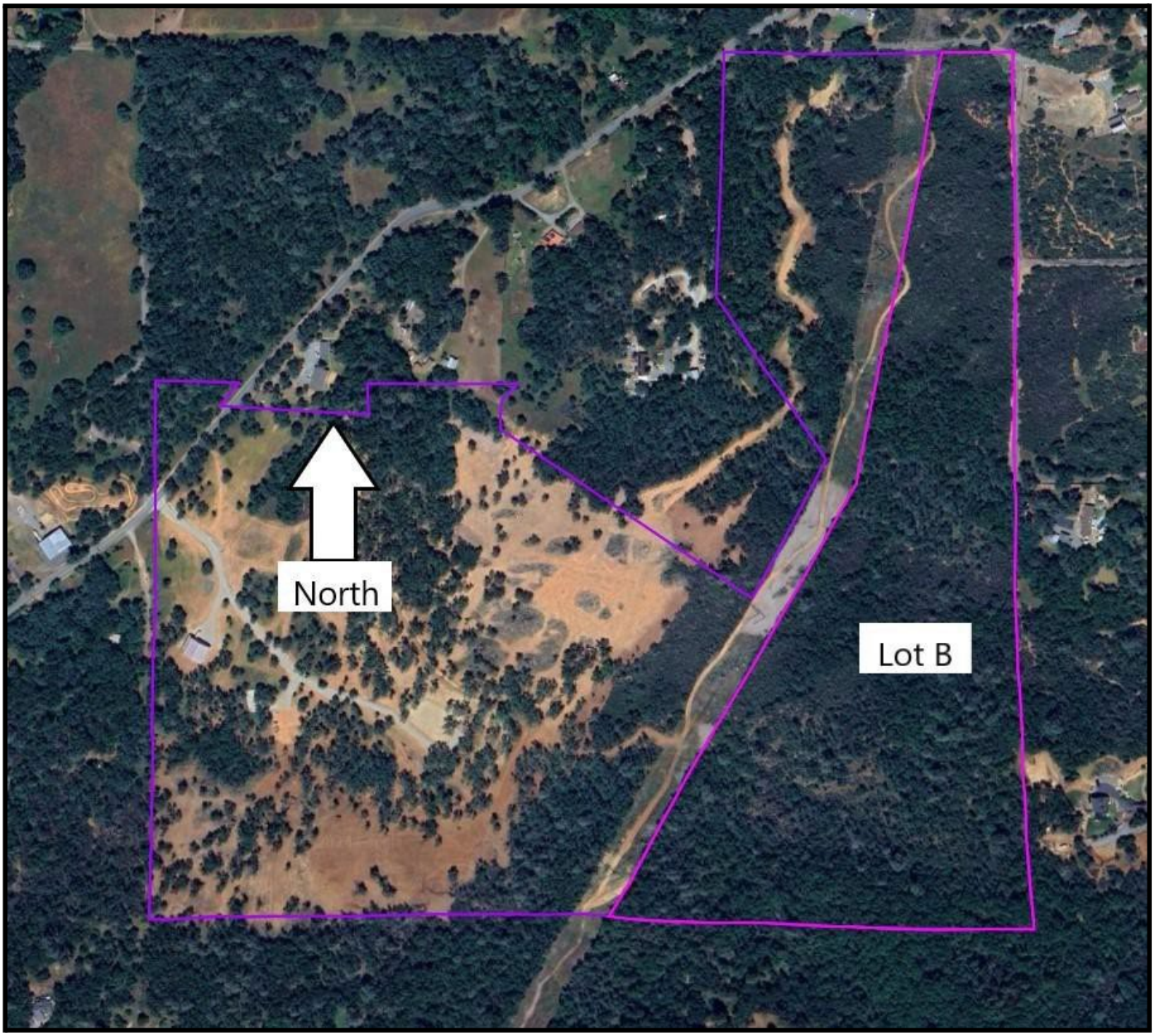
WILDFIRE SERVICES



Aerial Image of proposed Lot A outlined in yellow. Current parcel boundary for 3600 Deer Valley Road outlined in purple.

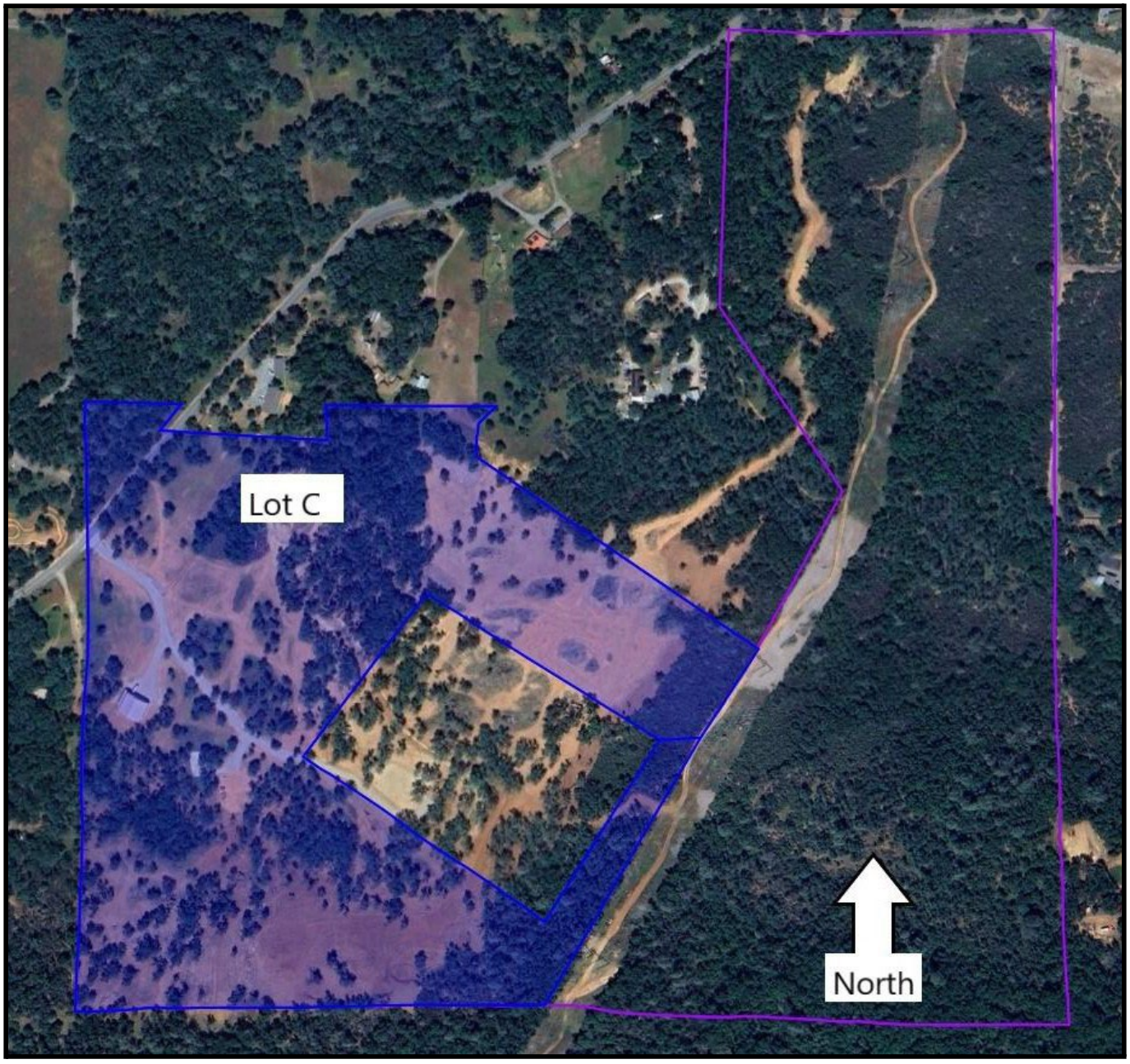
Exhibit H
P23-0008 Deer Vally and Ridge Road Tentative Parcel Map

WILDFIRE SERVICES



Aerial Image of proposed Lot B outlined in pink. Current parcel boundary for 3600 Deer Valley Road outlined in purple.

WILDFIRE SERVICES



Aerial Image of proposed Lot C outlined and shaded in blue. Current parcel boundary for 3600 Deer Valley Road outlined in purple.

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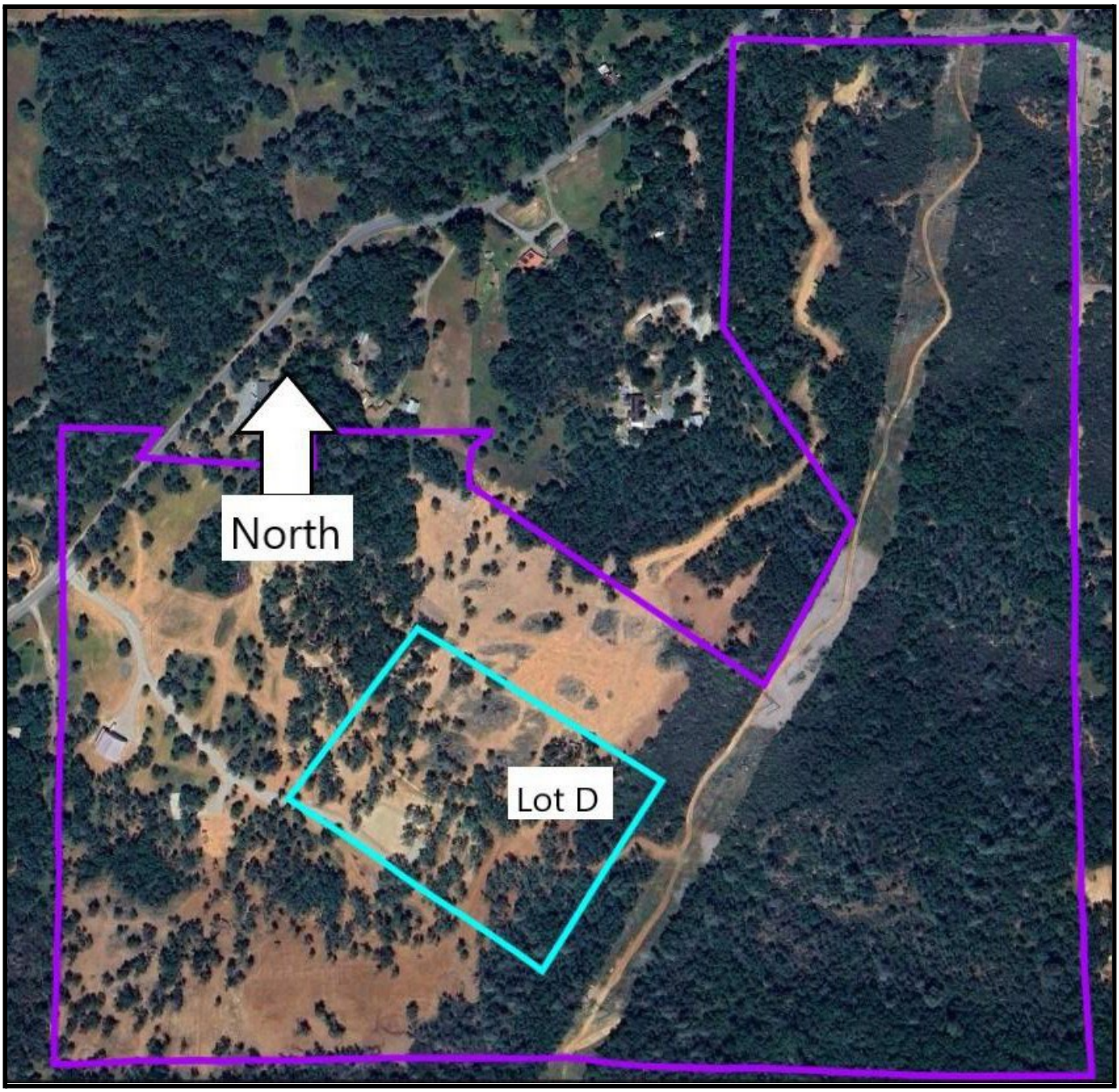

Aerial Image of proposed Lot D outlined in light blue. Current parcel boundary for 3600 Deer Valley Road outlined in purple.

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4. Recommendations

This section summarizes the recommendations for wildfire safety.

Building / Construction

The project is located in a Moderate Fire Hazard Severity Zone. Implementation of Wildland-Urban Interface Fire Area Building Standards will be required for the construction of new residences. These standards address roofing, venting, eave enclosure, windows, exterior doors, siding, and decking.

Recommendation	Responsibility	Timing
Driveways shall be 12 feet wide and must support a minimum weight of 75,000 lbs.	Property Owner	Ongoing
All private driveway gates shall be inset on the driveway at least 30 feet from the road. Gate openings shall be 2 feet wider than the driveway. Knox lock access shall be provided to the fire department.	Property Owner	Ongoing
All building materials must comply with Chapter 7a of the California Building Code or as referenced in Section 4905 of the California Fire Code (CFC).	Builder/ Property Owner	Ongoing
Residential fire sprinkler systems shall be designed and installed in accordance with Section R313 of the California Residential Code (CRC), National Fire Protection Association (NFPA) Standard 13-D (Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2016 edition2), and all other applicable design standards required by the Rescue FD Fire Code.	Builder	Construction
Decks that are cantilevered over the natural slope shall be enclosed.	Builder/ Property Owner	Construction
Deck material must be compliant with Chapter 7a of the California Building Code or as referenced in the Office of State Fire Marshal WUI Approved Products Listing.	Builder/ Property Owner	Construction
es shall be constructed with exterior wall sheathing compliant with Chapter 7 d in the Office of State Fire Marshal WUI Approved Products Listing.	Builder	Construction
Windows and glass doors on the sides of the structure shall be compliant with Chapter 7a of the California Building Code or as referenced in the Office of State Fire Marshal WUI Approved Products Listing.	Builder	Construction

WILDFIRE SERVICES

Recommendation	Responsibility	Timing
Rafter tails shall be enclosed with materials compliant with Chapter 7a of the California Building Code or as referenced in the Office of State Fire Marshal WUI Approved Products Listing.	Builder	Construction
Gutters and downspouts shall be compliant with Chapter 7a of the California Building Code or as referenced in the Office of State Fire Marshal WUI Approved Products Listing.	Builder	Construction
Attic and floor vents shall be compliant with Chapter 7a of the California Building Code or as referenced in the Office of State Fire Marshal WUI Approved Products Listing.	Builder	Construction
All fencing adjacent to any open space shall be compliant with Chapter 7a of the California Building Code or as referenced in the Office of State Fire Marshal WUI Approved Products Listing.	Builder/ Property Owner	Construction
A Notice of Restriction shall be filed with the final subdivision map which stipulates that a Wildland Fire Safe Plan has been prepared and wildfire mitigation measures must be implemented.	Builder	Design
Track building code changes adopted by the State or local authority and implement as required.	Homeowner	Ongoing

Defensible Space / Fuels Reduction

The trees scattered on the property typically have been limbed up to create adequate vertical separation in the understory. Ladder fuels have largely been eliminated. There are power lines running through the property, and a 100 foot wide buffer free of vegetation is maintained. Limbing of trees is important to reduce their susceptibility from a ground fire. Tree spacing on the slopes is a critical component to attaining the required fire safe clearances. A separation of the brush fuels and trees are essential for creating the defensible space around the residence and along the perimeter. Any trees adjacent to the roads need to be thinned to eliminate crown encroachment. Any limb hanging over the roadway must be at least 15’ above the ground. CAL FIRE guidelines for the 100 foot clearance requirements around structures are included in Appendix A.

WILDFIRE SERVICES

Recommendation	Responsibility	Timing
Remove all gray pines within the development area.	Developer or Property Owner	Before construction
Remove all dead trees and limbs within the development area.	Developer or Property Owner	Before construction
Remove all limbs from live trees that hang within 10 feet of the ground as measured on the uphill side of the tree.	Developer or Property Owner	Before construction
Limb all trees within 30 feet of the inner property lines at least 10 feet above the ground as measured on the uphill side of the tree.	Developer or Property Owner	Before construction
Remove all grass and brush to a 4-inch stubble within 30' along the inner property lines adjacent to the residential lots and along streets.	Developer or Property Owner	Before construction or annually by June 1
Establish a legally binding commitment for property owners for the purpose of implementing and maintaining the requirements of this plan. Sample commitment statements are available in Appendix B.	Developer	Before occupancy
All lots shall be landscaped to meet defensible space requirements up to 100 feet from buildings per Public Resources Code (PRC) 4291. See Appendix A and https://www.fire.ca.gov/dspace.	Property Owner	Within one year of occupancy, ongoing
Maintain Defensible Space standards as detailed in Appendix A.	Property Owner	Ongoing
Review the Wildland Fire Safe Plan to determine its adequacy. It may require modification as necessary.	Fire Department	Project start, and every 5 years after project start

Other Fire Safe Requirements

Project shall meet the latest adopted version of the Fire Safe Regulation, Articles 1-5, see Appendix D.

B. Effects on existing plans

Currently no adopted emergency response plan or evacuation plan is significantly impacted by this project. As neighboring communities develop, this plan should be revisited to re-evaluate recommendations and devise additional mitigation plans as required.

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C. Exacerbating factors

The 3600 Deer Valley Road Parcel Split is located in a Very High Fire Hazard Severity Zone. Risk of fire starts will increase with development. The greatest risk from fire ignition will be along roads and on large lots as human activity increases in these areas. Once ignited, the brush and grass on the slopes in and around the development will have a rapid rate of spread. This is the most exacerbated wildfire risk for this project.

Implementation of this WUI Fire Safety Plan will mitigate the risk of life and property loss by minimizing wildfire intensity and enabling local fire services to respond effectively. In particular, this plan emphasizes the following critical areas: the use of fire safe construction materials, vegetation management, and access and egress for evacuation and emergency vehicles.

D. Infrastructure

The entrance to 3600 Deer Valley Road is on the Northwest corner of the parcel. 150 feet of roadway has been constructed from Deer Valley Road into the parcel. The road will be constructed to El Dorado County Department of Transportation (DOT) standards or approved design waivers. The roadway within 3600 Deer Valley Road Parcel Split is 20 feet wide. This road will serve as Emergency Vehicular Access (EVA). The roadway should have a 10-foot buffer zone along both sides. Trees above the roadway must have minimum vertical clearance of 15 feet. The developer shall file with the El Dorado County Survey Department to get the roads named and have the names posted at the intersections.

Any private residential gate shall meet the requirements of El Dorado County Fire Department.

A fuel modification buffer zone of at least 30 feet in width shall be maintained around the perimeter of the project and a 10-foot fuel buffer zone along both sides of all roads. The wildfire protection values of fuel reduction are rapidly lost if not maintained annually. Continued review of potential ladder fuels to maintain a fire safe environment is very important. Annual maintenance by June 1 of each year is necessary.

The fuel modification buffer zone shall also include a maintenance mechanism. The mechanisms required shall be binding upon the property for which the Fuel Break is established, shall ensure adequate maintenance levels, and may include written legal agreements; permanent fees, taxes, or assessments; assessments through a homeowners; association; or other funding mechanisms.

Buffer zones will require the following:

- Cut and maintain ground fuels at or below 6 inches.
- Remove ladder fuels to separate tree canopy from ground level fuels by up to 1/3 the height of the tree depending on slope.

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- Reduce shrubs and brush by 50% or more, creating islands and wind ways to disrupt fuel continuity.
- Reduce or remove invasive and pyrophytic vegetation within designated buffer zones

Any tree canopy over the roads and driveways will have 15 feet of vertical clearance.

No public hiking trails are proposed.

E. Risk Exposure

This plan has not identified significant additional risk to people or structures as a result of this project.

F. Local Fire Protection and Water

The Rescue Fire Protection District provides all fire and emergency medical services to this project. Contact phone number for the Rescue Fire Protection District is (530)-677-1868. CAL FIRE has wildland fire responsibility in this state responsibility area (SRA). The phone number for CAL FIRE Amador/El Dorado Unit Headquarters is (530) 644-2345.

Each parcel developed will need to meet the El Dorado County Fire Protection Standard D-003 for Rural Water Supply and firefighting. This may require installation and maintenance of water supply tanks.

G. Evacuation Routes

There is an evacuation plan currently in place for 3600 Deer Valley Road. This plan considers a few different options for evacuation that may be utilized depending upon the direction from which the incident has started. The primary option for evacuation for proposed Lot A is directly north out of their driveway access onto Ridgeway Drive. The entrance on Ridgeway Drive is approximately 100 feet south from Deer Valley Road. Deer Valley Road is an arterial that connects to additional arterial roads in a northeasterly and southwesterly direction from 3600 Deer Valley Road. Lot B will utilize the current PG&E road in place. This dirt road has access and egress points that terminate at Ridgewood Drive to the east, and Fairview Court to the south. Both Ridgewood Drive and Fairview Court connect directly to Deer Valley Road. For proposed Lots C and D, their primary evacuation route is to leave directly out of the driveway on the western property boundary onto Deer Valley Road. In the event this option is not viable, there is an option to utilize the PG&E road that bisects the property and has access and egress on both the northern (Ridgewood Drive) and southern (Fairview Court) property boundary. There is a third option in place as well which utilizes interior roads that give access and egress to proposed Lot A, and a neighboring parcel on the northern parcel boundary.

H. Responsibility Statements

The property owners shall have responsibilities for this plan specified in legally binding statements, and shall be incorporated into the Covenants, Conditions and Restriction (CCR) or similar documents. The recommended statements for this section of the agreements are shown in Appendix B. Before these statements are finalized, legal counsel should be consulted.

I. Plant Information

Landscaping design has not been completed for the areas within the 3600 Deer Valley Road Parcel Map. Landscaping Guidelines are shown in the El Dorado County Community Design Standards, in the section Landscaping and Irrigation Standards, see https://www.edcgov.us/government/longrangeplanning/landuse/community%20design%20standards/documents/Landscaping-and-Irrigation-Standards-adopted-12-15-2015.pdf. Once landscaping is designed, plans should be reviewed for compliance with the standards. The plan should include a map identifying all proposed plants in the fuel modification buffer zones with a legend that includes a symbol for each proposed plant species. The plan shall include specific information on each species proposed, including but not limited to: 1. The plant life-form 2. Scientific and common name; and 3. Expected height and width of mature growth The map shall identify irrigated and non-irrigated zones.

J. Cost Responsibility

The cost of fire safe plan preparation, modification, and review shall be the responsibility of the project applicant. Once the project is complete, the cost of modification and review shall be the shared responsibility of the property owners.

K. Alternative Materials

The use of alternative materials, designs and methods of construction and equipment proposed within this WFSP shall be approved by the AHJ in accordance with CFC §104.9.

L. Appeal

Applications for appeal of provisions found in this plan shall be heard by the AHJ Board of Appeals in accordance with CFC §109.

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M. Retention

This plan, once approved, shall be retained by both the AHJ and CAL FIRE for future use. The plan shall also be provided to the project applicant and successor parties for use in implementing the plan provisions.

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Appendix A: Defensible Space Requirements

This section is taken from Cal Fire recommendations at https://www.fire.ca.gov/dspace.

Defensible space is the buffer between your structure and the surrounding area.

Adequate defensible space acts as a barrier to slow or halt the progress of fire that would otherwise engulf your property. It also helps ensure the safety of firefighters defending your home. Defensible space is the first line of defense for your home against wildfire.

The intensity of wildfire fuel management varies within the 100-foot perimeter of the home, with more intense fuels' reduction occurring closer to your home. Start at the home and work your way out to 100 feet or to your property line, whichever is closer. Learn more about the Defensible Space Zones below.

Zone 0: Start Closest to Your Home to be Ember-resistant.

The first five feet from your home is the most important. Keeping the area closest to buildings, structures, and decks clear will prevent embers from igniting materials that can spread the fire to your home.

Why? The majority of homes lost to wildfire are ignited by flying embers. Embers can travel miles ahead of the active front of wildfires.

What to do:

- Use hardscape like gravel, pavers, or concrete. No combustible bark or mulch.
- Remove all dead and dying plants, weeds, and debris (leaves, needles, etc.) from your roof, gutter, deck, porch, stairways, and under any areas of your home.
- Remove all branches within 10 feet of any chimney or stovepipe outlet.
- Limit combustible items (like outdoor furniture and planters) on top of decks.
- Relocate firewood and lumber to Zone 2.
- Replace combustible fencing, gates, and arbors attached to the home with noncombustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles, and other combustible items outside this zone.

Zone 1: Keep it Lean, Clean, and Green Within 30 feet

Regularly clear dead or dry vegetation and create space between trees. During times of drought when watering is limited, pay special attention to clearing dead or dying material.

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Why? Removing dead plants and creating space between trees and shrubs creates a buffer for your property and reduces potential fuel for fire.

What to do:

- Remove all dead plants, grass, and weeds.
- Remove dead or dry leaves and pine needles.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Create a separation between trees, shrubs, and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2: Reduce Potential Fuel Within 100 feet

Continue reducing potential fuel within 100 feet or the property line.

Why? 100 feet of defensible space is required by law. Public Resources Code (PRC) 4291.

What to do:

- Cut or mow annual grass down to a maximum height of four inches.
- Create horizontal space between shrubs and trees. (See diagram)
- Create vertical space between grass, shrubs and trees. (See diagram)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of three inches.
- Keep 10 feet of clearance around exposed wood piles, down to bare mineral soil, in all directions.
- Clear areas around outbuildings and propane tanks. Keep 10 feet of clearance to bare mineral soil and no flammable vegetation for an additional 10 feet around their exterior.

Vertical Spacing

Maintain space between the lowest tree branches and the ground or shrubs.

- Remove all tree branches at least six feet from the ground.
- Allow extra vertical space between shrubs and trees. Lack of vertical space can allow a fire to move from the ground to the brush to the treetops like a ladder. This leads to more intense fire closer to your home.
- Keep at least three times the height of any shrubs between the shrubs and the lowest branches of trees.

Example: A 5-foot shrub is growing near a tree. 15 feet of clearance is needed between the top of the shrub and the lowest tree branch.

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Horizontal Spacing

How much space should you leave between trees or shrubs?

Horizontal space depends on the slope of the land and the height of the shrubs or trees. Leave more space between vegetation on bigger slopes. Refer to the chart below to determine spacing distance.

Space between shrubs:

- Flat or mild slope (less than 20%): Two times the height of the shrub.
- Mild to moderate slope (20-40%): Four times the height of the shrub
- Moderate to steep slope (greater than 40%): Six times the height of the shrub

Space between trees:

- Flat or mild slope (less than 20%): 10 feet.
- Mild to moderate slope (20-40%): 20 feet.
- Moderate to steep slope (greater than 40%): 30 feet.

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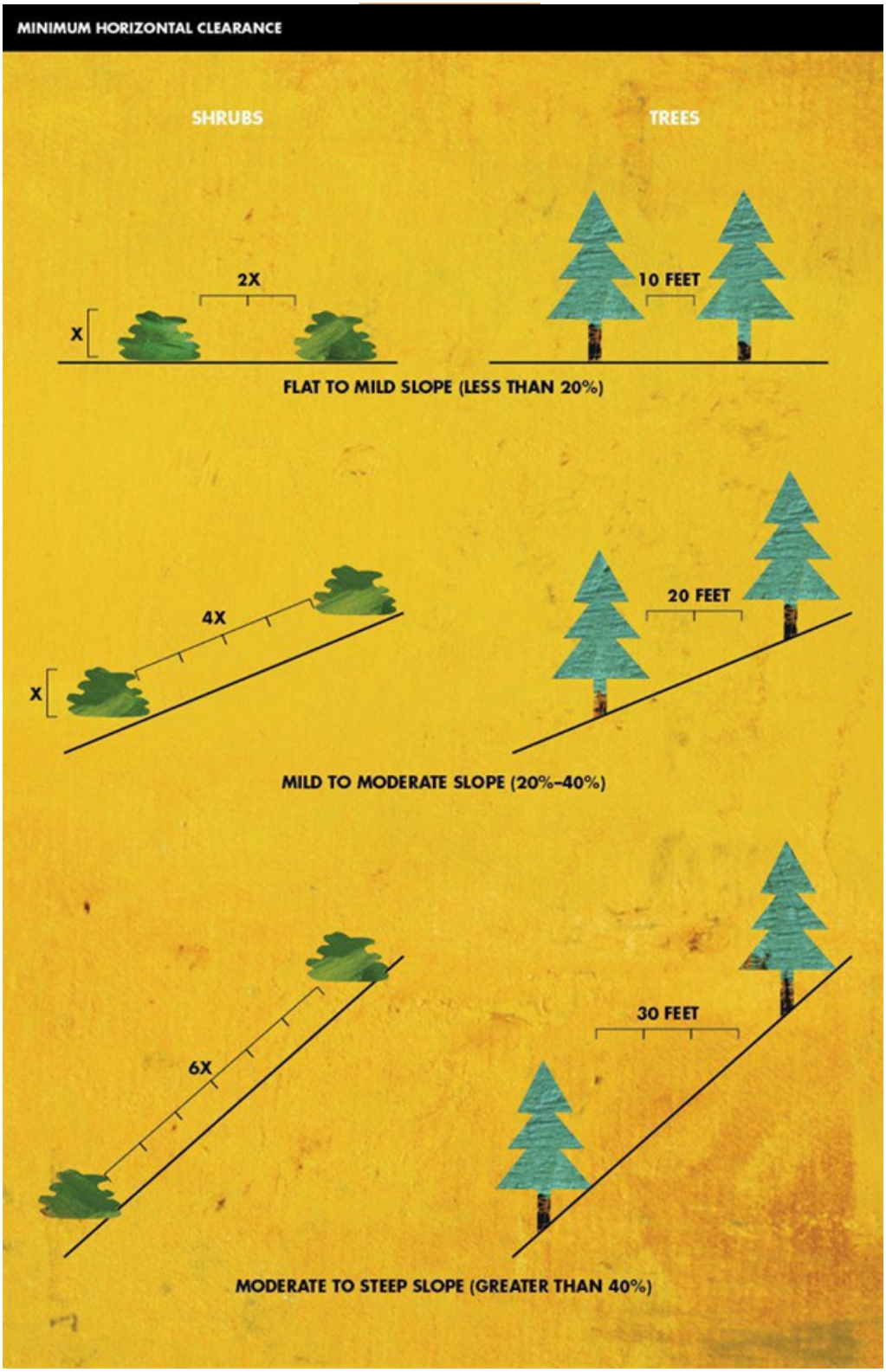

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Appendix B: Legal agreement text

This plan shall be referenced in the Covenants, Conditions and Restriction (CCR) or similar documents. The recommended statements for this section are shown below.

Wildland Fire Safe Plan Responsibilities

1.1. The Property Owner has received a copy of the Wildland Fire Safe Plan (WFSP) and understands its provisions.

Maintenance and Improvements
2.1. The Property Owner shall be responsible for maintaining their property in accordance with the Wildland Fire Safe Plan and shall promptly notify the Rescue Fire Department of any issues or concerns related to wildfire risk mitigation.

Insurance
3.1 The Property Owner agrees to maintain adequate insurance coverage for their property to cover potential wildfire damage, as well as liability insurance.

Review and Updates
4.1 The WFSP shall be periodically reviewed, and updates may be made by the Property Owners with approval from the EDCFD.

4.2 The Property Owner agrees to participate in any required reviews and updates, including any changes to wildfire risk mitigation measures.

Please note that the actual content of such a section may vary depending on the specific needs and circumstances and inputs from legal counsel.

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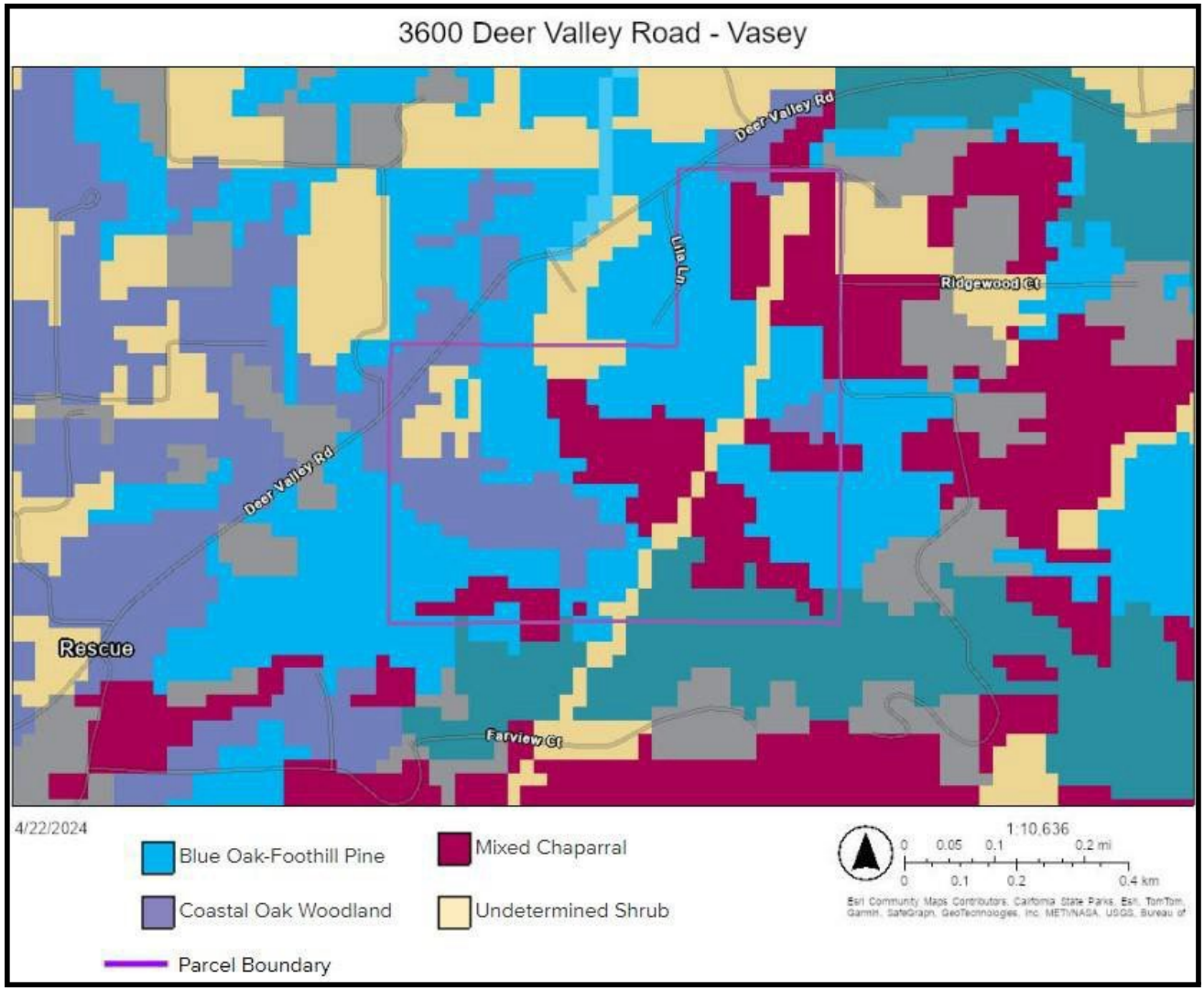
Appendix C. Maps and Images



Vegetation map of 3600 Deer Valley Road Parcel Map and surrounding areas.

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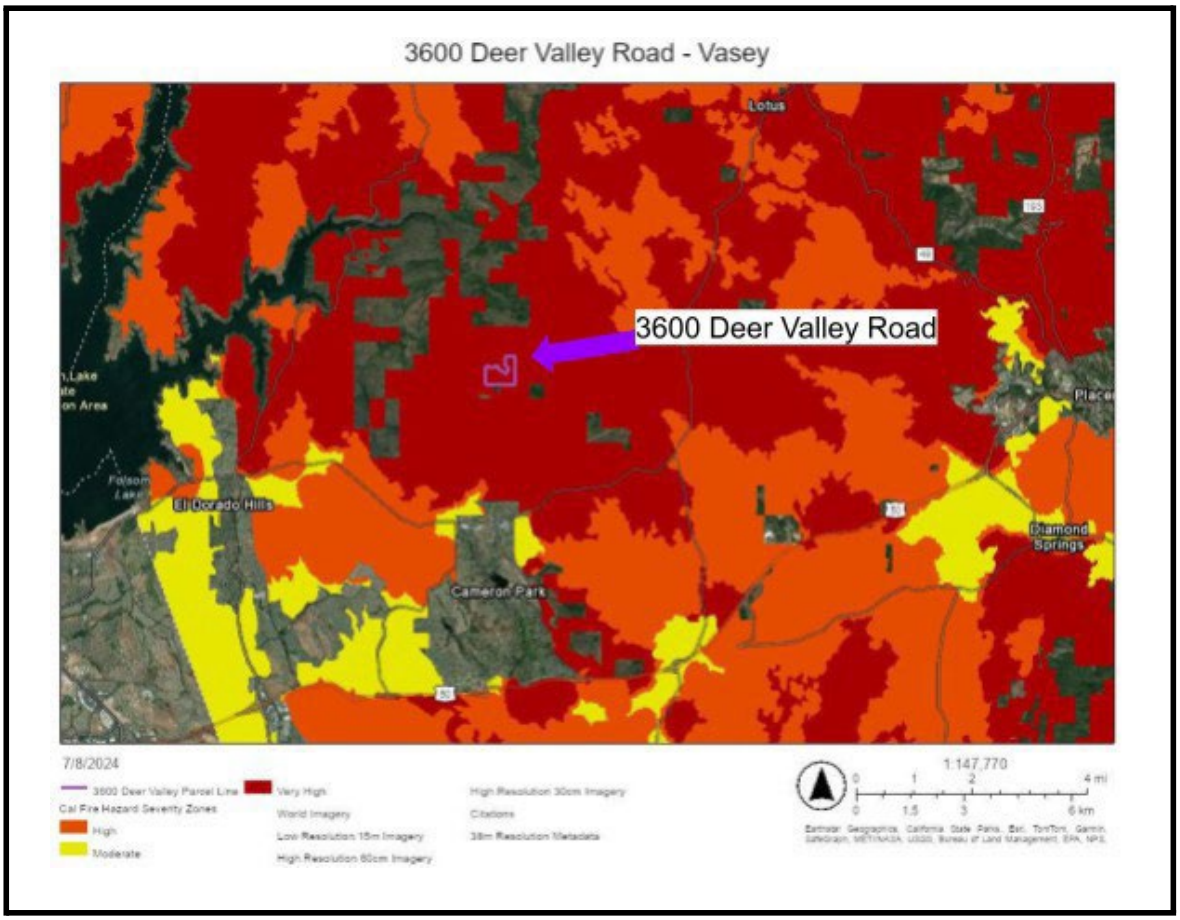

Map of Cal Fire Hazard Severity Zones from CalFire FHSZ map on ArcGIS

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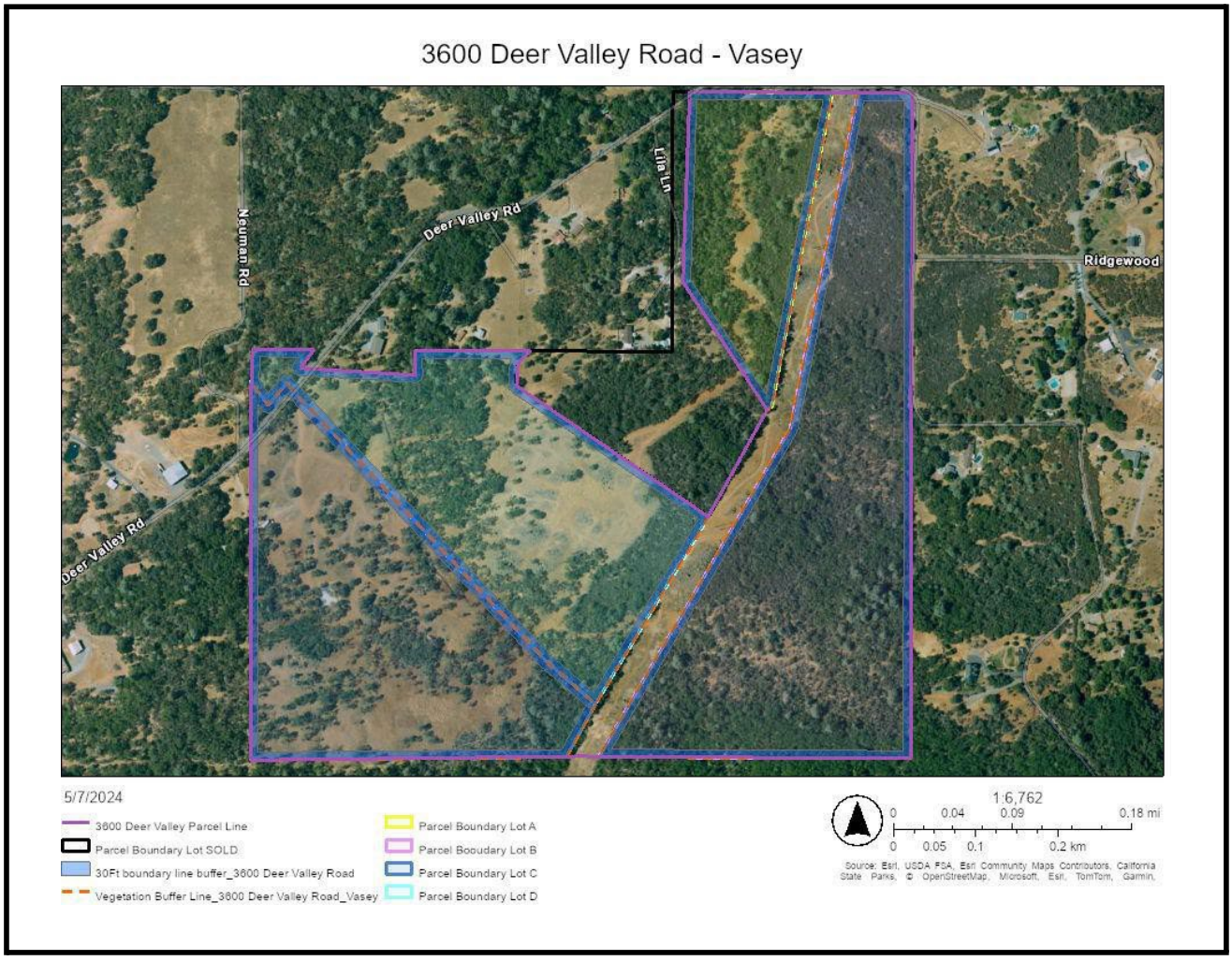

Image of Lot B and Lot A, bisected by PG&E 100 foot wide vegetation free easement

Exhibit H
P23-0008 Deer Vally and Ridge Road Tentative Parcel Map

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Aerial images of 3600 Deer Valley Road Parcel Map from various angles.

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Image of Lot C and D taken from Lot A

Sources Used:

- California Fire Code Section 4903.1
- 2021 Title 14 of the California Code of Regulations, Div. 1.5, Chap. 7, Subchapter 2 (Fire Safe Regulations)
- County of El Dorado General Plan 6.2.2.2 (Limitations to Development)
- El Dorado County Fire Department Fire Protection Standard Wildland Urban Interface Fire Protection Plans STANDARD #W-001 EFFECTIVE 5-25-2022.
- El Dorado County Community Design Standards - https://www.edcgov.us/government/longrangeplanning/landuse/community%20design%20standards/documents/Landscaping-and-Irrigation-Standards-adopted-12-15-2015.pdf
- Cal Fire Defensible Space https://www.fire.ca.gov/dspace.
- El Dorado County Rural Water Supply Standard https://www.eldoradocountyfire.com/files/10278b889/Rural+Water+Supply+Standard+D-003+03-2022.pdf

WILDFIRE SERVICES

- 2023 Strategic Fire Plan Amador El Dorado Unit https://cdnverify.osfm.fire.ca.gov/media/bsnpzxjd/2023-amador-el-dorado-unit-fire-plan.pdf
- State Minimum Fire Safe Regulations. https://bof.fire.ca.gov/regulations/. Attached for reference in Appendix D.
- Office of State Fire Marshal WUI Approved Products Listing: https://calfire.govmotus.org/BMLSearch/Index.

WILDFIRE SERVICES

Appendix D. Fire Safe Regulations

The following pages are the State Minimum Fire Safe Regulations, April 1, 2023.

State Minimum Fire Safe Regulations

Board of Forestry and Fire Protection

FOR INFORMATIONAL USE ONLY
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As of April 1, 2023

California Code of Regulations
Title 14 Natural Resources
Division 1.5 Department of Forestry
Chapter 7 - Fire Protection
Subchapter 2 State Minimum Fire Safe Regulations
Articles 1-5

Contents

Article 1 Administration

§ 1270.00. Title

Subchapter 2 shall be known as the “State Minimum Fire Safe Regulations,” and shall constitute the minimum Wildfire protection standards of the California Board of Forestry and Fire Protection.

§ 1270.01. Definitions

The following definitions are applicable to Subchapter 2.
(a) Agriculture: Land used for agricultural purposes as defined in a Local Jurisdiction's zoning ordinances.
(b) Board: California Board of Forestry and Fire Protection.
(c) Building: Any Structure used or intended for supporting or sheltering any use or Occupancy, except those classified as Utility and Miscellaneous Group U.
(d) CAL FIRE: California Department of Forestry and Fire Protection.
(e) Dead-end Road: A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and Roads that loop back on themselves
(f) Defensible Space: The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping Structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical Structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, Road names and Building identification, and fuel modification measures.
(g) Development: As defined in section 66418.1 of the California Government Code.
(h) Director: Director of the Department of Forestry and Fire Protection or their designee.
(i) Driveway: A vehicular pathway that serves no more than four (4) Residential Units and any number of non-commercial or non-industrial Utility or Miscellaneous Group U Buildings on each parcel. A Driveway shall not serve commercial or industrial uses at any size or scale.
(j) Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.
(k) Fire Apparatus: A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support emergency response, including but not limited to the suppression of fires.
(l) Fire Authority: A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards in the Local Jurisdiction.
(m) Fire Hydrant: A valved connection on a water supply or storage system for the purpose of providing water for fire protection and suppression operations.
(n) Fuel Break: A strategically located area where the volume and arrangement of vegetation has been managed to limit fire intensity, fire severity, rate of spread, crown fire potential, and/or ember production.
(o) Greenbelts: open space, parks, wildlands, other areas, or a combination thereof, as designated by Local Jurisdictions, which are in, surround, or are adjacent to a city or urbanized area, that may function as Fuel Breaks and where Building construction is restricted or prohibited.
(p) Greenways: Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.

(q) Hammerhead/T: A “T” shaped, three-point Turnaround space for Fire Apparatus on a Road or Driveway, being no narrower than the Road or Driveway that serves it.
(r) Hazardous Land Use: A land use that presents a significantly elevated potential for the ignition, prolonged duration, or increased intensity of a Wildfire due to the presence of flammable materials, liquids, or gasses, or other features that initiate or sustain combustion. Such uses are determined by the Local Jurisdiction and may include, but are not limited to, power-generation and distribution facilities; wood processing or storage sites; flammable gas or liquids processing or storage sites; or shooting ranges.
(s) Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that approves or has the authority to regulate Development.
(t) Municipal-Type Water System: A system having water pipes servicing Fire Hydrants and designed to furnish, over and above domestic consumption, a minimum of 250 gpm (950 L/min) at 20 psi (138 kPa) residual pressure for a two (2) hour duration.
(u) Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.
(v) One-way Road: A Road that provides a minimum of one Traffic Lane width designed for traffic flow in one direction only.
(w) Residential Unit: Any Building or portion thereof which contains living facilities including provisions for sleeping, eating, cooking and/or sanitation, for one or more persons. Manufactured homes, mobile homes, and factory-built housing are considered Residential Units.
(x) Ridgeline: The line of intersection of two opposing slope aspects running parallel to the long axis of the highest elevation of land; or an area of higher ground separating two adjacent streams or watersheds.
(y) Road: A public or private vehicular pathway to more than four (4) Residential Units, or to any industrial or commercial Occupancy.
(z) Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the Traffic Lane or Shoulders.
(aa) Same Practical Effect: As used in this subchapter, means an Exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:

(1) access for emergency wildland fire equipment,
(2) safe civilian evacuation,
(3) signing that avoids delays in emergency equipment response,
(4) available and accessible water to effectively attack Wildfire or defend a Structure from Wildfire, and
(5) fuel modification sufficient for civilian and fire fighter safety.

(bb) Shoulder: A vehicular pathway adjacent to the Traffic Lane.
(cc) State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.
(dd) Strategic Ridgeline: a Ridgeline identified pursuant to § 1276.02(a) that may support fire suppression activities or where the preservation of the Ridgeline as an Undeveloped Ridgeline would reduce fire risk and improve fire protection.
(ee) Structure: That which is built or constructed or any piece of work artificially built up or composed of parts joined together in some definite manner.
(ff) Traffic Lane: The portion of a Road or Driveway that provides a single line of vehicle travel.
(gg) Turnaround: An area which allows for a safe opposite change of direction for Fire Apparatus at the end of a Road or Driveway.
(hh) Turnout: A widening in a Road or Driveway to allow vehicles to pass.

(ii) Undeveloped Ridgeline: A Ridgeline with no Buildings.
(jj) Utility and Miscellaneous Group U: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.
(kk) Vertical Clearance: The minimum specified height of a bridge, overhead projection, or vegetation clearance above the Road or Driveway.
(*ll*) Vertical Curve: A curve at a high or low point of a Road that provides a gradual transition between two Road grades or slopes.
(mm) Very High Fire Hazard Severity Zone (VHFHSZ): As defined in Government Code section 51177(i).
(nn) Wildfire: Has the same meaning as “forest fire” in Public Resources Code Section 4103.

§ 1270.02. Purpose

(a) Subchapter 2 has been prepared and adopted for the purpose of establishing state minimum Wildfire protection standards in conjunction with Building, construction, and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones, as defined in Government Code § 51177(i) (VHFHSZ).
(b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.
(c) These standards shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; vegetation modification, Fuel Breaks, Greenbelts, and measures to preserve Undeveloped Ridgelines. Subchapter 2 specifies the minimums for such measures.

§ 1270.03. Scope

(a) Subchapter 2 shall apply to:

(1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection (b).
(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971;
(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and
(4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel or tentative map.

(b) Subchapter 2 does not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the Buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.
(c) Affected activities include, but are not limited to:

(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);
(2) application for a Building permit for new construction not relating to an existing Structure;

(3) application for a use permit;
(4) Road construction including construction of a Road that does not currently exist, or extension of an existing Road.

(d) The standards in Subchapter 2 applicable to Roads shall not apply to Roads used solely for Agriculture; mining; or the management of timberland or harvesting of forest products.

§ 1270.04. Provisions for Application of these Regulations

This Subchapter shall be applied as follows:
(a) the Local Jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for Building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or Development within the SRA, or if after July, 1 2021, the VHFHSZ.
(b) the Director or their designee may review and make fire protection recommendations on applicable construction or development permits or maps provided by the Local Jurisdiction.
(c) the Local Jurisdiction shall ensure that the applicable sections of this Subchapter become a condition of approval of any applicable construction or Development permit or map.

§ 1270.05. Local Regulations

(a) Subchapter 2 shall serve as the minimum Wildfire protection standards applied in SRA and VHFHSZ. However, Subchapter 2 does not supersede local regulations which equal or exceed the standards of this Subchapter.
(b) A local regulation equals or exceeds a minimum standard of this Subchapter only if, at a minimum, the local regulation also fully complies with the corresponding minimum standard in this Subchapter.
(c) A Local Jurisdiction shall not apply exemptions to Subchapter 2 that are not enumerated in Subchapter 2. Exceptions requested and approved in conformance with § 1270.07 (Exceptions to Standards) may be granted on a case-by-case basis.
(d) Notwithstanding a local regulation that equals or exceeds the State Minimum Fire Safe Regulations, Building construction shall comply with the State Minimum Fire Safe Regulations.

§ 1270.06. Inspections

Inspections shall conform to the following requirements:
(a) Inspections in the SRA shall be made by:
(1) the Director, or
(2) Local Jurisdictions that have assumed state fire protection responsibility on SRA lands, or
(3) Local Jurisdictions where the inspection duties have been formally delegated by the Director to the Local Jurisdictions, pursuant to subsection (b).

(b) The Director may delegate inspection authority to a Local Jurisdiction subject to all of the following criteria:
(1) The Local Jurisdiction represents that they have appropriate resources to perform the delegated inspection authority.
(2) The Local Jurisdiction acknowledges that CAL FIRE's authority under subsection (d) shall not be waived or restricted.
(3) The Local Jurisdiction consents to the delegation of inspection authority.
(4) The Director may revoke the delegation at any time.
(5) The delegation of inspection authority, and any subsequent revocation of the delegation, shall be documented in writing, and retained on file at the CAL FIRE Unit headquarters that administers SRA fire protection in the area.

(c) Inspections in the VHFHSZ shall be made by the Local Jurisdiction.

(d) Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws in the SRA even when the inspection duties have been delegated pursuant to this section.
(e) Reports of violations within the SRA shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the Local Jurisdiction.
(f) When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of Occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or Building permit.

§ 1270.07. Exceptions to Standards

(a) Upon request by the applicant, an Exception to standards within this Subchapter may be allowed by the Inspection entity in accordance with 14 CCR § 1270.06 (Inspections) where the Exceptions provide the Same Practical Effect as these regulations towards providing Defensible Space. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06, shall be made on a case-by-case basis only. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06 shall be forwarded to the appropriate CAL FIRE unit headquarters that administers SRA fire protection in that Local Jurisdiction, or the county in which the Local Jurisdiction is located and shall be retained on file at the Unit Office.
(b) Requests for an Exception shall be made in writing to the Local Jurisdiction listed in 14 CCR § 1270.06 by the applicant or the applicant's authorized representative.
At a minimum, the request shall state the specific section(s) for which an Exception is requested; material facts supporting the contention of the applicant; the details of the Exception proposed; and a map showing the proposed location and siting of the Exception. Local Jurisdictions listed in § 1270.06 (Inspections) may establish additional procedures or requirements for Exception requests.
(c) Where an Exception is not granted by the inspection entity, the applicant may appeal such denial to the Local Jurisdiction. The Local Jurisdiction may establish or utilize an appeal process consistent with existing local building or planning department appeal processes.
(d) Before the Local Jurisdiction makes a determination on an appeal, the inspector shall be consulted and shall provide to that Local Jurisdiction documentation outlining the effects of the requested Exception on Wildfire protection.
(e) If an appeal is granted, the Local Jurisdiction shall make findings that the decision meets the intent of providing Defensible Space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in that Local Jurisdiction.

§ 1270.08. Distance Measurements

All specified or referenced distances are measured along the ground, unless otherwise stated.

Article 2 Ingress and Egress

§ 1273.00. Intent

Roads, and Driveways, whether public or private, unless exempted under 14 CCR § 1270.03(d), shall provide for safe access for emergency Wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a Wildfire emergency consistent with 14 CCR §§ 1273.00 through 1273.09.

§ 1273.01. Width.

(a) All roads shall be constructed to provide 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, unless other standards are provided in this article or additional requirements are mandated by Local Jurisdictions or local subdivision requirements. Vertical clearances shall conform to the requirements in California Vehicle Code section 35250.

(b) All One-way Roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including Shoulders. The Local Jurisdiction may approve One-way Roads.

(1) All one-way roads shall, at both ends, connect to a road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) Residential Units.

(2) In no case shall a One-way Road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each One-way Road.

(c) All driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13′ 6″).

§ 1273.02. Road Surface

(a) Roads shall be designed and maintained to support the imposed load of Fire Apparatus weighing at least 75,000 pounds, and provide an aggregate base.

(b) Road and Driveway Structures shall be designed and maintained to support at least 40,000 pounds.

(c) Project proponent shall provide engineering specifications to support design, if requested by the Local Jurisdiction.

§ 1273.03. Grades

(a) At no point shall the grade for all Roads and Driveways exceed 16 percent.

(b) The grade may exceed 16%, not to exceed 20%, with approval from the Local Jurisdiction and with mitigations to provide for Same Practical Effect.

§ 1273.04. Radius

(a) No Road or Road Structure shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.

(b) The length of vertical curves in Roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

§ 1273.05. Turnarounds

(a) Turnarounds are required on Driveways and Dead-end Roads.

(b) The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the figures in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is used instead, the top of the "T" shall be a minimum of sixty (60) feet in length.
(c) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the Driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
(d) A turnaround shall be provided on Driveways over 300 feet in length and shall be within fifty (50) feet of the building.
(d) Each Dead-end Road shall have a turnaround constructed at its terminus. Where parcels are zoned five (5) acres or larger, turnarounds shall be provided at a maximum of 1,320 foot intervals.
(e) Figure A. Turnarounds on roads with two ten-foot traffic lanes.
Figure A/Image 1 on the left is a visual representation of paragraph (b).
(f) Figure B. Turnarounds on driveways with one ten-foot traffic lane.
Figure B/Image 2 on the right is a visual representation of paragraph (b).

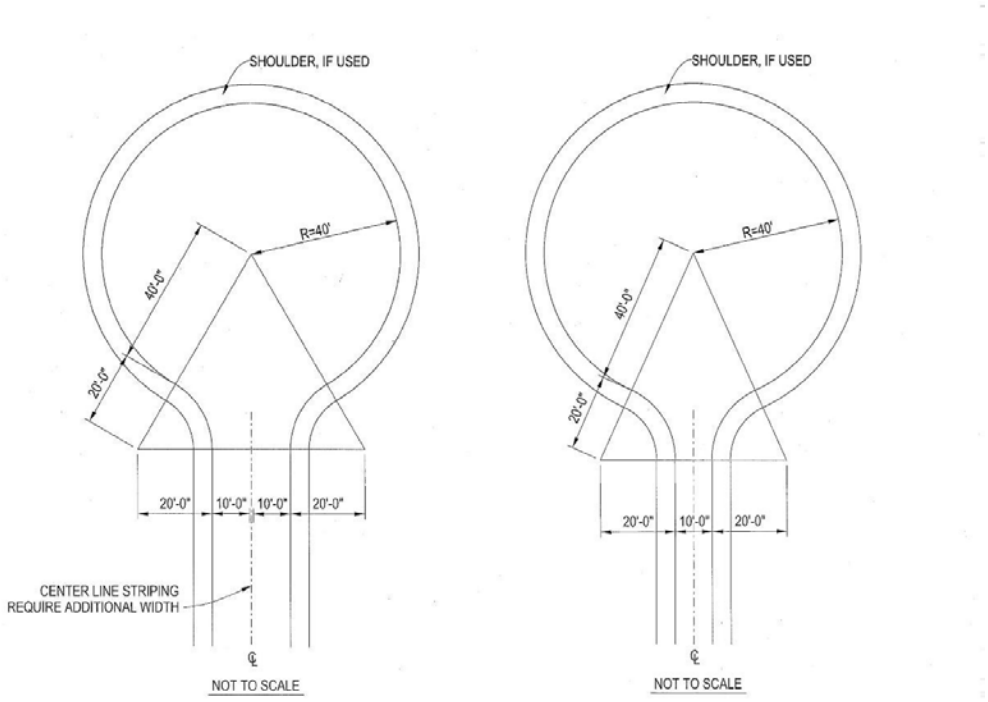

FIGURE FOR 14 CCR § 1273.05. TURNAROUND EXAMPLES

§ 1273.06. Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

§ 1273.07. Road and Driveway Structures

(a) Appropriate signing, including but not limited to weight or vertical clearance limitations, One-way Road or single traffic lane conditions, shall reflect the capability of each bridge.
(b) Where a bridge or an elevated surface is part of a Fire Apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and

Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction.
(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.
(d) A bridge with only one traffic lane may be authorized by the Local Jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

§ 1273.08. Dead-end Roads

(a) The maximum length of a Dead-end Road, including all Dead-end Roads accessed from that Dead-end Road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

parcels zoned for less than one acre - 800 feet
parcels zoned for 1 acre to 4.99 acres - 1,320 feet
parcels zoned for 5 acres to 19.99 acres - 2,640 feet
parcels zoned for 20 acres or larger - 5,280 feet

All lengths shall be measured from the edge of the Road surface at the intersection that begins the Road to the end of the Road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes requiring different length limits, the shortest allowable length shall apply.
(b) See 14 CCR § 1273.05 for dead-end road turnaround requirements.

§ 1273.09. Gate Entrances

(a) Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of thirteen feet, six inches (13′ 6″).
(b) All gates providing access from a Road to a Driveway shall be located at least thirty (30) feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that Road.
(c) Where a One-way Road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used.
(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

Article 3 Signing and Building Numbering

§ 1274.00. Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved Roads and Buildings shall be designated by names or numbers posted on signs clearly visible and legible from the Road. This section shall not restrict the size of letters or numbers appearing on road signs for other purposes.

§ 1274.01. Road Signs.

(a) Newly constructed or approved Roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each Local Jurisdiction. This section does not require any entity to rename or renumber existing roads, nor shall a Road providing access only to a single commercial or industrial Occupancy require naming or numbering.
(b) The size of letters, numbers, and symbols for Road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background color of the sign.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.
(b) Signs required by this article identifying intersecting Roads shall be placed at the intersection of those Roads.
(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end roads, one-way roads, or single lane conditions, shall be placed:

(1) at the intersection preceding the traffic access limitation, and
(2) no more than one hundred (100) feet before such traffic access limitation.

(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

§ 1274.03. Addresses for Buildings.

(a) All Buildings shall be issued an address by the Local Jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U Buildings are not required to have a separate address; however, each Residential Unit within a Building shall be separately identified.
(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.
(c) Addresses for residential Buildings shall be reflectorized.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All buildings shall have a permanently posted address which shall be plainly legible and visible from the Road fronting the property.
(b) Where access is by means of a private Road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.
(c) Address signs along one-way Roads shall be visible from both directions.
(d) Where multiple addresses are required at a single driveway, they shall be mounted on a single sign or post.

(e) Where a Road provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest Road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.
(f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Article 4 Emergency Water Standards

§ 1275.00. Intent

Emergency water for Wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a Wildfire or defend property from a Wildfire.

§ 1275.01. Application

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the Local Jurisdiction.

§ 1275.02. Water Supply.

(a) When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the Local Jurisdiction.
(b) Water systems equaling or exceeding the California Fire Code, California Code of Regulations title 24, part 9, or, where a municipal-type water supply is unavailable, National Fire Protection Association (NFPA) 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting,” 2017 Edition, hereby incorporated by reference, shall be accepted as meeting the requirements of this article.
(c) Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man made containment structure, as long as the specified quantity is immediately available.
(d) Nothing in this article prohibits the combined storage of emergency Wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.
(e) Where freeze or crash protection is required by Local Jurisdictions, such protection measures shall be provided.

§ 1275.03. Hydrants and Fire Valves.

(a) The hydrant or fire valve shall be eighteen (18) inches above the finished surface. Its location in relation to the road or driveway and to the building(s) or structure(s) it serves shall comply with California Fire Code, California Code of Regulations title 24, part 9, Chapter 5, and Appendix C.
(b) The hydrant head shall be a two and half (2 1/2) inch National Hose male thread with cap for pressure and gravity flow systems and four and a half (4 1/2) inch for draft systems.
(c) Hydrants shall be wet or dry barrel and have suitable freeze or crash protection as required by the local jurisdiction.

§ 1275.04. Signing of Water Sources.

(a) Each hydrant, fire valve, or access to water shall be identified as follows:
    (1) if located along a driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the driveway address sign and mounted on a fire retardant post, or
    (2) if located along a road,

(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said hydrant or fire valve, with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

§ 1275.04. Signing of Water Sources.

(a) Each Fire Hydrant or access to water shall be identified as follows:
(1) if located along a Driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the Driveway address sign and mounted on a fire retardant post, or
(2) if located along a Road,
(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said Fire Hydrant with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the Driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Article 5 Building Siting, Setbacks, and Fuel Modification

§ 1276.00 Intent

To reduce the intensity of a Wildfire, reducing the volume and density of flammable vegetation around Development through strategic fuel modification, parcel siting and Building setbacks, and the protection of Undeveloped Ridgelines shall provide for increased safety for emergency fire equipment, including evacuating civilians, and a point of attack or defense from a Wildfire.

§ 1276.01. Building and Parcel Siting and Setbacks

(a) All parcels shall provide a minimum thirty (30) foot setback for all Buildings from all property lines and/or the center of a Road, except as provided for in subsection (b).
(b) A reduction in the minimum setback shall be based upon practical reasons, which may include but are not limited to, parcel dimensions or size, topographic limitations, Development density requirements or other Development patterns that promote low-carbon emission outcomes; sensitive habitat; or other site constraints , and shall provide for an alternative method to reduce Structure-to-Structure ignition by incorporating features such as, but not limited to:
(1) non-combustible block walls or fences; or
(2) non-combustible material extending five (5) feet horizontally from the furthest extent of the Building; or
(3) hardscape landscaping; or
(4) a reduction of exposed windows on the side of the Structure with a less than thirty (30) foot setback; or
(5) the most protective requirements in the California Building Code, California Code of Regulations Title 24, Part 2, Chapter 7A, as required by the Local Jurisdiction.

§ 1276.02. Ridgelines

(a) The Local Jurisdiction shall identify Strategic Ridgelines, if any, to reduce fire risk and improve fire protection through an assessment of the following factors:

(1) Topography;

(2) Vegetation;

(3) Proximity to any existing or proposed residential, commercial, or industrial land uses;

(4) Construction where mass grading may significantly alter the topography resulting in the elimination of Ridgeline fire risks;

(5) Ability to support effective fire suppression; and

(6) Other factors, if any, deemed relevant by the Local Jurisdiction.

(b) Preservation of Undeveloped Ridgelines identified as strategically important shall be required pursuant to this section.

(c) New Buildings on Undeveloped Ridgelines identified as strategically important are prohibited, as described in subsections (c)(1), (c)(2), and (c)(3).

(1) New Residential Units are prohibited within or at the top of drainages or other topographic features common to Ridgelines that act as chimneys to funnel convective heat from Wildfires.

(2) Nothing in this subsection shall be construed to alter the extent to which utility infrastructure, including but not limited to wireless telecommunications facilities, as defined in Government Code section 65850.6, subdivision (d)(2), or Storage Group S or Utility and Miscellaneous Group U Structures, may be constructed on Undeveloped Ridgelines.

(3) Local Jurisdictions may approve Buildings on Strategic Ridgelines where Development activities such as mass grading will significantly alter the topography that results in the elimination of Ridgeline fire risks.

(d) The Local Jurisdiction may implement further specific requirements to preserve Undeveloped Ridgelines.

§ 1276.03. Fuel Breaks

(a) When Building construction meets the following criteria, the Local Jurisdiction shall determine the need and location for Fuel Breaks in consultation with the Fire Authority:

(1) the permitting or approval of three (3) or more new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d); or

(2) an application for a change of zoning increasing zoning intensity or density; or

(3) an application for a change in use permit increasing use intensity or density.

(b) Fuel Breaks required by the Local Jurisdiction, in consultation with the Fire Authority, shall be located, designed, and maintained in a condition that reduces the potential of damaging radiant and convective heat or ember exposure to Access routes, Buildings, or infrastructure within the Development.

(c) Fuel Breaks shall have, at a minimum, one point of entry for fire fighters and any Fire Apparatus. The specific number of entry points and entry requirements shall be determined by the Local Jurisdiction, in consultation with the Fire Authority.

(d) Fuel Breaks may be required at locations such as, but not limited to:

(1) Directly adjacent to defensible space as defined by 14 CCR § 1299.02 to reduce radiant and convective heat exposure, ember impacts, or support fire suppression tactics;

(2) Directly adjacent to Roads to manage radiant and convective heat exposure or ember impacts, increase evacuation safety, or support fire suppression tactics;

(3) Directly adjacent to a Hazardous Land Use to limit the spread of fire from such uses, reduce radiant and convective heat exposure, or support fire suppression tactics;

(4) Strategically located along Ridgelines, in Greenbelts, or other locations to reduce radiant and convective heat exposure, ember impacts, or support community level fire suppression tactics.

(e) Fuel Breaks shall be completed prior to the commencement of any permitted construction.

(f) Fuel Breaks shall be constructed using the most ecologically and site appropriate treatment option, such as, but not limited to, prescribed burning, manual treatment, mechanical treatment, prescribed herbivory, and targeted ground application of herbicides.

(g) Where a Local Jurisdiction requires Fuel Breaks, maintenance mechanisms shall be established to ensure the fire behavior objectives and thresholds are maintained over time.

(h) The mechanisms required shall be binding upon the property for which the Fuel Break is established, shall ensure adequate maintenance levels, and may include written legal agreements; permanent fees, taxes, or assessments; assessments through a homeowners' association; or other funding mechanisms.

§ 1276.04 Greenbelts, Greenways, Open Spaces and Parks

(a) Where a Greenbelt, Greenway, open space, park, landscaped or natural area, or portions thereof, is intended to serve as a Fuel Break, the space or relevant portion thereof shall conform with the requirements in § 1276.03 (Fuel Breaks).

§ 1276.05 Disposal of Flammable Vegetation and Fuels

The disposal, including burning or removal to a site approved by the Local Jurisdiction, in consultation with the Fire Authority, of flammable vegetation and fuels caused by site construction, Road, and Driveway construction shall be in accordance with all applicable laws and regulations.

***

AREA #1B GRADING PLANS

for

Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.

3600 Deer Valley Rd., Rescue, CA APN: 102-060-025

September 2022

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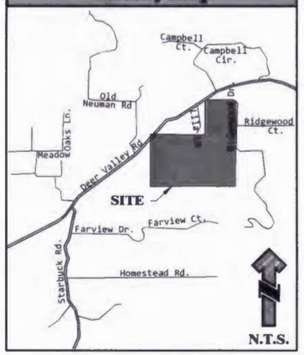
OCT - 3 2023

EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

Vicinity Map

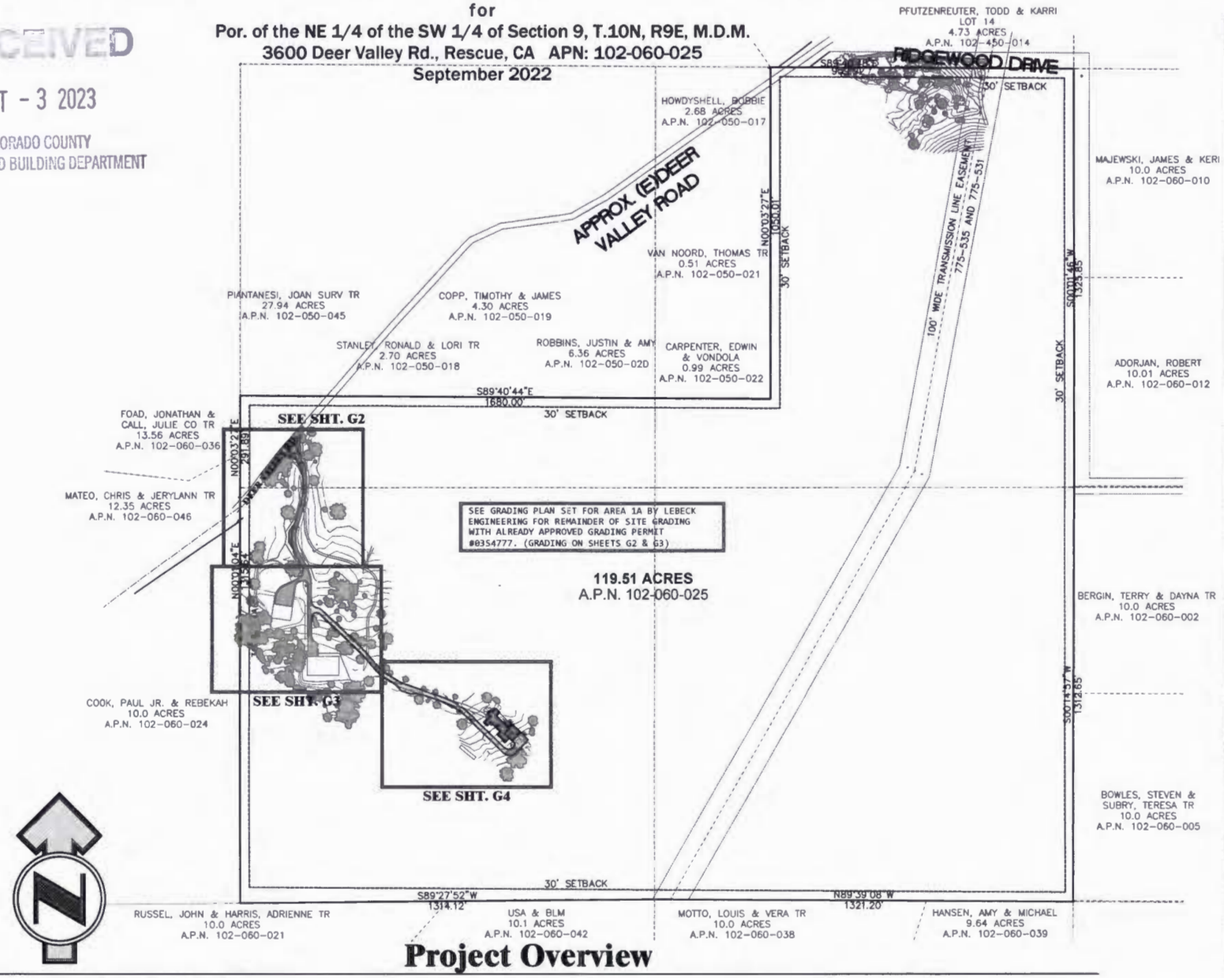


Earthwork Calculations
Grading Area 1B

EMBANKMENT (FILL)		242 C.Y.
EXCAVATION (CUT)	1,845 C.Y.	
LESS 10% SHRINKAGE & LOSS	184 C.Y.	
TOTAL CUT	940 C.Y.	
SITE TOTAL	698 C.Y. EXPORT	BALANCE ON-SITE W/ AREA 1A

Note: earthwork calculation are approximate and may vary based upon characteristics of the soil and/or contractors methodology.

Note: The earthwork quantities calculated above exclude any pool dirt, trench dirt for utilities, wall/foundation footings, or other landscaping items. Contractor shall adjust quantities as necessary to account for these items once pool design is know and/or structural calculations & details are completed by the structural engineer.



Project Overview

*SEE SHEETS G2 & G3 FOR DETAILED GRADING PLANS

DISTURBED AREA #1A= 82,435 S.F. (1.9 Ac.)
DISTURBED AREA #1B= 38,937 S.F. (0.89 Ac.)
TOTAL = 2.8 Ac.

WDID#= SS09W005498

SCALE: 1" = 200'

SURVEY NOTES:

1.) BASIS OF BEARINGS IS RECORD 3-ROS-143 FOR MAPPING PURPOSES. THE CALCULATED BOUNDARY IS SHOWN AS THE LIMIT OF THE TOPOGRAPHIC SURVEY. THE BOUNDARY LOCATIONS HEREON ARE BEST FIT TO ANY FOUND MONUMENTS AND CALCULATION OFF OF RECORD MAP. PRIOR TO ANY CONSTRUCTION BOUNDARY LINES AND CORNERS SHOULD BE VERIFIED AND DOCUMENTED. THE PURPOSE OF THIS DRAWING IS TOPOGRAPHIC FOR DESIGN ONLY. MANY POINTS ARE LOCATED BY RTK-GPS AND MAY REFLECT THE INHERENT ERROR OF THE SYSTEM. NO VERTICAL OR HORIZONTAL VALUE SHOULD BE CONSIDERED EXACT.

2.) ELEVATIONS ARE N.A.V.D. 1988 BY GPS OBSERVATION AND ADJUSTED BY OPUS, SITE BENCHMARK IS AS SHOWN.

3.) THE AREA OF THE TOPOGRAPHIC SURVEY WAS DELINEATED BY CLIENT.

4.) CONTOURS ARE COMPUTER GENERATED FROM SPOT ELEVATIONS. EXACT SURFACE UNDULATION WAS NOT DETERMINED, CALCULATED OR LOCATED. ADDITIONAL POINT INFORMATION STORED IN AUTOCAD FILE.

5.) NON-VISIBLE UNDERGROUND UTILITIES WERE NOT LOCATED. NO UNDERGROUND MAPPING WAS PROVIDED.

6.) SUBJECT TO ALL EASEMENTS, RECORDED OR NOT. THIS SURVEY IS NOT A BOUNDARY SURVEY BUT DOES REFLECT INFORMATION LISTED IN A PRELIMINARY TITLE REPORT FCPF-2371180524RD, EXEMTING ANY CONDITIONS, COVENANTS AND RESTRICTIONS.

7.) SETBACKS WERE NOT PROVIDED TO THIS SURVEYOR AND NOT VERIFIED, THIS SURVEYOR SUGGESTS DESIGN IMPROVEMENTS SHOULD NOT DIRECTLY ABUT THE SETBACK LINES AND BE REASONABLY OFFSET TO ALLOW FOR CONSTRUCTION FIT AND GPS ACCURACY. (SEE NOTE 1 ABOUT INHERENT ERROR.)

8.) THIS SURVEYOR IS NOT AWARE OF FINAL CONSTRUCTED LIMITS OR OF DATA RECORDED IN THE PUBLIC RECORDS THAT PROVIDES THE EXACT LIMIT OF ANY CUT OR FILL ALONG A ROADWAY.

9.) DRIP LINES ARE APPROXIMATE SCALED FROM TREE DIAMETER. CLUSTERS ARE SHOWN AS ONE TREE. TREE DIAMETERS ARE AVERAGED FROM IRREGULAR TRUNKS AND ARE AVAILABLE IN THE ELECTRONIC FILE WITH NUMBER OF TRUNKS IN THE CLUSTER. FOR THE EXACT SPECIES, DIAMETER, DRIP LINES AND HEALTH, CONSULT AN ARBORIST. TREE TRUNKS ARE LOCATED AT CENTER OF TREE ± AT GROUND, MANY BEND AND GROW IN MULTIPLE DIRECTIONS.

10.) THIS SURVEY CONTAINS NO ENVIRONMENTAL DATA AS TO DETERMINATION OF HAZARDOUS MATERIAL, WETLANDS OR PLANTS. CLIENT SHOULD CONSULT THE APPROPRIATE PROFESSIONAL TO DETERMINE SUCH ITEMS OR LOCATIONS, IF ANY.

SURVEY LEGEND:

- FOUND SURVEY MONUMENT PER RECORD DATA
- STORM DRAIN MANHOLE
- ELECTRIC TRANSFORMER
- SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- PHONE BOX
- WATER BOX
- WATER VALVE
- CUT MARK IN CURB
- ELECTRIC BOX
- CABLE BOX
- DRAINAGE INLET
- FIRE HYDRANT
- OAK TREE
- OAK TREE CLUSTER
- P.E. POSTAL EASEMENT
- S.E. SLOPE EASEMENT
- PUE PUBLIC UTILIY EASEMENT
- (M) MEASURED
- (R) RECORD PER

Exhibit I
P23-0008

Exhibit I - Preliminary Grading and Drainage Plan Deer Valley & Ridge Road APN: 102-060-063

General Construction Notes:

1. Materials, construction quality, and methods for this project are subject to the County of El Dorado Design and Improvement Standards Manual Standard Plans, and the State of California Department of Transportation Standard Plans and Standard Specifications.
2. All work shall be accomplished to the satisfaction of the EDC Development Services or their authorized representative.
3. All reference to the Standard Specifications shall mean the State of California Department of Transportation Standard Specifications dated July 2006
4. The Contractor's attention is directed to section 7, "Legal Relations and Responsibility" of the Standard Specifications.
5. Clearing and Grubbing shall conform to the provisions of section 16, "Clearing and Grubbing" of the Standard Specifications. Roots, stumps, trees, rocks or other deleterious substances shall be disposed of off-site and in a lawful manner.
6. Earthwork shall conform to the provisions of Section 19, "Earthwork" of the Standard Specifications.
7. Aggregate Base shall conform to the provisions of section 26, "Aggregate Base" of the Standard Specifications for Class 2 Aggregate Base, 3/4" maximum gradation.
8. Asphalt Concrete shall conform to the provisions of section 39, "Asphalt Concrete" of the Standard Specifications for Type B Asphalt Concrete.
9. The ground adjacent to the foundation shall be sloped so that the grade shall fall a minimum of 6" within the first 10'. Impervious surfaces may be sloped at 2% minimum (CBC R401.3).

ALL GRADING & DRAINAGE SHALL CONFORM WITH THE EL DORADO COUNTY GRADING DESIGN MANUAL.

Notes

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE BUILDING IS LAID OUT WITHIN COUNTY SETBACK REQUIREMENTS.
2. THE ZONING OF THIS LOT IS RL-10. THE SETBACKS ARE: 30' FRONT, 30' SIDES AND 30' REAR PER EL DORADO COUNTY.
3. BUILDING CONTRACTOR AND/OR LANDSCAPE CONTRACTOR SHALL DISCHARGE ALL ROOF DRAINS TO DRAINAGE SWALES SHOWN ON THIS GRADING PLAN (I.E. DO NOT ALTER DRAINAGE PATTERNS)
4. ALL GRADES SHOWN HEREON ARE FINISHED GRADES UNLESS OTHERWISE STATED.
5. ARCHITECT SHALL VERIFY ALL FINISHED FLOOR ELEVATIONS AND VERIFY ANY LOT COVERAGE CALCULATIONS (IF REQUIRED).
6. ANY WALKWAYS AROUND HOUSE NOT SHOWN HEREON ARE SHOWN ON ARCHITECT'S OR LANDSCAPE ARCHITECT'S PLANS.
7. ALL CUTS AND FILLS SHOWN HEREON ARE 2:1 MAX., UNLESS OTHERWISE STATED CUTS AND/OR FILLS STEEPER THAN 2:1 REQUIRE APPROVAL FROM A LICENSED GEOTECHNICAL ENGINEER. ALL CUTS AND FILLS SHALL FOLLOW THE EDC DESIGN & IMPROVEMENT STANDARDS MANUAL.
8. TOPOGRAPHICAL & BOUNDARY/PROPERTY LINE DATA IS FROM A SURVEY PROVIDED BY: ALAN DIVERS P.L.S. LEBECK ENGINEERING, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OF TOPOGRAPHICAL OR BOUNDARY DATA SHOWN HEREON.
9. FOR ALL DOWN-SLOPED LOTS, IT IS IMPORTANT THAT THE DRIVEWAY, AS WELL AS ANY GRADING OR LANDSCAPING, BE SLOPED UP FOR 5 FEET BEHIND THE CURB AT 5% MIN. PRIOR TO SLOPING DOWN.
10. ALL FILLS SHALL BE KEYED-IN AND COMPACTED ACCORDING TO ALL APPLICABLE LOCAL AND STATE REQUIREMENTS (EDC DESIGN & IMPROV. STDS. MANUAL - SEC. B, ITEM 3).
11. GRADING, DRAINAGE, & RETAINING WALL CONSTRUCTION SHALL CONFORM WITH THE EL DORADO COUNTY GRADING, EROSION, ANO SEDIMENT CONTROL ORDINANCE AND THE 2016 CALIFORNIA BUILDING CODE. SEE SEPARATE STRUCTURAL CALCULATIONS (BY OTHERS) FOR ALL RETAINING WALLS AS IS REQUIRED.
12. THE PROPERTY SHOWN HEREON IS SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY, RESTRICTIONS, STATUTORY CONDITIONS AND SIMILAR MATTERS PERTINENT TO SAID PROPERTY WHETHER RECORDED OR NOT. LEBECK ENGINEERING ASSUMES NO LIABILITY FOR THE POSITION, ACCURACY OR CHARACTER OF SUCH INFORMATION AS IT WAS TAKEN FROM PUBLIC RECORDS, TITLE REPORTS, INFORMATION PROVIDED BY CLIENT AND/OR LAND SURVEYS PROVIDED BY OTHERS. THIS MAP IS INTENDED FOR ENGINEERING PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR TITLE DOCUMENTATION.

Abbreviations

BSW	BACK OF SIDEWALK	LF	LEFT
BW	BOTTOM OF WALL AT FG	LPG	PROPANE TANK
CH	CHORD BEARING	(P)	PROPOSED
CL	CHORD LENGTH	PAD	FINISHED PAD
CR	CURB RETURN	PKG	PARKING
D	DEGREE OF CURVE	PP	POWER POLE
DI	DROP INLET	P.E.	POSTAL EASEMENT
DWY	DRIVEWAY	PUE	PUBLIC UTILITIES EASEMENT
(E)	EXISTING	R	CURVE RADIUS PER FINAL MAP
E.D.C.	EL DORADO COUNTY	ROW	RIGHT OF WAY
EL	ELEVATION	RT	RIGHT
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
FC	FACE OF CURB	SS	SEWER SERVICE
FF	FINISHED FLOOR	SW	SIDEWALK
FG	FINISHED GRADE	TBC	TOP BACK OF CURB
FH	FIRE HYDRANT	TC	TOP OF CURB ELEV.
FL	FLOWLINE	TW	TOP OF WALL
FND.	FOUND	UPC	UNIVERSAL PLUMBING CODE
GA	GUY ANCHOR	US	UTILITY SERVICE
GB	GRADE BREAK	W	WALL HEIGHT
HP	HIGH POINT	WL	WATER LINE
JP	JOINT POLE	WS	WATER SERVICE

Legend

	EXISTING TREE TO BE SAVED		(E) TREE TO BE REMOVED
5'-3SW	STEM WALL HEIGHT AS MEASURED FROM FINISHED FLOOR TO EXISTING GROUND OR FINISHED GRADE		
5'-3FW	HEIGHT OF FRAMED WALL & STEM WALL TOGETHER AS MEASURED FROM FINISHED FLOOR TO EXISTING GROUND OR FINISHED GRADE BELOW.		
5'-3RW	RETAINING WALL EXPOSED HEIGHT AS MEASURED FROM FINISHED GRADE (OR FINISHED FLOOR) TO EXISTING GROUND OR FINISHED GRADE. (This plan is prepared in advance of any structural calcs., so when structural calcs call for retaining wall to be 6" above finished grade, then wall heights will increase by that amount. Wall heights might also be increased by amount of cover a structural engineer desires over a footing before 2:1 grading can occur below it.)		

Sheet Index

PREPARED BY:
LEBECK ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. (530) 677-4080 Fax. (530) 677-4098

ENGINEER'S STAMP: ERIC ALLIGUE No. 71434 REGISTERED PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA

PREPARED FOR:
TOM VASEY
1290 LOS RIOS DRIVE
CARMICHAEL, CA 95605
916-425-5018
EMAIL: tom@tsvpainting.com

COVER SHEET

AREA #1B GRADING PLANS
Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
3600 Deer Valley Rd., Rescue, CA APN: 102-060-025

Project # 22-121
Date: SEPTEMBER 2022
Scale: 1" = 200'
Designed by: E.Alliguie
Drawn by: E. Alliguie

SHEET NO. G1

Plot Date: Sep 23, 2022

ALL GRADING & DRAINAGE SHALL CONFORM WITH THE EL DORADO COUNTY GRADING DESIGN MANUAL.

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EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

MATCHLINE - SEE SHEET G1

12" FL OUT= 1378.4
W/ E.D. PER EDC STD. T-504

(E)VEHICLE PATH

CONTRACTOR SHALL GRADE TO DRAIN AT 1% MIN. AS SHOWN.

BENCHMARK
SET NAIL
ELV=1376.54'

24" FL OUT= 1377.78
W/ E.D. PER EDC STD. T-504

INSTALL APPROX. 42LF
24" HDPE @ 1.0%

24" FL IN= 1378.2
W/ E.D. PER EDC STD. T-504

119.51 ACRES
A.P.N. 102-060-025

SEE GRADING PLAN SET FOR AREA 1A BY LEBECK ENGINEERING FOR REMAINDER OF SITE GRADING WITH ALREADY APPROVED GRADING PERMIT #0354777

INSTALL APPROX. 30LF
12" HDPE @ 1.0%

12" FL OUT= 1376.0
W/ E.D. PER EDC STD. T-504

SECTION LINE

12" FL IN= 1376.3
W/ E.D. PER EDC STD. T-504

2' SHOULDER TYP.

DEER VALLEY ROAD
R/W WIDTH HAS NOT BEEN DETERMINED

INSTALL AREA DRAIN.
DRAIN TO SOUTH OF LOT.
(4" PVC & 1% MIN. SLOPE)

30' SETBACK

PROPERTY LINE

COOK, PAUL JR. & REBEKAH
10.0 ACRES
A.P.N. 102-060-024

N00°03'27"E
291.89'

Exhibit I
P23-0008

SCALE: 1" = 20'

PREPARED BY:
LEBECK ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. (530) 677-4080 Fax. (530) 677-4096

ENGINEER'S STAMP
ERIC ALLIGUE
No. 71434
REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA

AREA #1B GRADING PLANS

GRADING PLAN

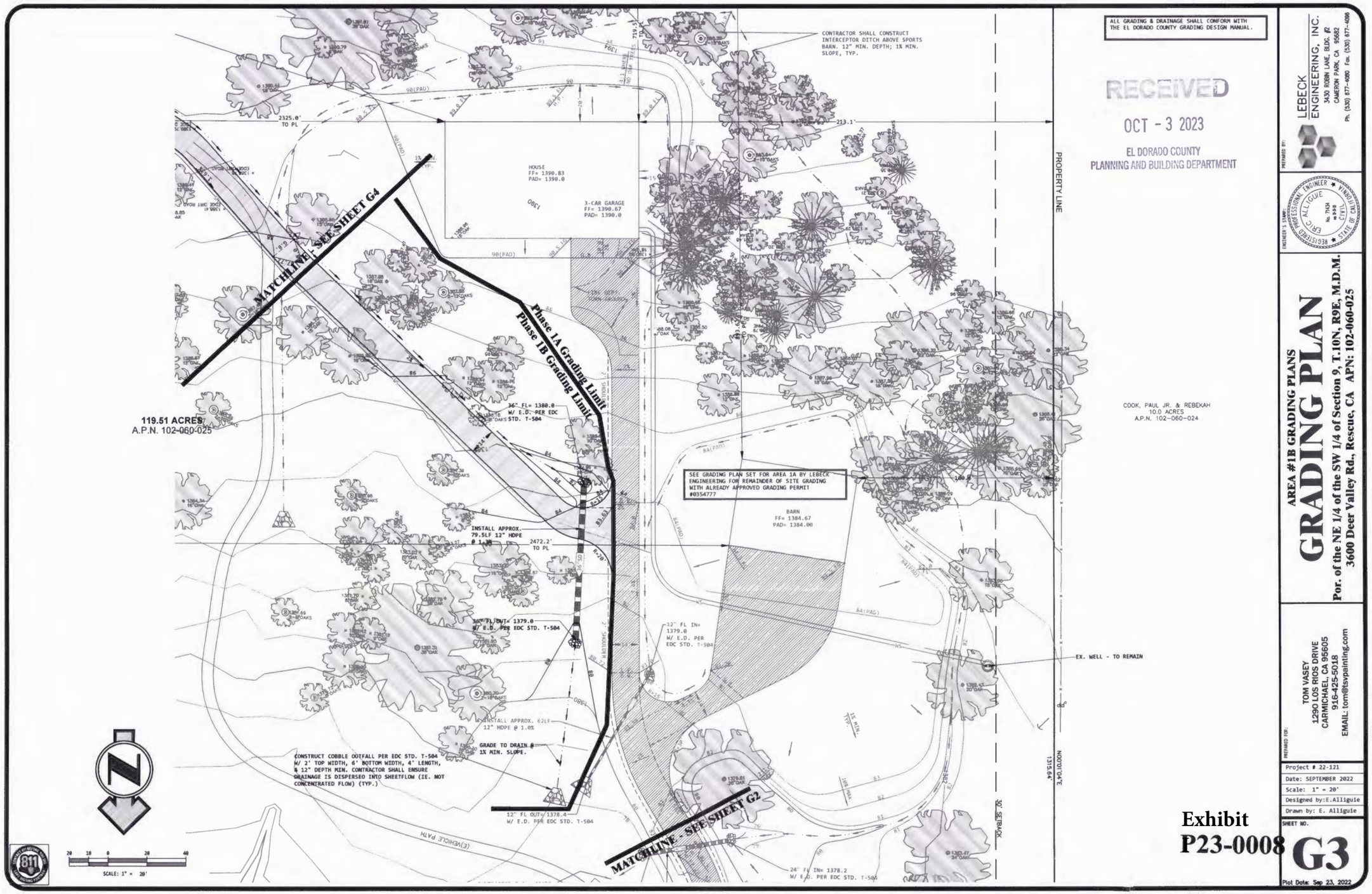
Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
3600 Deer Valley Rd., Rescue, CA APN: 102-060-025

PREPARED FOR:
TOM VASEY
1290 LOS RIOS DRIVE
CARMICHAEL, CA 95605
916-425-5018
EMAIL: tom@tsvpainting.com

Project # 22-121
Date: SEPTEMBER 2022
Scale: 1" = 20'
Designed by: E.Alliguie
Drawn by: E. Alliguie

SHEET NO.
G2

Plot Date: Sep 23, 2022


ALL GRADING & DRAINAGE SHALL CONFORM WITH THE EL DORADO COUNTY GRADING DESIGN MANUAL.
RECEIVED
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EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT
CONTRACTOR SHALL CONSTRUCT INTERCEPTOR DITCH ABOVE SPORTS BARN. 12" MIN. DEPTH; 1% MIN. SLOPE, TYP.
HOUSE
FF= 1390.83
PAD= 1390.0
3-CAR GARAGE
FF= 1390.67
PAD= 1390.0
MATCHLINE - SEE SHEET G4
Phase 1A Grading Limit
Phase 1B Grading Limit
119.51 ACRES
A.P.N. 102-060-025
PROPERTY LINE
COOK, PAUL JR. & REBEKAH
10.0 ACRES
A.P.N. 102-060-024
SEE GRADING PLAN SET FOR AREA 1A BY LEBECK ENGINEERING FOR REMAINDER OF SITE GRADING WITH ALREADY APPROVED GRADING PERMIT #0354777
BARN
FF= 1384.67
PAD= 1384.00
INSTALL APPROX. 79.5LF 12" HDPE @ 1.0%
2472.2' TO PL
2325.0' TO PL
213.1'
36" FL= 1380.0 W/ E.D. PER EDC STD. T-504
36" FL OUT= 1379.0 W/ E.D. PER EDC STD. T-504
12" FL IN= 1379.0 W/ E.D. PER EDC STD. T-504
EX. WELL - TO REMAIN
INSTALL APPROX. 62LF 12" HDPE @ 1.0%
GRADE TO DRAIN @ 1% MIN. SLOPE.
CONSTRUCT COBBLE OUTFALL PER EDC STD. T-504 W/ 2' TOP WIDTH, 6' BOTTOM WIDTH, 4' LENGTH, & 12" DEPTH MIN. CONTRACTOR SHALL ENSURE DRAINAGE IS DISPERSED INTO SHEETFLOW (IE. NOT CONCENTRATED FLOW) (TYP.)
12" FL OUT= 1378.4 W/ E.D. PER EDC STD. T-504
24" FL IN= 1378.2 W/ E.D. PER EDC STD. T-504
MATCHLINE - SEE SHEET G2
(E)DRIVEWAY
(E)VEHICLE PATH
SCALE: 1" = 20'
Exhibit
P23-0008
PREPARED BY:
LEBECK ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. (530) 677-4086 Fax. (530) 677-4086
ENGINEER'S STAMP:
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CIVIL
STATE OF CALIFORNIA
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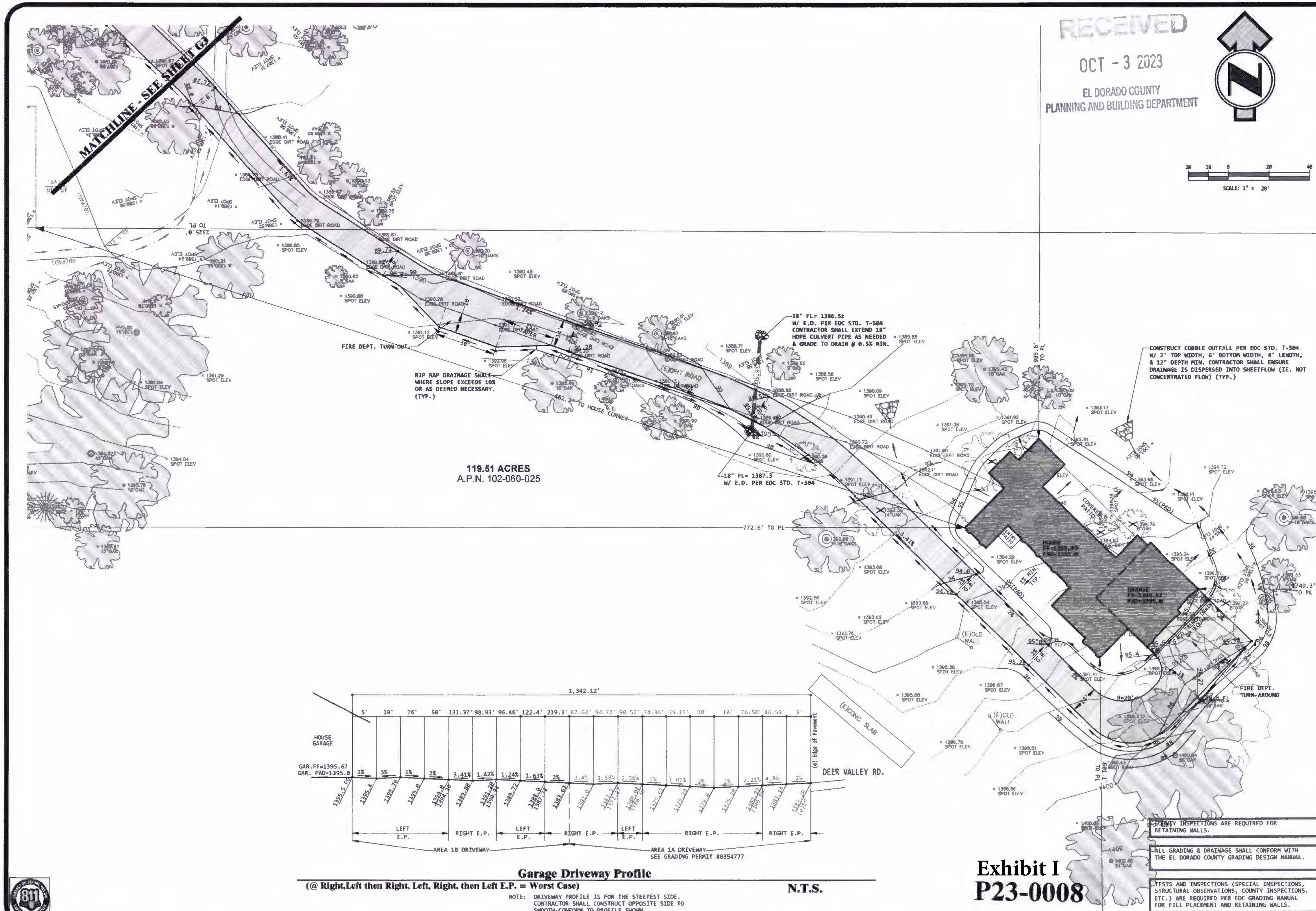
GRADING PLAN
Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
3600 Deer Valley Rd., Rescue, CA APN: 102-060-025
PREPARED FOR:
TOM VASEY
1290 LOS RIOS DRIVE
CARMICHAEL, CA 95605
916-425-5018
EMAIL: tom@tsvpainting.com
Project # 22-121
Date: SEPTEMBER 2022
Scale: 1" = 20'
Designed by:E.Alliguie
Drawn by: E. Alliguie
SHEET NO.
G3
Plot Date: Sep 23, 2022


RECEIVED
OCT - 3 2023
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT
MATCHLINE - SEE SHEET G3
SCALE: 1" = 20'
119.51 ACRES
A.P.N. 102-060-025
FIRE DEPT. TURN-OUT
RIP RAP DRAINAGE SWALE WHERE SLOPE EXCEEDS 10% OR AS DEEMED NECESSARY. (TYP.)
18" FL= 1386.5± W/ E.D. PER EDC STD. T-504 CONTRACTOR SHALL EXTEND 18" HDPE CULVERT PIPE AS NEEDED & GRADE TO DRAIN @ 0.5% MIN.
18" FL= 1387.3 W/ E.D. PER EDC STD. T-504
CONSTRUCT COBBLE OUTFALL PER EDC STD. T-504 W/ 2' TOP WIDTH, 6' BOTTOM WIDTH, 4' LENGTH, & 12" DEPTH MIN. CONTRACTOR SHALL ENSURE DRAINAGE IS DISPERSED INTO SHEETFLOW (IE. NOT CONCENTRATED FLOW) (TYP.)
FIRE DEPT. TURN-AROUND
DEER VALLEY RD.
Garage Driveway Profile
(@ Right,Left then Right, Left, Right, then Left E.P. = Worst Case)
N.T.S.
NOTE: DRIVEWAY PROFILE IS FOR THE STEEPEST SIDE. CONTRACTOR SHALL CONSTRUCT OPPOSITE SIDE TO SMOOTH-CONFORM TO PROFILE SHOWN.
AREA 1B DRIVEWAY
AREA 1A DRIVEWAY SEE GRADING PERMIT #0354777
COUNTY INSPECTIONS ARE REQUIRED FOR RETAINING WALLS.
ALL GRADING & DRAINAGE SHALL CONFORM WITH THE EL DORADO COUNTY GRADING DESIGN MANUAL.
TESTS AND INSPECTIONS (SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, COUNTY INSPECTIONS, ETC.) ARE REQUIRED PER EDC GRADING MANUAL FOR FILL PLACEMENT AND RETAINING WALLS.
Exhibit I
P23-0008

PREPARED BY:
LEBECK ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. (530) 677-4080 Fax (530) 677-4096

ENGINEER'S STAMP: REGISTERED PROFESSIONAL ENGINEER — ERIC C. ALLIGUIE — No. 71434 — CIVIL — STATE OF CALIFORNIA

AREA #1B GRADING PLANS

GRADING PLAN

Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
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EMAIL: tom@tsvpainting.com

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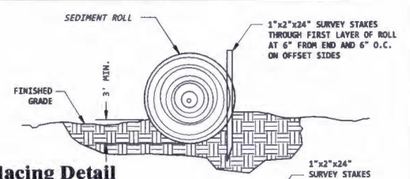
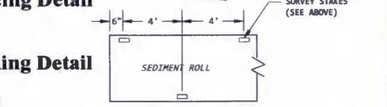
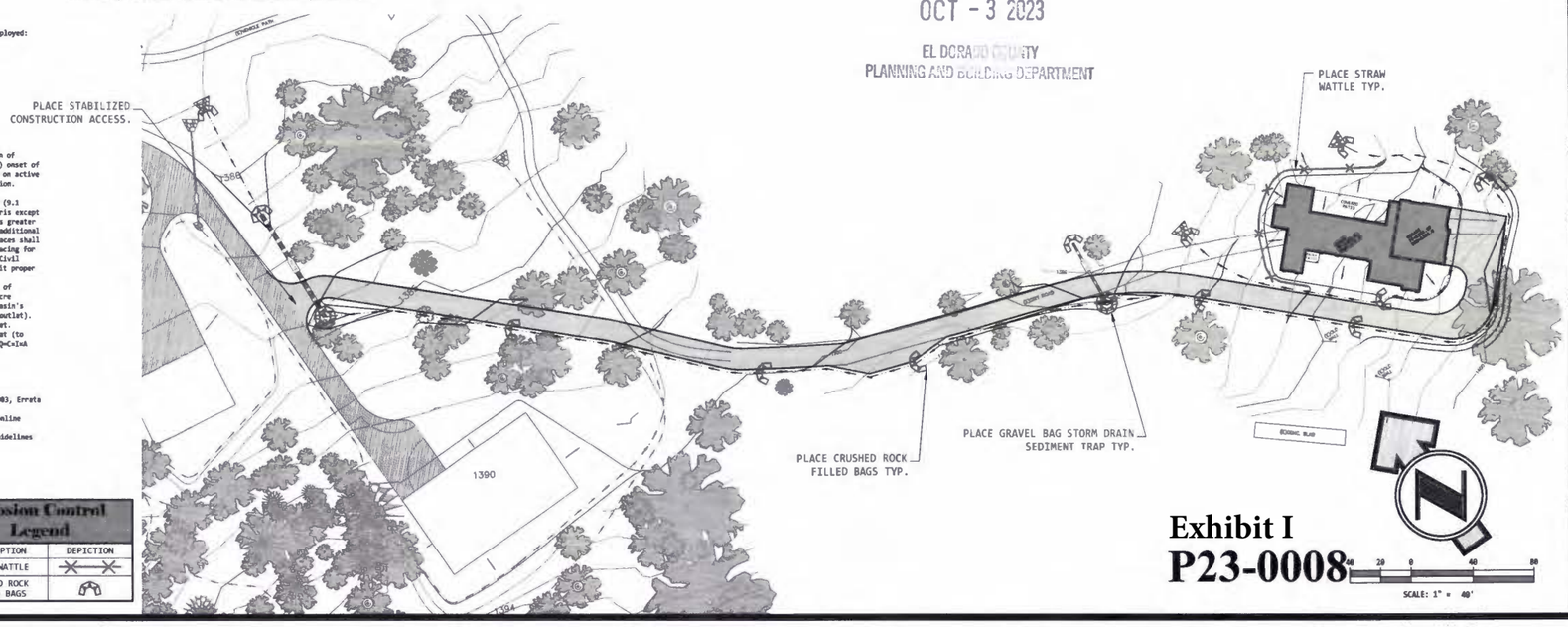
Date: SEPTEMBER 2022
Scale: 1" = 20'
Designed by:E.Alliguie
Drawn by: E. Alliguie

SHEET NO.
G4

Plot Date: Sep 23, 2022







Erosion Control Requirements and Specifications

COMBINED EL DORADO COUNTY RESOURCE CONSERVATION DISTRICT AND
EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION EROSION CONTROL
REQUIREMENTS AND SPECIFICATIONS
July 2006

I. Minimum Construction Site Storm Water Management Practices

The storm water management practices described below are the minimum, required water quality protection measures applicable to all construction sites, within Western El Dorado County. This listing does not include the various inspection, record keeping, training and reporting requirements. Additionally, there will be instances where project and site conditions require supplementing or deviating from these minimum protection requirements. The contractor is expected to deploy measures sufficient to achieve compliance with the County's Grading Ordinance; and, as applicable (projects which involve one acre or more of disturbed soil or are part of a larger common plan of development that encompasses one acre or more of disturbed soil), with the State Water Resources Control Board's (SWRCB) NPDES General Permit for Storm Water Discharges Associated with Construction Activity.

A. Scheduling

Construction shall be scheduled to minimize construction activities in "high-risk areas" and the amount of active disturbed soil areas, during the rainy season (Oct. 15th to May 1st). "High-risk areas" include those areas within 50 feet of USGS watercourses, 100-year flood plains, regulated wetlands, and where slopes exceed 10%.

Unless specifically authorized by the County's on-site representative, during the rainy season the contractor shall not schedule construction activities in "high risk areas" or schedule to have more than 5 acres of active disturbed soil area.

Where permanent storm water treatment devices are to be constructed, these devices should, whenever feasible, be constructed as an early work item.

B. Preservation of Natural Features

Prior to the commencement of soil-disturbing activities, areas of existing vegetation that are to remain and environmentally sensitive areas (i.e. wetlands, protected habitats, etc) shall be fenced for protection. In general, site designs shall preserve existing vegetation to the maximum extent possible; and during construction, existing vegetation shall be preserved (and protected by fencing) for as long as possible to minimize erosion.

C. Storm Water Run-On and Concentrated Flows

Existing watercourses shall be protected; and if diverted, handled in a non-eroding fashion. To the extent feasible, all concentrated water flows shall be channeled away from disturbed soil areas / stockpiles. Concentrated water flows shall be conveyed in a non-eroding fashion.

D. Stockpile Management

Stockpiles shall be managed as follows:

1. Soil stockpiles
   Rainy season: Covered, or protected with soil stabilization measures & perimeter sediment barriers
   Non-rainy season: Covered or protected with perimeter sediment barriers
2. Concrete/asphalt rubble, rock and aggregate base/sub-base- Covered or protected with perimeter sediment barriers
3. "Cold mix" asphalt - Covered

E. Sediment Tracking Control

Appropriate measures shall be deployed to minimize any tracking of sediment off-site by vehicles and/or equipment. These measures include stabilized construction entrances/exits & roadways, and tire washing. Where tracking occurs, streets shall be swept using a pickup sweeper with water supply.

F. Non-Storm Water Management

Non-storm water discharges shall be minimized to the extent feasible. Sediment-laden non-storm water is required to be filtered (or equivalent treatment) prior to discharging. Measures required to manage non-storm water discharges include: water conservation practices, dust control, material storage practices, vehicle/equipment operation and maintenance requirements, waste management practices, and spill prevention/control measures.

G. Disturbed Soil Area Management

Disturbed soil areas (DSA) shall be protected with an "effective combination" of measures including soil stabilization, sediment barriers and basins / traps. There may be situations where "Sediment Basins" or "Treatment" are able to substitute as alternative control measures to the normally required "effective combination" of soil stabilization, sediment barriers and basins / traps. However, when substituting these measures, the contractor must be prepared to demonstrate that the sediment load within storm water discharges from the construction site does not exceed natural or pre-construction levels.

1. Soil stabilization measures include:
   - Hydraulic mulch (ref. CASQA BMP # EC-3)
   - Hydroseeding (ref. CASQA BMP # EC-4)
   - Suitably stabilized, non-polluting straw / wood / organic mulch (ref. CASQA BMP #'s EC-6 & EC-8)
   - Geotextiles, mats, plastic covers and erosion control blankets (ref. CASQA BMP # EC-7)
   - Stabilized construction roadways (ref. CASQA BMP # TC-2)
2. Sediment barriers include:
   - Silt fences (ref. CASQA BMP # SE-1)
   - Sand/gravel bag barriers (ref. CASQA BMP #'s SE-6 & SE-8)
   - Straw bale barriers (ref. CASQA BMP # SE-9)
   - Fiber rolls (ref. CASQA BMP # SE-5)
3. Basin / traps include:
   - Desilting basins (ref. Caltrans BMPs)
   - Sediment traps (ref. Caltrans BMPs)
4. On DSAs with slope lengths greater than 10 feet, the following measures shall be deployed:

   a. Rainy season (Oct. 15th to May 1st):
   Non-active areas (no soil disturbing activities for 21 or more days)
   - On slopes equal to or flatter than 1:20 (V/H), soil stabilization
   - On slopes steeper than 1:20 (V/H), soil stabilization and sediment berriers

   Active areas
   - On slopes steeper than 1:20 (V/H), sediment barriers
   - On slopes steeper than 1:2 (V/H) with slope lengths greater than 50 feet: soil stabilization; sediment barriers; and where feasible, basins / traps

   b. Non-rainy season:
   Non-active areas (no soil disturbing activities for 21 or more days)
   - On slopes steeper than 1:2 (V/H), sediment barriers
5. General:
   - Protection shall be deployed on non-active DSAs within 14 days from the cessation of soil-disturbing activities or one day prior to the predicted (40% or more chance) onset of significant precipitation, whichever occurs first. Protection shall be deployed on active DSAs prior to the predicted (40% or more chance) onset of significant precipitation.
   - "Terraces." For cut slopes up to 60 feet in height, terraces at least 8 feet (2.4 meters) in width shall be established at not more then 30-foot (9.1 meters) vertical intervals on all cut slopes to control surface drainage and debris except that where only one terrace is required, it shall be at midheight. For cut slopes greater than 60 feet (18 meters) and up to 120 feet (37 meters) in vertical height, one additional terrace at approximately midheight shall be 12 feet (3.6 meters) in width. Terraces shall slope a minimum of 5 percent gradient toward the hillside. Terrace widths and spacing for cut slopes greater than 120 feet (36 meters) in height shall be designed by the Civil Engineer and approved by the Diructor. Suitable access shall be provided to permit proper cleaning and maintenance.
   - "Sediment Basin:" A basin with a capacity equivalent to at least 3600 cubic feet of storage (as measured from the bottom of the basin to the principal outlet) per acre draining into the basin. The length of the basin shall be more than twice the basin's width (length is determined by measuring the distance between the inlet and the outlet). The depth of the basin must not be less than three feet nor greater than five feet.
   - "Treatment": A combination of basin and treatment engineered to capture and treat (to remove 0.01 mm sized particles and larger) the 10-year, 6-hour rain event using Q=C×I×A where C=0.5 and I ranges from 0.286 (El Dorado Hills) to 0.500 (Sly Park).

General reference:
El Dorado County "Storm Water Management Plan", October 2004. Available online at www.co.el-dorado.ca.us

Detailed references:
4. California Storm water Quality Association (CASQA) "Construction Handbook," January 2003, Errata September 2004. Available online at: www.co.el-dorado.ca.us
5. Caltrans "Statewide Storm Water Quality Practice Guidelines," April 2003. Available online at: www.co.el-dorado.ca.us
6. High Sierra Resource Conservation and Development Council "Vegetation Establishment Guidelines for the Sierra Nevada Foothills and Mountains," 2005. Available online at: http://www.co.el-dorado.ca.us/emd/solidwaste/StormWater/HSRCD%20Vegetation%20Guidelines%20Final%202005.pdf

II. CRITICAL AREA PLANTING SPECIFICATIONS (January 2006)

A. SCOPE - Establishing vegetation on severely eroding areas or areas with an erosion potential. Its purpose is to stabilized the soil, minimize or prevent damage from sediment and runoff to downstream areas, protect wildlife habitat, and maintain aesthetic qualities.

B. AREAS TO BE SEEDED, TIMING OF SEEDING - Complete revegetation and stabilization of all disturbed soils, both within and outside county rights-of-way, will be accomplished with specified amounts and types of vegetative species, mulch and fertilizer material. See Major Land Resource Area exhibits MLRA 18 OR 22.
All erosion and sediment control practices performed after October 15, shall follow "rainy season" specification contained in the storm water management practices.

C. MATERIAL

1. Seed - All seed shall be delivered to the site tagged and labeled in accordance with the California Agricultural Code and shall be acceptable to the County Agricultural Commissioner. Seed shall be of a quality which has a minimum pure live seed content of 80% (% purity × % germination) and weed seed shall not exceed 0.5% of the aggregate of pure live seed and other materials. Legume seed shall be inoculated with inoculate specific to its needs within two hours prior to seeding. Inoculants shall not be used later than the date indicated on the container or as otherwise specified. All inoculated seed shall be labeled to show weight of seed, date of inoculation, and the weight and source of inoculant materials.
2. Fertilizer - A commercial fertilizer shall be Ammonium Phosphate and contain a minimum of 16% nitrogen, 20% phosphorus and 0% potash, uniform in composition, dry and free flowing, pelleted or granular. All fertilizer shall be delivered in unbroken or unopened containers, labeled in accordance with applicable state regulations and bearing the warranty of the producer for the grade furnished.
3. Mulch - Mulch shall be one of the following materials as approved by the government representative.

3A. Straw - Straw shall be new straw derived from rice, wheat, oats, or barley and be free of mold and noxious weed seed. Straw shall be furnished in air dry bales. Evidence shall be furnished that clearance has been obtained from the County Agricultural Commissioner, as required by law, before straw obtained from outside the county in which it is to be used is delivered to the site of the work.

3B. Wood Fiber Mulch - Wood fiber mulch is a wood cellulose fiber that contains no germinating or growth inhibiting factors. It is colored with a non-toxic, water soluble, green dye to provide a proper gauge for metering over ground surfaces. It has the property to be evenly dispersed and suspended when agitated in water.

D. SEEDING REQUIREMENTS

1. General - All seeding, fertilizer and mulching operations shall begin when approval is given by the appropriate County Engineer or Conservation District representative.
2. Seedbed Preparation - The entire area to be seeded shall be reasonably smooth and conform to the desired shape before actual seedbed preparation is begun. Any debris which would interfere with seeding operations, growth or maintenance of the vegetative cover will be removed. The area to be seeded shall have a firm seedbed which has previously been roughened by scarifying, disking, harrowing, chiseling, or otherwise worked to a depth of two to four inches (2" - 4"). No implement shall be used that will create an excessive amount of downward movement of soil or clods of sloping areas. Seedbed may be prepared at time of completion of earth-moving work.
3. Fertilizing - Fertilizer shall be distributed uniformly over the seedbed at the rate of 300 pounds per acre, and shall be in such physical condition to insure uniform application over the area to be fertilized. Fertilizer may be applied in any way that will result in uniform distribution. The fertilizer shall be incorporated into the soil.
4. Seeding - Seed shall be broadcast by hand, mechanical hand seeder, power operated seeder, hydroseeder or other approved equipment. 'Seed shall have a soil cover of not more than one-half inch. Seeding will be carried out using either of the following methods:

   Method 1 The seed may be drilled, not to exceed one-half (1/2) inch deep and cultipacked or rolled once over with a corrugated roller on all areas where equipment can be operated safely. Seed operations will be across the slope.

   Method 2 The seed may be applied in a slurry mix of wood cellulose fiber distributed uniformly at the prescribed rate (see Item E.2, Wood Celulose Fiber -Hydro-mulching, below). The application unit used for "Hydro Mulch" shall be equipped with an agitator to maintain the seed and mulch in suspension within the unit's tank prior to and during application.

   Method 3 Where emergency treatment of exposed soils extends beyond October 15, emergency mulching without seed will be prescribed in accordance with "Soil stabilization measures" described previously.

Special Note: A minimum 70% seed germination with at least 1" growth must be obtained by December 1st, or area must be covered with straw mulch. (Section E-1)

NOTE: PLACE STORM DRAIN INLET PROTECTION (STONE-FILLED OR GRAVEL-FILLED GEOTEXTILE BAGS) AT THE NEAREST DOWNSTREAM DRAINAGE INLETS ON THE STREET BEFORE DISTURBING SOIL.

Erosion Control Legend

DESCRIPTION	DEPICTION
STRAW WATTLE	—✕—✕—
CRUSHED ROCK FILLED BAGS	⌓

Erosion/Pollution Control Notes

1. THE CONTRACTOR'S EQUIPMENT AND MATERIALS STORAGE YARD SHALL BE LOCATED AT LEAST FIFTY (50) FEET AWAY FROM ANY SWALES OR INTERMITTENT STREAMS AND THE INTERVENING VEGETATION SHALL BE LEFT INTACT.
2. ON-SITE FUEL TANKS SHALL HAVE PROPER CONTAINMENT BERMS IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. ALL WASTE OIL OR OTHER HAZARDOUS MATERIALS RESULTING FROM THE MAINTENANCE OFTHE CONSTRUCTION EQUIPMENT ARE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF-SITE.
3. UPON COMPLETION OF WORK, ALL MATERIALS, DEBRIS, AND EQUIPMENT SHALL BE REMOVED FROM THE STORAGE SITE AND THE SITE REGRADED AND REVEGETATED TO BRING IT BACK TO A NATURAL CONDITION.
4. NO DUST PALLIATIVE MATERIALS OTHER THAN WATER SHALL BE USED ON THIS PROPERTY.
5. NO ROAD OIL OR LIQUID ASPHALT SHALL BE SPRAYED ON ROADWAYS DURING PERIODS WHERE STORM WATER RUNOFF WOULD BE LIKELY.
6. THE CONTRACTOR SHALL CONTROL HIS OPERATIONS TO MAKE SURE THAT CONSTRUCTION TRAFFIC THAT ENTERS AND LEAVES THE SITE SHALL HAVE FIRM STABLE ACCESS SO AS TO MINIMIZE THE TRACKING OF SEDIMENTS ONTO PAVED ROADWAYS.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN SEDIMENTS TRACKED ONTO PAVED ROADWAYS BY THE END OF EACH WORKDAY. LARGE CHUNKS OF SOIL SHALL BE SCRAPED OR BROOMED FROM THE ROADWAY AND PROPERLY RETURN TO THE CONSTRUCTION SITE PRIOR TO WASHING THE PAVEMENT CLEAN.
8. THE CONTRACTOR SHALL, AT ALL TIMES, KEEP PROPERTY ON WHICH WORK IS PROGRESS AND THE ADJACENT PROPERTY FREE FROM ACCUMULATIONS OF WASTE MATERIAL OR RUBBISH CAUSED BY EMPLOYEES OR BY THE WORK . THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WASTE RECEPTACLES ON THE JOB SITE AND INFORMING ALL EMPLOYEES THAT NO LITTER WILL BE ALLOWED ON THE PROJECT SITE. UPON COMPLETION OF THE CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STRUCTURES, RUBBISH, AND WASTE MATERIALS RESULTING FROM HIS OPERATIONS.
9. ALL EROSION CONTROL AND DESILTATION FACILITIES FOR A CONSTRUCTION PROJECT SHALL BE IN PLACE AND FUNCTIONAL BY 15 OCTOBER. SAID FACILITIES SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENTS BY CONTRACTOR'S PERSONNEL TO DETERMINE THAT THE FACILITIES ARE FUNCTIONING PROPERLY. ANY REPAIRS NEEDED SHALL BE MADE PROMPTLY AND ANY SUBSTANTIAL DEPOSITS OF SILT OR DEBRIS SHALL BE CLEANED FROM THE FACILITIES AND PROPERLY DISPOSED OF.
10. ALL EROSION CONTROL AND DESILTATION FACILITIES FOR A CONSTRUCTION PROJECT SHALL BE IN PLACE AND FUNCTIONAL BY 15 OCTOBER. SAID FACILITIES SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENTS BY CONTRACTOR'S PERSONNEL TO DETERMINE THAT THE FACILITIES ARE FUNCTIONING PROPERLY. ANY REPAIRS NEEDED SHALL BE MADE PROMPTLY AND ANY SUBSTANTIAL DEPOSITS OF SILT OR DEBRIS SHALL BE CLEANED FROM THE FACILITIES AND PROPERLY DISPOSED OF.
11. THE CONTRACTOR SHALL CONTROL THE LOCATIONS WHERE CONCRETE TRUCK CLEAN OUT MAY OCCUR. CLEAN OUT SHALL NOT OCCUR WITHIN FIFTY (50) FEET OF A FLOWING STREAM
12. IN ADDITION TO COMPREHENSIVE PROJECT EROSION CONTROL FEATURES (SEDIMENTATION PONDS, INLET FILTERS, ETC.) SILT FENCES/HAY BALES/STRAW ETC. SHALL BE PLACED AS A FIRST LINE OF EROSION CONTROL BELOW ALL ARERS DISTURBED (10/15-5/15), INCLUDING STOCKPILED MATERIAL FROM GRADING AND TRENCHING OPERATIONS. ANY GRADING COMPLETED SHALL BE SEEDED/STRAWED IMMEDIATELY (10/15-5/15).
13. IT IS EXPRESSLY UNDERSTOOD THAT APPROVAL OF THIS PLAN SHALL NOT RELIEVE THE DEVELOPER, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITIES UNDER THE PERMIT, AGREEMENT, OR PLANS FOR THE SUCCESSFUL IMPLEMENTATION OF SEDIMENTATION CONTROL IN CONFORMITY WITH THE REQUIREMENTS OF ALL COUNTY, STATE AND FEDERAL ORDINANCES, LAWS, MANUALS, CONDITIONS, PERMITS OR PLANS.
14. DURING GRADING, PAVE SURFACE OR ROCK ENCROACHMENTS TO ANY EXISTING ROADWAYS.

STRAW WATTLE/FIBER ROLL PLACEMENT

INSTALL ON ALL GRADED AREAS, PADS AND DRIVEWAYS (PRIOR TO PAVING) AND ON TOP AND MID-SLOPES

WATTLES IN STREETS AND ON PADS:

- 0-2% - 200' SPACING
- 2-5% - 100' SPACING
- 5-10% - 50' SPACING
- 10-20% - 25' SPACING
- 20-50% - 10' SPACING

DISTURBED AREA #1A= 82,435 S.F. (1.9 Ac.)
DISTURBED AREA #1B= 38,937 S.F. (0.89 Ac.)
TOTAL = 2.8 Ac.

WDID#= 5S09W005498

RECEIVED
OCT - 3 2023
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

Straw Wattle Detail

NOT TO SCALE

Notes

1. SEDIMENT ROLLS ARE TUBES MADE FROM BIODEGRADABLE EXCELSIOR WITH PHOTO-DEGRADABLE NETTING. THEY ARE 12" IN DIAMETER AND AS LONG AS CAN BE CONVENIENTLY PLACED.
2. SEDIMENT ROLLS TRAP AND CAPTURE SEDIMENT, INCREASE FILTRATION RATES, SLOW RUNOFF VELOCITIES AND REDUCE SHEET RILL EROSION. THEY CREATE A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
3. SEDIMENT ROLLS SHOULD BE PLACED INTO A TRENCH APPROXIMATELY 3" DEEP AND SECURELY STAKED AT 6' O.C. WITH 1"X2"X24" WOODEN STAKES.

MLRA 18 (Elevations below Placerville)

PERIOD	METHOD	TYPE OF SEED	AMOUNT PER ACRE	AMOUNT PER 1000 SQUARE FEET	MULCH TYPE
SEPT 15 - OCT 15	Hydroseed	Blando Brome and either	12 lbs.	0.3 lbs.	straw or wood fiber
		Wimerra '62 or Annual Ryegrass	9 lbs.	0.2 lbs.	
SEPT 15 - OCT 15	Broadcasted	Blando Brome and	12 lbs.	0.3 lbs	straw or wood fiber
		Rose Clover	9 lbs.	0.2 lbs	
OCT 16 - SEPT 14	Hydroseed	Blando Brome and either	24 lbs.	0.6 lbs.	straw only
		Wimerra '62 or Annual Ryegrass	18 lbs.	0.4 lbs.	
OCT 16 - SEPT 14	Broadcasted	Blando Brome and	24 lbs.	0.6 lbs.	straw only
		Rose Clover	18 lbs.	0.4 lbs.	

A MULCH COVERING SHALL BE APPLIED OVER THE SURFACE OF THE SEEDED AREA. MULCHING SHALL FOLLOW IMMEDIATELY AFTER SEEDING UNLESS OTHERWISE DIRECTED. MULCH WILL BE OF THE MATERIAL INDICATED.

PLACE STABILIZED CONSTRUCTION ACCESS.

Exhibit I
P23-0008

PREPARED BY:
LEBECK
ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. (530) 677-4080 Fax (530) 677-4096

ENGINEER'S STAMP:
ERIC ALLIGUIE
No. 71434
CIVIL

AREA #1B GRADING PLANS

EROSION CONTROL PLAN

Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
3600 Deer Valley Rd., Rescue, CA APN: 102-060-025

PREPARED FOR:
TOM VASEY
1290 LOS RIOS DRIVE
CARMICHAEL, CA 95605
916-425-5018
EMAIL: tom@tsvpainting.com

Project # 22-121
Date: SEPTEMBER 2022
Scale: 1" = 40'
Designed by:E.Alliguie
Drawn by: E. Alliguie

SHEET NO.
G5
Plot Date: Sep 23, 2022

June 30, 2022

Mr. Tom Vasey
9891 Horn Road, Suite B
Sacramento, CA 95827

Subject: Rare Plant Assessment Letter Report for Occurrence of Rare Plants at 3600 Deer Valley Road, El Dorado County, CA **(APN** 102-060-025)

Dear Mr. Vasey:

Per El Dorado County requirements, FEC staff conducted floristic level botanical surveys for the subject property, which is approximately 120 acres in size. The surveys were conducted in order to determine the presence/absence of rare plants on the subject property. The report will support El Dorado County's environmental review of the proposed project as the subject property is within Mitigation Area "1" (rare plant soils study **area).**

PROJECT LOCATION AND DESCRIPTION

The project site is located at 3600 Deer Valley Rd., Rescue, El Dorado County, CA (APN 102-060-025). The project is in Section 9, Township l0N, and Range 09E on the SHINGLE SPRINGS, California 7.5-minute USGS quadrangle **(Figure 1- Regional Location and Vicinity).** The project parcel is currently undeveloped.

STUDY METHODS

Regulatory Setting

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 United States Code [USC] 1531 *et* seq.). Species identified as federally threatened or endangered (SO CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed species may be present in the study **area** and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], (41).

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Wildlife Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. "Take" under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture, or kill (California Fish and Game Code, Section 86). The California Department of Fish and Wildlife (CDFW) can authorize take of a state-listed species under

Section 2081 of the California Fish and Game Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the "take" of listed species, either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use (other than changing from one agricultural use to another), which allows CDFW to salvage listed plants that would otherwise be destroyed.

California Environmental Quality Act

Under the California Environmental Quality Act of 1970 (Public Resources Code Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (Public Resources Code Section 21001(c)). These "special-status" species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as lA, 18, 2A, 2B, and 3 are generally considered special-status species under CEQA.[1]

Although threatened and endangered species are protected by specific federal and state statutes, State CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified 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. Section 15380(d) of the State CEQA Guidelines allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

El Dorado County Ecological Preserve Fee

The Ecological Preserve Fee Program addresses the need for mitigation of the impacts that development may have on existing rare plant habitats. Fee interests or conservation easements are purchased within a designated area to preserve rare plant habitats. The Ecological Preserve applies to three geographic areas; Mitigation Areas 0, 1 and 2. The geographic location of a project determines which mitigation approach

[1] The California Rare Plant Rank system can be found online at https://www.cnps.org/rare-plants.

will be recommended. Lands in Mitigation Area Oare within an area designated as the preferred ecological preserve, where on-site mitigation is encouraged. Within Area 0, a project proponent may either set aside part of the property as a protected area, or purchase and protect land in the same ecological preserve that is 1.5 times the developed acreage. Lands in Mitigation Area 1 are within the rare soils study area and offsite mitigation through payment of the Ecological Preserve Fee is required. Lands within Mitigation Area 2 are outside areas O and 1, but within the El Dorado Irrigation District (EID) Service Area, and these lands would share the cost of impacts in the form of fees, because this area is determined to have direct or secondary effect on rare plant lands. This impact can be in the form of traffic congestion, reduced air quality and open space uses. By law, the Ecological Preserve Fee collected by the County must be allocated strictly to mitigating rare plant preserves ensuring the fees are properly used.

Desktop Review

A review of the California Natural Diversity Database (CNDDB) maintained by the California Department of Fish and Wildlife (CDFW; CNDDB 2022) was conducted to determine whether special-status plants had been previously identified on the project site or vicinity and the CNDDB and the California Native Plant Society (CNPS) Rare Plant Inventory was queried to develop a target list of special-status plants known to occur in the region. Each of these databases was queried for reported occurrences of special-status plants on the "Shingle Springs, Pilot Hill, Coloma, and Clarksville Ca" U.S. Geological Survey 7.5-minute topographic quadrangles. The results of these queries are in **Attachment A** - **CNDDB and CNPS Database Query Results.**

Field Survey

FEC biologists/botanists Stephen Stringer, M.5. and Matt Fremont conducted three surveys of the subject property on April 20, 2022, May 19, 2022, and then again on June 9, 2022. These dates fall within the blooming period for the regionally-occurring special-status plants with the potential to occur at the site. Mr. Stringer is a resident of El Dorado County and has been conducting botanical surveys for 19 years in El Dorado County and holds a CDFW Rare Plant Voucher Collecting Permit (No. 2081(a)-22-093-V). Weather during the surveys was clear with average to warm temperatures. The surveys were conducted on foot and consisted of systematically examining the 120-acre property during each survey. The survey area is the limits of the parcel as represented in **Figure 2** - **Survey Area/Rare Plants.** The purpose of the survey was to assess the habitat on the entire property and to evaluate its suitability for supporting special status plant species known to occur in the region and to search for special-status plant species. A comprehensive list of all plant species identifiable was compiled **(Attachment B** - **Plant Species)** as well as representative site photographs of the site and representative plants **(Attachment C- Representative Site Photographs).**

Plant specimens were identified to species where necessary in the field or lab using the Jepson eFlora (available online at https://ucjeps.berkeley.edu/eflora/) and plant nomenclature is based on the Jepson eFlora. All plant species observed on the site were identified to the lowest taxonomic level necessary to determine whether or not they were a special-status species. Special-status plant species occurrences were mapped with a Trimble GeoXH GPS unit. Reference populations of several of the target plants with the highest potential to occur in the site including Stebbins' morning glory *(Calystegia stebbinsii),* El Dorado County mule ears (Wyethia *(Agnorhiza) reticulata),* Pine Hill ceanothus *(Ceanothus roderickii),* and Red Hills soaproot *(Chlorogalum grandiflorum)* were visited by Mr. Stringer multiple times in April, May and June of 2022 to evaluate blooming times and appropriate survey dates due to the dry conditions in winter of 2022.

RESULTS

Existing Conditions and Habitats

The project site is generally undeveloped, with the exception of a utility corridor that runs in a north/south direction through the eastern portion of the site, a segment of Deer Valley Road that crosses the western edge of the site, and some small structures in the southwest portion of the site apparently associated with recreational uses of the site. Portions of the site have been previously cleared, presumably to construct dirt roads for site access and other recreational uses of the site.

The primary habitat types/vegetation communities present on the project site are oak woodland, chaparral, and annual grassland. Several intermittent and ephemeral drainages cross through these habitats. The majority of the site contains an expansive, contiguous oak woodland interspersed with patches of chaparral. The predominant trees on the site are blue oak *(Quercus douglasi1),* interior live oak *(Quercus wislizenii),* and foothill pine *(Pinus sabiniona).* Several native shrubs typical of chaparral habitats in the region are present on the site including coyote brush *(Bacchoris piluloris),* poison oak *(Toxicodendron diversi/obum),* white-leaf manzanita *(Arctostaphylos viscida),* redbud *(Cercis occidentalis),* pitcher sage *(Lepechinio colycina),* California yerba santa *(Eriodictyon californicum),* orange bush monkeyflower *(Dip/acus aurantiacus),* California coffee berry *(Frangu/o colifornica),* ceanothus *(Ceonothus lemmonii* and *C. cuneatus),* chamise *(Adenostoma fosciculatum),* and toyon *(Heteromeles orbutifolia).*

The annual grassland and herbaceous layer of the chaparral and oak woodland on the site contain native and non-native grasses and forbs typical of the region including non-native species such as ripgut brome *(Bromus diandrus),* soft chess *(Bromus hordeaceus),* Italian thistle *(Corduus pycnocephalis),* wild oat *(Avena fatua),* and Dogtail grass *(Cynosurus echinatus),* and native species such as California melic *(Me/ica ca/ifornica),* deer grass *(Muhlenbergia rigens),* and purple needle grass *(Stipo pu/chra).*

Database Searches

The database searches returned a total of 25 special-status plant species that occur in the region. The project site provides potentially suitable habitat for all of the regionally-occurring special-status plants with the exception of Sanford's arrowhead *(Sagittaria sanfordii),* which requires perennial aquatic habitat that is not present on the site. The CNDDB contains reported occurrences of El Dorado County mule ears and Layne's ragwort along the southern boundary of the site. This area was searched extensively and neither of these species were observed in this location. There are no other reported occurrences of special-status plants on the site in the CNDDB.

Botanical Surveys

The project site is located within El Dorado County Ecological Preserve Mitigation Area 1. One special-status plant species, **El Dorado County mule ears,** was documented on the property during the survey.

El Dorado County mule ears is a CNPS Rare Plant Rank 18.2 species (rare, threatened, or endangered in CA and elsewhere). El Dorado County mule ears is not listed as a threatened, endangered, or a candidate species under either the Federal Endangered Species Act or the California Endangered Species Act and has no rarity designation by CDFW.

The species was fairly abundant within portions of the disturbed areas of chaparral habitat on the southern half of the site. Specifically, FEC staff mapped 97,960 square feet (sf) of disturbed chaparral habitat containing El Dorado County mule ears on the site (see **Figure Z).** This species was also observed in the utility corridor on the site but was disturbed over the course of the surveys by work being conducted in the utility corridor (placement of mulch by heavy equipment). Because no work would be conducted in the utility corridor by the property owner and the species was impacted by utility work, individuals in the utility corridor are not depicted on the map and are not included in the area calculation. Special-status species occurrences on site have been documented in iNaturalist (https://www.inaturalist.org) and are being reported to the CNDDB.

CONCLUSIONS AND RECOMMENDATIONS

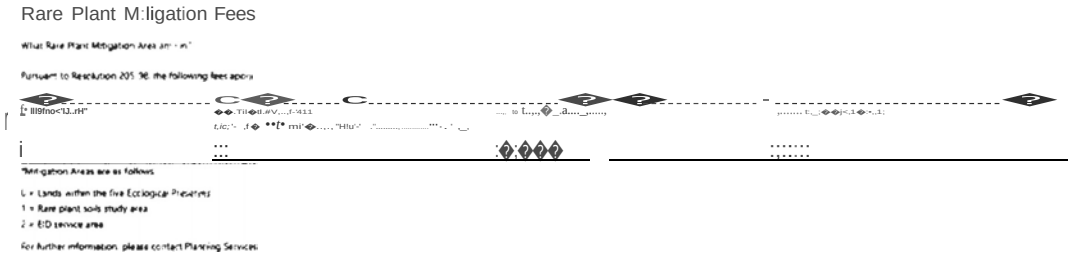
Based on the size of the property and the distribution of rare plants that were documented, it is reasonable that any future site development could avoid all of the existing populations of El Dorado County mule ears. If site development cannot avoid impacts to rare plants, impacts to rare plants at the subject property would be subject to El Dorado County rare plant mitigation fees. As El Dorado County mule ears is not listed as endangered under CESA or under FESA, no mitigation is recommended in addition to the El Dorado County mitigation fee requirements.

El Dorado County Ecologlcal Preserve Fee

Based on the results of floristic level surveys conducted by FEC during the blooming season, the special-status plants present on the property total 97,960 sf of El Dorado County mule ears. The current mitigation fee for rare plants in El Dorado County is included in the table below. This fee would not apply in the case that all rare plant species are avoided.

Planning Services

Rare Plant M:ligation Fees



https://www.edcgov.us/Government/planning/pages/rare_plant_mitigation fees.aspx

Please contact me at matt@fremontenvironmental.com or (916) 817-0429 if you have any questions or concerns with this survey report.

Sincerely,

Matt Fremont

Matt Fremont
Principal/Field Biologist

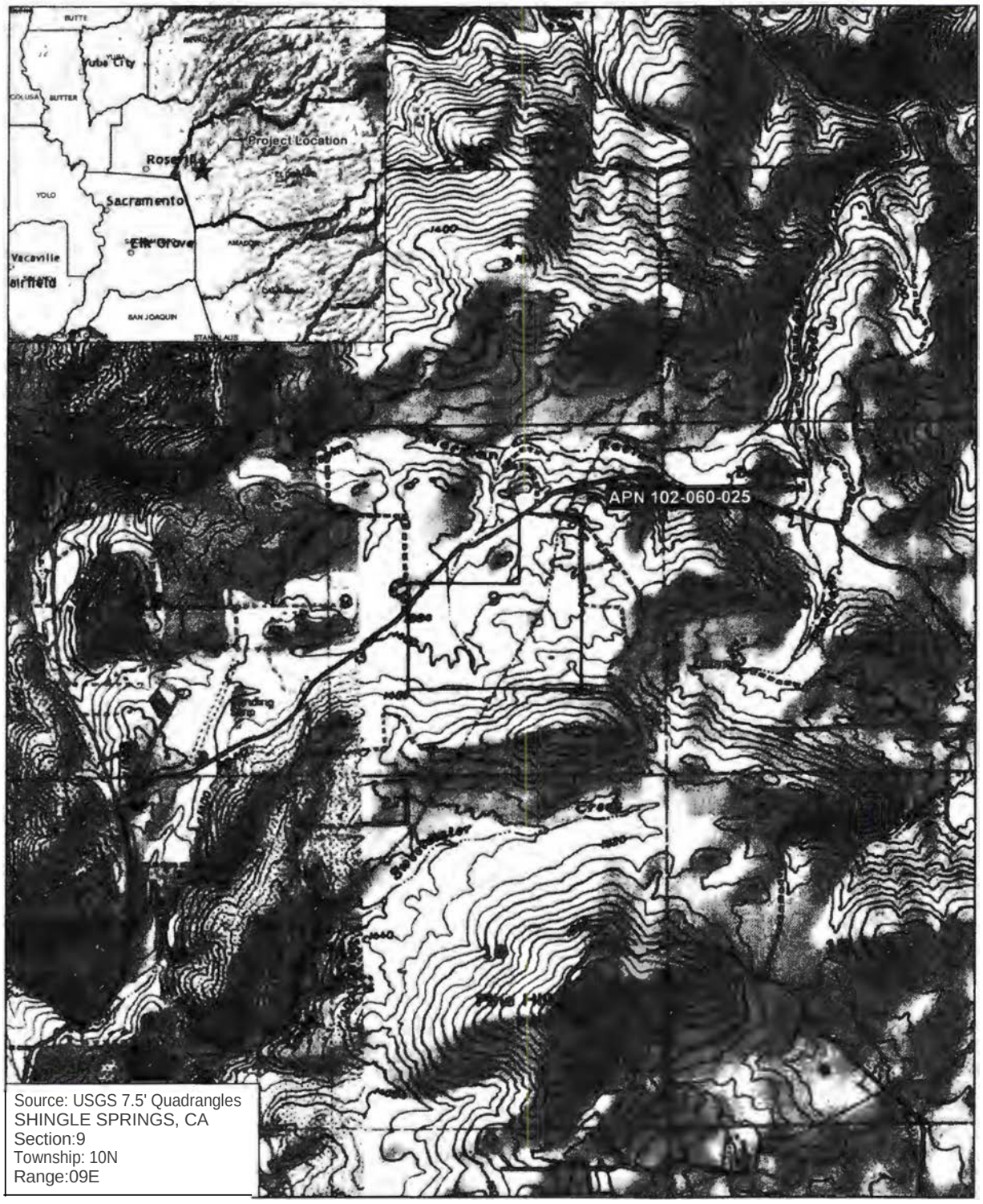


Figure 1

Regional Location and Vicinity

APN 102-060-025
3600 Deer Valley Road, El Dorado County, CA

n111n
IIVIPHIIIUI
UIIIUIII

Source: USGS (2018)

Exhibit J Rare Plant Survey
P23-0008

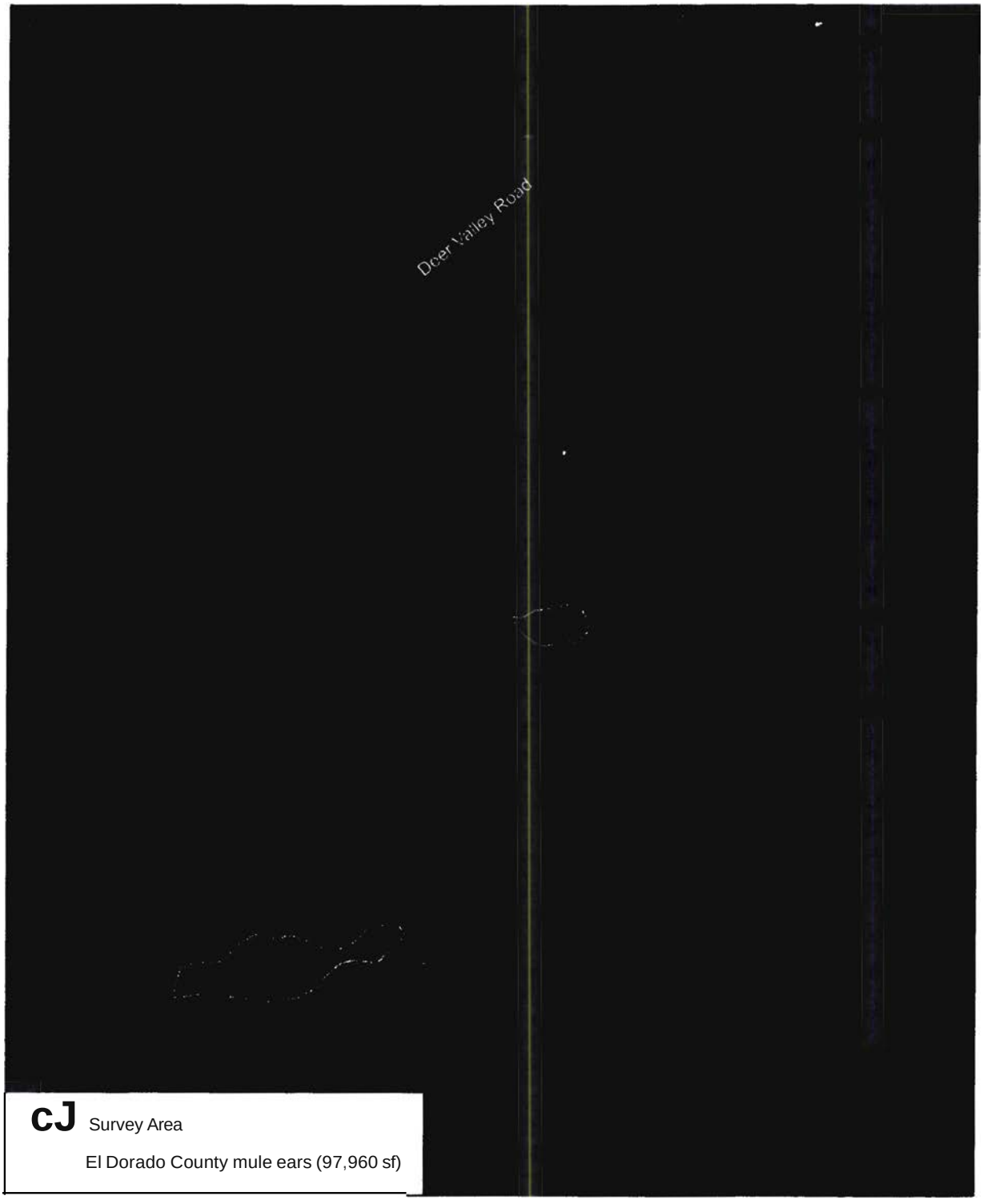


Figure 2

Survey Area/Rare Plants

APN 102-060-()25
3600 Deer Valley Road, El Dorado County, CA

Aerial Source: Maxar (02/2021)

Exhibit J Rare Plant Survey
P23-0008

Attachment A

CNDDB and CNPS Database Query Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Pilot Hill (3812171) OR Coloma (3812078) OR Shingle Springs (3812068) OR Clarksville (3812161))
 AND Taxonomic Group IS (Fems OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSCorFP
All/um jepsonll Jepson's onion	PMLIL022V0	None	None	G2	S2	18.2
Balsamorhlza macro/epls big-scale balsamroot	PDAST11061	None	None	G2	S2	18.2
Calystegia stebblnsll Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Carex xerophlla chaparral sedge	PMCYP03M60	None	None	G2	S2	18.2
Ceanothus roderfck/1 Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Chlorogalum grandlflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Clarie/a blloba ssp. brandegeeae Brandegee's darkia	PDONA05053	None	None	G4G5T4	S4	4.2
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Gal/um cal/torn/cum ssp. s/e"ae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Packers layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	18.2
Sagl'ttaria santord/1 Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Wyeth/a retkulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	182

Record Count: 13
Report Printed on Monday, June 27, 2022

12/3/2022

Search Results

25 matches found. Click on scientific name for details

Search Criteria: **Ouad** is one of **[3812068:3812171:3812078:3812161]**

• SCIENTIFIC **NAME**	COMMON **NAME**	FAMILY	LIFEFORM	BLOOMING PERIOD	FED UST	STATE LIST	GLOBAL **RANK**	STATE **RANK**	CA RARE PLANT **RANK**	PHOTO
dfilJmJ.J RWJii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	G2	S2	16.2	©2019 Steven Perry
tllliiJ.!!1 rnnlw.mii Vi;!r	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	None	None	G4T3T4	S354	4.2	©2018 Steven Perry
fw.ls.am.Qcb.iz.a	big-scale bals.amroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	16.2	©1998 Dean Wm. Tdyior
C.CllQnQriniQ 12.r i	**Brewer's** calandrinia	Montiaceae	annual herb	**(Jan)Mar-** Jun	None	None	G4	54	4.2	No Photo Available
DUy gia s.teb/J.ia ii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE	G1	S1	1B.1	No Photo Available
Carex xeroRhiJa	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	18.2	No Photo Available
Ceanotb.us	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr)May-Jul	None	None	G4	54	**4.3**	No Photo Available
C:.fiiUQtb.lJ.S.CQrJ.t:eid.ii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	No Photo Available
QilQa/g®.Lm g tkmJm	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	None	None	G3	S3	16.2	No Photo Available
Clac/s.ia **b.ilabD.** SSR. *bwlskg*	Brandegee's **clarkia**	Onagraceac	annual herb	May-Jul	None	None	G4GST4	54	4.2	No Photo Available
R,..gIJll1fiifiMI	streambank spring beauty	Montiaceae	annual herb	Feb-May	None	None	GST3	S3	4.2	No Photo Available
C.C'2,a.rJ.the.m1J.m	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	No Photo **Available**

*EriQg  *	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	 N008 Steven Perry
*EriQRh,y.J./.JJmj  *	Jepson's woolly **sunflower**	**Asteraceae**	perennial herb	Apr-Jun	None	None	G3	S3	4.3	No Photo **Available**
Fr1:.mQntQ(j_f:.nri.rQn **rif:rnmll.1:.0.**	Pine Hill flannelbush	**Malvaceae**	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	No Photo **Available**
G.aliu.m califQlllKJJID. *S!i*	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	GST1	S1	1B.2	 (fl 2019 John Poyen
*  Rfil_/2.11kMJJQ* *R.2[pentinicola*	**serpentine** bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	**4.3**	 (I 2019 **Barry Brecking**
*/&1!mg  *	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	 -!I 2014 Aaron
*  R!flliRhsm* *alJJbiglJJJJ*	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Schusteff  Schusteff
/.ili!,!m ti11.m02ldtii R-*b.1,11:nl2Q/Qtii*	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	None	None	G4T3	S3	4.2	 <fl 2008 **Sierra Pacific Industries**
Navaw:tia *b.etemo.dra*	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	None	l'Jone	G4	S4	4.3	 ©2021 Scot Loring
*Packera Jqv  *	**Layne's** ragwort	**Asteraceae**	perennial herb	**Apr-Aug**	FT	CR	G2	S2	**1B.2**	No Photo Available
*E!nmJJkl.*RSJJ,IDfi.om	beautiful shootingstar	Primulaceae	perennial herb	Apr-Jun	None	None	GS	S3	4.2	

Attachment B

Plant Species Observed In the Project Site

Table C-1. Plant Species Observed in the Project Site

Native		
Aaavaceae	*Chloroaalum pomeridianum var. pomeridianum*	Common soao plant
Apiaceae	*Lomatium sp.*	
	Sanicula bipinnatifida	Purple sanicle
	Sanicula crassicaulis	K3amble weed
Asteraceae	*l,Achil/ea mil/efolium*	Common varrow
	lAanorhiza (Wyethia) bolanderi	Bolander's mule's ears
	'iP,gnorhiza (Wyethia) reticulata	El Dorado County mule ears
	Baccharis pilularis	Covote brush
	Balsamomiza deltoidea	
	Calvcadenia multialandulosa	Sticky western rosinweed
	Erioohvllum lanatum	Common woolly sunflower
	Grindelia camoorum	Gum plant
	Madia elegans	**Tarweed**
	Matricaria discoidea	Pineaoole weed
	Pseudoanaohalium califomicum	cudweed
	Psilocarphus tenel/us	Slender woolly marbles
	Senecio inteaerrimus	
	ltVyethia anaustifolia	Narrowleaf mule-ears
Anacardiaceae	*Toxicodendron diversilobum*	Poison oak
Boraainacaeae	*Plaaiobothrvs fulvus*	Poocomflower
Brassicaceae	*Thysanocarpus curvipes*	Lacepod
Caprifoliaceae	*Lonicera hispidula*	honevsuckle
Convolvutaceae	*Calystegia sp. (not flowering, not Stebbins' morning glory because leaves not linear and finger-like)*	False bindweed
Cvoeraceae	*Carax praearacilis*	Freeway sedae
Ericaceae	*1,Arctostaphylos viscida*	rv'v1-.ite-leaf manzanita
	Cercis occidentalis	Redbud
	Lupinus nanus	Sky luoine
Faaaceae	*Quercus doualasii*	Blue oak
	Quercus wislizenii	Interior live oak
Hydrophyllaceae	*Nemophila menziesii*	Baby blue-eves
Hypericaceae	*Hvoerlcum perforatum*	St. John's wort
Iridaceae	*Iris douglasiana*	
	Sisvrinchium bellum	Western blue-eyed-arass
Juncaceae	*Juncus bufonius*	rroad rush
	Juncus xiphioides	Iris-leaved rush
	Luzula comosa var. comosa	Wood rush
Lamiaceae	*Lepechinia calvcina*	Pitcher sage
	Monardella vi/loss	Coyote-mint
	Salvia sonomensis	Sonoma sa!le
Liliaceae	*Al/ium SD.*	Wild onion
Linaceae	*Unum lewisii var. lewisii*	**ax**
Malvaceae	*Sidalcea oraaana*	Oregon checkerbloom
Montiaceae	*Clavtonia perfoliata*	Miner's lettuce
Namaceae	*Eriodictvon califomicum*	California yerba santa

Attachment C (cont.)

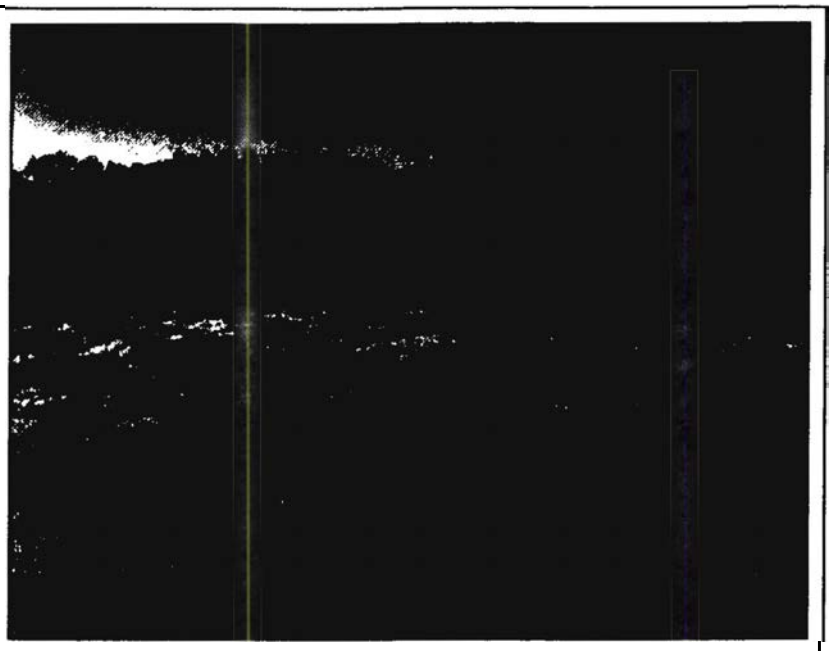
Species Observed In the *Study* Area

Onaaraceae	*Clarkia ourpurea ssp. quadrivulnera*	Four spot clarkia
Orobanchaceae	*Castilleja foliolosa*	Woolly paintbrush
	Castilleja attenuata	Vallev tassels
Phrymaceae	*Diplacus aurantiacus*	Orange bush monkeyflower
Pinaceae	*Pinus sabiniana*	Foothill oine
Plantaainaceae	*Penstemon heterophyllus var. purdyi*	Penstemon
	Plantago erecta	
Poaceae	*Melica califomica*	California melic
	Muhlenbergia rigens	Deerarass
	Stioa oulchra	Purple needle Qrass
Polemoniaceae	*Leptosiohon bicolor*	*True* babvstars
	Navarretia sauaffosa	kunkweed
pteridaceae	*Pentagramma trianaularis*	Gold back fern
	Pellaea mucronata	Bird's foot cliffbrake
Ranunculaceae	*Delphinium variegatum*	Royal larksour
	Ranunculus SP.	Buttercup
Rhamnaceae	*Ceanothus cuneatus*	Buck brush
	Ceanothus lemmonii	Ceanothus
	Frangula califomica	California coffee berrv
	Rhamnus ilicifolia	Hollvleaf redberrv
Roseaceae	*lAdenostoma fasciculatum*	Chamise
	Heteromeles arbutifolia	Toyon
	Rubus ursinus	California blackberry
Rubiaceae	*Ga/ium aparine*	Bedstraw
	Galium oorrioens var. tenue	Climbina bedstraw
Sapindaceae	*Aesculus califomica*	California buckeye
Scroohulariaceae	*Scroohularia califomica*	California fiQwort
Solanaceae	*Solanum xanti*	
Themidaceae	*Dichelostemma volubile*	Twinina brodiaea
	Dipterostemon capitatus	Blue dicks
	Triteleia ixioides	Prettv face
	Triteleia laxa	Ithuriel's soear
Valerianaceae	*Plectritis ciliosa*	Plectritis
Non-native		
APiaceae	*Daucus carota*	Wild carrot
	Tori/is arvensis	Common hedQe-parslev
Asteraceae	*Carduus ovcnoceohalis*	Italian thistle
	Lactuca seniola	Prickly lettuce
	Taraxacum officinale	Common dandelion
Brassicaceae	*Cardamine olioosoerma*	Little bittercress
Caryophyllaceae	*Cerastium glomeratum*	Sticky mouse-ear chickweed
	Silene oallica	Windmill pink
Fabaceae	*Lotus comicu/atus*	Bird's-foot trefoil
	Trifolium dubium	Suckling clover
	Trifolium hirtum	Rose clover
	Vicia sativa	Sorina vetch
	Vicia villosa	!Vetch
Geraniaceae	*Erodium botrys*	Big heron bill

Attachment C (cont.)

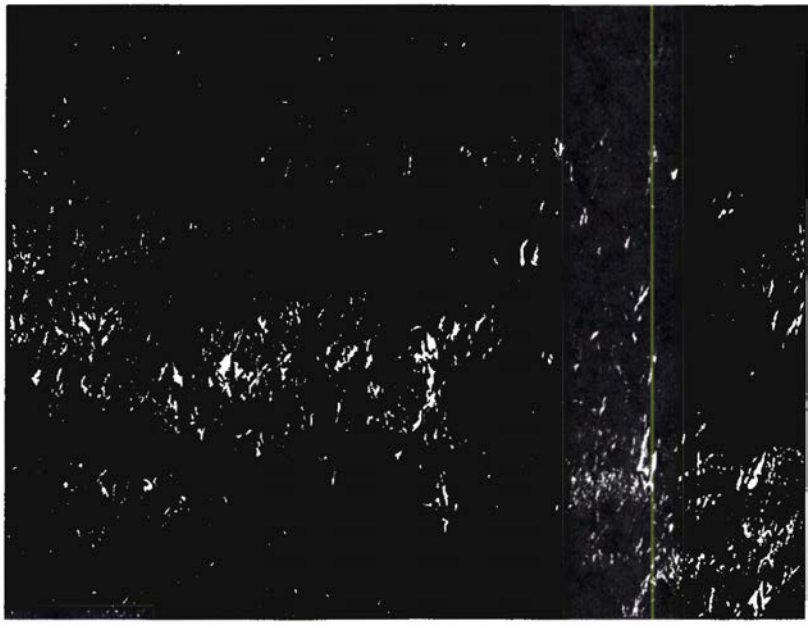
Species Observed in the Study Area

	Geranium dissectum	Cranesbill
Liliaceae	*Calochortus albus*	White globe lilly
M rsinaceae	*Lysimachia arvensis*	Scarlet pimpernel
Orobanchaceae	*Parentucellia viscosa*	Yellow gland weed
Pol alaceae	*Polygala cornuta var. cornuta*	Sierra milkwort
Poaceae	*Aira caryophyllea*	Silver European hairgrass
	Avena fatua	Wild oat
	Briza minor	Little quakinggrass
	Bromus diandrus	Ripgut brome
	Bromus hordeaceus	Soft chess
	C nosurus echinatus	Dogtail grass
	Festuca m uros	Annual fescue
	Hordeum marinum ussoneanum	Mediterranean barley
	Poa bulbosa	



Typical landscape consisting of remnants of chaparral, annual grassland and contiguous oak woodland.

Landscape area consisting of El Dorado County mule ears *(Agnorhiza reticulata).*



Photograph D.1te: 04/20/2022 & 05/19/2022

Attachment C

Representative Site Photographs

APN 102-060-025
3600 Deer Valley Road, El Dorado County, CA

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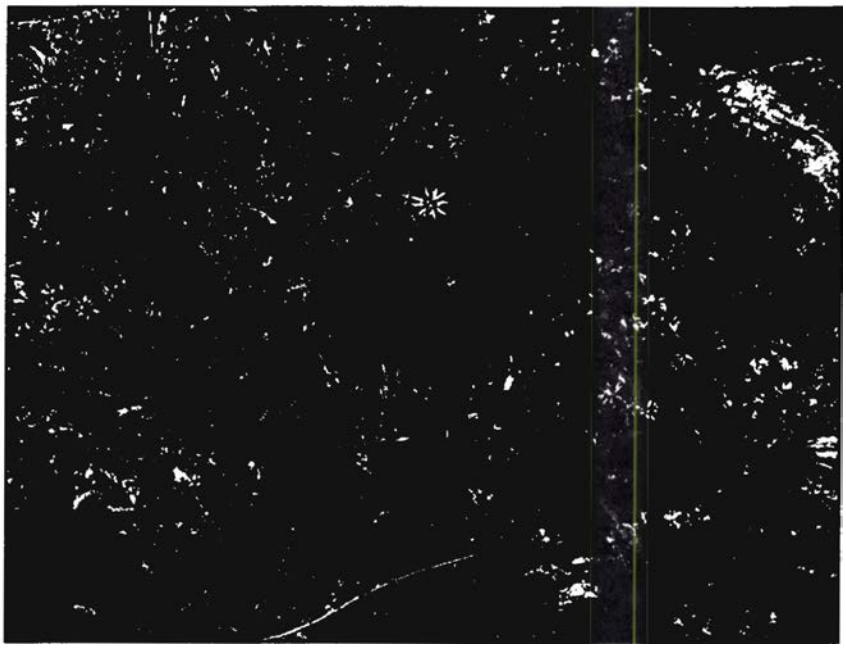
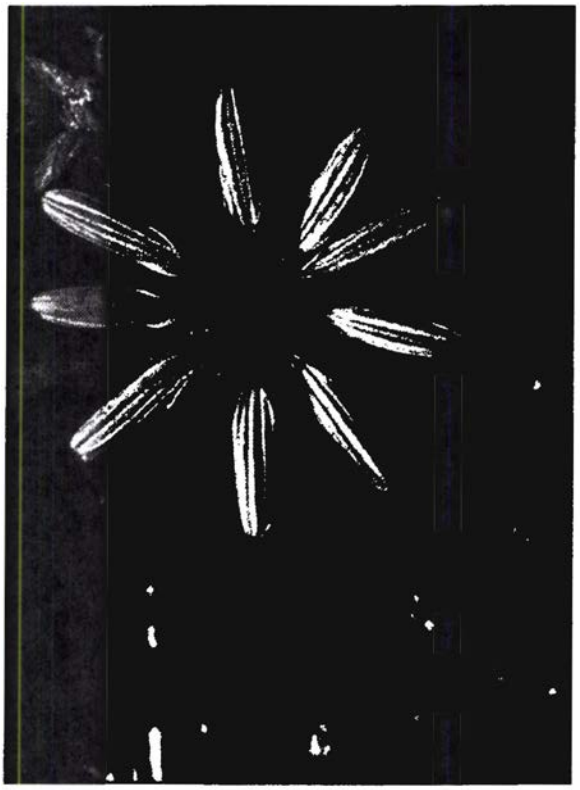
IIVIPIIIIIHI
IIIIII&III



El Dorado County mule ears
(Agnorhiza reticulata)



Photograph Date: 05/19/2022 & 06/09/2022

Attachment C

Representative Site Photographs

APN 102-060-025
3600 Deer Valley Road, El Dorado County, CA

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UIIII&III

18

12

Biological Resources Evaluation – Wildlife, 3600 Deer Valley Road, Rescue, El Dorado County, CA

Prepared by: FEC, Inc.

Introduction

On behalf of Tom Vasey, FEC, Inc. (FEC) has prepared this Biological Resources Evaluation – Wildlife (BRE) of the property located at 3600 Deer Valley Road, which is located in the community of Rescue in unincorporated El Dorado County, CA. The purpose of this BRE is to assess the potential for special-status or protected wildlife species to occur on the property and/or be impacted by the proposed project. Proposed avoidance and minimization measures are also included to avoid or reduce any potential impacts of the proposed project on special-status or protected wildlife. This report is intended to support project planning and entitlements including California Environmental Quality Act (CEQA) documentation.

A rare plant assessment report was prepared by FEC in June 2022 (FEC 2022) to document floristic level botanical surveys that were conducted in order to determine the presence/absence of rare plants on the subject property. One special-status plant species, El Dorado County mule ears (*Wyethia reticulata*), was found on the property. The rare plant assessment report (FEC 2022; separately bound) includes a map depicting the locations where El Dorado County mule ears was documented on the property and an assessment of El Dorado County rare plant mitigation fees if El Dorado County mule ears is impacted by the proposed project. This BRE was subsequently prepared in response to a request from El Dorado County to evaluate the potential for the proposed project to impact special-status wildlife. Special-status plant species are not discussed further in this report.

Project Location and Description

The property is an approximately 120-acre parcel (APN 102-060-025) located at 3600 Deer Valley Road in the unincorporated community of Rescue, El Dorado County, California (Attachment A; Figure 1). The property is located in Section 9, Township 10N, Range 09E of the "Shingle Springs, CA" U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad) (Attachment A; Figure 2). The approximate center of the property is located at latitude 38°44'8.36"N and longitude 120°59'35.73"W, North American Datum (NAD) 83. Figure 3 in Attachment A is an aerial map of the property.

The proposed project consists of extension of a driveway and construction of a single-family residence in the southwest portion of the parcel. A grading permit (#0354777) was previously approved for construction of the driveway from Deer Valley Road and construction of a house and barn west of the current proposed structure. A site plan for the proposed project is included as Figure 4.

Methods:

Biological Studies

A total of three surveys were conducted of the entire approximately 120-acre property by FEC biologists/environmental scientists on April 20, May 19, and June 9, 2022. The primary focus of the surveys was to conduct a complete floristic inventory of the property to determine the presence/absence of rare plants. During the surveys, habitats on the property were also noted. A desktop-level evaluation of the potential for special-status wildlife species to occur on the property was conducted for this BRE that relied on the habitat assessment and observations during the prior surveys, as well as database searches. A list of regionally-occurring special-status wildlife species with the potential to be impacted by proposed projects in the region was assembled and compared to the habitats on-site in order to determine whether any of the regionally-occurring special-status species have the potential to occur on the property and/or be impacted by the proposed project.

The special-status wildlife species evaluation included obtaining lists of special-status wildlife species with the potential to occur in the project region from the following sources: the U.S. Fish and Wildlife Service (USFWS) online list of federally-listed special-status species with the potential to occur in, or be affected by projects on the property and the list of reported occurrences of special-status wildlife species in the California Natural Diversity Database (CNDDB) for the "Shingle Springs, CA" USGS quad and the eight surrounding quads (Pilot Hill, Garden Valley, Coloma, Clarksville, Placerville, Folsom, Latrobe, and Fiddletown) (CDFW 2023). Results of these queries are included in Attachment B. Special-status wildlife species with the potential to occur in the project vicinity were compared with the habitats on the property and other factors such as elevational and geographic ranges of the special-status species to determine if a species has the potential to occur within the property.

Surveys on all three dates were conducted by Principal Environmental Scientist Matt Fremont and Senior Biologist/Botanist Stephen Stringer. Matt Fremont is an Environmental Scientist/GIS specialist with more than 20 years of experience assisting with biological surveys, wetland delineations, botanical surveys, arborist surveys and other biological surveys throughout northern California. Mr. Stringer holds a B.S. and M.S. in Biological Sciences with a focus in Biological Conservation from California State University, Sacramento and has more than 20

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Fremont Environmental Consulting

Biological Resources Evaluation – Wildlife, 3600 Deer Valley Road, Rescue, El Dorado County, CA

Prepared by: FEC, Inc.

Introduction

On behalf of Tom Vasey, FEC, Inc. (FEC) has prepared this Biological Resources Evaluation – Wildlife (BRE) of the property located at 3600 Deer Valley Road, which is located in the community of Rescue in unincorporated El Dorado County, CA. The purpose of this BRE is to assess the potential for special-status or protected wildlife species to occur on the property and/or be impacted by the proposed project. Proposed avoidance and minimization measures are also included to avoid or reduce any potential impacts of the proposed project on special-status or protected wildlife. This report is intended to support project planning and entitlements including California Environmental Quality Act (CEQA) documentation.

A rare plant assessment report was prepared by FEC in June 2022 (FEC 2022) to document floristic level botanical surveys that were conducted in order to determine the presence/absence of rare plants on the subject property. One special-status plant species, El Dorado County mule ears (*Wyethia reticulata*), was found on the property. The rare plant assessment report (FEC 2022; separately bound) includes a map depicting the locations where El Dorado County mule ears was documented on the property and an assessment of El Dorado County rare plant mitigation fees if El Dorado County mule ears is impacted by the proposed project. This BRE was subsequently prepared in response to a request from El Dorado County to evaluate the potential for the proposed project to impact special-status wildlife. Special-status plant species are not discussed further in this report.

Project Location and Description

The property is an approximately 120-acre parcel (APN 102-060-025) located at 3600 Deer Valley Road in the unincorporated community of Rescue, El Dorado County, California (Attachment A; Figure 1). The property is located in Section 9, Township 10N, Range 09E of the "Shingle Springs, CA" U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad) (Attachment A; Figure 2). The approximate center of the property is located at latitude 38°44'8.36"N and longitude 120°59'35.73"W, North American Datum (NAD) 83. Figure 3 in Attachment A is an aerial map of the property.

The proposed project consists of extension of a driveway and construction of a single-family residence in the southwest portion of the parcel. A grading permit (#0354777) was previously approved for construction of the driveway from Deer Valley Road and construction of a house and barn west of the current proposed structure. A site plan for the proposed project is included as Figure 4.

Methods:

Biological Studies

A total of three surveys were conducted of the entire approximately 120-acre property by FEC biologists/environmental scientists on April 20, May 19, and June 9, 2022. The primary focus of the surveys was to conduct a complete floristic inventory of the property to determine the presence/absence of rare plants. During the surveys, habitats on the property were also noted. A desktop-level evaluation of the potential for special-status wildlife species to occur on the property was conducted for this BRE that relied on the habitat assessment and observations during the prior surveys, as well as database searches. A list of regionally-occurring special-status wildlife species with the potential to be impacted by proposed projects in the region was assembled and compared to the habitats on-site in order to determine whether any of the regionally-occurring special-status species have the potential to occur on the property and/or be impacted by the proposed project.

The special-status wildlife species evaluation included obtaining lists of special-status wildlife species with the potential to occur in the project region from the following sources: the U.S. Fish and Wildlife Service (USFWS) online list of federally-listed special-status species with the potential to occur in, or be affected by projects on the property and the list of reported occurrences of special-status wildlife species in the California Natural Diversity Database (CNDDB) for the "Shingle Springs, CA" USGS quad and the eight surrounding quads (Pilot Hill, Garden Valley, Coloma, Clarksville, Placerville, Folsom, Latrobe, and Fiddletown) (CDFW 2023). Results of these queries are included in Attachment B. Special-status wildlife species with the potential to occur in the project vicinity were compared with the habitats on the property and other factors such as elevational and geographic ranges of the special-status species to determine if a species has the potential to occur within the property.

Surveys on all three dates were conducted by Principal Environmental Scientist Matt Fremont and Senior Biologist/Botanist Stephen Stringer. Matt Fremont is an Environmental Scientist/GIS specialist with more than 20 years of experience assisting with biological surveys, wetland delineations, botanical surveys, arborist surveys and other biological surveys throughout northern California. Mr. Stringer holds a B.S. and M.S. in Biological Sciences with a focus in Biological Conservation from California State University, Sacramento and has more than 20

years of experience conducting biological and wetland studies in northern and central California. Mr. Stringer holds a U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery

Permit (TE-141359-4) for vernal pool branchiopods and California tiger salamander (Central DPS), a CDFW Rare Plant Voucher Collecting Permit (No. 2081(a)-22-093-V), a CDFW Specific Use Scientific Collecting Permit (S-230460010-23048-001) for California tiger salamander, special-status vernal pool branchiopods, western spadefoot, and common reptiles and amphibians, is an International Society of Arboriculture, Certified Arborist (WE-7129A), and is a part-time instructor for plant identification and wetland delineation courses for the Wetland Training Institute (WTI).

Regulatory Background

For the purpose of this technical memorandum, special-status species are defined as: species listed under the Federal Endangered Species Act of 1973 (hereafter, "FESA," 16 USC Section 1531 et seq.) as Threatened or Endangered, as well as Candidate species and species proposed for listing; species listed under the California Endangered Species Act (CESA) of 1970 (California Fish and Game Code Section 2050 et seq., and California Code of Regulations Title 14, Subsection 670.2, 670.51) as Threatened or Endangered, as well as Candidate species and species proposed for listing; species of special concern or watch list species as designated by the California Department of Fish and Wildlife (CDFW); and, species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under these criteria, or by the scientific community [California Environmental Quality Act (CEQA) Guidelines subsection 15380(b) and (d)]. While not technically considered special-status species, migratory bird species listed on the federal list (50 CFR Section 10.13) are protected under the Migratory Bird Treaty Act of 1918 (16 USC Subsection 703-712). Migratory bird species and their nests and eggs are protected from injury or death. California Fish and Game Code Subsections 3503, 3503.5, and 3800 also prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. Therefore, potential impacts to migratory birds and nesting birds are discussed.

Determination of Potential Impacts

The following thresholds of impact significance are based on CEQA guidelines that pertain to special-status wildlife. Based on the CEQA guidelines, the Project would have a significant impact on special-status wildlife if it would result in any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any wildlife species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS; or,

- 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.

Results: Environmental Setting

Existing Conditions

The property is located in a rural setting in the community of Rescue, which is located in western El Dorado County roughly 25 miles northeast of the City of Sacramento. The property is located within the foothills of the Sierra Nevada. Folsom Lake is roughly 6 miles west of the property and the U.S. Highway 50 (U.S. 50) corridor crossing through the communities of Cameron Park and Shingle Springs is approximately 5.5 miles south of the property. The land surrounding the property is generally comprised of rural residential development and large residential parcels surround the property on all sides.

The property was generally undeveloped at the time of the surveys with the exception of a utility corridor that runs in a north/south direction through the eastern portion, a segment of Deer Valley Road that crosses the western edge, and some small structures in the southwest portion apparently associated with recreational uses of the site. Portions of the property had been cleared, presumably to construct dirt roads for access and other recreational uses.

Topography and Soils

The property is hilly with an elevation of roughly 1,355 to 1,490 feet above mean sea level (amsl). The site generally slopes downward from south to north with the highest elevation occurring in the southwest corner of the property and the lowest elevation in the northeast corner.

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey Database (NRCS 2023), four soil series are mapped within the project site and surrounding areas on the property including Rescue sandy loam, 2 to 9 percent slopes, Rescue very stony sandy loam, 3 to 15 percent slopes, Rescue very stony sandy loam, 30 to 50 percent slopes, and Rescue extremely stony sandy loam, 3 to 50 percent slopes, eroded. These soil types are discussed briefly below.

All four of these soil series occur on ridges between 800 to 2,000 feet above mean sea level and consist of residuum weathered from granodiorite. A typical profile of Rescue sandy loam, 2 to 9 percent slopes, consists of sandy loam in the surface layers and sandy clay loam, coarse sandy loam, and loamy coarse sand above weathered bedrock at a depth of 66 to 70 inches. Rescue very stony sandy loam, 3 to 15 percent slopes, and Rescue very stony sandy loam, 30 to 50 percent slopes, consist of very stony sandy loam in the surface layers with sandy clay loam and

coarse sandy loam above weathered bedrock at a depth of 55 to 59 inches. Rescue extremely stony sandy loam, 3 to 50 percent slopes, eroded, consists of stony sandy loam from 0 to 5 inches, sandy clay loam from 5 to 29 inches, coarse sandy loam from 29 to 45 inches, and weathered bedrock from 45 to 49 inches. All of these soil series are well drained with a frequency of flooding of "none" and ponding of "none" and a depth to water table of more than 80 inches (NRCS 2023).

Habitat Types on the Property

The primary habitat types/vegetation communities on the property are mixed oak – foothill pine woodland, whiteleaf manzanita chaparral, and annual grassland. A habitat map is included as Figure 5 in Attachment A. Drainages were noted within the woodland and chaparral habitat on the site during the surveys in spring of 2022. None of the drainages carried any water during any of the surveys and none of the drainages represented a distinct vegetation community from the surrounding uplands. Delineation/mapping of aquatic resources was not within the scope of the surveys; therefore, drainages are not distinguished from the upland habitats in the mapping in this report. Representative photos of the property are included as Figure 6 in Attachment A.

The woodland and chaparral habitats on the site are interspersed and annual grassland generally occurs as the understory in these communities and in openings in the woodland and chaparral habitats. The predominant trees on the property are blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), and foothill pine (*Pinus sabiniana*). Several native shrubs typical of chaparral habitats in the region are present on the property including coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), white-leaf manzanita (*Arctostaphylos viscida*), redbud (*Cercis occidentalis*), pitcher sage (*Lepechinia calycina*), California yerba santa (*Eriodictyon californicum*), orange bush monkeyflower (*Diplacus aurantiacus*), California coffee berry (*Frangula californica*), ceanothus (*Ceanothus lemmonii* and *C. cuneatus*), chamise (*Adenostoma fasciculatum*), and toyon (*Heteromeles arbutifolia*).

The annual grassland and herbaceous layer of the chaparral and oak woodland on the property contain native and non-native grasses and forbs typical of the region including non-native species such as ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian thistle (*Carduus pycnocephalis*), wild oat (*Avena fatua*), and Dogtail grass (*Cynosurus echinatus*), and native species such as California melic (*Melica californica*), deer grass (*Muhlenbergia rigens*), and purple needle grass (*Stipa pulchra*).

Fremont environmental consulting

Results: Special-Status Wildlife Species and Other Protected Biological Resources

Special-Status Species

Based on the results of the background review and database searches, there are a total of 25 special-status animal species as defined in this report that are documented within the "Shingle Springs, CA" USGS quad and the surrounding eight quads. All 25 special-status animals were evaluated for the potential to occur within the property and/or be impacted by the proposed project. The evaluation was based on factors such as habitat affinities, host plants (e.g., valley elderberry longhorn beetle), and current known range. This evaluation is documented in Attachment C. Species that were determined to have no potential to occur in the property and/or be impacted by the proposed project are not discussed further in this document.

Special-Status Animals

No special-status animal species were observed on the property during the surveys conducted by FEC. Based on the evaluation of the potential for special-status animal species to occur on the property that is described above and documented in Attachment C, two special-status animal species were identified as having the potential to occur on the property and/or be impacted by the proposed project: coast horned lizard (*Phrynosoma blainvillii*) and Cooper's hawk (*Accipiter cooperii*). The majority of the regionally-occurring special-status animal species require aquatic habitats such as vernal pools, ponds, marshes, and riverine habitats. The remaining species occur in large tracts of undeveloped lands such as open grasslands or old growth forest habitats. These habitats required by the majority of the regionally-occurring special-status species are not present on the property. Coast horned lizard and Cooper's hawk are discussed below.

Coast Horned Lizard (CDFW Species of Special Concern)

Coast horned lizard is found in a variety of habitats including sage scrub, dunes, alluvial scrub, annual grassland, chaparral, oak woodland, riparian woodland, Joshua tree woodland, coniferous forest, and saltbush scrub (Thomson et al. 2016) where they inhabit open areas of sandy or loose soil and low vegetation (California Herps 2023). This species is often found in lowlands along sandy washes with scattered shrubs and along dirt roads as well as near ant hills feeding on ants. Coast horned lizard needs loose, fine soils for burrowing, open areas for thermoregulation, and shrub cover for refugia (Jennings and Hayes 1994, California Herps 2023). The abundance of coast horned lizard in areas where it is known to occur is positively associated with the presence of native ants and chaparral vegetation and negatively associated with canopy height (Thomson et al. 2016).

Coast horned lizards are diurnal. They are generally active during periods of warm weather and retreat underground and become inactive during extended periods of low temperatures or

extreme heat (Thomson et al. 2016). Adults are typically active in California from February to November, with peak activity between April and July. Hatchlings are active from mid to late summer into November. Diurnal activity switches from midday peaks in the spring to more crepuscular activity in summer and early fall. Studies have shown that reproductive activity occurs from March to June, with females commonly ovipositing in May. Clutch sizes usually average around 11–12 eggs. Threats to coast horned lizard include urbanization, agriculture, off-highway vehicles, flood control structures, energy development, and non-native Argentine ants (Thomson et al. 2016).

Suitable habitat for coast horned lizard is present on the property in the form of patches of loose soil, tree and shrub cover, and adjacent open areas. There are four reported occurrences of this species in the CNDDB within 5 miles of the project site, with the closest occurrence approximately 0.9 mile south of the site in chaparral habitat (CDFW 2023). The site is also located within mapped coast horned lizard habitat by CDFW (CDFW 2023). Coast horned lizard has the potential to occur in chaparral and woodland habitat on the property.

Project activities such as grading, vegetation clearing, or other ground disturbance would have the potential to impact coast horned lizard if individuals are present within the construction footprint. Impacts could include direct harm to individuals resulting from contact with construction equipment or personnel or individuals being entombed in burrows if lizards were inactive due to low temperatures or extreme heat.

Cooper's Hawk (CDFW Watch List)

Cooper's hawk is a year-round resident in California in wooded areas in the Central Valley and Sierra foothills. Cooper's hawk nests in open woodland as well as urban trees (Zeiner et al. 1990). Cooper's hawks typically forage within open woodland and habitat edges and feed mainly on small birds and mammals. Cooper's hawks are also known to forage in wooded urban areas (Zeiner et al. 1990). Cooper's Hawks mainly eat medium-sized birds such as European Starlings, Mourning Doves, Rock Pigeons, American Robins, several kinds of jays, Northern Flicker, and quail, pheasants, grouse, and chickens but sometimes eat small mammals such as mice, squirrels, and bats.

Suitable nesting and foraging habitat for Cooper's hawk is present in and adjacent to the property. Patches of mixed oak – foothill pine woodland are present as well as habitat edges along the perimeter of the woodland that provide suitable nesting and foraging habitat for Cooper's hawk. There are no reported occurrences of Cooper's hawk in the CNDDB within a five-mile radius of the Project site (CDFW 2023); however, there is a documented occurrence of Cooper's hawk approximately 1.0 mile south of the project site in iNaturalist (iNaturalist 2023).

Project activities such as grading, vegetation clearing, or other ground disturbance would have the potential to impact Cooper's hawk if this species were to nest in or adjacent to the project

site prior to or during construction. Project activities during the breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction of the nest tree or nest or indirectly through forced nest abandonment or forced fledging due to noise and other human disturbance.

Raptors, Migratory Birds, and Other Nesting Birds

Nesting habitat for common raptors, migratory birds and other nesting birds is present in the whiteleaf manzanita chaparral and mixed oak-foothill pine woodland on the property. Common raptor species such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*) are common in the region and could nest in oak or pine trees on the property. Common bird species could also nest in herbaceous vegetation or on the ground such as mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferous*), or a variety of other songbirds. If project activities were to commence during the typical bird nesting season (February 1 to August 31), project activities associated with ground disturbance or vegetation removal in the vicinity of bird nests could lead to destruction of nests, abandonment of eggs or young or forced fledging, which would be a violation of Fish and Game Code.

Wildlife Movement Corridors

Wildlife movement corridors, or habitat linkages, are connections between patches of habitat, generally native vegetation, which join two or more larger areas of similar wildlife habitat and allows for physical and genetic exchange between animal populations that could otherwise be isolated. Habitat linkages are typically contiguous strips of natural areas such as riparian corridors, oak woodlands, or drainages. Wildlife movement corridors are critical for the maintenance of ecological processes including facilitating the movement of animals and the continuation of viable populations. Movement corridors may serve to provide a more local linkage such as between foraging and denning areas, or they may be regional in nature providing larger scale migration corridors such as between wintering and summering habitat. Habitat linkages may also serve to allow animals to periodically move away from an area and then subsequently return. Other corridors may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The property is not located within an Essential Connectivity Area, Natural Landscape Block (defined as relatively natural habitat blocks that support native biodiversity) or Natural Areas Small, which are designated important blocks of habitat and movement corridors for wildlife (CDFW 2023). However, the property is located within the American River, Middle Sierra Wildlife Linkage designated by CDFW. The property is located along the southern border of the 12,593-acre Morman Hill-South Fork American River Landscape Block in the Lower Foothills Metamorphic Belt subsection, which includes the region from Rescue northwestward around

Pine Hill and Kanaka Valley. Due to its location within a designated wildlife linkage, portions of the property could contribute to overall wildlife habitat connectivity in the region and function as an important dispersal corridor for wildlife.

As the current proposed project is limited to extension of a driveway and construction of a single-family residence in the southwest portion of the parcel, it would not result in a significant adverse impact to wildlife corridors. The development of a residence in the southwestern portion of the property would not be expected to significantly impact the value of the property as a wildlife movement corridor as the majority of the property would remain undeveloped. Common wildlife currently using the property would be expected to continue moving through the site, primarily along the eastern undeveloped portions. Any wildlife moving through the area currently would have to be tolerant of rural development and low to moderate levels of human presence and domestic animals. The surrounding area contains scattered residences at a density similar to what is proposed on the property. Therefore, no significant impacts to the value of the property as a wildlife movement corridor or significant impacts to the designated wildlife linkage are expected to occur as a result of the proposed project.

Summary of Potential Impacts to Special-Status and Protected Wildlife and Recommended Mitigation Measures

The proposed project has the potential to impact coast horned lizard, Cooper's hawk, and nesting raptors and migratory birds and/or other nesting birds. Recommended measures are included below to reduce potential impacts to less than significant.

Recommended Mitigation Measures

Coast Horned Lizard

A clearance survey should be conducted for coast horned lizard by a qualified biologist within 14 days prior to any project-related activities that resulted in ground disturbance or vegetation removal such as clearing/grubbing, grading, mowing etc. The survey should be conducted during the lizard's active season (February to November) and when temperatures are warm enough for the lizard to be above ground and active. Indicators that it is warm enough include other lizards or snakes being active and/or temperatures above approximately 70 degrees Fahrenheit. If coast horned lizard is not observed, no further measures are necessary. If coast horned lizard is observed on the site during the survey, CDFW should be contacted to determine the appropriate avoidance measures, which could include relocation to a suitable location outside of the project footprint, exclusion fencing around work areas to prevent access by coast horned lizard, and/or monitoring during construction.

Cooper's Hawk and Other Nesting Raptors and Migratory Birds

- Any vegetation clearing or ground disturbing activities within the project site should take place outside of the typical avian nesting season (e.g., February 15 through August 31), if feasible. If construction needs to commence between February 15 and August 31, a pre-construction survey for nesting birds should be conducted within 500 feet of active construction areas within 14 days prior to commencement of construction. If a lapse in project activity occurs for 14 days or more during the bird nesting season, then the nesting bird surveys should be re-conducted. If no nesting birds are observed, no further mitigation is required.
- If active bird nests are observed during the pre-construction survey, a buffer zone should be established around the nest tree(s) until the young have fledged or are no longer dependent on the nest, as determined by a qualified biologist. The radius of the required buffer zone can vary depending on the species, (i.e., 25-100 feet for passerines and 200-300 feet for Cooper's hawk or other raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist. Buffer zones could be reduced if the nest is monitored by a qualified biologist.
- The buffer zone around a nesting tree should be demarcated with high visibility orange construction fencing (or similar highly visible material) and no construction activities or personnel should be allowed within the buffer zone.

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Attachment A: Figures

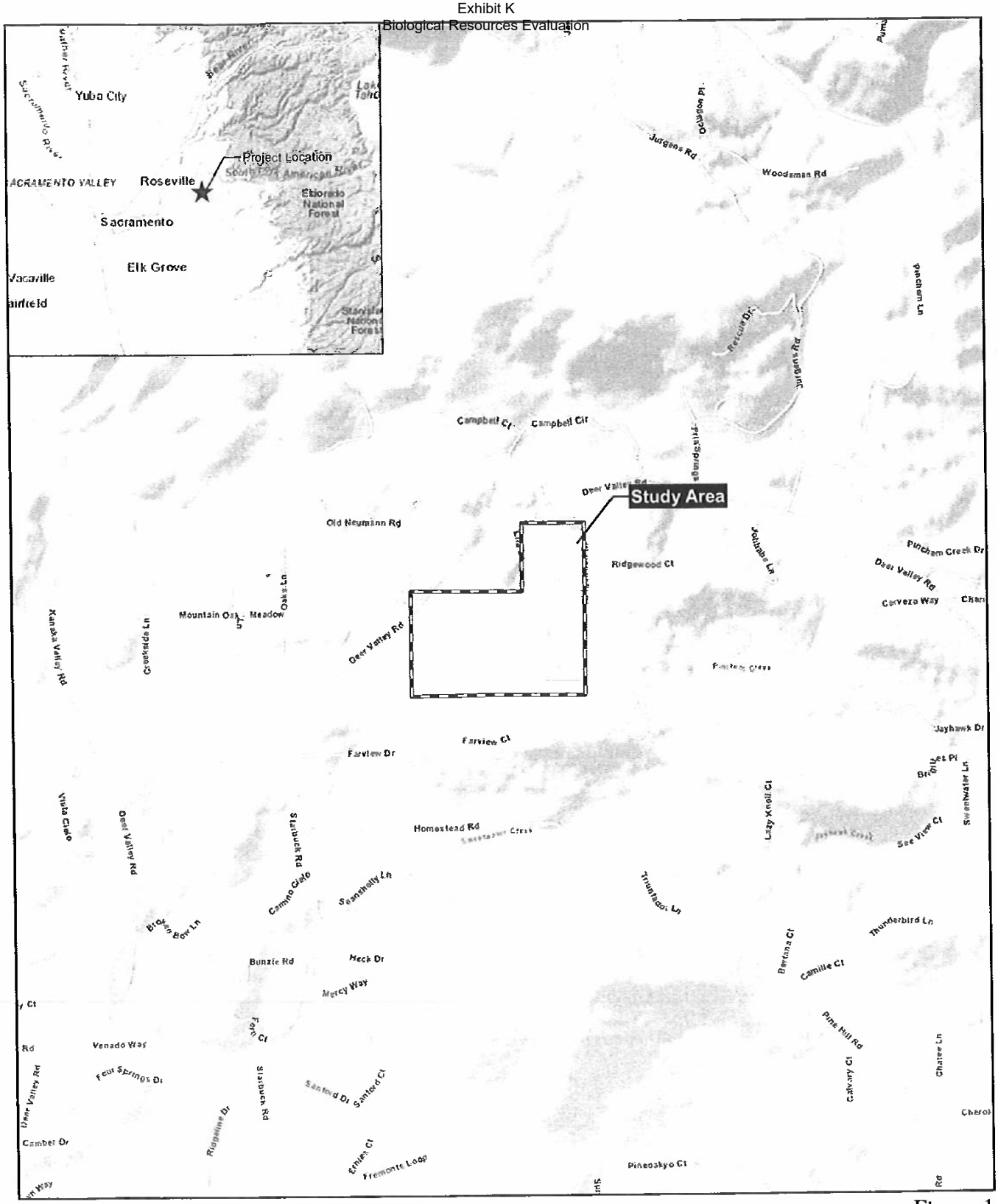


Figure 1

Regional Location and Vicinity

APN 102-060-025

3600 Deer Valley Road, Rescue, El Dorado County, CA

N

0 1,000 2,000

Feet

Fremont Environmental Consulting

Basemap Source: ESRI (2023)

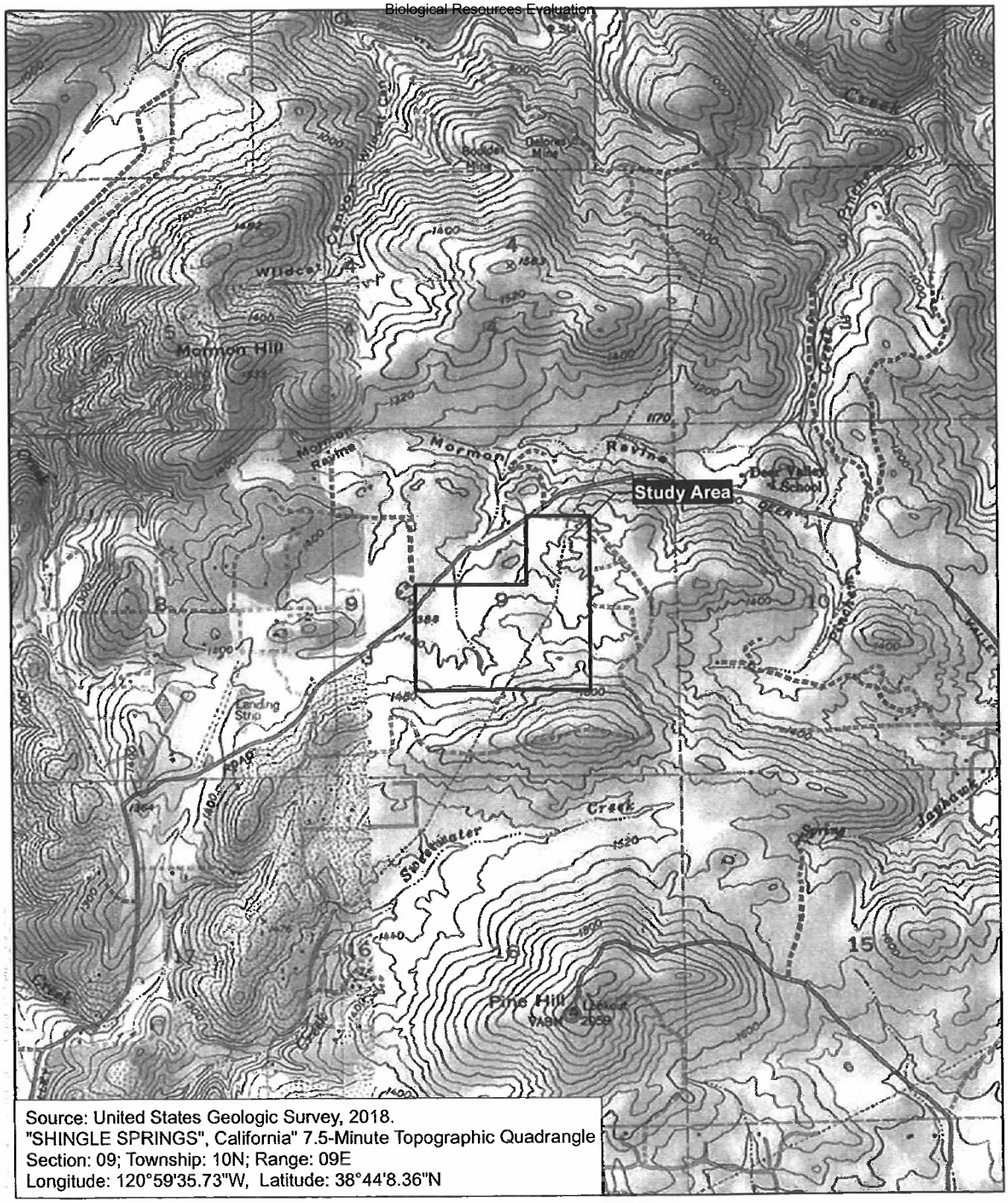


Figure 2

USGS

APN 102-060-025

3600 Deer Valley Road, Rescue, El Dorado County, CA

N

0 1,000 2,000

Feet

Fremont Environmental Consulting

Figure 3
Aerial

APN 102-060-025
3600 Deer Valley Road, Rescue, El Dorado County, CA

Fremont Environmental Consulting

Aerial source: Google Earth (06/2021)

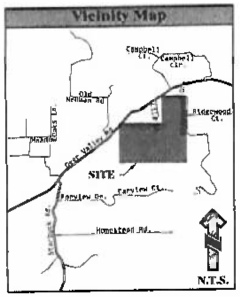
AREA #1B GRADING PLANS

for

Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
3600 Deer Valley Rd., Rescue, CA APN: 102-060-025
September 2022

Figure 4

Vicinity Map



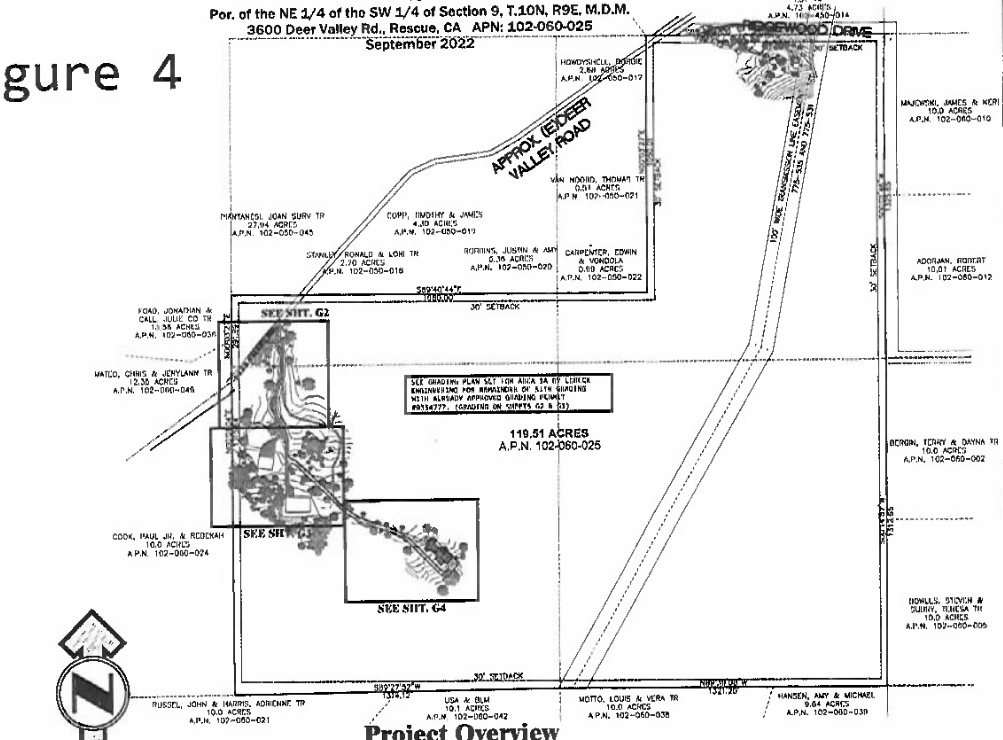
Earthwork Calculations

Grading Area 1B

EMBANKMENT (FILL)		247 C.Y.
EXCAVATION (CUT)	1,044 C.Y.	
LESS 10% SHRINKAGE & LOSS	104 C.Y.	
TOTAL CUT	940 C.Y.	
SITE TOTAL	698 C.Y. EXPORT	BALANCE ON-SITE W/ AREA 1A

Note: earthwork calculation are approximate and may vary based upon characteristics of the soil and/or contractors methodology.

Note: The earthwork quantities calculated above exclude any pool dirt, trench dirt for utilities, wall/foundation footings, or other landscaping items. Contractor shall adjust quantities as necessary to account for these items once pool design is know and/or structural calculations & details are completed by the structural engineer.



Project Overview

*SEE SHEETS G2 & G3 FOR DETAILED GRADING PLANS

DISTURBED AREA #1A= 82,435 S.F. (1.9 Ac.)
DISTURBED AREA #1B= 38,937 S.F. (0.89 Ac.)
TOTAL = 2.8 Ac.

SCALE: 1" = 200'

SURVEY NOTES:

1.) BASIS OF BEARINGS IS RECORD 3-RO9-143 FOR MAPPING PURPOSES. THE CALCULATED BOUNDARY IS SHOWN AS THE LIMIT OF THE TOPOGRAPHIC SURVEY. THE BOUNDARY LOCATIONS HEREON ARE BEST FIT TO ANY FOUND MONUMENTS AND CALCULATION OFF OF RECORD MAP. PRIOR TO ANY CONSTRUCTION BOUNDARY LINES AND CORNERS SHOULD BE VERIFIED AND DOCUMENTED. THE PURPOSE OF THIS DRAWING IS TOPOGRAPHIC FOR DESIGN ONLY. MANY POINTS ARE LOCATED BY RTK-GPS AND MAY REFLECT THE INHERENT ERROR OF THE SYSTEM. NO VERTICAL OR HORIZONTAL VALUE SHOULD BE CONSIDERED EXACT.
2.) ELEVATIONS ARE N.A.V.D. 1988 BY GPS OBSERVATION AND ADJUSTED BY OPUS. SITE BENCHMARK IS AS SHOWN.
3.) THE AREA OF THE TOPOGRAPHIC SURVEY WAS DELINEATED BY CLIENT.
4.) CONTOURS ARE COMPUTER GENERATED FROM SPOT ELEVATIONS. EXACT SURFACE UNDULATION WAS NOT DETERMINED, CALCULATED OR LOCATED. ADDITIONAL POINT INFORMATION STORED IN AUTOCAD FILE.
5.) NON-VISIBLE UNDERGROUND UTILITIES WERE NOT LOCATED. NO UNDERGROUND MAPPING WAS PROVIDED.
6.) SUBJECT TO ALL EASEMENTS, RECORDED OR NOT. THIS SURVEY IS NOT A BOUNDARY SURVEY BUT DOES REFLECT INFORMATION LISTED IN A PRELIMINARY TITLE REPORT FCPF-2371100524RD, EXEMTING ANY CONDITIONS, COVENANTS AND RESTRICTIONS.
7.) SETBACKS WERE NOT PROVIDED TO THIS SURVEYOR AND NOT VERIFIED. THIS SURVEYOR SUGGESTS DESIGN IMPROVEMENTS SHOULD NOT DIRECTLY ABUT THE SETBACK LINES AND BE REASONABLY OFFSET TO ALLOW FOR CONSTRUCTION FIT AND GPS ACCURACY. (SEE NOTE 1 ABOUT INHERENT ERROR.)
8.) THIS SURVEYOR IS NOT AWARE OF FINAL CONSTRUCTED LIMITS OR OF DATA RECORDED IN THE PUBLIC RECORDS THAT PROVIDES THE EXACT LIMIT OF ANY CUT OR FILL ALONG A ROADWAY.
9.) DRIP LINES ARE APPROXIMATE SCALED FROM TREE DIAMETER. CLUSTERS ARE SHOWN AS ONE TREE. TREE DIAMETERS ARE AVERAGED FROM IRREGULAR TRUNKS AND ARE AVAILABLE IN THE ELECTRONIC FILE WITH NUMBER OF TRUNKS IN THE CLUSTER. FOR THE EXACT SPECIES, DIAMETER, DRIP LINES AND HEALTH, CONSULT AN ARBORIST. TREE TRUNKS ARE LOCATED AT CENTER OF TREE & AT GROUND, MANY BEND AND GROW IN MULTIPLE DIRECTIONS.
10.) THIS SURVEY CONTAINS NO ENVIRONMENTAL DATA AS TO DETERMINATION OF HAZARDOUS MATERIAL, WETLANDS OR PLANTS. CLIENT SHOULD CONSULT THE APPROPRIATE PROFESSIONAL TO DETERMINE SUCH ITEMS OR LOCATIONS, IF ANY.

SURVEY LEGEND:

- FOUND SURVEY MONUMENT PER RECORD DATA
- STORM DRAIN MANHOLE
- ELECTRIC TRANSFORMER
- SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- PHONE BOX
- WATER BOX
- WATER VALVE
- CUT MARK IN CURB
- ELECTRIC BOX
- CABLE BOX
- DRAINAGE INLET
- FIRE HYDRANT
- OAK TREE
- OAK TREE CLUSTER
- P.E. POSTAL EASEMENT
- S.E. SLOPE EASEMENT
- PUE PUBLIC UTILITY EASEMENT
- (M) MEASURED
- (R) RECORD PER

General Construction Notes:

1. Materials, construction quality, and methods for this project are subject to the County of El Dorado Design and Improvement Standards Manual Standard Plans, and the State of California Department of Transportation Standard Plans and Standard Specifications.
2. All work shall be accomplished to the satisfaction of the EDC Development Services or their authorized representative.
3. All reference to the Standard Specifications shall mean the State of California Department of Transportation Standard Specifications dated July 2006
4. The Contractor's attention is directed to section 7, "Legal Relations and Responsibility" of the Standard Specifications.
5. Clearing and Grubbing shall conform to the provisions of section 16, "Clearing and Grubbing" of the Standard Specifications. Roots, stumps, trees, rocks or other deleterious substances shall be disposed of off-site and in a lawful manner.
6. Earthwork shall conform to the provisions of Section 19, "Earthwork" of the Standard Specifications.
7. Aggregate Base shall conform to the provisions of section 26, "Aggregate Base" of the Standard Specifications for Class 2 Aggregate Base, 3/4" maximum gradation.
8. Asphalt Concrete shall conform to the provisions of section 39, "Asphalt Concrete" of the Standard Specifications for Type B Asphalt Concrete.
9. The ground adjacent to the foundation shall be sloped so that the grade shall fall a minimum of 6" within the first 10'. Impervious surfaces may be sloped at 2% minimum (CBC R401.3)).

ALL GRADING & DRAINAGE SHALL CONFORM WITH THE EL DORADO COUNTY GRADING DESIGN MANUAL.

Notes

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE BUILDING IS LAID OUT WITHIN COUNTY SETBACK REQUIREMENTS.
2. THE ZONING OF THIS LOT IS RL-10. THE SETBACKS ARE: 30' FRONT, 30' SIDES AND 30' REAR PER EL DORADO COUNTY.
3. BUILDING CONTRACTOR AND/OR LANDSCAPE CONTRACTOR SHALL DISCHARGE ALL ROOF DRAINS TO DRAINAGE SWALES SHOWN ON THIS GRADING PLAN (I.E. DO NOT ALTER DRAINAGE PATTERNS)
4. ALL GRADES SHOWN HEREON ARE FINISHED GRADES UNLESS OTHERWISE STATED.
5. ARCHITECT SHALL VERIFY ALL FINISHED FLOOR ELEVATIONS AND VERIFY ANY LOT COVERAGE CALCULATIONS (IF REQUIRED).
6. ANY WALKWAYS AROUND HOUSE NOT SHOWN HEREON ARE SHOWN ON ARCHITECT'S OR LANDSCAPE ARCHITECT'S PLANS.
7. ALL CUTS AND FILLS SHOWN HEREON ARE 2:1 MAX., UNLESS OTHERWISE STATED. CUTS AND/OR FILLS STEEPER THAN 2:1 REQUIRE APPROVAL FROM A LICENSED GEOTECHNICAL ENGINEER. ALL CUTS AND FILLS SHALL FOLLOW THE EDC DESIGN & IMPROVEMENT STANDARDS MANUAL.
8. TOPOGRAPHICAL & BOUNDARY/PROPERTY LINE DATA IS FROM A SURVEY PROVIDED BY: ALAN DIVERS P.L.S. LEBECK ENGINEERING, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OF TOPOGRAPHICAL OR BOUNDARY DATA SHOWN HEREON.
9. FOR ALL DOWN-SLOPED LOTS, IT IS IMPORTANT THAT THE DRIVEWAY, AS WELL AS ANY GRADING OR LANDSCAPING, BE SLOPED UP FOR 5 FEET BEHIND THE CURB AT 5% MIN. PRIOR TO SLOPING DOWN.
10. ALL FILLS SHALL BE KEYED-IN AND COMPACTED ACCORDING TO ALL APPLICABLE LOCAL AND STATE REQUIREMENTS (EDC DESIGN & IMPROV. STDS. MANUAL - SEC. 8, ITEM 3).
11. GRADING, DRAINAGE, & RETAINING WALL CONSTRUCTION SHALL CONFORM WITH THE EL DORADO COUNTY GRADING, EROSION, AND SEDIMENT CONTROL ORDINANCE AND THE 2016 CALIFORNIA BUILDING CODE. SEE SEPARATE STRUCTURAL CALCULATIONS (BY OTHERS) FOR ALL RETAINING WALLS AS IS REQUIRED.
12. THE PROPERTY SHOWN HEREON IS SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY, RESTRICTIONS, STATUTORY CONDITIONS AND SIMILAR MATTERS PERTINENT TO SAID PROPERTY WHETHER RECORDED OR NOT. LEBECK ENGINEERING ASSUMES NO LIABILITY FOR THE POSITION, ACCURACY OR CHARACTER OF SUCH INFORMATION AS IT WAS TAKEN FROM PUBLIC RECORDS, TITLE REPORTS, INFORMATION PROVIDED BY CLIENT AND/OR LAND SURVEYS PROVIDED BY OTHERS. THIS MAP IS INTENDED FOR ENGINEERING PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR TITLE DOCUMENTATION.

Abbreviations

BSW	BACK OF SIDEWALK	LF	LEFT
BW	BOTTOM OF WALL AT FG	LPG	PROPANE TANK
CH	CHORD BEARING	(P)	PROPOSED
CL	CHORD LENGTH	PAD	FINISHED PAD
CR	CURB RETURN	PKG	PARKING
D	DEGREE OF CURVE	PP	POWER POLE
DI	DROP INLET	P.E.	POSTAL EASEMENT
DWY	DRIVEWAY	PUE	PUBLIC UTILITIES EASEMENT
(E)	EXISTING	R	CURVE RADIUS PER FINAL MAP
E.D.C.	EL DORADO COUNTY	ROW	RIGHT OF WAY
EL	ELEVATION	RT	RIGHT
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
FC	FACE OF CURB	SS	SEWER SERVICE
FF	FINISHED FLOOR	SW	SIDEWALK
FG	FINISHED GRADE	TBC	TOP BACK OF CURB
FH	FIRE HYDRANT	TC	TOP OF CURB ELEV.
FL	FLOWLINE	TW	TOP OF WALL
FND.	FOUND	UPC	UNIVERSAL PLUMBING CODE
GA	GUY ANCHOR	US	UTILITY SERVICE
GB	GRADE BREAK	W	WALL HEIGHT
HP	HIGH POINT	WL	WATER LINE
JP	JOINT POLE	WS	WATER SERVICE

Legend

- EXISTING TREE TO BE SAVED
- (E) TREE TO BE REMOVED
- 5' SW: STEM WALL HEIGHT AS MEASURED FROM FINISHED FLOOR TO EXISTING GROUND OR FINISHED GRADE
- 5' SW: HEIGHT OF FRAMED WALL & STEM WALL TOGETHER AS MEASURED FROM FINISHED FLOOR TO EXISTING GROUND OR FINISHED GRADE BELOW.
- 5' RW: RETAINING WALL EXPOSED HEIGHT AS MEASURED FROM FINISHED GRADE (OR FINISHED FLOOR) TO EXISTING GROUND OR FINISHED GRADE. (This plan is prepared in advance of any structural calcs., so when structural calcs call for retaining wall to be 6" above finished grade, then wall heights will increase by that amount. Wall heights might also be increased by amount of cover a structural engineer desires over a footing before 2:1 grading can occur below it.)

Sheet Index

LEBECK ENGINEERING, INC.
3430 ROBIN LANE, BLDG. B
CAMERON PARK, CA 95682

AREA #1B GRADING PLANS

COVER SHEET

Por. of the NE 1/4 of the SW 1/4 of Section 9, T.10N, R9E, M.D.M.
3600 Deer Valley Rd., Rescue, CA APN: 102-060-025

TOM VASEY
1290 LOS RIOS DRIVE
CARMICHAEL, CA 95605
916-425-5018
EMAIL: tom@tvaspainting.com

Project # 22-121
Date: SEPTEMBER 2022
Scale: 1" = 200'
Designed by: E. Alligute
Drawn by: E. Alligute
SHEET NO.
G1
Plot Date: Sep 23, 2022

Exhibit K
Biological Resources Evaluation

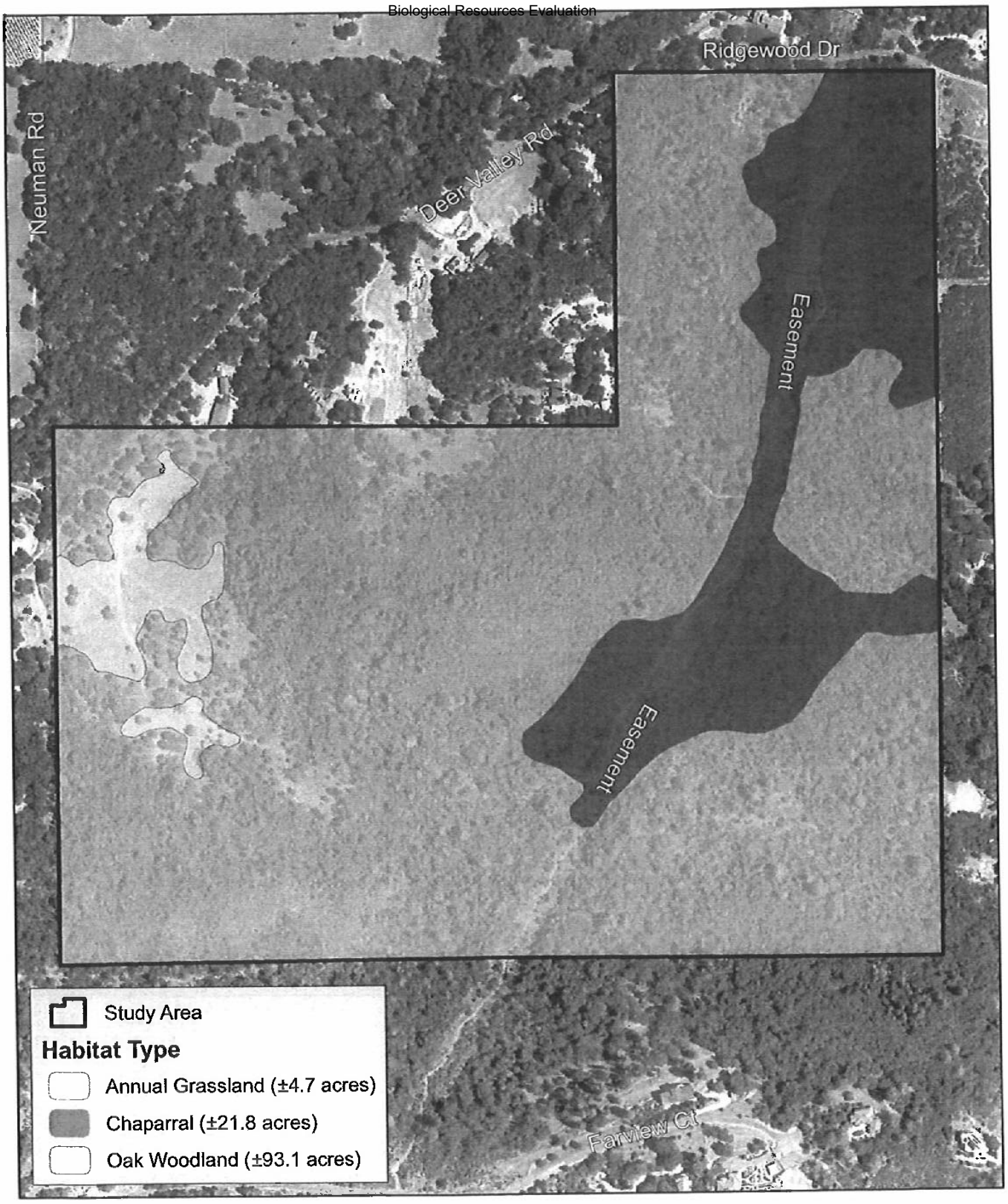
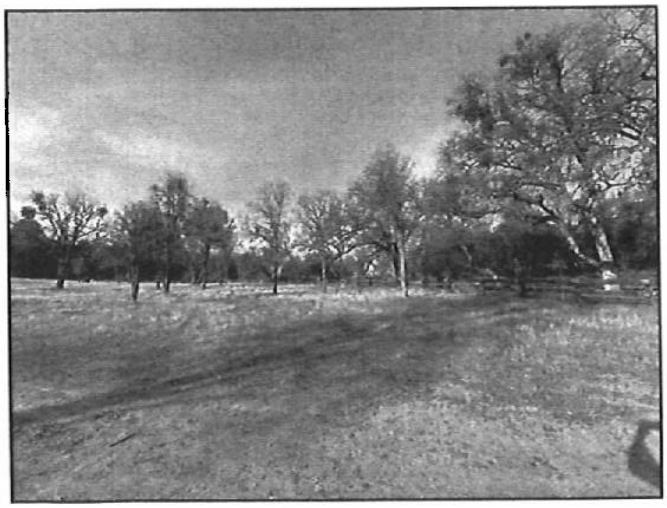


Figure 5
Land Cover
APN 102-060-025
3600 Deer Valley Road, Rescue, El Dorado County, CA

fremont environmental consulting

Aerial source: Google Earth (06/2021)

Typical habitat on-site includes pockets of annual grassland, chaparral and oak woodland.



Photograph Date: 03/20/2023

Figure 6
Site Photographs
APN 102-060-025
3600 Deer Valley Road, Rescue, El Dorado County, CA

Attachment B: Regional Special-Status Wildlife Species Queries

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Pilot Hill (3812171) OR Coloma (3812078) OR Garden Valley (3812077) OR Clarksville (3812161) OR Shingle Springs (3812068) OR Placerville (3812067) OR Folsom SE (3812151) OR Latrobe (3812058) OR Fiddletown (3812057))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	G5	S3	SSC
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S1	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Banksula californica Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Cosumnoperla hypocrena Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	Proposed Threatened	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Rana boylii pop. 5 foothill yellow-legged frog - south Sierra DPS	AAABH01055	Endangered	Endangered	G3T2	S2	
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	

Record Count: 34

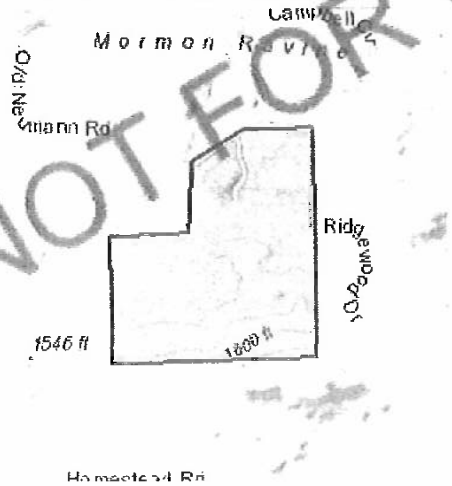
IPaC resource list

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
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
Foothill Yellow-legged Frog Rana boylii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
El Dorado Bedstraw Galium californicum ssp. sierrae Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5209	Endangered

Layne's Butterweed Senecio layneae — Threatened
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4062

Pine Hill Ceanothus Ceanothus roderickii — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3293

Pine Hill Flannelbush Fremontodendron californicum ssp. decumbens — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4818

Stebbins' Morning-glory Calystegia stebbinsii — Endangered
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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Golden Eagle Aquila chrysaetos 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	Breeds Jan 1 to Aug 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.

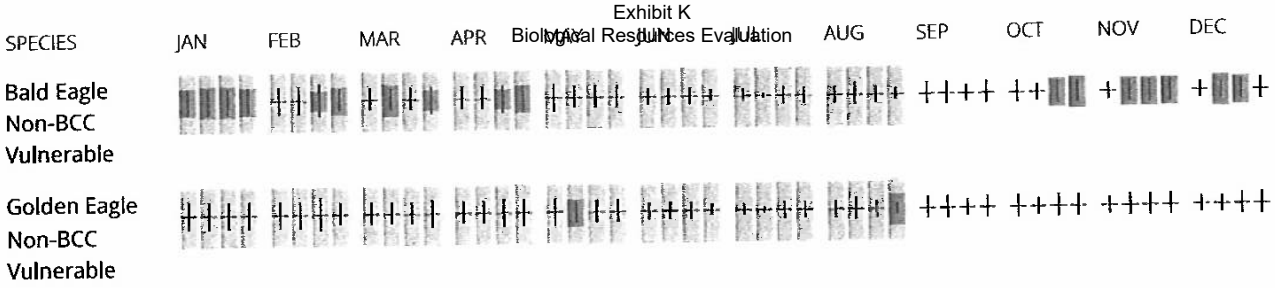
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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.

probability of presence breeding season | survey effort – no data



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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[3] 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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31

Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* — Breeds Apr 1 to Aug 15

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/8

Bullock's Oriole *Icterus bullockii* — Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus* — Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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.

Cassin's Finch *Carpodacus cassinii* — Breeds May 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/9462

Clark's Grebe *Aechmophorus clarkii* — Breeds Jun 1 to Aug 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

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

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

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.

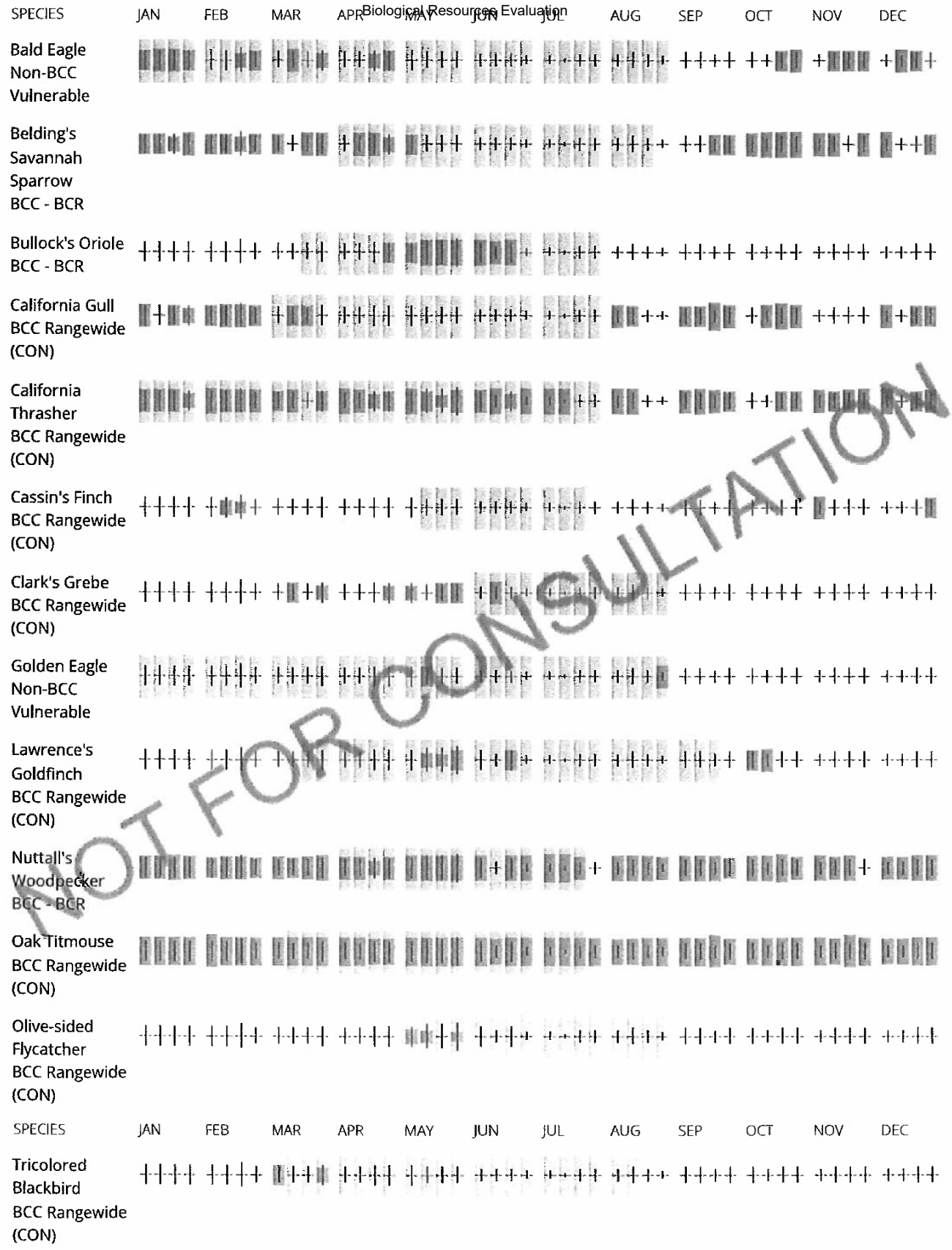
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

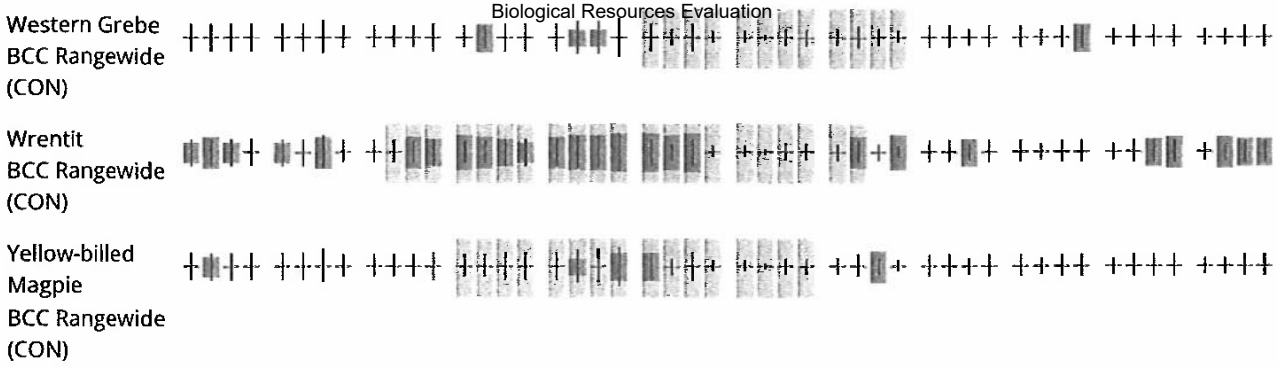
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.

probability of presence breeding season | survey effort – no data





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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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 (NWI)

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

PFOA

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does not replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.

Attachment C: Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Attachment C
Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
Branchinecta lynchi vernal pool fairy shrimp	FT/--/--	Vernal pool fairy shrimp is found in vernal pools, seasonal wetlands, and other aquatic habitats such as still or slow-moving ditches and artificial lakes and ponds. Vernal pools where this species is found range from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. Typical aquatic habitats where this species is found measure less than 0.05 acre, although this species has been collected from vernal pools and other water bodies exceeding 25 acres (USFWS 2005).	Will not occur	There are no suitable aquatic habitats on the property to support this species.
Bombus occidentalis Western bumble bee	--/CE/--	Bumble bees live in underground colonies and typically occupy abandoned rodent burrows (Thorp et al. 1983). This species is a generalist forager and has been reported visiting a wide variety of flowering plants. Select food plants include *Melilotus* spp., *Cirsium* spp., *Trifolium* spp., *Centaurea* spp., *Eriogonum* spp., and *Chrysothamnus* spp. (Koch et al. 2012). This species has a short tongue and typically prefers open flowers with short corollas but is known to chew through the base of flowers with long corollas. The flight period for queens in California is from early February to late September. New queens hibernate over the winter and initiate a new colony the following spring (Thorp et al. 1983). Rare throughout its range and in decline west of the Sierra Nevada crest.	Will not occur	Suitable food plants are present in the property; however, the property is outside of this species known range. This species is currently rare across its range and in California it is currently limited to high elevation meadows in the Sierra Nevada and small coastal populations (CDFW 2019b). There is a historic occurrence roughly 6 miles north of the site where this species was reported in 1976 and the only location information is the "vicinity of Pilot Hill." The next closest occurrence is roughly 22 miles north near Colfax (CDFW 2023).

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Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
Danaus plexippus Monarch Butterfly	FC/--/--	Monarch butterflies in eastern and western North America represent the ancestral origin for the species worldwide. They exhibit long-distance migration and overwinter as adults at forested locations in Mexico and California. These overwintering sites provide protection from the elements (rain, wind, hail, and excessive radiation) and moderate temperatures, as well as nectar and clean water sources located nearby. Adult monarch butterflies feed on nectar from a wide variety of flowers. However, reproduction is dependent on the presence of milkweed, the sole food source for larvae (USFWS 2020).	Not expected	The property does not provide suitable overwintering habitat because it is too cold and lacks protected tree groves of Eucalyptus and similar trees used by this species. Milkweed is not present on the site. This species could migrate through the area but would not be expected to utilize the site for any extended period of time.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT/--/--	Valley elderberry longhorn beetle is endemic to elderberry shrubs (*Sambucus* spp.) and primarily occupies elderberry shrubs occurring in or within close proximity to riparian habitat. This species occurs throughout the Sacramento and San Joaquin Valleys from Redding to Fresno County typically below 152 meters (~500 feet) in elevation (USFWS 2017a).	Will not occur	No elderberry shrubs occur on the property, and the site is well above the elevational range of this species.
Fishes				
Oncorhynchus mykiss irideus pop. 11 Steelhead - Central Valley DPS	FT/--/--	Steelhead spawn in rivers and streams with cool, clear, water and suitable silt free substrate (NMFS 2016). This distinct population segment includes all naturally spawned anadromous steelhead populations below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries,	Will not occur	There are no suitable aquatic habitats in the property to support this species.

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Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
		as well as two artificial propagation programs: the Coleman NFH, and Feather River Hatchery steelhead hatchery programs (NMFS 2016).		
Amphibians				
Rana boylii pop. 5 Foothill yellow-legged frog-South Sierra DPS	FE/SE/--	Highly aquatic frog that is always found within a few feet of water. Requires permanent water sources and frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools (California Herps 2023).	Will not occur	There are no suitable aquatic habitats in the property to support this species.
Rana draytonii California red-legged frog	FT/--/SSC	California red-legged frogs require dense, shrubby or emergent riparian vegetation closely associated with deep (greater than 2 1/3 foot deep) still or slow-moving water to support breeding. During periods of aestivation, California red-legged frogs use small mammal burrows and moist leaf litter in proximity to suitable breeding habitat and can migrate up to 1.2 miles overland to find suitable breeding habitat or upland refugia (USFWS 2002).	Will not occur	There are no suitable aquatic habitats on or adjacent to the property to support this species.
Spea hammondii western spadefoot	--/--/SSC	Western spadefoot breeds in vernal pools and seasonal ponds or slow portions of streams in grasslands and woodlands and the adults spend most of their time in underground burrows in grasslands surrounding the aquatic breeding habitat (Jennings and Hayes 1994).	Will not occur	There are no suitable aquatic habitats on or adjacent to the property to support this species.
Reptiles				
Emys marmorata western pond turtle	PT/--/SSC	This species inhabits a variety of aquatic habitats including slow-moving water with dense submerged vegetation, ponds, and	Will not occur	There are no suitable aquatic habitats on or adjacent to the property to support this species.

Attachment C
Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
		fast-moving streams. Requires abundant basking sites, gently sloping banks, and dry clay or silt soils in nearby uplands. Turtles will lay eggs up to 0.25-mile from water, but typically go no more than 600 feet (Jennings and Hayes 1994).		
Phrynosoma blainvillii Coast horned lizard	--/--/SSC	This species inhabits open areas of sandy soil and low vegetation in valleys, foothills and semi-arid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads. Often found near ant hills feeding on ants. (California Herps 2023).	May occur	Suitable soil and woodland/chaparral habitat are present in and adjacent to the site. There are four reported occurrences of this species in the CNDDB within a 5-mile radius, with the closest occurrence approximately 0.9 miles south of the site in chaparral habitat (CDFW 2023).
Thamnophis gigas Giant gartersnake	FT/ST/--	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant. Primarily found in marshes, sloughs and some slow-moving creeks but absent from large rivers (USFWS 2017b).	Will not occur	There is no suitable aquatic habitat in or adjacent to the property and the property is outside of this species range.

Attachment C
Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
Birds				
Accipiter cooperii Cooper's hawk	--/--/WL	Cooper's hawks are found in mature forest, open woodlands, woodland edges, and in tree groves in urban areas with openings or edge habitat nearby (Audubon 2023).	May occur	Suitable nest trees are present in and adjacent to the property.
Accipiter gentilis Northern goshawk	--/--/SSC	Nests and forages in mature and old-growth forest stands in a broad range of conifer and coniferous hardwood types, including Pacific Ponderosa, Jeffrey and lodgepole pine, mixed conifer, firs, and pinyon-juniper with relatively dense canopies. May also forage in meadow edges and open sagebrush. Nesting and fledgling period: March 1 – August 15 (Shuford and Gardali 2008).	Will not occur	There is no suitable habitat for this species in the property.
Agelaius tricolor Tricolored blackbird	--/ST/SSC	Tricolored blackbird nests and seeks cover in emergent wetland vegetation and thorny vegetation such as Himalayan blackberry (*Rubus armeniacus*) as well as cattails (*Typha* spp.), willows (*Salix* spp.), and tules. The nesting habitat must be large enough to support a minimum colony of 50 pairs as they are a highly colonial species. Forages on ground in croplands, grassy fields, flooded land, and edges of ponds for insects (Shuford and Gardali 2008).	Will not occur	There is no suitable nesting or foraging habitat on the property for this species and there are no documented occurrences of tricolored blackbird within 5 miles of the study area (CDFW 2023).
Ammodramus savannarum Grasshopper sparrow	--/--/SSC	A summer resident of foothills and lowlands west of the Cascade-Sierra Nevada crest. Occurs in grasslands with scattered shrubs or other tall structures which it utilizes as singing perches. Nests on the ground in dense grass with overhanging taller grasses and forbs (Zeiner *et al.* 1988-1990).	Will not occur	There is no suitable grassland habitat in the property for this species.
Aquila chrysaetos golden eagle	--/--/FP	Golden eagles typically occur in foothills, mountain areas, deserts and other open	Not expected	There is no suitable nesting habitat in the property for this species and the

Attachment C
Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
		habitats; nest on cliff ledges or large trees in open areas in canyons. Occasionally uses other tall structures for nesting, such as electrical transmission towers. Golden eagles prey primarily on rodents, carrion, birds, reptiles and occasionally small livestock (Zeiner et al. 1990).		site and surrounding areas lack large enough open areas to provide any significant foraging.
Athene cunicularia burrowing owl	--/--/SSC	Burrowing owl nests and forages in grasslands, agricultural fields, and disturbed places where burrowing mammals are abundant. This species does not dig its own burrows, but nests in abandoned burrows dug by fossorial mammals, especially those of California ground squirrel (*Otospermophilus beecheyi*; CDFW 2012). This species also nests in artificial structures such as small culverts and pipes.	Will not occur	The property is outside of the known range of burrowing owl and lacks suitable open areas for nesting and foraging habitat. The closest reported occurrences of burrowing owl in the CNDDB are more than 7 miles south of the site in the Folsom area, south of Highway 50 (CDFW 2023).
Buteo regalis Feruginous hawk	--/--/WL	Found in arid and semi-arid open grasslands, sagebrush flats, desert scrub, low foothills and areas of pinyon and juniper habitat. This species nests in trees, large shrubs, utility poles and occasionally on the ground near river cut banks. Preys upon ground squirrels, rabbits, mice, and gophers (Dechant et al. 1999).	Not expected	The property and vicinity lack suitable open habitats for this species.
Buteo swainsoni Swainson's hawk	--/FT/--	Forages in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat. Nests in large trees in open areas (CDFW 1994).	Will not occur	There is no suitable nesting or foraging habitat in the property for this species and the site is several miles east of the known range of Swainson's hawk. There are no reported occurrences of this species in the CNDDB within a five-mile radius (CDFW 2023).
Elanus leucurus white-tailed kite	--/--/FP	White-tailed kite typically inhabits open habitats such as rolling foothills and valley	Will not occur	There is no suitable nesting or foraging habitat for this species in the

Attachment C
Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
		margins with scattered oaks, as well as river bottomlands or marshes next to deciduous woodland. They typically nest in isolated, dense-topped trees in open areas and forage in a variety of habitats adjacent to the nesting habitat including grassland, marshes, and agricultural fields (Zeiner *et al.* 1990).		property and the site is well east of the known range of this species.
Haliaeetus leucocephalus Bald eagle	FD/SE/FP	Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. Bald eagles generally nest near coastlines, rivers, and large lakes where there is an adequate food supply. They nest in mature or old-growth trees, snags, cliffs, and rock promontories. In treeless regions, they may also nest in cliffs or on the ground. Bald eagles also nest on artificial structures such as power poles and communication towers away from large water bodies. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh 1,000 pounds or more. Nest sites typically include at least one perch with a clear view of the water, where they forage (USFWS 2019).	Not expected	There is no suitable nesting or foraging habitat for this species in the property.
Laterallus jamaicensis California black rail	--/ST/FP	California black rail inhabits brackish marsh, primarily in the upper marsh zone dominated by alkali heath (*Frankenia salina*), cattail, and rush (*Juncus*); prefers lower salinity environments. This species forages on the ground, under cover of dense vegetation (USFWS 2013).	Will not occur	There is no suitable aquatic habitat for this species in the property.

Attachment C
Potential for Regionally-Occurring Special-Status Wildlife Species to Occur on the Property

Scientific Name/ Common Name[1]	Status[2]	Habitat Requirements	Potential to Occur	Rationale
Riparia riparia bank swallow	--/ST/--	Bank swallow primarily inhabits riparian and other lowland habitats west of the deserts during the spring-fall period. In summer, this species is restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils where it digs holes for nesting. In California, bank swallow primarily nests from Siskiyou, Shasta and Lassen Counties south along the Sacramento River to Yolo County.	Will not occur	There is no suitable nesting habitat for this species in the property.
Mammals				
Antrozous pallidus Pallid bat	--/--/SSC	Pallid bats occur throughout California except for the high Sierra Nevada and the northern Coast Ranges in grasslands, shrublands, woodlands, and forests from sea level to 6,000 ft. This species is most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, and under bridges (Bolster, ed. 1998).	Not expected	There is no suitable roosting habitat for this species in the property. Pallid bats could occasionally forage in the site, but no roosting habitat is present.
Pekania pennanti Fisher	--/--/SSC	Fishers are associated with areas of high cover and structural complexity in large tracts of mature and old-growth forests. Other site characteristics that can be important include presence of nearby water, slope, elevation, and snow characteristics (USFS 2021).	Will not occur	There is no suitable habitat for this species in the property. The site lacks suitable mature or old-growth forest habitat.

[1] Sensitive species reported in CNDDB or CNPS on the "Pilot Hill, Garden Valley, Coloma, Clarksville, Shingle Springs, Placerville, Folsom, Latrobe, and Fiddletown, CA" USGS 7.5 Minute topographic quads, or in the USFWS list for the property. Cooper's hawk was added because it is regularly seen in the project region.

[2] Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; R = Rare; T = Threatened; C = Candidate; P = Proposed; FP=Fully Protected; SSC=Species of Special Concern; WL=Watch List.

[3] Status in the Property is assessed as follows. **Will Not Occur**: Species is either sessile (*i.e.* plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival does not occur on the property; **Not Expected**: Species moves freely and might disperse through or across the property, but suitable habitat for residence or breeding does not occur on the property, potential for an individual of the species to

disperse through or forage in the site cannot be excluded with 100% certainty; for plants, species that are not currently known to occur in the project region but suitable habitat may be present; **Presumed Absent:** Habitat suitable for residence and breeding occurs on the property; however, focused surveys conducted for the current project were negative; **May Occur:** Species was not observed on the site and breeding habitat is not present but the species has the potential to utilize the site for dispersal, **High:** Habitat suitable for residence and breeding occurs on the property and the species has been recorded recently on or near the property, but was not observed during surveys for the current project; **Present:** The species was observed during biological surveys for the current project and is assumed to occupy the property or utilize the property during some portion of its life cycle.

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
Agriculture and Forest Resources							
Mitigation Measure 3.2-1: Oak Resources Protection. The following shall be incorporated on any grading or building permit plans. Future development at the Project site shall implement the following measures to comply with the County's ORMP: ▸ Future development at the Project site shall avoid impacts to protected oak resources as much as possible. ▸ If avoidance is not possible, prior to future tree removal at the Project site, an Oak Resources Technical Report shall be developed by a qualified biologist that maps and quantifies unavoidable impacts to the County's three classes of protected oak resources—oak woodlands, individual native oak trees, and heritage trees. Depending on the impact, an Oak Tree Removal Permit or Oak Woodland Removal Permit shall be obtained from the County. ▸ The applicant shall compensate for loss of protected oak trees and oak woodlands through any combination of in-lieu fees, conservation, and/or replanting, as required under the ORMP, to the satisfaction of the El Dorado County Planning and Building Department.	Property owner or designee (e.g., contractor)	Oak technical report and Administrative Permit provided to El Dorado County Planning Division	Prior to issuance of grading permit, prior to issuance of building permit	El Dorado County Planning Division			
Biological Resources							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
▸ Mitigation Measure 3.4-1: Special-Status Plant Protection ▸ Prior to future development at the Project site, the following measures shall be implemented to protect special-status plants: Prior to any vegetation clearing, ground disturbing, or construction activities within the Project site, a qualified botanist shall implement protocol-level botanical surveys during the blooming period for the special-status plants with potential to occur in the Project site. The survey shall be conducted during the blooming/identification period closest to the initiation of proposed vegetation clearing or ground disturbance. ▸ The surveys shall include all areas where habitat potentially suitable for special-status plant species would be removed or disturbed, plus a 25-foot buffer. Surveys shall follow methods from CDFW's Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the Project region,	Property owner or designee	Site visit to ensure fencing is installed; rare plant survey(s), monitoring, and report(s) provided to El Dorado County Planning Division	Prior to issuance of grading permit, prior to issuance of building permit	El Dorado County Planning Division			

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting. ▸ If no special-status plants are found, the botanist shall document the findings in a report to the applicant and El Dorado County, and no additional measures are required prior to proposed activities. ▸ If activities last for more than one year, the botanical surveys described above shall be repeated during the blooming period in subsequent years prior to additional vegetation clearing or ground disturbing activities. ▸ If special-status plants are found, the botanist shall clearly mark, map, and record their locations. A no-disturbance buffer shall be established surrounding these locations, consisting of high							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
visibility fencing with a minimum 4-foot-tall metal fence posts (such as t-posts). Fencing shall be maintained in place throughout the entirety of all ground disturbance or vegetation removal activities to ensure that the special-status plants are protected from equipment and vehicles, construction personnel, digging, trenching, placement of fill, storage of equipment or materials, and all other activities. All personnel involved in ground disturbance or vegetation removal work shall be informed of the requirement to avoid no-disturbance areas and shall be required to sign an acknowledgement that they have received these instructions and agree to adhere to all mitigation measures. ▸ If special-status plant species are found that cannot be avoided, appropriate mitigation shall be implemented and shall depend on the species and its protection status. ▸ For unavoidable impacts to Pine Hill endemics, mitigation shall include compliance with the County's Ecological Preserve Fee Program and Zoning Ordinance Section 130.71.050 (described further under question e below). The Project site is located within Mitigation Area 0, where on-site							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
mitigation is encouraged, such as setting aside part of the property as a protected area or purchasing and protecting land in the same ecological preserve (Pine Hill Preserve) that is at least 1.5 times the developed acreage. Whatever method of compliance with Zoning Ordinance Section 130.71.050 is selected for implementation, it will meet the performance standard of no-net-loss of numbers of individuals and extent of occupied habitat for the species being mitigated for.							
▸ For unavoidable impacts to special-status plants that are not Pine Hill Endemics and are not listed under the federal ESA or CESA, various methods may be used to minimize or compensate for impacts on these species. Depending on the biology of the species affected and the potential for transplanting and reseeding, establishing populations through seed collection or transplantation from the site that is to be affected may be implemented. Seeding or transplanting may be used to create new plant populations, or to enhance or expand existing populations. Potential mitigation sites could include suitable locations within or outside the project site. Mitigation could include, or consist of, expanding the affected population on the project site if only							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
a portion of the population is to be removed and suitable habitat is available or can be created to expand the extent of the affected population into a new area. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value of the new population and habitat. Monitoring, reporting, and land preservation methods will follow those established by the County in County's Ecological Preserve Fee Program and Zoning Ordinance Section 130.71.050.If an affected plant species, whether a Pine Hill Endemic or not, is protected under the federal ESA or CESA, coordination/consultation with USFWS and/or CDFW will be required. A site-specific mitigation strategy to compensate for loss of occupied habitat and individuals, consistent with the requirements of the federal ESA or CESA, will need to be developed and implemented. Actions to compensate for take of the federal ESA or CESA protected species may include preserving and enhancing existing populations and creation of new populations. Elements of the mitigation approach and success criteria required by USFWS or CDFW may include, but would not be limited to:							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
▸ Identification of appropriate mitigation ratios for enhancement, expansion, and creation of target plant populations to fully compensate for direct loss of affected plant populations as well as temporal losses of functions and values. ▸ Number and/or density of target plant individuals in the mitigation area. ▸ ▸ A requirement that compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when plants reestablish annually for a set number of years with no human intervention, such as supplemental seeding. ▸ If mitigation includes dedication of conservation easements, identifying responsible parties for long-term management, conservation easement holders, long-term management requirements, and funding sources as determined appropriate by the regulatory agency(ies). ▸ Documentation of the completion of the mitigation strategy and coordination/consultation process with USFWS or CDFW shall be provided							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
to El Dorado County before commencement of any project activities that could adversely affect the protected plant species. Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Project's permits and CEQA documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife that may be encountered on the project site; location of any avoidance, exclusion, or buffer areas; material to watch for that may indicate the presence of subsurface cultural resources; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species or potential cultural resources. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers will sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed.							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
Mitigation Measure 3.4-2: Coast Horned Lizard Protection The following shall be incorporated on any grading or building permit plans. Future development at the Project site must implement the following measures to protect Coast Horned Lizards: ▸ Mitigation Measure 3.4-2: Coast Horned Lizard Protection ▸ Future development at the Project site shall implement the following measures to protect coast horned lizard: ▸ Within 14 days prior to vegetation removal or ground disturbing activities within the Project site, a qualified biologist familiar with the life history of coast horned lizard shall conduct a focused visual survey of the work area, plus a 100-foot buffer, which shall include walking linear transects of the site. ▸ If coast horned lizards are not detected during the focused survey, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County,	Property owner or designee	Preconstruction focused visual inspection by qualified biologist per mitigation measures	Prior to issuance of grading permit, prior to issuance of building permit	El Dorado County Planning Division			

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
and no additional measures are required prior to proposed activities. ▸ If coast horned lizards are detected, a qualified biologist with an appropriate CDFW Scientific Collecting Permit that allows handling of reptiles shall be present during ground disturbing and/or vegetation removal activities and shall inspect the project site before initiation of activities. If coast horned lizards are detected, the qualified biologist shall move individuals into nearby suitable habitat that will not be disturbed by project activities. ▸ Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.							
▸ Mitigation Measure 3.4-3: Nesting Bird and Raptor Protection ▸ The following shall be incorporated on any grading or building permit plans. Future development at the Project site must implement	Property owner or designee	Preconstruction nest survey(s) and report(s) provided to El Dorado County Planning Division	Prior to issuance of grading permit, prior to issuance of building permit	El Dorado County Planning Division			

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
the following measures to protect nesting birds and raptors: ▸ To minimize impacts to special-status bird species, raptors, and other native birds, potential future development activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the nonbreeding season (approximately September 1 through January 31, as determined by a qualified biologist), when feasible. If project activities are conducted during the nonbreeding season, no further mitigation is required prior to the proposed activity. ▸ If development activities must commence during the avian nesting season (between February 1 and August 31), within 7 days prior to commencement of work a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused surveys for special-status birds, nesting raptors, and other native birds. Surveys shall be conducted in publicly accessible areas within 0.5 miles of the development activity area for golden eagle, 0.25 miles of the development activity area for white-							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
tailed kite, 500 feet of the development activity area for other raptor species and special-status birds, and 50 feet of the development activity area for non-raptor common native bird nests. ▸ If no active bird nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and work may proceed. If at any time during the nesting season there is a lapse of two weeks or more with no work, a new survey for nesting birds shall be completed before work proceeds. ▸ If an active bird nest is found, a no-disturbance buffer shall be established around the nest site until the breeding season has ended or a qualified biologist has determined that the young have fledged or the nest is no longer active. ▸ The size of the no-disturbance buffer shall be determined by the biologist, based on the sensitivity of the bird species, nesting chronology of the species, disturbance characteristics (type, extent, visibility, duration, and timing), existing							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
ambient conditions, and other factors (e.g., screening from existing structures, vegetation, or topography), as determined by the biologist. Buffers typically shall be 0.5 miles for golden eagle, 0.25 miles for white-tailed kite, 500 feet for other raptors, 100 feet for non-raptor special-status bird species, and at least 20 feet for common non-raptor bird species. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment shall be unlikely to adversely affect the nest. Any buffer reduction for a special-status bird species shall require coordination with CDFW.							
▸ Daily monitoring of the nest by a qualified biologist during activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.							
▸ Documentation of compliance with this mitigation measure and any required							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
coordination with CDFW shall be provided to El Dorado County before commencement of any project construction activities							
Mitigation Measure 3.4-4: Crotch's Bumblebee Protection The following shall be incorporated on any grading or building permit plans and implemented during future ground-disturbing activities to protect Crotch's bumblebee: Initial ground-disturbing work (e.g., grading, vegetation removal, staging) shall take place between August 15 and March 15 (i.e., outside of the Crotch's bumble bee colony active period, or the period when bumble bees are nesting underground and flying aboveground in the greatest numbers), if feasible, to avoid impacts on nesting Crotch's bumble bees during the colony active period. Regardless of the feasibility of the above limited operating period, and because Crotch's bumble bees may use the project site during other life history periods (e.g., overwintering), a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees shall conduct a habitat assessment	Property owner or designee	Habitat assessment by a qualified biologist familiar with bumble bees of California	Prior to issuance of building permit, prior to issuance of grading permit	El Dorado County Planning Divi bhjhsion			

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
and focused survey for Crotch's bumble bee before the start of any ground-disturbing activities. The survey shall be performed when Crotch's bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present and shall follow the methods in Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023). The survey shall be conducted during the colony active period closest to the start of planned ground-disturbing activities to determine whether Crotch's bumble bees are present on the project site. The survey area shall include all habitat determined to be suitable for Crotch's bumble bees as determined during the habitat assessment. Survey results shall be submitted to the applicant and El Dorado County no less than 7 days before ground-disturbing work begins. The applicant shall submit a survey report to CDFW within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch's bumble bees are detected, as described in Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023).							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following: Protective buffers shall be implemented around active nesting colonies until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies; however, the buffer shall be a minimum of 50 feet. Work on the project site shall be avoided during the colony active period (April through August). If impacts on Crotch's bumble bee cannot be avoided, the applicant shall obtain an incidental take permit (ITP) from CDFW and shall implement all avoidance measures included in the ITP. Documentation of compliance with this mitigation measure and any required coordination with CDFW or acquisition of an ITP shall be provided to El Dorado County before commencement of any ground-disturbing work.							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
Mitigation Measure 3.4-5: Bat Protection Future development at the Project site must implement the following measures to protect bats: Within 14 days before any tree removal, a qualified biologist familiar with bats and bat ecology, and experienced in conducting bat surveys, shall conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) within 250 feet of the tree(s) to be removed. If no evidence of bat roosts is found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and no further study shall be required. If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the qualified biologist.	Property owner or designee	Preconstruction bat survey(s) and report(s) provided to El Dorado County Planning Division	Prior to issuance of grading permit, prior to issuance of building permit	El Dorado County Planning Division			

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
A no-disturbance buffer of 250 feet shall be established by the qualified biologist around active maternity roosts or hibernacula of pallid bat or western red bat, as well as maternity roosts (i.e., considered to be a wildlife nursery) or winter hibernacula of other bat species that contain a substantial number of bats (i.e., more than a few roosting bats that would leave on their own during the day). Project activities shall not occur within this buffer until after the roosts no longer support juvenile bats or hibernating bats as determined by a qualified biologist. If roosts of pallid bat or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites. After the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day. For trees used as maternity roosts or hibernacula by non-special status bat species, the trees may be removed either when a qualified biologist determines that bats are no longer present, or using the exclusion and removal method described above for pallid bat and wester red bat if bats are using the tree for a daytime roost, but it is no longer functioning as a maternity roost or hibernacula. Coordination with CDWF and							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
compensatory measures, such as installation of bat boxes, will not be required for non-special status bat species. Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any tree removal activities.							
Mitigation Measure 3.4-6: Aquatic Resources Protection Future development at the Project site must implement the following measures to protect aquatic resources: If ground disturbance is proposed within 25 feet of the bank of the seasonal stream flowing through Parcels C and D, at a minimum, any portion of the stream within 25 feet of the disturbance footprint shall be delineated and evaluated by a qualified biologist for jurisdiction as a water or wetland of the United States and/or water of the state. The delineation shall follow the US Army Corps of Engineers (USACE) methods current at the time.	Property owner or designee	Wetland delineations and copies of applicable agreements and permits provided to El Dorado County Planning Division	Planning Division				

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
If the aquatic feature is determined to be jurisdictional, all applicable permits shall be obtained prior to any disturbance of the feature(s). All permit requirements shall be adhered to, including any potential compensatory mitigation that may be required. Authorization for dredge or fill of waters of the United States shall be secured from USACE and the regional water quality control board (RWQCB) through the permitting processes for Clean Water Act Sections 401 and 404. In association with Section 404, Section 401 Water Quality Certification from the Central Valley RWQCB shall be obtained. For impacts on waters of the state that are not also waters of the United States and are therefore not covered by the 401 Water Quality Certification, the applicant shall apply to the RWQCB for Waste Discharge Requirements. Any waters of the United States or waters of the state that are affected by the project shall be replaced on a no-net-loss basis in accordance with the applicable USACE and RWQCB permit requirements. Before commencing activity that may divert the natural flow or otherwise alter the bed or bank of any lake or stream on the Project site (i.e., the							

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
seasonal stream and any associated water bodies), the applicant shall notify CDFW, through issuance of a Lake and Streambed Alteration Notification (notification). If CDFW determines, based on the notification, that project activities trigger the need for a Lake and Streambed Alteration Agreement, the project applicant shall obtain an agreement from CDFW before the activity commences. The applicant shall conduct activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect fish and wildlife resources, when working within the bed or bank of waterways or in riparian habitats associated with those waterways.							
Mitigation Measure 3.4-7: Oak Resources Protection Future development at the Project site shall implement the following measures to comply with the County's ORMP: Future development at the Project site shall avoid impacts to protected oak resources as much as possible.	Property owner or designee	Oak technical report and Administrative Permit provided to El Dorado County Planning Division	El Dorado County Planning Division				

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
If avoidance is not possible, prior to future tree removal at the Project site, an Oak Resources Technical Report shall be developed by a qualified biologist that maps and quantifies unavoidable impacts to the County's three classes of protected oak resources,—oak woodlands, individual native oak trees, and heritage trees. Depending on the impact, an Oak Tree Removal Permit or Oak Woodland Removal Permit shall be obtained from the County. The applicant shall compensate for loss of protected oak trees and oak woodlands through any combination of in-lieu fees, conservation, and/or replanting, as required under the ORMP, to the satisfaction of the El Dorado County Community Development Department.							
Cultural and Tribal Cultural Resources							
MM-3.5-1: Protection of Archaeological Resources. The following shall be incorporated on any grading or building permit plans and implemented during future ground-disturbing activities: ▸ In the event that unknown buried archaeological deposits (e.g., stone tools, milling stones, shells, midden soils) are encountered during grading or construction, all ground-disturbing activity within 50 feet of the resources shall be halted and a	Property owner or designee (e.g., contractor)	Construction period inspection (in event of discovery)	During project construction	El Dorado County Planning Division			

Mitigation Measure	Monitoring				Verification		
	Implementing Party	*Type of Monitoring Action*	*Timing Requirements*	*Monitoring/ Verification Entity*	*Signature*	*Date*	*Comments*
qualified professional archaeologist (36 Code of Federal Regulations 61) and appropriate Native American tribal representative shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas. ▸ If the find is determined to be significant by the qualified archaeologist or Native American tribe (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist, in consultation with the County and the culturally affiliated Native American tribe(s) shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, subsurface testing, or contiguous block unit excavation and data recovery.							