BALTIMORE RAVINE SHADED FUEL BREAK
INITIAL STUDY/DRAFT MITIGATED NEGATIVE DECLARATION

CITY OF AUBURN, CALIFORNIA

Prepared for:

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I. REGULATORY CONTEXT

1.1 Stage of CEQA Document Development

☒ **Public Document**. This completed CEQA document has been filed by the City of Auburn at the State Clearinghouse on October 9, 2024 and is being circulated for a 30-day state agency and public review period. The review period ends on November 8, 2024.

☐ **Final CEQA Document**. This final CEQA document contains changes made considering comments received during the public and agency review period.

1.2 Regulatory Guidance

The City of Auburn Fire Department, acting as CEQA Lead Agency, is proposing to implement the Baltimore Ravine Shaded Fuel Break ("Project") on 212 acres of land between Interstate 80 and the City of Auburn at Baltimore Ravine. The purpose of the Project is to reduce, modify, and manage fuels with the goal of enhancing mitigation efforts during a wildland fire. The Project aims to protect human life and public and private resources through fuels reduction.

This Initial Study – Mitigated Negative Declaration (IS-MND) describes the environmental impact analysis conducted for the Project and evaluates potential environmental effects that could result from Project implementation. This report follows the State CEQA Guidelines which are codified at California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387, to demonstrate compliance with the California Environmental Quality Act (CEQA; Public Resources Code 21000-21189).

1.3 Initial Study Purpose and Comment Period

The purpose of the IS-MND is to present to the public and reviewing agencies the environmental consequences of Project implementation, and to describe adjustments made to the project to reduce effects to a less-than-significant level. The IS-MND is being circulated for public and state agency review and comment for a 30-day review period as indicated on the Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) filed with the State Clearinghouse. The review period begins on October 9, 2024 and ends on November 8, 2024.

The requirements for providing an NOI are found in CEQA Guidelines Section 15072. They require that the lead agency (City of Auburn) post the NOI with the county clerk, send the NOI to relevant trustee agencies, and circulate the NOI using one of the following procedures:

- Publication in a newspaper circulated in the area affected by the proposed project,
- Posting of the NOI on and off site in the area where the project will be located, or
- Direct mailing to the owners and occupants of property contiguous to the project.

The City of Auburn has elected to utilize the direct mailing option, along with posting the NOI on site. An electronic version of the NOI and CEQA document may be viewed here: www.auburn.ca.gov/421/Public-Notices

Comments regarding the Project's potential environmental effects may be submitted to the contact below. Comments must be received via email or postmarked prior to November 8, 2024 to be considered by the City of Auburn. Comments will be considered, after which the City may (1) adopt the MND and approve the Project, (2) undertake additional environmental studies; or (3) abandon the project.

1.4 Mandatory Findings of Significance

The CEQA Lead Agency (City of Auburn) finds that implementation of the proposed project with incorporation of the mitigations listed herein under Section IV, Evaluation of Environmental Impacts, will not result in substantial and significant direct or cumulative impacts on the environment.

II. INTRODUCTION AND ENVIRONMENTAL SETTING

2.1 Project Location

The proposed Project is in Placer County and sits between the communities of Auburn and Newcastle at Baltimore Ravine bordered by Interstate-80 and Auburn-Folsom Blvd. The Project covers 212 acres of public and private land within the City of Auburn. The Project is located in Township 12N Range 8E, portions of Sections 15, 16, 20, 21, and 22, MDBM. Project elevations range from 980 to 1340 feet. Refer to Figure 1.

2.2 Project Need, Background, and Objectives

Auburn, California is a rural-residential community located northeast of the Sacramento metropolitan region. Historically, the Auburn area is dominated by oak and oak/pine woodlands, with some areas of vast grasslands or chapparal, lush with productivity in a mediterranean climate. These areas were once managed by Indigenous communities using low-intensity fire, but fire suppression and changing management practices of the 19th and 20th centuries has resulted in an over-accumulation of woody fuels, namely small trees and brush. As population has grown, the wildland-urban interface (WUI) has also expanded. Populated areas situated in the WUI are at risk for hazardous and potentially catastrophic wildfire conditions and are in pronounced need of vegetation management to mitigate fire hazard.

The Project is adjacent to the City of Auburn, Interstate-80, and the Union Pacific Railroad corridor, and is 1-mile west of the North Fork of the American River Canyon and the associated Auburn State Recreation Area. It is in a critical zone for reducing fuels to protect residential areas as well as vital transportation routes that have benefits reaching beyond Placer County and the local area. The Project is located in the City of Auburn Moderate Fire Hazard Severity Zone (City of Auburn 2007), and adjacent State Responsibility Area land is classified as Moderate, High, or Very High Fire Hazard Severity Zone (CAL FIRE 2024).

The Project's objective is to reduce, modify, and manage fuels with the goal of enhancing mitigation efforts during a wildland fire, with the goal of protecting human life and public and private resources. Project treatments aim to reduce the spread and severity of vegetation fire and to enhance structure protection efforts in the State Responsibility Area. Treatments have been strategically placed to provide the maximum benefit of fire protection to the residents of the City of Auburn, to improve emergency ingress/egress routes, and to reduce fire severity and intensity through fuels management.

2.3 Project Description

The proposed Project would treat up to 212 acres incrementally as implementation funding becomes available. As of October 2024, the City of Auburn is holding implementation funding to treat 120 acres. Project treatments may include mastication, hand cutting, chipping and

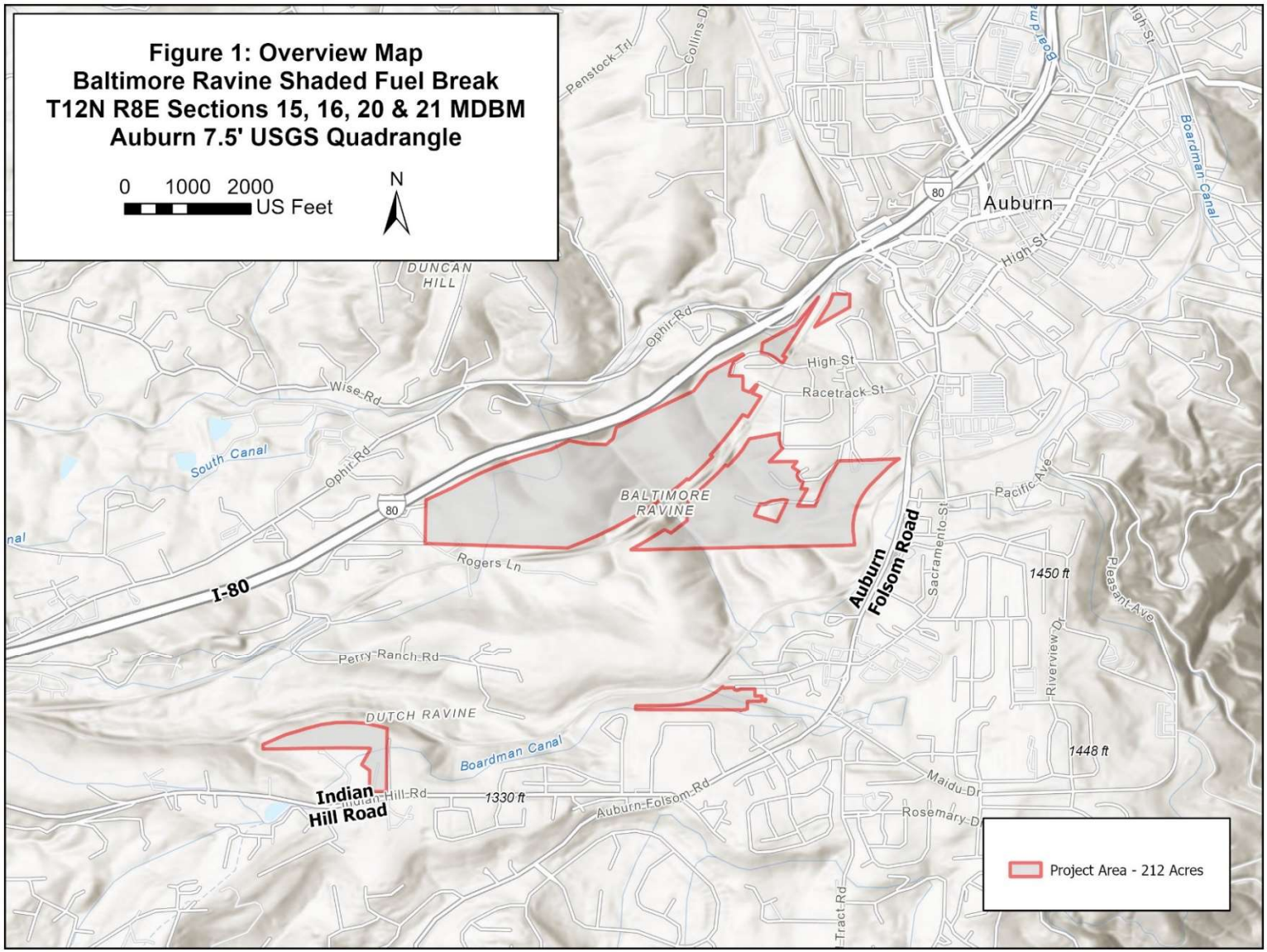
Figure 1: Overview Map
Baltimore Ravine Shaded Fuel Break
T12N R8E Sections 15, 16, 20 & 21 MDBM
Auburn 7.5' USGS Quadrangle
0 1000 2000
US Feet
N
Penstock Trl
Collins Dr
Auburn
High St
Boardman Canal
DUNCAN HILL
Ophir Rd
Wise Rd
High St
Racetrack St
South Canal
Ophir Rd
80
BALTIMORE RAVINE
Pacific Ave
Sacramento St
Auburn Folsom Road
Rogers Ln
I-80
1450 ft
Pleasant Ave
Riverview Dr
Perry Ranch Rd
DUTCH RAVINE
Boardman Canal
1448 ft
Indian Hill Rd
1330 ft
Auburn-Folsom Rd
Maidu Dr
Rosemary Dr
Indian Hill Road
Tract Rd
Project Area - 212 Acres

broadcasting of cut material, piling (by hand or with equipment) and burning of material, tree pruning, herbicide application, and prescribed grazing. Project treatments may vary throughout the Project area and will be designated by a Registered Professional Forester after a review of treatment feasibility. Treatments shall adhere to the prescriptions outlined in the table below.

2.3.1. Mastication

The mastication treatment can be applied to the tree and brush dominated vegetation types present in the Project area, up to a maximum slope of 30% for wheeled equipment, 50% for tracked equipment, and 65% for walking excavator type equipment. Refer to mitigations listed under Items 4.6, 4.8, and 4.10 for further restrictions on the use of equipment for the Project.

Table 1. Mastication treatment specifications.

Tree Removal	• Remove hardwoods and conifers less than 12 inches DBH* that fall within the drip line of a tree larger than 12 inches DBH. • Outside the drip line of trees larger than 12 inches DBH, conifers and hardwoods less than 12 inches DBH shall be thinned to achieve an average tree spacing of 17 feet between residual trees for a goal of 150 trees per acre.
Brush Removal	• For conifer and hardwood dominated areas, cut brush within the Project area, except in areas where such removal would result in no brush being present within a 150-foot circle in any given treated location. In this case, 100 to 400 square foot patches of brush would be retained throughout the unit as needed. • For shrub-dominated areas – shrubs will be thinned to the extent that there is 1 shrub every 30 feet. • RPF may specify retention of certain brush species or individual shrubs as needed to enhance habitat or preserve diversity.
Dead woody material	• Masticate dead woody debris larger than 1 inch in diameter and smaller than 14 inches in diameter to an average piece size of 18 inches or less.
Pruning	• Prune all conifers and hardwoods selected by field staff to a height of 8 feet or to 50% live crown, whichever is less.
Standing dead tree removal	• Standing dead trees up to 12 inches DBH will be felled and processed in one of the ways described in “slash treatment” below. • RPF may dictate falling of trees larger than 12 inches on a case-by-case basis if they pose a threat to health and safety.
Slash treatment	• All material generated by the treatments listed above shall be masticated to a material depth not to exceed 6 inches. Tree and brush stumps may not exceed 6 inches in height. • Where mastication alone is not sufficient to treat slash in a manner which achieves Project goals, a grapple equipped

	excavator or tracked front end loader may be used to create slash piles which can later be burned. • Existing downed woody debris shall generally be retained where larger than 12 inches in size.
Hand treatment	• Where tree spacing prohibits entry of the masticator, or where masticating could cause residual tree damage, hand work may need to accompany the machine to allow for entry and efficient mastication.

*DBH = diameter at breast height, measured 4.5 feet above the ground on the uphill side of the tree.

2.3.2. Hand Thinning

The hand thinning treatment can be applied to tree and brush dominated areas at all slope classes. Refer to mitigations listed under Items 4.6, 4.8, and 4.10 for further restrictions on the use of equipment for the Project.

Table 2. Hand thinning treatment specifications.

Tree Removal	• Remove hardwoods and conifers less than 12 inches DBH that fall within the drip line of a tree larger than 12 inches DBH. • Outside the drip line of trees larger than 12 inches DBH, conifers and hardwoods less than 12 inches DBH shall be thinned to achieve an average tree spacing of 17 feet between residual trees for a goal of 150 trees per acre.
Brush Removal	• For conifer and hardwood dominated areas, cut brush within the Project area, except in areas where such removal would result in no brush being present within a 150-foot circle in any given treated location. In this case, 100 to 400 square foot patches of brush would be retained throughout the unit as needed. • For shrub-dominated areas – shrubs will be thinned to the extent that there is 1 shrub every 30 feet. • RPF may specify retention of certain brush species or individual shrubs as needed to enhance habitat or preserve diversity.
Dead woody material	• Chip or pile burn dead woody debris larger than 1 inch in diameter and smaller than 14 inches in diameter.
Pruning	• Prune all conifers and hardwoods selected by field staff to a height of 8 feet or to 50% live crown, whichever is less.
Standing dead tree removal	• Standing dead trees up to 12 inches DBH will be felled and processed in one of the ways described in “slash treatment” below. • RPF may dictate falling of trees larger than 12 inches on a case-by-case basis if they pose a threat to health and

	safety. Hazard trees that are felled as a part of Project operations shall have all branches and tops up to 8 inches in size chipped, masticated, or piled for burning.
Slash treatment	All material generated by the treatments listed above shall be treated by any of the following methods. • Material may be hand piled and burned. • In areas less than 50% slope a grapple equipped excavator or tracked front end loader may be used to create slash piles which can later be burned. • In areas less than 40% slope material may be chipped using a tracked or tow-behind chipper. Chips shall be spread to a depth no greater than 6 inches. • In areas where none of the above options are feasible, material may be lopped and scattered. Lopped material shall not exceed 6 inches in height or 30 inches in length. Existing downed woody debris shall generally be retained where larger than 12 inches in size.

2.3.3. Pile Burning

Pile burning may be utilized throughout the Project area as a means of fuels reduction. Pile burning shall occur in accordance with local Placer County Air District rules and regulations, which may require a Smoke Management Plan and associated Air Quality permit. CAL FIRE permits may also be required depending on timing and scope. Refer to mitigations listed under Item 4.8 (greenhouse gases) and Item 4.10 (watercourse protections).

2.3.4. Herbicide Application

Herbicide may be applied to vegetation throughout the Project area to maintain vegetation densities specified in the treatment table above. A licensed Pest Control Advisor shall prescribe herbicide. Refer to mitigations listed under 4.9 (hazardous materials) and Item 4.10 (watercourse protections).

2.3.5. Prescribed Grazing

Grazing using sheep and/or goats may be used as an initial or follow-up treatment to control woody and/or grass fuels within the Project footprint. Refer to mitigations listed under Item 4.10 (watercourse protections).

2.4 Current Land Uses, Planning, and Previous Impacts

Current Uses

Parcels within the Project area are zoned single family residential, two family residential, open space/conservation, agriculture residential, and agriculture residential – mining extraction (City of Auburn date unknown). 7.5 acres are maintained by Auburn Recreation District (ARD), and the area is regularly used for sports, swimming, and other forms of recreation.

The rest of the Project area (204.5 acres) includes residential properties, event space, and undeveloped property. Property owners generally engage in small-scale animal husbandry, grazing, tree removal, fuels reduction, and utility installation and maintenance.

Planning

The Project area falls within three designated planning areas:

1. Baltimore Ravine Specific Plan. This Plan was adopted in 2011 by the City of Auburn, who planned to develop up to a total of 725 residential units, 90,000 square feet of commercial/mixed-use space, 2 acres of park and 143 acres of open space within the Baltimore Ravine area. A search on CEQANET revealed a Notice of Determination, filed on 3/4/2011, indicating that the EIR had been adopted by the City of Auburn (CEQANET 2011). However, the Specific Plan area no longer appears in open-source spatial data published by Placer County, and the study area has not been subdivided or developed (Placer County 2024). No recent updates were found during the research for this study. Current owners indicated that the parcels within the plan are currently for sale but have been on the market for some time.
2. City of Auburn General Plan. The latest version of the City's General Plan that is publicly available on the internet is dated 1992 – 2012 and was adopted in November of 1993. The plan contains a housing update for the years of 2013 -2021. Relevant sections of the plan discuss the need for open space and undeveloped areas for recreation, water, and wildlife. The Plan also references the need to encourage development in areas that are at a lower risk of catastrophic fire, and the importance of maintaining water supplies and ingress/egress routes for firefighting. The plan discusses the seasonal risk of wildfire in Auburn and surrounding areas but does not specifically address a plan for fuels reduction or abatement (City of Auburn 1993).
3. Local Hazard Mitigation Plan. Placer County's latest Local Hazard Mitigation Plan (LHMP) was developed in 2021 with the purpose of creating a plan to reduce or eliminate long term risks to people and property from hazards. The LHMP references multiple key fuels reduction Projects within and adjacent to the City of Auburn. The plan references a 2019 Project in the Baltimore Mine area, sponsored by IHCC (Placer County 2021).

In addition to the plans mentioned above, the Auburn Fire Department Released a Strategic Plan for fuels treatment and fire protection (City of Auburn 2022). This plan stresses the importance of fuels reduction, funding, and education.

Previous Impacts

1. Settlement. The Gold Rush and the arrival of non-indigenous settlers in the Auburn area in 1848 caused lasting changes to the natural landscape, including urbanization, displacement of indigenous communities, and fundamental land use changes brought about by mining and fire exclusion.
2. Wildfire. While there are no recorded historic wildfires within the Project area, the Auburn Fire of 1961 is less than half a mile from the Project area in the North Fork American River Canyon (Capital Public Radio 2024).
3. Development and Population Growth. Auburn's population grew by nearly 30% between 1990 and 2020, and residential development is ongoing (United States Census Bureau, 2020). This includes the development of the High Street neighborhood within the Project area, and construction of new homes is currently taking place in that area. Impacts of recent development are difficult to determine with available data, but it can be assumed that noise, traffic, habitat, and aesthetics may be impacted.

2.5 Other Agency Involvement

The Project has potential to impact state waters and species. The Mitigated Negative Declaration and the associated Notice of Intent will be submitted to OPR. Both the Central Valley Regional Water Quality Control Board and the CA Dept. of Fish and Wildlife are trustee agencies. Both agencies monitor the posting website regularly and will receive a copy when posted. The NOI will be circulated to Placer County Water Agency as they have infrastructure within the Project, and to the United Auburn Indian Community. The final MND will incorporate additional mitigations, where proposed, as agreed upon between the City of Auburn and trustee agencies.

2.6 Analysis Methodology and Assessment Area

This analysis follows the Environmental Checklist Form in Appendix G of the CEQA Guidelines. This report describes the environmental baseline of the Project area and assesses the potential impacts of the proposed Project on resources identified in the checklist. The Cultural Resources section does not contain confidential results of archaeological surveys but does contain general mitigation measures for cultural resources. A confidential Cultural Resources report has been prepared by a professional archaeologist following a ground survey and is not available for public review.

The level of potential impact of the proposed Project on each resource is classified into one of the following CEQA Guideline categories: No Impact, Less Than Significant Impact, Less Than Significant Impact with Mitigation Incorporation, or Potentially Significant Impact. Any impact aside from No Impact is briefly discussed following the determination, though occasional notes justifying the “No Impact” determination may be included in the discussion.

Conclusions of this report are based on a technical review of publicly available data, and special status species occurrence data and lists obtained from the California Natural Diversity Database (CNDDB) and the California Native Plant Society. A preliminary vegetation map was prepared based on the California Wildlife Habitat Relationships System (CWHR) terrestrial vegetation mapping (CDFW 2005). These data were reviewed by Allison Erny, Registered Professional Forester (RPF) with Mason, Bruce & Girard, Inc. (MB&G). Ms. Erny also confirmed the vegetation classifications and other physical site attributes described in the Environmental Baseline section of this report during site visits completed in July and August of 2024. Though species-specific surveys were not conducted, MB&G RPFs reviewed the species occurrence data (CNDDB), special status species lists, and vegetation mapping data, and assessed the Project’s potential impact on species and other biological resources.

This biological assessment area includes a 9-quad CNDDB query of the following USGS 7.5’ Quadrangles: Auburn, Colfax, Coloma, Gold Hill, Greenwood, Pilot Hill, Rocklin, Wolf, and Lake Combie.The additional buffer was intended to capture occurrences of species that could be located outside of the actual area of disturbance (Project area), but still experience Project-related impacts, as could be the case for species with large home ranges and migratory movement patterns.

For non-biological CEQA checklist items, the study area consists of the Project area of 212 acres, as mapped in Figure 1.

III. ENVIRONMENTAL BASELINE

3.1 Vegetation Types

The vegetation types present in the Project area were classified using the CWHR system based on a GIS analysis using CALVEG spatial data and NAIP imagery, and field reconnaissance. The

CWHR terrestrial vegetation mapping indicated the presence of five habitat types within the Project area (USFS CALVEG 2015). Refer to Table 1 for a summary of CWHR habitat types in the Project. Most of the Project area falls within the blue oak woodland (BOW) and montane hardwood woodland (MHW) CWHR classifications. Field reconnaissance revealed a 15-acre patch of Ponderosa pine-dominated woodland on the west side of Baltimore Ravine, just south of I-80. This area is classified as "BOP" by the CWHR system. Other than this area, the CWHR classifications appear to be accurately mapped. According to CWHR mapping, average overstory tree sizes within the Project range from a size 3 (pole with a canopy width of 15 to 29.9 feet) to a 4 (small tree with a canopy width of 30-49.9 feet), and canopy cover varies from open to dense. Other CWHR habitat types present within the Project area include annual grassland (AGS), blue oak-foothill pine woodland (BOP), and a small component of montane hardwood-conifer (MHC). The CWHR vegetation classifications are mapped in Figure 2.

Table 3. CWHR Habitat Types within Project Area

Dominant Vegetation	Project Area Species Composition	CWHR Types[1]
Hardwoods	Hardwoods consist primarily of canyon live oak (*Quercus chrysolepis*), blue oak (*Quercus douglasii*), and black oak (*Quercus kelloggii)*. These hardwoods represent 85% of the upper canopy stratum. The remaining 15% of the overstory is comprised of emergent Ponderosa pine (*Pinus ponderosa*) and gray pine (*Pinus sabiniana)*. Understory species include manzanita, bear clover, toyon, poison oak, buckeye, and Himalayan blackberry.	Montane Hardwood-Conifer (MHC); tree size 4, canopy density D or M Montane Hardwood (MHW); tree size 3-4, canopy density D or M. Blue Oak Woodland (BOW); tree sizes 3 and 4, canopy density D, M, P, and S Blue Oak-Foothill Pine (BOP); tree size 4, canopy density M, P and S
Conifers	Around 5% of the Project area is dominated by conifers, primarily Ponderosa pine.. This area is located on the western side of Baltimore Ravine creek, north of the railroad tracks. Other species in the mid and lower canopy layers include black oak, live oak, buckeye, manzanita, and Himalayan blackberry.	Montane Hardwood-Conifer (MHC); tree size 4, canopy density D or M
Herbaceous	Grass species	Annual Grassland (AGS)

[1] All CWHR size classes and canopy closures are included unless otherwise specified; **Canopy Closure Classifications:** S=Sparse Cover (10-24% canopy closure); P= Open Cover (25-39% canopy closure); M= Moderate Cover (40-59% canopy closure); D= Dense Cover (60-100% canopy closure); **Tree size classes:** 1 (Seedling)(<1" DBH); 2 (Sapling)(1"-5.9" DBH); 3 (Pole)(6"-10.9" DBH); 4 (Small tree)(11"-23.9" DBH); 5 (Medium/Large tree)(≥24" DBH); 6 (Multi-layered Tree) [In PPN and SMC].

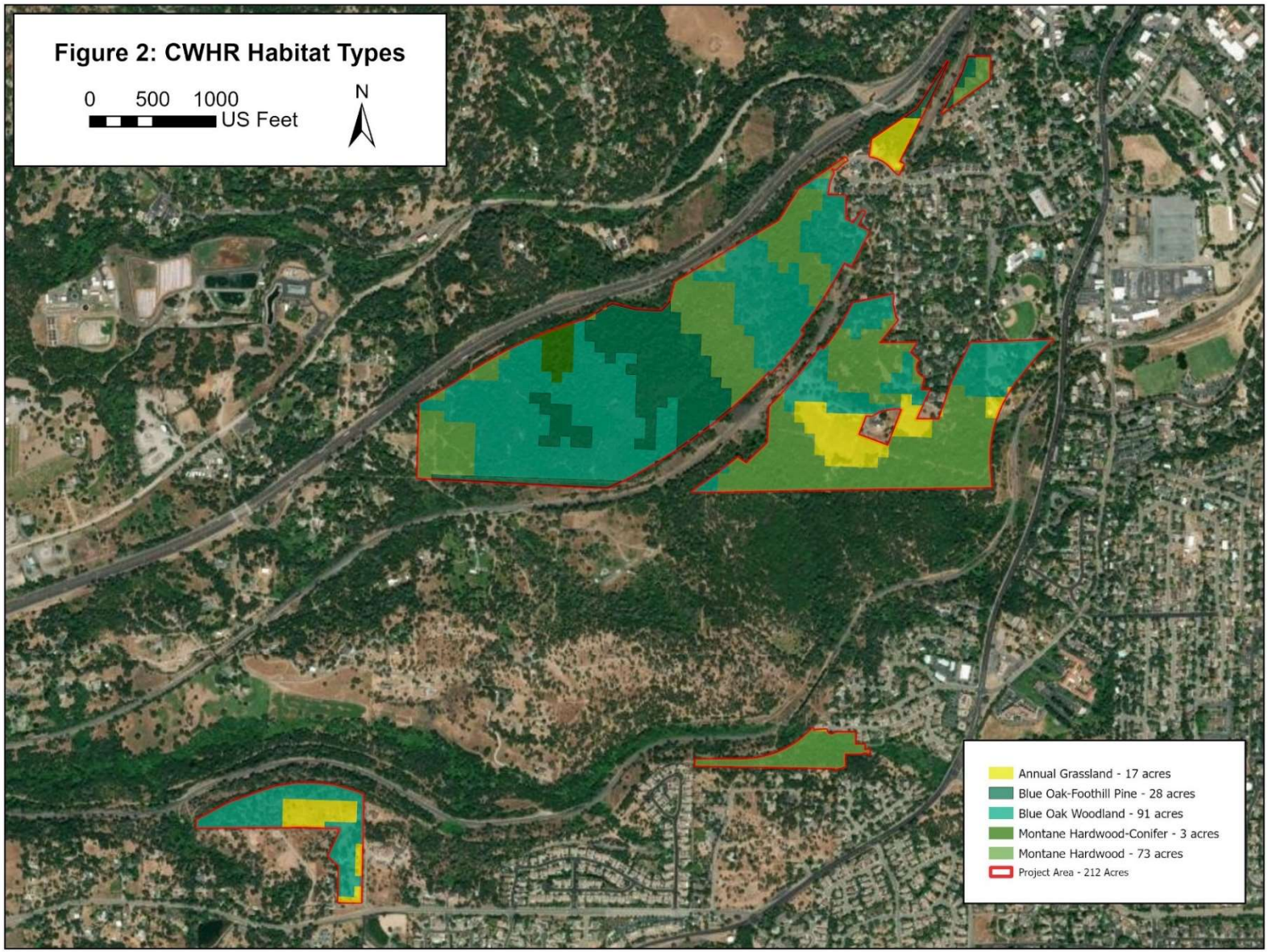
Figure 2: CWHR Habitat Types
0 500 1000
US Feet
N
Annual Grassland - 17 acres
Blue Oak-Foothill Pine - 28 acres
Blue Oak Woodland - 91 acres
Montane Hardwood-Conifer - 3 acres
Montane Hardwood - 73 acres
Project Area - 212 Acres

3.2 Topography and Soils:

The bulk of the Project area spans a series of minor ridges that run N/S on either side of Baltimore Ravine, between I-80 and Auburn-Folsom Road. Slopes are generally gradual throughout the Project area (0-30%). Some areas, generally near creeks, have slopes as steep as 50%.

Soils in the Project area are listed in Table 4. Vegetation types coordinate closely with soil types. Rocky or cobbly soils tend to support grasslands or blue oak woodlands, while more loamy soils support black oak and/or oak-pine woodland. Refer to Figure 3.

Table 4. Mapped Soil Types within the Project Area.

Soil Types	Parent Material	Permeability	Typical surface textures	Acres within Assessment Area
106 – Andregg Coarse sandy loam, 2 to 9% slopes	Granitic bedrock	Moderately rapid	Sandy loam	0.13
107, 108 – Andregg Coarse sandy loam, 15 – 30% slopes	Granitic bedrock	Moderately rapid	Sandy loam	9.9
117 – Auburn Rock outcrop complex, 2-30% slopes	metabasic	Moderate	loam	25.8
118 – Auburn-Sobrante silt loams, 15 to 30% slopes	Metabasic bedrock	Moderate	Silt loam	8.7
119, 120 – Auburn-Sobrante-Rock outcrop complex, 2-30% and 30-50% slopes	Metabasic bedrock	Moderate	loam	99.9
125- Boomer – Rock outcrop complex, 30-50% slopes	Amphibolite schist, meta andesite	Moderately slow	loam	41
144 – Exchequer very stony loam, 2-15% slopes	Andesitic bedrock, volcanic	Moderate	Stony and/or cobbly loam	6.6
145 – Exchequer rock outcrop, 2-30% slopes	Andesitic bedrock, volcanic	Moderate	Stony and/or cobbly loam	2.3
153 – Inks cobbly loam, 30-50% slopes	Andesitic bedrock, volcanic	Moderate	Cobbly loam	0.1
155 – Inks variant cobbly loam, 2-30% slopes	Andesitic bedrock, volcanic	Moderate	Cobbly loam	11.6
191- Sobrante silt loam, 2-15% slopes	Metabasic	Moderate	Silt loam	4.6
196 – Xerofluvents - frequently flooded areas, cut and fill, and placer areas	194 – alluvium 196 – Earthy fill, mixed soil 197 – Mining material	Variable	Variable	1.4

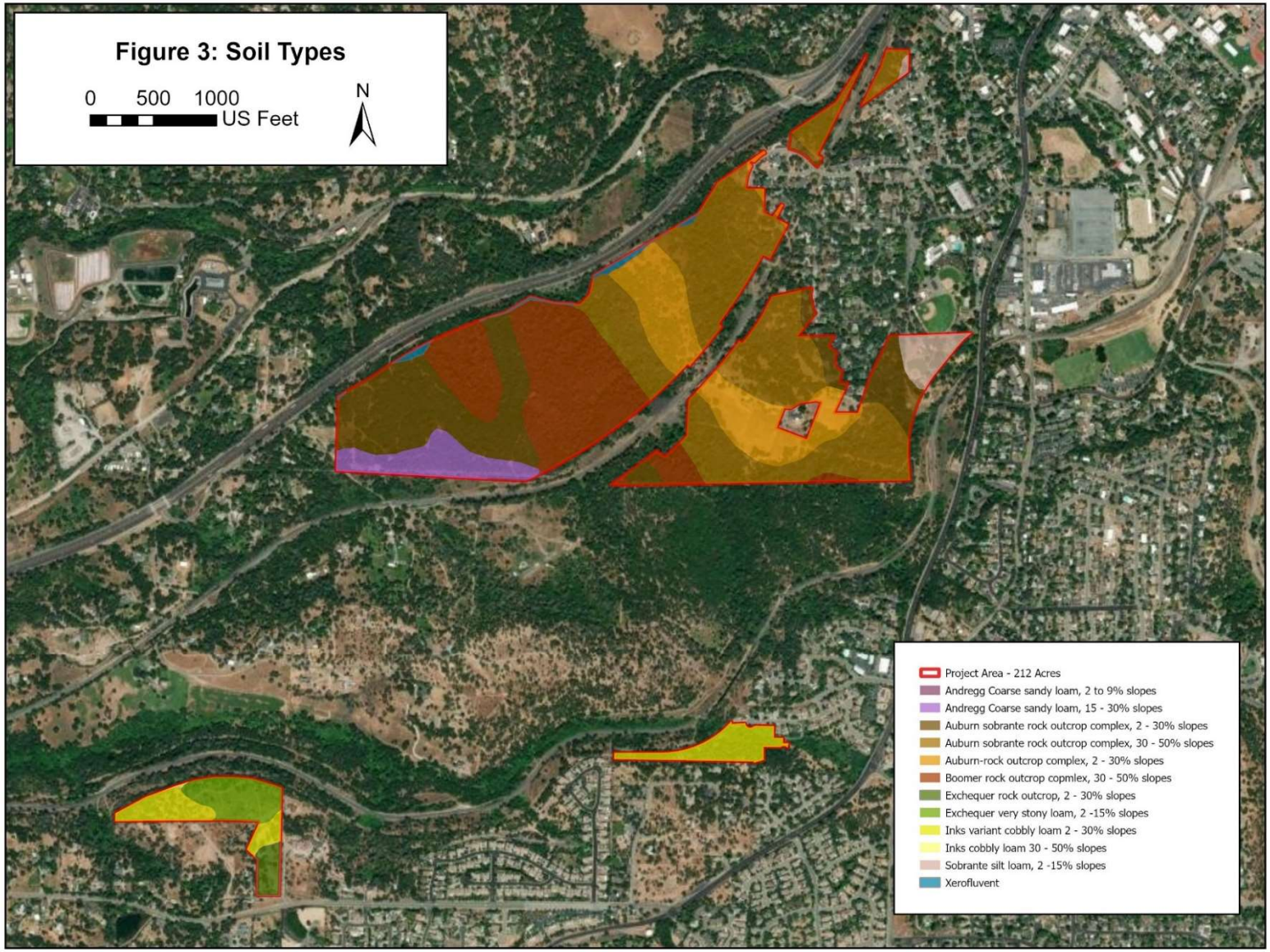
Figure 3: Soil Types
0 500 1000
US Feet
N
Project Area - 212 Acres
Andregg Coarse sandy loam, 2 to 9% slopes
Andregg Coarse sandy loam, 15 - 30% slopes
Auburn sobrante rock outcrop complex, 2 - 30% slopes
Auburn sobrante rock outcrop complex, 30 - 50% slopes
Auburn-rock outcrop complex, 2 - 30% slopes
Boomer rock outcrop copmlex, 30 - 50% slopes
Exchequer rock outcrop, 2 - 30% slopes
Exchequer very stony loam, 2 -15% slopes
Inks variant cobbly loam 2 - 30% slopes
Inks cobbly loam 30 - 50% slopes
Sobrante silt loam, 2 -15% slopes
Xerofluvent

3.3 Hydrology

Baltimore Ravine is the primary watercourse within the Project area. This intermittent, Class II stream runs north through the Project area before draining into Auburn Ravine on the north side of I-80. Class II, III, and IV watercourses are present within the Project area. These watercourse classifications are based on the California Forest Practice Rules 14CCR 936.5 (Table 3) and have been confirmed through field reconnaissance. Flagging of watercourse buffers as listed in Table 13 (Section 4.10.2) will take place prior to the start of Project activities for a given area and be completed by a Registered Professional Forester or their supervised designee. Refer to Figure 4 for an operations map, which includes existing roads and watercourses.

Table 5. Watercourse Classifications Present in the Project Area

Watercourse Classification	Class I (not present in Project, but included for reference)	Class II	Class III	Class IV
Water Class Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.	1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for non fish aquatic species. 3) Excludes Class III waters that are tributary to Class I waters.	No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high water flow conditions after completion of timber operations.	Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.

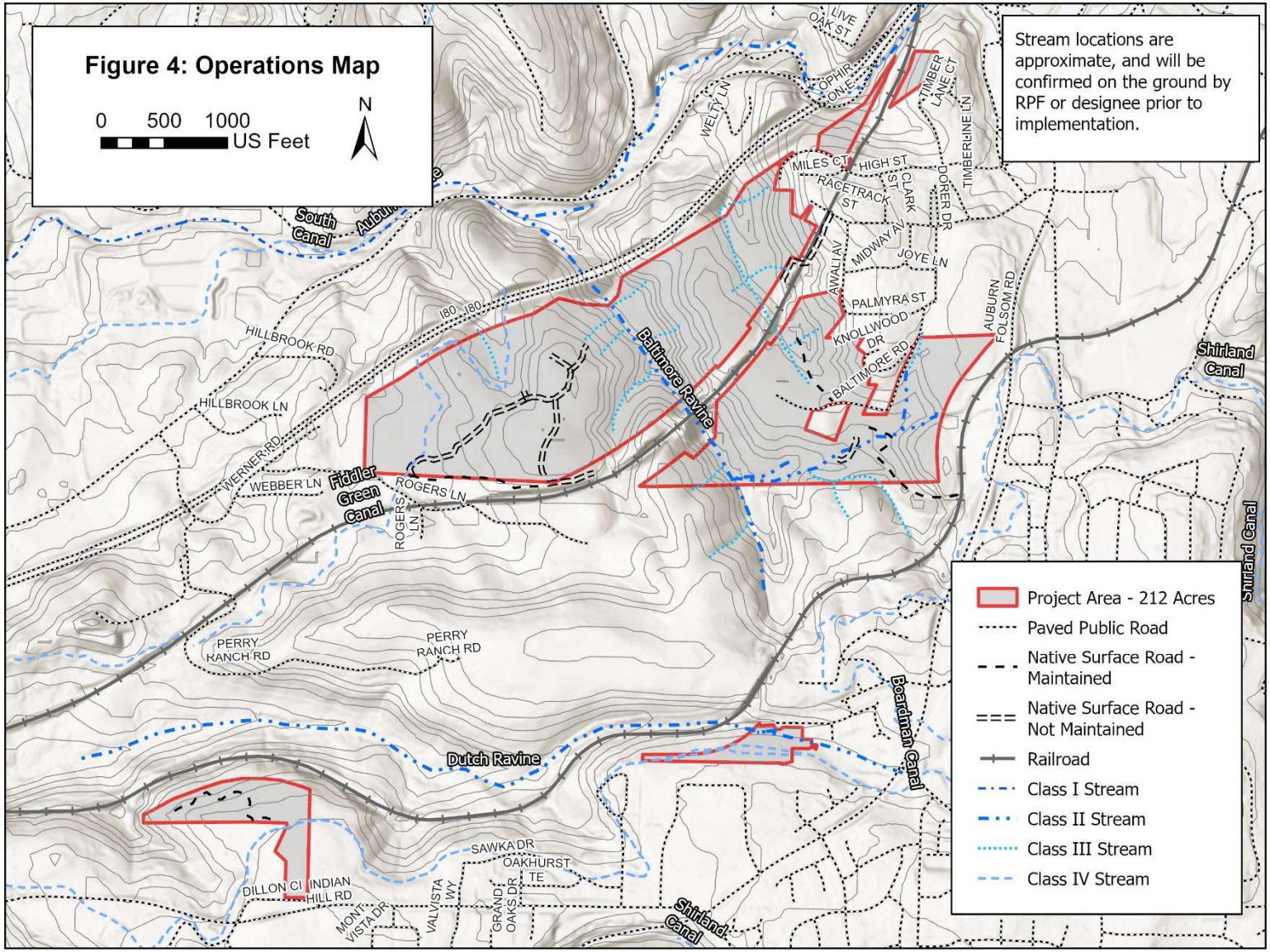
Figure 4: Operations Map
0 500 1000
US Feet
N
Stream locations are approximate, and will be confirmed on the ground by RPF or designee prior to implementation.
Project Area - 212 Acres
Paved Public Road
Native Surface Road - Maintained
Native Surface Road - Not Maintained
Railroad
Class I Stream
Class II Stream
Class III Stream
Class IV Stream
South Canal
I80
HILLBROOK RD
HILLBROOK LN
WERNER RD
WEBBER LN
Fiddler Green Canal
ROGERS LN
Baltimore Ravine
PERRY RANCH RD
Dutch Ravine
DILLON CT
INDIAN HILL RD
SAWKA DR
OAKHURST TE
VALVISTA WY
GRAND OAKS DR
Shirland Canal
Boardman Canal
LIVE OAK ST
OPHIR ONE
WELTY LN
TIMBER LANE CT
TIMBERLINE LN
MILES CT
HIGH ST
RACETRACK ST
CLARK ST
DORER DR
MIDWAY AV
JOYE LN
AWALIAV
PALMYRA ST
KNOLLWOOD DR
BALTIMORE RD
AUBURN FOLSOM RD

IV. EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 Analysis of Impacts to Aesthetics

Under CEQA, the effects of a Project on Aesthetics are potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

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

4.1.1. Discussion

a) and c). The Project will involve the removal of small trees and brush which will alter the appearance of the treatment areas to some degree. Generally, the public will view the Project area from existing roads, trails, and residences. Currently much of the Project area has a thick understory of small trees and brush which obscures the sight distance. The Project will create a more open understory and will increase sight distances. In areas surrounding the Project area, there is currently a mosaic of vegetation density ranging from open grassland to dense woodland

with a thick brush understory. Project treatments will create an open understory while maintaining the overstory, so treatments are unlikely to significantly impact scenic vistas. In some cases, the natural vegetation present provides a visual screen between neighboring residences and between residences and roadways or other public viewpoints. The Project has the potential to reduce the visual screening effects of natural vegetation. Figures 5 and 6 show actual Project areas that are proposed for fuels treatment. Figures 7 and 8 show examples of fuels treatment projects implemented within similar vegetation types using similar methods.

b) There are no state scenic highways within the Project area, and the Project is not visible from any state scenic highways.

d) The Project does not propose construction of a light source or reflective material. Existing light sources in the area are associated with residences and the athletic field at the Auburn Recreation District. Retained overstory trees will continue to serve as visual screens for existing light sources.

Figure 5. Photograph taken July of 2024 within the Project area. Understory fuels consist of manzanita, live oak, and black oak.



Figure 6. Photograph taken July of 2024 within the Project area. Understory fuels consist of buckeye and live oak, with a blue oak overstory.



Figure 7. Example of an area that has been treated to reduce understory fuels. This photo is representative of Project areas following treatment with hand cutting and chipping.



Figure 8. Example of an area that has been masticated to reduce understory fuels.

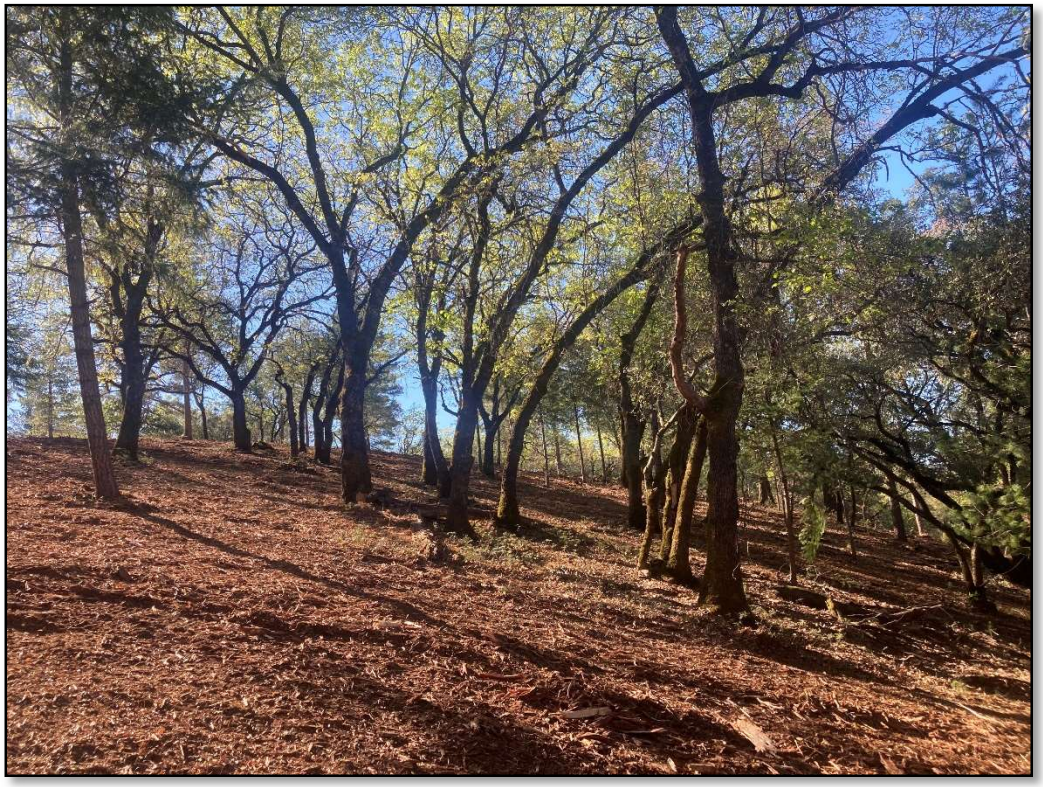

Figure 9. Example of an area that has been treated using hand cut/pile/burn to reduce understory fuels.



4.1.2. Mitigations

As described in Item 2.3, some patches of dense cover (brush and trees) will be retained throughout the treatment areas which will break up the open appearance created by the Project. Spacing and tree retention specifications will ensure that treatments do not significantly alter the appearance of the Project areas. Additionally, when implementing treatments within the Project the following mitigations will be followed:

a) Where feasible, treatment boundaries will be designed to connect with natural features such as topographic breaks and natural changes in vegetation type.
b) When implementing treatments on private property adjacent to residences, landowners will be contacted to identify potential locations of retained dense cover for the purposes of visual screening.

4.1.3. Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Aesthetics to a less than significant level.

4.2 Analysis of Impacts to Agriculture and Forestry Resources

Under CEQA, the effects of a Project on Agriculture and Forest Resources are potentially significant if the proposed Project-related actions result in any of the following (CEQA Environmental Checklist Appendix G):

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model

(1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

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

4.2.1. Discussion

a) Currently the Project area contains very little agricultural activity. It is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (State of California 2024). If areas of farmland were to occur in the Project area, they would be in a condition which does not require treatment and therefore be excluded. The Project will not result in conversion of agricultural land.

b) The proposed activities are consistent with allowable uses for agricultural zoning or Williamson act contracts.

c,d,e) The Project will involve the felling and chipping, masticating, or burning of trees 12 inches DBH or less. The treatment specifications were designed to retain tree cover in amounts which would not transition the Project area from forest to non-forest condition. Specifically, the tree removal specifications will result in no areas falling below 150 trees per acre where present prior to treatment activities. This will result in all areas which were previously forestland remaining forestland. The Project does not constitute "timber operations' under the Forest Practice Act because no commercialization of forest products will occur, and timberland will not be converted to other uses. No changes in zoning are proposed by the Project, and all activities are allowable under existing zoning.

4.3 Analysis of Impacts to Air Quality

Under CEQA, the effects of a Project on Air Quality are potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative	☐	☒	☐	☐

thresholds for ozone precursors)?				
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

4.3.1. Discussion

a,b) The Project area is in the Sacramento Valley Air Basin Plan. The Placer County Air Pollution Control District CEQA air Quality Handbook (Placer County 2017) and associated review policy document was utilized to determine thresholds of significance for ROG, NOX, and PM10. The thresholds are summarized in Table 4.

Table 6. Thresholds of significance for particulate pollutants according to the Placer County Air Pollution Control District.

Pollutant	Daily Threshold (lbs)
ROG	82
NOX	82
PM10	82

The Project will involve emissions from equipment operations, dust from mastication, and burning. Such sources are assessed as follows.

Equipment Operations

The Project will involve some emissions from equipment operations. The daily emissions from such use were estimated using the Sacramento Metro Air Quality Management District: Construction Mitigation Calculator (Sacramento Air Pollution Control District 2024), assuming the potentially most active operational scenario of a skid steer loader (this is a substitute for the tracked chipper) and an excavator (aka masticator) operating simultaneously on the same day for 8 hours. This yielded daily emissions of 0.34 lbs ROG, 0.46 lbs NOX and .03 PM10, all of which are far below the Daily Threshold identified by Placer County Air Pollution Control District. Therefore, Project operations are not Projected to meet or exceed daily emissions thresholds, even if the number of pieces of equipment operating at a single time is increased to speed up Project work.

Fugitive Dust

Mastication operations have the potential to generate fugitive dust when operating during periods of low soil moisture. Fugitive dust emissions are regulated by Placer County Air Pollution Control District's Rule 228, which states that the following operations are EXEMPT from fugitive dust

control measures: "*Weed abatement operations, fire hazard abatement, or vegetation clearing for fire defense purposes ordered or conducted by a county agricultural commissioner, or any state, county, or municipal fire department, or that is required by a local ordinance.*" (Placer County 2003). Therefore, the Project is not subject to dust control measures.

Burning Emissions

Burning operations associated with this Project would be regulated by Placer County Air Pollution Control District's Rule 303 Prescribed Burning and Smoke Management. Refer to section 4.3.2 for mitigations.

c) The Mountain County's Air Basin portion of Placer County is in nonattainment status for Ozone and PM10 under state designations, and in nonattainment status for 8-hour ozone under federal standards. The Project will involve some emissions of PM 10 and substances leading to Ozone generation, but such emissions will only occur during operations and will not be a long-term source. The purpose of the Project is to assist in controlling wildfire which is a major source of PM10 in Placer County; therefore, the Project may result in a net emissions reduction over time.

d, e) As discussed in item a and b above the Project will involve some temporary increases in pollutants which could expose sensitive receptors to such pollutants and create objectionable odors (primarily smoke) to nearby residences. The emissions would not persist in each area for a prolonged period of time due to emissions only being generated during operations to create the fuelbreaks. The mitigation measures specified for a and b would also mitigate impacts related to d and e to less than significant levels.

4.3.2. Mitigations

a) Burning will follow all regulations applicable to "Forest management burning" as defined and stipulated under Placer County Air Pollution Control District's Rule 303 Prescribed Burning Smoke Management (Placer County 2012).

b) Pile burning will not occur within 500 feet of residences or other structures occupied by humans unless arrangements are made with the buildings' occupants to assure impacts do not occur. Additionally, pile burning will be conducted with due consideration for wind direction, inversion, and other climatological factors that could cause adverse effects to neighboring populated areas.

c) All piles will be sufficiently dry and free of soil and other noncombustible material to allow for effective burning.

d) Piles shall be covered by plastic or wax paper. Covers shall be of a size that will allow for a sufficient dry zone for lighting of piles in wet conditions.

e) Piles must be burned or otherwise treated not later than April 1st of the year following their creation; or, for piles created on or after September 1st, not later than April 1st of the second year following creation.

4.3.3. Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Air Quality to a less than significant level.

4.4 Analysis of Impacts on Biological Resources

Under CEQA, the effects of a Project on biological resources are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	☐	☒	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	☐	☒	☐	☐
c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.	☐	☒	☐	☐

d) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	☐	☒	☐	☐
e) 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.	☐	☐	☐	☒
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	☐	☐	☐	☒
g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	☐	☐	☐	☒

This section discloses the potentially significant impacts of the proposed Project on special status species. Special status species considered in this assessment include species:

- Protected by the Federal or California ESA (listed Endangered or Threatened)
- Under consideration for protection by the Federal or California ESA (Candidate or Proposed)
- Identified by the California Department of Fish and Wildlife (CDFW) as a Species of Special Concern
- Designated as fully protected by the California Fish and Game Code (§3511, §4700, or §5050)
- Listed as rare on List 1B and 2 by the California Native Plant Society (CNPS)

This biological assessment area covers the USGS 7.5' Quadrangles of Auburn, Colfax, Coloma, Gold Hill, Greenwood, Pilot Hill, Rocklin, Wolf, and Lake Combie. Throughout this section on biological resources, the "assessment area" refers to this 9-quad search area. While a "9 quad

search" like the query performed in this analysis provides an exhaustive list of species that may be present in the area, search results often yield species that are not suited to the local habitat. Table 7 summarizes all results of this analysis for animal species, and Table 8 for plant species.

Each table is followed by a detailed analysis, which discusses each species or group in three sections:

A) Species status and requirements. This section describes the existing environment, including species life history, habitat requirements, and other relevant information.

B) Impacts of the proposed Project. This section addresses the potential impacts of the proposed Project to the various species or groups including Project design standards and required mitigation measures. Impacts are described as direct, indirect, or cumulative, following the CEQA Guidelines (CEQA Guidelines Section 15358).

- Direct impacts "are caused by the Project and occur at the same time and place". Examples include mortality or disturbances that result in flushing, displacement, or harassment of the subject animal.
- Indirect impacts "are caused by the Project and are later in time or farther removed in distance but are still reasonably foreseeable". For example, indirect impacts include habitat alteration.
- Cumulative impacts are "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts". The following additional detail is provided in the CEQA Guidelines (CEQA Guidelines Section 15355):
    a) The individual effects may be changes resulting from a single Project or a number of separate Projects.
    b) The cumulative impact from several Projects is the change in the environment which results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable probable future Projects. Cumulative impacts can result from individually minor but collectively significant Projects taking place over a period of time."

C) Conclusion and determination. This section provides a summary of supporting conclusions and the statement of determination for each species or group based upon relevant information provided in Sections A and B.

4.4.1 Special Status Animals

In Table 7, an impact determination is made for each species based on best available knowledge of the species range and habitat, combined with firsthand knowledge and assessment of the Project area. If the determination is "No Impact," no further analysis is made. If the Project has the potential to significantly impact the species, it is noted in the table and analyzed further.

Table 7. Assessment of Special Status Faunal Species resulting from a CNDDB BIOS search performed on June 21, 2024.

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
Special Status Mammals				
American Badger *(Taxi taxus)*	SSC	Prefers grasslands and open, treeless areas, or marshes, deserts, and mountain meadows with friable soils.	Not observed in or near Project area. Suitable habitat is not present within the Project area.	No impact
Northern California Ringtail *(Bassariscus astutus raptor)*	FP	Riparian habitats, and in brush stands of most forest and shrub habitats at low to middle elevations	Not observed in or near Project area. Suitable habitat is present in Project.	Less than Significant Impact with Mitigation Measures
Pacific Fisher (*Pekania pennanti*)	SSC	Upland and lowland forests, coniferous, mixed, and deciduous. Dense canopy cover.	Project is outside of the range of this species.	No impact
Pallid bat (*Antrozous pallidus*)	SSC	Grasslands, shrublands, woodlands and forests	Not observed in or near Project area. Suitable roosting and foraging habitat present in Project.	Less than Significant Impact with Mitigation Measures
Townsend's big-eared bat (*Corynorhinus townsendii)*	SSC	Roost in caves abandoned mines, or buildings.	Observed near Project area but no records in Project area. Suitable roosting and foraging habitat present in Project.	Less than Significant Impact with Mitigation Measures

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
Special Status Birds				
Bald eagle (*Halieaeetus leucocephalus*)	CESA-E, FP	Nests in large coniferous trees within one mile of large permanent bodies of water. Forages in various habitat types.	Not observed in or near Project area. Suitable nesting and foraging habitat may be present within the Project area (within 1 mile of the North Fork American River). However, the area is highly developed and nesting is unlikely.	Less than Significant Impact with Mitigation Measures
Bank Swallow *(Riparia riparia)*	CESA-T	Primarily in riparian and other lowland habitats in California west of deserts during spring-fall period	Not observed in or near Project area. Single observation in the Coloma quad. The species may use steep embankments like the railroad or highway embankment for nesting. These nesting habitat types are present in the Project area. However, these are colonial nesters and no observations were made during field reconnaissance along railroad tracks.	Less than Significant Impact with Mitigation Measures
California black rail (*Laterallus jamaicensis*	FP CESA-T	Shallow freshwater marshes, wet	Suitable habitat is not present within the Project area.	No Impact

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
coturniculus)		meadows, and flooded grassy vegetation		
Golden Eagle (*Aquila chrysaetos*)	FP	Forests, canyons, shrublands, grasslands and oak woodlands. Nest on cliffs or steep escarpments in vegetated areas.	Not observed in or near Project area. Foraging habitat may be present. No suitable nesting habitat present in Project Area.	Less than Significant Impact with Mitigation Measures
Loggerhead Shrike *(Lanius ludovicianus)*	SSC	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Highest density occurs in open canopied valley foothill hardwood, valley foothill, hardwood conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats.	Not observed in or near Project area. Suitable habitat present in Project.	Less than Significant Impact with Mitigation Measures
Olive-sided flycatcher *(Contopus cooperi)*	SSC	Mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine	Not observed in or near Project area. Suitable habitat present in Project.	Less than Significant Impact with Mitigation Measures

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
Purple martin *(Progne subis)*	SSC	Uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood.	Not observed in or near Project area. Suitable habitat present in Project.	Less than Significant Impact with Mitigation Measures
Tricolored Blackbird *(Agelaius tricolor)*	CESA-T, SSC	Emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs.	Not observed in or near Project area. Suitable habitat is not present within the Project area.	No Impact
White-tailed kite *(Elanus leucurus)*	FP	Inhabits herbaceous and open stages of most habitats	Not observed in or near Project area. Suitable habitat may be present.	Less than Significant Impact with Mitigation Measures
Willow Flycatcher *(Empidonax trailii)*	CESA-E	Broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	Project is outside of the range of this species.	No Impact

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
Yellow Warbler *(Setophaga petechia)*	SSC	Riparian woodlands. Montane chapparal, and in open ponderosa pine and mixed conifer habitats with substantial amounts of brush.	Not observed in or near Project area. Suitable habitat present in Project.	Less than Significant Impact with Mitigation Measures
Yellow-breasted chat *(Icteria virens)*	SSC	Riparian thickets of willow and other brushy tangles near watercourses	Not observed in or near Project area. Suitable habitat exists along Baltimore Ravine.	Less than Significant Impact with Mitigation Measures
Special Status Amphibians and Reptiles				
Foothill yellow-legged frog *(Rana boylii)*	CESA-T	Found in or near rocky perennial streams and rivers in a variety of habitats including riparian, mixed conifer, and wet meadow types below 6,000'.	Occurs near, but no records in Project area. Some suitable foraging and dispersal habitat is present.	Less than Significant Impact with Mitigation Measures
California red-legged frog (*Rana draytonii*)	T	Found mainly near ponds in humid forests, woodlands, grasslands, and streamside with plant cover. Most common in	Did not occur in the CNDDB database, and was not observed in Project area. Suitable reproductive habitat is not present. Some	Less than Significant Impact with Mitigation Measures

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
		lowlands or foothills. For breeding, they require ponds or slow-flowing, deep pools in streams with emergent vegetation.	suitable foraging and dispersal habitat is present.	
Coast horned lizard *(Phrynosoma blainvillii)*	SSC	Chaparral and coastal sage scrub vegetation with friable sandy soils	Suitable habitat is not present within the Project area.	No Impact
Western pond turtle *(Actinemys marmorata)*	P, SSC	Associated with permanent or nearly permanent water in a wide variety of habitat types. Basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks	Occurs within assessment area, no records within Project area. Two irrigation ponds on Auburn Recreation District property could be potential habitat, but the area is protected by a chain-link fence. Ponds are man-made and lack riparian vegetation, and no turtles were observed during Project layout. Therefore, suitable habitat is not present within the Project area.	No Impact
Special Status Fish				
Central valley steelhead pop.	T, SSC	Upper Sacramento	Suitable habitat is not present within	Less than Significant Impact

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
11 (*Oncorhynchus. mykiss irideus*)		River tributaries.	the Project area. There is potential for downstream impacts.	with Mitigation Measures
Special Status Invertebrates				
Crotchs bumble bee *(Bombus crotchii)*	CE	Open grasslands, shrublands, chapparal, desert margins including Joshua tree and creosote scrub, and semi- urban settings	Project is outside of the range of this species.(IUCN 2015)	No Impact
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus)*	T	Requires elderberry for entire life cycle.	Occurs near but no records in Project area. Suitable habitat may exist within the Project area.	Less than Significant Impact with Mitigation Measures
Western bumblebee (*Bombus occidentalis)*	CE	Ground burrows and abundant nectar-producing flowers.	Occurs near, but no records in Project area. Suitable habitat present in Project.	Less than Significant Impact with Mitigation Measures

[1]Key: E = USFWS Endangered, T = USFWS Threatened, C = USFWS Candidate, P=USFWS Proposed, FP = CDFW Fully Protected, SSC = CDFW Species of Special Concern, CESA-(R,T,E, CT, CE) = California Endangered Species Act Rare(R) , Threatened (T) or Endangered (E) Candidate Threatened (CT), Candidate Endangered (CE)

4.4.1.1 Special Status Mammals

California ringtail *(Bassariscus astutus raptor),* pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*)

A. Existing Environment

California ringtail is widely distributed, common to uncommon permanent resident. Occurs in various riparian habitats and in brush stands of most forest and shrub habitats at low to middle elevations. Little information is available on distribution and relative abundance among habitats (Grinnell et al. 1937, Schempf and White 1977). Hollow trees, logs, snags, cavities in talus and other rocky areas, and other recesses are used for cover (Ahlborn 2005).

The pallid bat is most associated with open, dry habitats of many different vegetation types. Habitat must also provide access to rocky, and particularly cool areas (*e.g.*, crevices, caves, mines) for roosting (Zeiner *et al.* 1988-1990).

The Townsend's big-eared bat is found in all habitat types except subalpine and alpine. This species prefers mesic habitats and focuses foraging efforts along ecotones. Roost sites are a limiting habitat factor, and the bat requires caves, or man-made cave-like structures such as tunnels or buildings (Zeiner *et al.* 1988-1990).

The CNDDB search revealed 1 occurrence of pallid bat and 3 occurrences of Townsend's big-eared bat within the 9-quad search, and none within the Project area. The closest recorded special-status bat occurrence is a sighting of the Townsend's big-eared bat near Placer High School that was recorded in 1913 (CNDDB). The search revealed one occurrence of ringtail cat in the Colfax quad, outside of the Project area.

B. Effects of the Proposed Project

Direct impacts: Noise produced by Project-related activities could disturb roosting bats, particularly Townsend's big-eared bats that are known to be sensitive to disturbance while roosting. Project-related vegetation removal could harm roosting individuals if roosting structures such as dead or hollow trees are removed. However, the Project does not propose snag removal except where approved by an RPF when the snag poses a fuel hazard or a risk to health or safety. Generally, snags above 12 inches in size shall be retained on the landscape for habitat purposes. Live trees that are 12 inches in size or under do not provide sufficient bat habitat. Project activities will not directly impact caves or buildings where bats may roost, except through noise disturbance. No caves or adits suitable for nesting bats have been sighted during project reconnaissance or archaeological surveys.

Noise from Project-related activities could also disturb ringtail cats, though they will likely exit the area once work begins. Project-related activities are not expected to impact rock crevices or burrows where nesting occurs but may impact snags or abandoned woodrat nests that may be used by ringtails.

Indirect impacts: Project work is not expected to have a significant negative indirect impact on these species. The more open post-fuel-treatment canopy could improve habitat for foraging, and a reduction in wildfire risk reduces threats to individuals and populations. Impacts are also expected to be limited in scope as the Project comprises a small percentage of the available suitable habitat within the Assessment area, especially for habitat generalists like the ringtail.

Cumulative Impacts: Other fuels management Projects, residential development, wildfire, building demolition and land management Projects that result in ground disturbance or vegetation removal will continue to affect these special status bat species directly and indirectly.

Impact Avoidance and Mitigation Measures

a) Retain standing, non-hazardous snags above 12 inches for wildlife purposes. Suitable roosting snags proposed for removal due to threats to health and safety shall be assessed for roosting bats prior to removal.

b) Caves and mineshafts should be clearly marked and reported to the RPF immediately. Avoid impacts to caves by observing a 100-foot no disturbance buffer around cave entrances.
c) If a roosting bat or ringtail is seen in the Project area during operations, the contractor shall promptly cease all vegetation-disturbing activities within 200 feet of the occurrence and notify the RPF immediately. RPF or qualified biologist will establish appropriate buffers before work continues.

C. Conclusions and Determination

Implementation of the Project is expected to result in a Less than Significant Impact on the special status mammal species including the ringtail, pallid bat, and Townsend's big-eared bat.

4.4.1.2 Special Status Birds

Bald eagle (*Halieaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), yellow warbler *(Setophaga petechia),* yellow-breasted chat *(Icteria virens),* loggerhead shrike *(Lanius ludovicianus),* olive-sided flycatcher *(Contopus cooperi),* bank swallow *(Riparia riparia*), white-tailed kite *(Elanus leucurus),* purple martin *(Progne subis)*

A. Existing Environment

Bald eagles are associated with a variety of forested habitat types. The most important habitat elements for bald eagles include the presence of a large body of water or river abundant with fish, and appropriate nesting and roosting trees. Nest trees are typically large, old growth live trees or snags located within 1 mile of permanent large bodies of water. Breeding typically occurs between January 1st and August 31st (Zeiner *et al*. 1988-1990).

Golden eagles typically inhabit foothills, mountainous terrain, and arid flats or desert habitat types. They most often nest on cliffs but will also use large trees in open-canopy habitats. This species requires open terrain for hunting (Zeiner *et al*. 1988-1990).

Yellow Warbler is a common summer resident, transient, and common to abundant winter resident. The species breeds in riparian woodlands from coastal and desert lowlands up to 8000 ft in the Sierra Nevada but may also breed in montane chaparral and open pine/mixed conifer habitats with substantial brush. In summer, it is often found in riparian deciduous habitats found in low, open-canopy riparian areas (Green 2005).

Yellow- breasted Chat is an uncommon summer resident and migrant in coastal California and in foothills of the Sierra Nevada and is found up to about 1450 m (4800 ft) in valley foothill riparian, and up to 2050 m (6500 ft) east of the Sierra Nevada in desert riparian habitats (Gaines 1977b, DeSante and Ainley 1980, Garrett and Dunn 1981). This species requires riparian thickets of willow and other brushy tangles near watercourses for cover (Green 2005).

Loggerhead Shrike is a common resident and winter visitor in lowlands and foothills throughout California. This species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Highest species density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. The species occurs only rarely in heavily urbanized areas, but is often found in open cropland. Sometimes uses edges of denser habitats (Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981, CDFW 2005).

Olive-Sided Flycatcher is an uncommon to common summer resident in a wide variety of forest and woodland habitats below 2800 m (9000 ft) throughout California exclusive of the deserts, the Central Valley, and other lowland valleys and basins. Preferred nesting habitats include mixed

conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine (Grinnell and Miller 1944, Garrett and Dunn 1981, CDFW 2005).

Bank Swallow is a neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period (McCaskie et al. 1988). In summer, it is restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In migration, this species flocks with other swallows over many open habitats. Range in California estimated to be reduced 50% since 1900 (California Department of Fish and Game 1989). The species was formerly more common as breeder in California. Now, only approximately 110-120 colonies remain within the state. Perhaps 75% of the current breeding population in California occurs along banks of the Sacramento and Feather rivers in the northern Central Valley. About 50-60 colonies remain along the middle Sacramento River and 15-25 colonies occur along lower Feather River where the rivers meanders still in a mostly natural state. (Remsen 1978, California Department of Fish and Game 1989, CDFW 2005).

Purple Martin is an uncommon to rare local summer resident in a variety of wooded low-elevation habitats throughout the state; a rare migrant in spring and fall, absent in winter. Uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood (Garrett and Dunn 1981). Absent from higher slopes of the Sierra Nevada. Inhabits open forests, woodlands, and riparian areas in breeding season. Found in a variety of open habitats during migration, including grassland, wet meadow, and fresh emergent wetland, usually near water.

White-tailed kite is common to uncommon, yearlong resident in coastal and valley lowlands; rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats mostly in cismontane California. Has extended range and increased numbers in recent decades (CDFW 2005).

The CNDDB search revealed one occurrence of bank swallow, two occurrences of bald eagle, and one occurrence of white-tailed kite within the Assessment area. None of these occurrences intersect the Project area.

B. Impacts of the Proposed Project

Direct impacts to special status bird species could occur as a result of noise-generating Project-related activities.

Indirect impacts: Vegetation removal in the understory has the potential to change foraging habitat suitability for raptor species. Project-related activities are not expected to alter the CWHR habitat types, and an open understory could make the area more accessible to foraging by raptors. Other direct impacts could include vegetation disturbance in and around nesting habitat, including removal of smaller trees and brush that could be used for nesting and foraging by the non-raptor special status bird species. The Project does not propose the removal of large live trees that may be used for nesting by raptor species. The Project does not propose snag removal except where approved by an RPF when the snag poses a fuel hazard or a risk to health or safety. Generally, snags above 12 inches in size shall be retained on the landscape for habitat purposes.

Cumulative impacts on special status bird species may occur from the combination of additional fuel treatments on neighboring private lands, residential development, or wildfire.

Impact Avoidance and Mitigation Measures

a) Suitable raptor nesting snags proposed for removal due to threats to health and safety shall be assessed for nests prior to removal.
b) If work is planned during the nesting bird season (April 1st – August 1st), a walking survey of all reasonably accessible areas of the treatment site and the immediate vicinity visible from the treatment site shall be conducted by a qualified individual within 72 hours of the start of work. This survey will include examination of suitable nesting trees for nests, whitewash, or any sighting/vocalization associated with nesting birds, including raptors.
c) For the bald eagle, golden eagle, yellow-breasted chat, yellow warbler, loggerhead shrike, olive-sided flycatcher, bank swallow, white-tailed kite, purple martin, or non-listed raptor:

    i. If an active nest is identified during a pre-work survey, a temporary, species-appropriate buffer will be established around the nest. If an active nest is identified during a pre-work survey, a temporary, species-appropriate buffer will be established around the nest. Buffer location and size will be determined by a qualified RPF or biologist and will be sufficient to prevent disturbance of breeding and nesting activities. Treatment activities will be implemented outside of the buffer until it is determined that the nestlings have fledged OR the nest is determined to be failed/abandoned. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities.
    ii. If an active nest or vocal individual exhibiting behavior associated with nesting is discovered during operations, the contractor shall promptly cease all vegetation-disturbing activities within 200 feet of the nest and notify the RPF immediately. Buffers shall be established as described above before work can commence.

d) For those bird species not listed above that are protected by the Migratory Bird Treaty Act: if an active nest is encountered during the survey, a 50-foot no-activity buffer for mastication or a 25-foot buffer for hand removal shall be applied around the nest until the nestlings have fledged OR the nest is determined to be failed/abandoned.
e) A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors are showing signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases.
f) Implement the watercourse protection zones (Table 13, Section 4.10.2) to protect riparian habitat elements.

C. Conclusion and Determination

Implementation of the Project is expected to result in a Less than Significant Impact on non-listed and special status bird species including the bald eagle, golden eagle, yellow-breasted chat, yellow warbler, loggerhead shrike, olive-sided flycatcher, bank swallow, white-tailed kite, and purple martin.

4.4.1.3 Special Status Amphibians

Foothill yellow-legged frog (*Rana boylii*), California red-legged from (*Rana draytonii)*

A. Existing Environment

Foothill yellow-legged frogs are found in or near rocky perennial streams and rivers in a variety of habitats including riparian, mixed conifer, and wet meadow types located up to 6,000 feet in elevation (Stebbins 2003, Stebbins and McGinnis 2012). These frogs prefer partial shade, shallow riffles, and cobble sized or greater substrate (Hayes and Jennings 1988). Occasionally, this species is also found in other riparian habitats, including moderately vegetated backwaters, isolated pools, (Hayes and Jennings 1988), and slow-moving rivers with mud substrates (Fitch 1938). Perennial streams or intermittent streams with perennial pools and ponds below 6,000 feet in elevation on the west slope of the Sierra Nevada should be considered suitable for foothill yellow-legged frogs. Little is known about the movement and dispersal of this species (Jennings and Hayes 1994). During breeding and summer, foothill yellow-legged frogs are rarely encountered far from permanent water. During the winter, frogs have been observed in abandoned rodent burrows and under logs as far as 100 meters from a stream (Zeiner et al. 1988).

California red-legged frogs occupy ponds and slow-moving streams up to approximately 5,000 feet in elevation. Adults and dispersing juveniles widely utilize riparian and upland habitats for foraging, cover, and dispersal during wet periods. Individuals have been confirmed to occupy upland areas for long periods of time several hundred feet from the nearest water source and may be found as far as 1 mile from water sources during wet weather (USFWS 2005). During summer, these frogs are generally found close to ponds and pools with emergent vegetation or root balls for shelter, or in burrows along streambanks (USFWS 2002). Breeding occurs in February or March, and tadpoles metamorphose from July to September, or as late as the following March or April, depending on local conditions. (75 FR 12816, 2010).

The CNDDB search revealed 32 occurrences of Foothill Yellow-Legged frog within the 9-quad buffer, and no recorded occurrences within the Project area. The closest recorded occurrence is located at the confluence of the North Fork and Middle Forks of the American River in the Auburn State Recreation Area. This occurrence is located within a separate planning watershed from the Project area, with no opportunity for dispersal from the recorded location to the Project area. The Class II streams within the Project area do not provide ideal breeding habitat for the yellow-legged frog as they tend to have a steeper grade, are highly invaded with Himalayan blackberry, and lack large rocks, pools, and open areas for basking and egg attachment.

The CNDDB search did not reveal any occurrences of the red-legged frog within the assessment area. There are no recorded downstream populations of red-legged frog, and the lack of suitable breeding habitat on the project makes occurrence unlikely, though Baltimore Ravine could be used as dispersal and/or foraging habitat, especially during wetter period when frogs may be traveling overland.

B. Impacts of the Proposed Project

Direct impacts to foothill yellow-legged frog are not anticipated due to the lack of appropriate breeding habitat. Class II streams may serve as foraging or dispersal habitat if a downstream source population exists. In this case, Project activities performed within approximately 330 feet of watercourses during wintertime or wet period may affect adult use of upland habitats. Watercourse protection measures listed in Table 13 (Item 4.10.2) are expected to sufficiently protect the frog from significant direct impacts of the Project.

Direct impacts to red-legged frogs could include direct killing of frogs during wetter periods if equipment is traveling in upland habitat. Watercourse protections are expected to sufficiently protect frogs in drier periods.

Indirect impacts to this species may occur as a result of this Project in the form of increased runoff and sediment loading within waterways from reductions in vegetation cover and ground

disturbance. The potential for high intensity wildfire that could cause adverse, long-term direct and indirect impacts to special-status amphibians through habitat degradation will be reduced as a result of this Project.

Cumulative impacts on foothill yellow-legged and California red-legged frogs may occur from the combination of additional fuel treatments on neighboring private lands, residential development, or wildfire.

Impact Avoidance and Mitigation Measures

a) Implement watercourse protection zones and associated protection measures as listed in Table 13 of this document (Item 4.10.2).
b) For the California red-legged frog, protocol surveys may be conducted to establish occupancy as time and resources allow. Timing of surveys will be determined in consultation with a biologist. If protocol surveys are not conducted OR if occupancy is confirmed, the following take avoidance measures shall be implemented. These measures were adapted from the USFWS Document "California Red Legged Frog Take Avoidance Scenarios" from March of 2008,
    i. The wet season starts with the first frontal rain system depositing a minimum of .25 inches after October 25th and ends on April 15th. During the wet season, for Class II watercourses where water is present: Maintain a 300-foot no-cut buffer and a 75-foot Equipment Exclusion Zone and fell trees away from the watercourse.
    ii. The dry season starts April 16th and ends with the first frontal rain system. During the dry season: Maintain a 30-foot no-cut buffer around Class II watercourses where water is present.
    iii. Do not burn piles within 300 feet of a Class II watercourse when water is present.
    iv. Foliar herbicide shall not be applied within 24 hours following a rain event of 0.25 inches or more and shall not be applied within 300 feet of Class II watercourses where water is present. Direct stump applications may occur without restriction.
c) If a foothill yellow-legged frog or red-legged frog is discovered during operations, the contractor shall cease operations within 100 feet of the discovery and notify the RPF. Measures could include buffers and timing restrictions.

C. Conclusions and Determination

Implementation of the Project is expected to result in a Less than Significant Impact on the foothill yellow-legged frog and the California red-legged frog.

4.4.1.4 Special Status Fish

Central Valley steelhead (*Oncorhynchus. mykiss irideus*)

A. Existing Environment

Central Valley steelhead are not known to occur within the Project area, but the CNDDB database confirmed presence of the species downstream from the Project area in Dry Creek and Auburn Ravine.

B. Effects of the Proposed Project

Direct Impacts: The proposed Project would not directly impact this species, or other special status fish species.

Indirect impacts to downstream habitat through increased sediment input to onsite Class II and III watercourses could occur as a result of vegetation removal activities and associated equipment

use in the Project area; however, the Project will comply with California FPRs to mitigate potential impacts of the Project to Class II and III watercourses. Refer to Table 13, Item 4.10.2. Although the proposed Project could temporarily affect Class II and III watercourses, the Project is intended to provide longer-term protection of the area by reducing the potential for wildfire, an event which could result in much greater sediment loading of watercourses on and downstream from the Project.

Cumulative Impacts: Other fuels management Projects on neighboring land, wildfire, residential development, and land management Projects that result in ground disturbance or vegetation removal within the watershed will continue to affect downstream watercourses that provide habitat for special status fish species.

Impact Avoidance and Mitigation Measures

a) Implement watercourse protection zones and associated protection measures as listed in Table 13 of this document (Item 4.10.2).

C. Conclusions and Determination

Implementation of the Project is expected to result in a Less than Significant Impact with Mitigation Measures on the Central valley steelhead.

4.4.1.5 Special Status Invertebrates

Western bumble bee (*Bombus occidentalis*), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)

A. Existing Environment

Western bumble bees rely on nectar gathered from a wide variety of flowering plants primarily determined by mouthpart morphology (Evans *et al*. 2008, Hatfield *et al*. 2014). This species occupies open grassy areas, mountain meadows, and chaparral/shrub vegetation communities. The Valley elderberry longhorn beetle (VELB) only utilizes a single host plant, the elderberry (*Sambucus spp.*). Adult females lay their eggs on the shrub, and larvae burrow into plant stems where they will remain for 1-2 years until they emerge, generally between March and June (USFWS 2006).

The CNDDB search revealed 12 occurrences of VELB within the assessment area, and no recorded occurrences within the Project area. Most occurrences are located at much lower elevations within the Central Valley, though there is one occurrence noted in the Lake of the Pines area at 1880 feet elevation. While no elderberry plants have been observed during Project reconnaissance, it is likely that they are present within riparian areas throughout the Project.

The CNDDB search revealed 2 occurrences of Western bumble bee within the assessment area, and no recorded occurrences within the Project area. The closest recorded occurrence is approximately 4 miles southeast of the Project area in the Pilot Hill area. Flowering shrubs are plentiful within the Project area.

B. Effects of the Proposed Project

Direct Impacts: Individual insects and/or larvae of special-status invertebrates could be disturbed during vegetation removal and/or herbicide application.

Indirect Impacts: Removal of understory brush species could result in localized removal of foraging and/or nesting habitat. Direct and indirect effects would likely be limited in scope as the

Project comprises a small percentage of the available suitable habitat within the Assessment area, which contains an abundance of native flowering shrubs on undeveloped properties.

Cumulative Impacts: Special status insects could be cumulatively impacted by fuels reduction activities on neighboring land, wildfire, residential development, and herbicide application, all of which could result in the removal of flowering plants.

Impact Avoidance and Mitigation Measures

a) Implement watercourse protection zones and associated protection measures as listed in Table 13 of this document (Item 4.10.2).
b) Retain brush "islands" as described in Item 2.3, Tables 1 and 2.
c) The USFWS developed conservation guidelines for the Valley elderberry longhorn beetle that describe additional protective measures (beyond those listed above) used to avoid impacts to this species (USFWS 1999). Measures to be implemented by the Project are:
    i. Elderberry plants encountered during Project planning and layout will be flagged with pink "Do Not Cut" flagging. Contract crews shall be instructed on elderberry identification prior to start of work.
    ii. A 100-foot-wide buffer surrounding elderberry plants will fully protect the beetles from Project-related vegetation removal activities.
    iii. Herbicides will not be applied within 100 feet of any elderberry plant with a stem measuring greater than 1 inch in diameter at ground level.
    iv. Removal of nearby ground vegetation (within 5 feet of elderberry plants) may be completed from July through April.

C. Conclusions and Determination

Implementation of the Project, including impact avoidance and mitigation measures, is expected to result in a Less than Significant Impact on the Western bumble bee and Valley elderberry longhorn beetle.

4.4.2 Special Status Plants

A summary of this assessment of Project-related impacts to special status plants is presented in Table 8. All life history information provided in the existing environment sections below was obtained from the California Native Plant Society Rare and Endangered Plant Inventory (CNPS Rare Plant Program 2017). Habitat preferences described in the CNPS database were based on an assessment conducted in 2017.

Table 8. Assessment of Special Status Plants.

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
Jepson's Onion *(Allium jepsonii)*	CNPS 1B.2	Cismontane woodland, serpentine and volcanic, chapparal, lower montane coniferous forest between 300 and 1,320 meters in elevation.	Not observed in Project area. One occurrence in Assessment area along a roadside in North Auburn in serpentine soils. No suitable habitat exists within the Project area.	No Impact*

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
Big Scale Balsamroot (*Balsamorhiza macrolepis)*	CNPS 1B.2	sometimes serpentine, Chaparral, cismontane woodland, valley and foothill grassland between 90 and 1555 meters in elevation.	Not observed in Project. One known occurrence within the Assessment area along the edge of Folsom Lake. No suitable habitat exists within Project area.	Less than Significant Impact with Mitigation Measures
Stebbins morning glory (*Calystegia stebbinsii)*	E CESA-E	Gabbroic or serpentine, chaparral, cismontane woodland between 185 and 1090 meters in elevation.	Not observed in Project; no known occurrences within the Project or Assessment area. No suitable habitat exists within Project area.	No Impact*
Chaparral sedge (*Carex xerophila)*	CNPS 1B.2	Gabbroic or serpentine, Chaparral, cismontane woodland, lower montane coniferous forest from 270 to 670 meters in elevation.	Not observed in Project. Large recorded population on gabbroic soils East of Zee Estates, Lake Folsom. No suitable habitat exists within Project area.	No Impact*
Pine hill ceanothus (*Ceanothus roderickii)*	E, CESA-R, CNPS 1B.1	Serpentine or gabbroic (nutrient-deficient forms of gabbro-derived soils characterized by low concentrations of available K, P, S, Fe, and Zn); Chaparral, Cismontane woodland from 245 to 1090 meters in elevation.	Not observed in Project; no known occurrences within the Project. Large recorded population within the Assessment area on gabbroic soils East of Zee Estates, Lake Folsom. No suitable habitat exists within Project area.	No Impact*
Red hills soaproot (*Chlorogalum grandiflorum)*	CNPS 1B.2	serpentine or gabbroic and other soils; chaparral, cismontane woodlands, lower montane coniferous woodland from 245 to 1690 meters in elevation.	Not observed in Project. Seven recorded occurrences on the far eastern edge of the Assessment area. No suitable habitat exists within Project area.	No Impact*
El Dorado bedstraw (*Galium californicum susp. Sierriae)*	E, CNPS 1B.2	Gabbroic soils in chaparral, cismontane woodland, lower montane coniferous forest from 100 to 585 meters in elevation.,	Not observed in Project; no known occurrences within the Project or Assessment area. All	No Impact*

Species	Species Status[1]	Habitat Requirements	Present In Project Area: Habitat and/or Detections	Impact Determination
			known occurrences are significantly farther south in El Dorado county, between Folsom Lake and Shingle Springs.	
Boggs lake hedge hyssop (*Gratiola heterosepala)*	CNPS 1B.2	Clay, marshes and swamps (lake margins), vernal pools	Not observed in Project. No suitable habitat exists within Project area.	No Impact*
Layne's ragwort (*Packera layneae)*	T CESA-R, CNPS 1B.2	serpentine or gabbroic, rocky, chaparral, cismontane woodlands from 200 to 1085 meters in elevation.	Not observed in Project. Two occurrences on the eastern side of Assessment area. No suitable habitat exists within Project area.	No Impact*
Sierra bluegrass (*Poa sierrae)*	CNPS 1B.3	lower montane coniferous forest, shady, moist, rocky slopes. often in canyons, from 365 to 1500 meters in elevation.	Suitable habitat exists in the Project area. Several recorded occurrences east of Colfax in canyons and on hillslopes.	Less than Significant Impact with Mitigation Measures
Common viburnum *(Viburnum ellipticum)*	CNPS 2B.3	chaparral, cismontane woodlands, lower montane coniferous woodland	Suitable habitat exists in the Project area. Three recorded occurrences in the Assessment area along Lake Clementine trail in Auburn State Recreation area.	Less than Significant Impact with Mitigation Measures
El Dorado County mule ears (*Wyethia reticulata)*	CNPS 1B.2	clay or gabbroic, chaparral, cismontane woodland, lower montane coniferous forest from 185 to 630 meters in elevation	Suitable habitat with clay soil exists in the Project area. Large population in four occurrences on Gabbro soils, Zee Estates area east of Folsom Lake.	Less than Significant Impact with Mitigation Measures

[1]Key: E = USFWS Endangered, T = USFWS Threatened, CESA-(R,T,E) = California Endangered Species Act Rare(R), Threatened (T) or Endangered (E)

**Field reconnaissance, aerial imagery, and an analysis of available soils data indicates that there is no serpentine or volcanic soil within the Project area. This species is dependent on these soil types; therefore, the Project will not have a significant direct, indirect, or cumulative impact on the species.*

4.4.2.1 Individual Special-Status Plant Assessments

Balsamorhiza macrolepis (Big-scale balsamroot)

A. Big-scale balsamroot: Existing Environment

Big-scale balsamroot is a perennial herb sometimes found on serpentinite soils within the chaparral, cismontane woodland and valley and foothill grassland habitat types. This species blooms between March and June. It is found between 300 and 5100 feet in elevation and there is one known occurrence within Assessment area along the edge of the Folsom Lake reservoir.

B. Big-scale balsamroot: Effects of the Proposed Project

While the proposed Project includes modification of understory vegetation and minor soil disturbance that could impact special-status plant species, field reconnaissance and an analysis of available data for soil types indicates that there is no serpentinite soil within the Project area. However, balsamroot can occur on other soil types. The Project does contain woodland habitat types that could support this plant. The proposed Project will disturb the forest floor through mechanical and hand thinning efforts. Direct and indirect effects would likely be limited in scope as the Project comprises a small percentage of the available suitable habitat within the Assessment area. Also, balsamroot prefers open grassland or sparse woodland. These habitat types will not be highly impacted by the Project, which will largely focus on understory fuels in dense, closed-canopy woodland environments. Lastly, this plant often favors serpentinite soils, which do not occur in the Project area. If after the start of operations big-scale balsamroot is detected, the species will be protected accordingly to minimize the potential for direct and indirect impacts to the species. Cumulative impacts could include nearby development, fuels reduction, and wildfire. Refer to 4.4.2.2 for mitigation measures.

C. Big-scale balsamroot: Conclusion and Determination

Implementation of the Project will cause a less than significant impact to Big-scale balsamroot.

Poa sierrea (Sierra blue grass)

A. Sierra blue grass: Existing Environment

Sierra blue grass is a perennial rhizomatous herb found within lower montane coniferous forest, shady, moist, rocky slopes. often in canyon habitat types. This species blooms between April and July and is found within elevations of 365 and 1500 meters. There are several recorded occurrences of this species within the Assessment area east of Colfax in canyon and hillside habitat.

B. Sierra blue grass: Effects of the Proposed Project

The Project has the potential to affect Sierra blue grass and suitable habitat directly and indirectly, although such habitat would likely occur within riparian and canyon areas with limited disturbance due to WLPZ protections and slope restrictions. The Project includes lower montane coniferous forest and canyon habitat. The proposed Project will disturb the forest floor through mechanical and hand thinning efforts. Direct and indirect effects would likely be limited in scope as the Project comprises a small percentage of the available suitable habitat within the Assessment area. If after the start of operations, Sierra blue grass is detected, the species will be protected accordingly to minimize the potential for direct and indirect impacts to the species. Cumulative impacts could include nearby development, fuels reduction, and wildfire. Refer to 4.4.2.2 for mitigation measures.

C. Sierra blue grass: Conclusion and Determination

Implementation of the Project may affect individuals or suitable habitat, but it is likely to cause less than a significant impact (with or without mitigation to get there) to Sierra blue grass.

Viburnum ellipticum (oval- leaved viburnum)

A. Oval-leaved viburnum: Existing Environment

Oval-leaved viburnum is native to the west side of the Cascades, from central Washington, down through Oregon, and into central California. This plant thrives in a variety of environments, including full sun, full shade, dry and moist soils. It is both drought and flood-resistant and is most commonly found in lowland thickets and open woods in yellow-pine forest and chapparal settings, generally on north-facing slopes.

B. Oval-leaved viburnum: Effects of Proposed Project

Oval-leaved viburnum could be directly impacted by the removal of understory vegetation during fuels reduction treatments. Cumulative impacts could include nearby development, fuels reduction, and wildfire. Given that viburnum thrives in many habitats and conditions, it is possible that incidental plants could be damaged or removed during fuels reduction activities. However, both direct and indirect effects would be limited in scope as the Project comprises a small percentage of available suitable habitat within the Assessment area. If the species is detected after the start of operations, it will be protected to minimize direct and indirect impacts. Cumulative impacts could include nearby development, fuels reduction, and wildfire. Refer to 4.4.2.2 for mitigation measures.

C. Oval-leaved viburnum: Conclusion and Determination

Implementation of the Project may affect individuals or suitable habitat, but it is likely to cause less than a significant impact (with or without mitigation to get there) to oval-leaved viburnum.

Wyethia reticulata (El Dorado mules ear)

A. El Dorado mule's ear: Existing Environment

El Dorado mule's ear is a perennial herb found on clay or gabbroic soils within chaparral, cismontane woodland, or lower montane coniferous forest habitat types. This species blooms between April and August and is found between 185 and 630 meters in elevation. There are no known occurrences within the Project area or Assessment area.

B. El Dorado mule's ear: Effects of the Proposed Project

The Project has the potential to affect El Dorado mule's ear and suitable habitat directly and indirectly. The Project includes chaparral, cismontane woodland, or lower montane coniferous forest habitat types. The proposed Project will disturb the forest floor through mechanical and hand thinning efforts. Direct and indirect effects would likely be limited in scope as the Project comprises a small percentage of the available suitable habitat within the Assessment area. Also, the species favors gabbroic soils, which are not present within the Project area. If after the start of operations, El Dorado mule's ear is detected, the species will be protected accordingly to minimize the potential for direct and indirect impacts to the species. Refer to 4.4.2.2 for mitigation measures.

C. El Dorado mule's ear: Conclusion and Determination

Implementation of the Project may affect individuals or suitable habitat, but it is likely to cause less than a significant impact (with or without mitigation to get there) to El Dorado mule's ear.

4.4.2.2 Mitigations for Special-Status Plant Species

The following mitigation measures shall be applied throughout the Project area.

a) Focused surveys of suitable habitat shall be conducted by a qualified individual prior to the start of work. Surveys shall focus on *Balsamorhiza macrolepis* (Big-scale balsamroot), *Poa sierrea* (Sierra blue grass), *Viburnum ellipticum* (oval- leaved viburnum), and *Wyethia reticulata* (El Dorado mules ear).
b) If one of the sensitive plant species listed above is detected during surveys, zones of 15 feet around the plant or outermost individual in a group of plants shall be flagged with "Special Treatment Zone" flagging.
    i. Tracked or wheeled equipment shall not be allowed to enter these zones except on existing roads and trails.
    ii. Mechanical removal of woody shrubs and fuels may occur within these zones. Fuels must be hand-carried out of zones without disturbing special-status plants; i.e., fuels shall not be dragged over special-status plants, workers shall not trample special-status plants, etc.
    iii. Chips or other woody material may not be broadcast into these special treatment zones.
    iv. If herbicide use is planned near protection zones for special-status plants, the Pest Control Advisor or other entity prescribing chemical usage shall be notified and appropriate protections for special-status plants shall be applied. This may include a wider buffer zone, special weather conditions, different chemical mixes, etc.
c) If a special-status plant species is detected during operations, all work will cease until the RPF is notified and appropriate buffer zones have been flagged as described above.

4.4.3 Sensitive Natural Communities

CEQA Environmental Checklist Appendix G: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service

The proposed Project will comply with the California Forest Practice Rules which require protection of sensitive resources including watercourses and their associated riparian zones. Refer to Table 13 (Item 4.10.2) for watercourse protections and buffer zones.

4.4.4 Wetlands

CEQA Environmental Checklist Appendix G: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency define wetlands as follows: "*Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."*

Field reconnaissance and analysis of aerial and Lidar data has revealed that there are no wetland areas, as defined above, within the Project area. Riparian habitat will be sufficiently protected to CA Forest Practice Rules standards, illustrated in Table 13 (Item 4.10.2). The proposed Project would therefore result in no impacts to wetlands and less than significant impacts on watercourses.

4.4.5 Fish and Wildlife Movement Patterns

CEQA Environmental Checklist Appendix G: 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

The Project will not have a significant impact on the movement or reproduction of native fish or wildlife. Stream buffers will mitigate the impact of Project activities on streams and aquatic wildlife to less than significant levels. Refer to the section on Special Status Birds under Section 3.4A above for information on how the Project will comply with the Migratory Bird Act, and for specific wildlife protection measures. The Project will result in a higher level of protection for wildlife from high-intensity wildfire while maintaining adequate cover for nesting and foraging.

4.4.6 Local Policies and Ordinances

CEQA Environmental Checklist Appendix G: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

The proposed Project is exempt from Placer County's Woodland Conservation policy (Placer County Code of Ordinances 19.50.060) because it constitutes tree removal undertaken as a part of a fuel reduction/fire safety/fire reduction program in conformance with commonly accepted CAL FIRE policies. The proposed Project does not conflict with any tree ordinances enforced by the City of Auburn.

4.4.7 Habitat Conservation Plans

CEQA Environmental Checklist Appendix G: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Placer County Conservation Program (PCCP), officially implemented in April of 2021, constitutes a Habitat Conservation Plan (HCP) under the Federal Endangered Species Act and a Natural Community Conservation Plan (NCCP) under the California Natural Community Conservation Planning Act. The Project is located within the City of Auburn, which is not a Permittee under the PCCP; the PCCP only governs County activities within city limits. Therefore, the proposed Project does not conflict with the PCCP or other Habitat Conservation Plan.

4.4.8 Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Biological Resources to a less than significant level.

4.5 Analysis of Impacts on Cultural Resources

Would the Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐

b) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

4.5.1 Discussion

This Project will not cause substantial adverse change in the significance of a historical resource assuming all work is performed according to the Project Description (Item 2.3 of this document) and that the proposed mitigations are incorporated. A professional archaeologist will conduct an Information Center records check, tribal consultation, and a walking survey all Project areas prior to project implementation.

As of 9/23/24, an archaeologist's report has been prepared for an initial 120 acres of Project area, which will be treated first. These 120 acres were surveyed in August of 2024 by the archeologist. The resulting report contains confidential information on the location of sensitive cultural sites and has been excluded from this public document. The United Auburn Indian Community was contacted by the archaeologist on 8/16/2024 to provide input during the archaeological survey process but declined to provide any information at that time. All mitigation measures for cultural sites have been incorporated into this IS/MND as recommended by the professional archaeologist. There are no known human remains within the Project area.

4.5.2 Mitigations

a) Prior to implementation of any Project treatment, a professional archaeologist will survey the proposed treatment area and prepare an associated archaeological report.
b) All sites shall be flagged by an archaeologist with a buffer sufficient to protect above-ground resources.
c) Tracked or wheeled equipment will be excluded from site boundaries except at existing roads and trails. Equipment may cross linear historic era features at existing crossings, or at pre-determined crossings dictated by the Registered Professional Forester.
d) Trees shall be directionally felled away from sites wherever safe and feasible.
e) Pile burning shall not be permitted within site boundaries of prehistoric sites except at designated areas approved by a professional archaeologist.
f) Additional mitigations may be implemented as necessary.
g) If a cultural resource is discovered during operations, all ground-disturbing activities within 50 feet of the discovery shall be halted and the Registered Professional Forester shall be notified immediately. Protections will be implemented in consultation with the professional archaeologist.
h) Per California Health and Safety Code §7050.5, in the event of discovery or recognition of potential any human remains, no further excavation or ground disturbance within 100-feet of the discovery site shall occur until the County Coroner has determined whether the remains are subject to the coroner's authority.
i) Per California Public Resources Code §5097.98, the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code §7050.5, shall immediately notify those persons it believes to be descended from the deceased, referred to as the most likely descendant (MLD). With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

4.5.3 Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Cultural Resources to a less than significant level.

4.6 Analysis of Impacts to Geology and Soils

Under CEQA, the effects of a Project on Geology and Soils are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

4.6.1 Discussion

a) The Project will have no impact on items (i,ii,iii) because the Project will not involve construction of structures and therefore not expose people to fault or seismic related hazards. Regarding item (iv): On stable hillslopes within the proposed Project, the tree retention prescription described in Item 2.3 (Project Description) will maintain adequate canopy cover and will not expose stable hillslopes to an amount of erosion sufficient to cause landslides. Many areas will also have >50% soil coverage due to the broadcasting of chips or the presence of masticated material, further protecting from surface erosion. Vegetation removal and heavy equipment operations on unstable areas has some potential to increase the risk of landslides.

b) The Project will involve the removal of vegetation which can act as protective cover and thus increase the potential for soil erosion. Erosion hazard ratings for the Project were calculated using the method described in the Board of Forestry Technical Rule Addendum No. 1 (California Forest Practice Rules 2024). The results of the calculations are summarized by the following table. Refer to Figure 10 – Erosion Hazard Map. These Erosion Hazard Ratings dictate the waterbreak spacing mitigation listed in Item 4.6.2(a) below. The small areas of “High” and “Extreme” hazard ratings border the throughcuts for the railroad. Equipment shall not operate on these slopes.

Table 9. Erosion Hazard Ratings within the Project Area.

Erosion Hazard Rating	Project Acres
Low	84.9
Moderate	123.4
High	0.22
Extreme	0.03
TOTAL	209*

**Acreage is slightly under-reported by the spatial tool provided by CAL FIRE for estimating EHR due to the resolution of the resulting image. Refer to Figure 5. Missing acreage is mostly along the cut for I-80, where slopes preclude the use of equipment.*

The use of heavy equipment also has the potential to cause accelerated erosion through soil compaction particularly if operations occur during saturated soil conditions. The canopy retention and slash treatment specifications found in Item 2.3 (Project Description) were designed to retain adequate post-treatment groundcover in levels adequate to protect soil from rainfall and wind erosion.

c) There are no known unstable areas within the Project area, but it is possible that small unidentified unstable areas could exist within the Project area.
d) No building construction will occur related to this Project, so this item does not apply to the Project.
e) No building construction will occur related to this Project, so this item does not apply to the Project.
f) There are no known unique paleontological resources or sites within the Project area. Project activities are limited to vegetation removal and minimal ground disturbance (within the top 18 inches of soil) due to use of heavy equipment. The Project does not have the potential to significantly alter geologic features.

4.6.2 Mitigations

a) Vegetation removal and heavy equipment use shall not occur on an unstable area. Prior to treatment operations in an area over 30% slope; the treatment area will be traversed by a Registered Professional Forester or their supervised designee to identify any unstable areas requiring avoidance.
b) Heavy equipment use shall be limited to the following slopes:

Table 10. Maximum slope limitations for tracked and wheeled equipment.

Equipment type	Maximum percent slope
Wheeled front end loaders or masticators	30%
Tracked Chippers	40%
Tracked Masticators or front-end loaders	50%
Walking Excavators equipped with masticators	65%

c) Heavy equipment operations may not occur during Saturated Soil conditions defined as follows: Soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during equipment operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.

d) Trails created by equipment shall have waterbreaks installed per the standards below. Waterbreaks shall be installed disconnected prior to November 15th or when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours. Waterbreaks shall be cut diagonally at a minimum of six inches into mineral soil, and may be installed by hand or with equipment.

Table 11. Maximum distance between waterbreaks on trails created or used by tracked or wheeled equipment.

Trail Gradient (%)	≤10	11-25	26-50	<50
Maximum Distance Between Waterbreaks	200	150	100	75

4.6.3 Conclusion: Incorporation of the mitigations listed above will reduce potential Project impacts on Geology and Soils to a less than significant level.

4.7 Analysis of Impacts to Energy

Under CEQA, the effects of a Project on energy are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

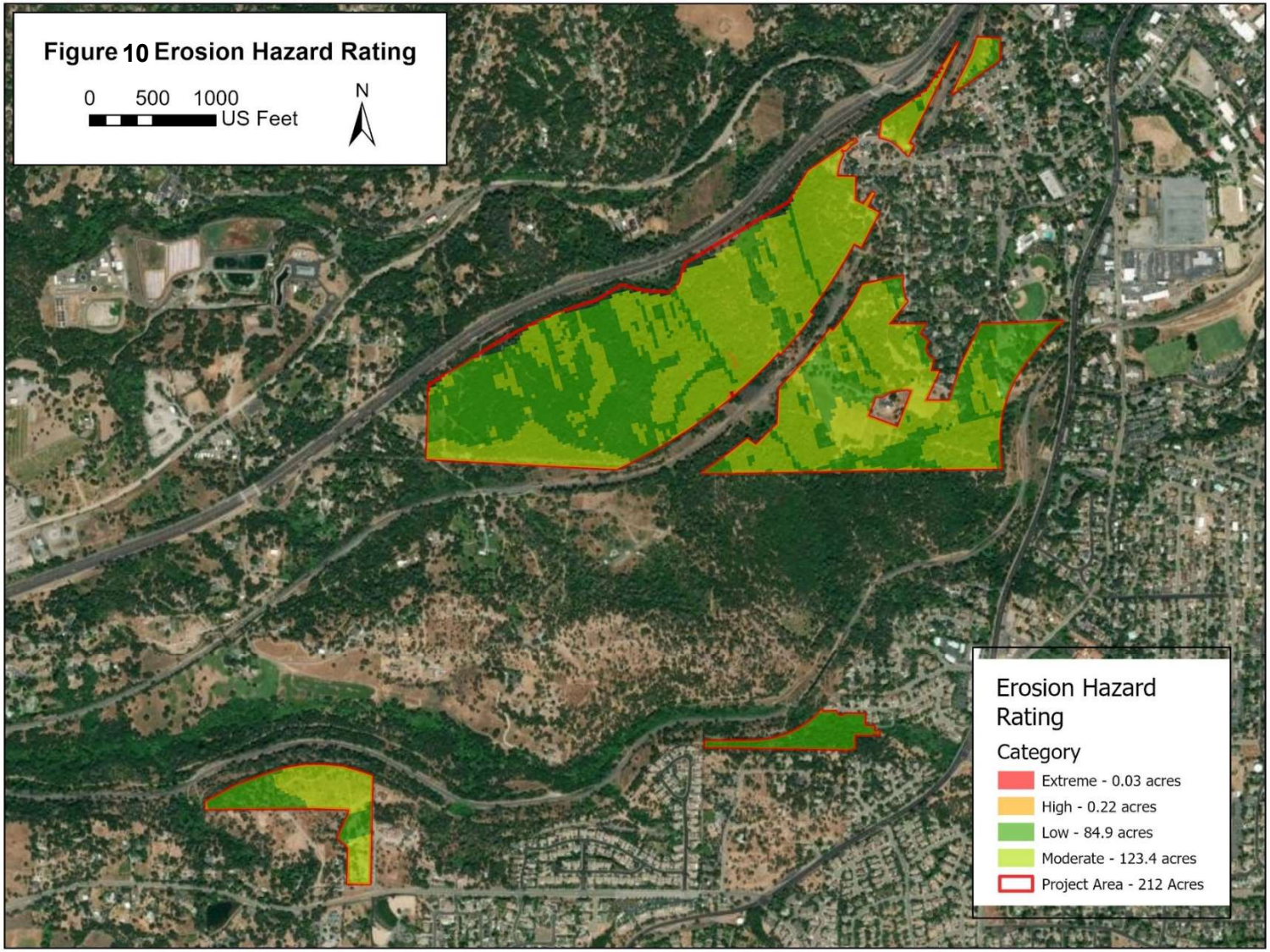
Figure 10 Erosion Hazard Rating
0 500 1000
US Feet
N
Erosion Hazard Rating
Category
Extreme - 0.03 acres
High - 0.22 acres
Low - 84.9 acres
Moderate - 123.4 acres
Project Area - 212 Acres

4.7.1 Discussion

a) The Project will involve the use of heavy equipment, chainsaws, and vehicles for a limited period of time (estimated at 180 working days). Consumption of fossil fuels in association with the Project will be limited in scope and duration and will not have a significant impact on energy resources. Refer to Section 4.8 for a more detailed analysis of fossil fuel consumption associated with the Project.

b) Placer County has several written goals related to incentives for using solar energy, updating insulation, etc. The Project does not have a focus on energy production and will not significantly adversely affect Placer County's or the State's goals for renewable energy or energy efficiency.

4.8 Analysis of Impacts to Greenhouse Gas Emissions

Under CEQA, the effects of a Project on greenhouse gas emissions are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

4.8.1 Discussion:

a,b) The Project is not expected to generate GHG emissions, directly or indirectly, that will have a significant impact on the environment. The Project will directly generate greenhouse gas emissions through the use of fossil fuel powered equipment, pile burning, grazing using livestock, and decomposition of treated material. The Placer County Air Pollution Control District CEQA air Quality Handbook provides a threshold of significance of 10,000 metric tons of CO2e per year for construction-level Projects. The proposed treatments listed above were analyzed in relation to this threshold of significance.

<u>Emissions from decomposition</u>

Emissions through decomposition of treated material will occur over several years, resulting in such emissions being slight over time. Additionally following treatment, growth of retained vegetation will increase as additional soil moisture, nutrients, and sunlight become more available resulting from the competing vegetation removal. The Project focuses on thinning understory trees, many of which would have died due to competition induced mortality or extreme wildfire if the Project were not to occur. Because of these factors, emissions from decomposition are determined to be less than significant.

Emissions from equipment and vehicle use

The following table summarizes the estimated emissions for treatments involving equipment use using the US EPA's Emission Factors for Greenhouse Gas Inventories (US EPA 2014).

This analysis assumes that approximately 50% of the Project area will be treated with mastication, 30% will be treated with hand cut/chip, and 20% will be treated with hand cut/pile/burn. This is based on field reconnaissance of access, slope, and treatment feasibility. It is likely that some of the acreage slated for mastication may instead be treated with hand cut/chip, making this a conservative analysis of potential emissions. For transportation, it was assumed that contractors can complete an average of 2 acres per day of mechanical work for a total of 150 work days, plus 30 additional work days to complete pile burning.

Table 12. Emissions resulting from mechanical Project work.

Treatment Type	Equipment Type	Fuel consumption in gallons per unit	Metric tons of CO2e per gallon of diesel	metric tons of CO2e per gallon of gasoline	metric tons of CO2e per unit	Total metric tons of CO2e for entire Project
Mastication	Masticator	40 per acre	0.0102	N/A	0.412 per acre	62
Hand cut and chip	chipper / skid steer loader	30 per acre	0.0102	N/A	0.306 per acre	27
	Chainsaw	6.25 per acre**	N/A	0.00878	0.054875 per acre	4.95
Hand cut – no heavy equipment	Chainsaw	6.25 per acre	N/A	0.00878	0.054875 per acre	3.3
Vehicles (crew transport)	Pickup truck	254 for entire Project*	N/A	0.00878	--	2.23
Vehicles (equipment and animal transport)	Heavy-duty truck/trailer	20 for entire Project***	N/A	0.00878	--	0.18
					TOTAL CO2e EMISSIONS	99.66

**Based on 3 Ford F-150s at 17 mpg traveling from downtown Auburn to the farthest point of the Project site twice per day for 180 work days.*

***Assume 0.39 gallons consumed per hour, working 8 hours a day, at a rate of half acre per person per day.*

****Assume 200 miles of equipment/animal transport, towing at 10 mpg.*

The total expected CO2e emissions from mechanical operations related to the Project are well below the threshold of significance of 10,000 metric tons of CO2e per year. Therefore, no mitigation measures are proposed for mechanical operations.

Emissions from burning

Some carbon emissions will occur associated with the Project from pile burning. The amounts of carbon emitted will depend on the size and number of piles to be burned, which cannot accurately be calculated until piles are constructed. Due to burning constraints and regulations in Placer County, it is likely that the lead agency will need to secure a Smoke Management Plan along with relevant Air Quality permits. Creation of a Smoke Management Plan will involve emissions calculations of both PM10 and CO2e.

Emissions from grazing

Models to calculate emissions from grazing for fuels reduction are not readily available. Grazing goats and sheep would likely be used for this Project as a maintenance tool at a rate of 1 grazing effort every 1-2 years. Ruminant grazers emit methane during feeding and digestion. While the number and concentration of goats is unknown, the amount of grazing proposed for this Project is limited in size and scale and is not expected to have a significant effect on greenhouse gas emissions.

4.8.2 Mitigations

a) Prior to conducting burning operations an appropriate model will be used to determine the CO2e emissions from such burning. The burning will be conducted in a manner which the annual CO2e emissions from burning and equipment use related to the Project does not exceed the 10,000 MT CO2e threshold of significance set by the Placer County Air Pollution Control District.

4.8.3 Conclusion

Equipment usage alone shall not constitute a significant impact to greenhouse gas emissions. Additional emissions from pile burning shall be staggered so that resulting emissions do not exceed the Placer County Air Pollution Control District's annual significance threshold of 10,000 MT CO2e. The goal of the Project is to mitigate the potential for catastrophic wildfire, which would result in much higher CO2e emissions than Project work. Therefore, the Project will have a less than significant impact on greenhouse gas emissions.

4.9 Analysis of Impacts to Hazards and Hazardous Materials

Under CEQA, the effects of a Project on hazards and hazardous materials are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

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

for people residing or working in the Project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

4.9.1 Discussion

a, b) The use and transport of hazardous materials for the Project will be limited to herbicides and substances used to maintain and operate equipment. Use and transport of these materials will be limited to the period of Project implementation and will not occur constantly for extended periods. Additionally, quantities of hazardous materials used and transported will be low relative to regular transportation which occurs in the area via Interstate 80 and nearby railroad lines. Based on the amount of hazardous material planned for use, the chances for unintentional release into the environment at hazardous levels are low.

c) There are no schools within ¼ mile of the Project.

d) The proposed Project is not located on a hazardous material site.

e,f) The Project is not located within 2 miles of a public airport or private airstrip.

g) The Project will not involve alterations to the Project site which would interfere with a emergency response plan or a emergency evacuation plan.

h) The primary purpose of the Project is to mitigate risks associated with wildland fire; therefore, such risks would be reduced by the Project.

4.9.2 Mitigations

a) Equipment such as backpacks, spray tanks, and hoses used for herbicide mixing and application shall be in good working condition and shall be free of leaks.
b) Persons employed for herbicide application shall possess a current Qualified Applicator's License and shall follow all applicable local and State laws for handling and transporting hazardous materials.
c) Mixing of chemical and re-fueling of equipment shall be done outside of watercourse protection zones as listed in Table 13 (Item 4.10.2) wherever feasible and safe. Contractor shall furnish at least one spill kit to be kept on the Project site at all times.

4.9.3 Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Hazards and Hazardous Materials to a less than significant level.

4.10 Analysis of Impacts to Hydrology and Water Quality

Under CEQA, the effects of a Project on hydrology and water quality are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, result in substantial erosion or siltation on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide	☐	☒	☐	☐

substantial additional sources of polluted runoff, or impede or redirect flood flows?				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

4.10.1 Discussion

a) The Project area contains Class II, III, and IV watercourses based on the watercourse classification system found in the California Forest Practice Rules. The proposed Project has the potential to alter watercourse channels during equipment operations, reduce protective vegetation in riparian zones, and increase sediment inputs and runoff from upland areas. See mitigations below.

b) The proposed Project will not involve any activities which relate to groundwater supplies or recharge

c) The Project will not involve operations within a watercourse channel which would result in a diversion. Mitigations listed in Item 4.6.2, Geology and Soils, will prevent on-site erosion or siltation. Project specifications retain enough post treatment vegetation and ground vegetative material to prevent a significant increase in runoff water from the site.

d) The Project is not in a seiche, tsunami, or flood hazard zone.

e) The Project will not conflict with or obstruct implementation of a water quality control plan. Project will not have impact on groundwater supplies.

4.10.2 Mitigations

a) The mitigations listed under Item 4.6.2, Geology and Soils, will be sufficient to prevent an increase in sediment inputs from upslope areas.
b) Prior Project implementation, watercourses will be identified, and appropriate buffer widths will be flagged by a Registered Professional Forester or supervised designee. The following watercourse buffer widths and mitigations shall apply:

Table 13. Watercourse protection measures.

Slope Class	Class II (WLPZ)	Class III (ELZ)	Class IV
<30%	50	25	Determined by consultation with facility owner
30-50%	75	50	
>50%	100	50	

Mastication	No operations	1) At least 50% of the understory vegetation present before operations will be left living and well distributed within the ELZ to maintain soil stability. 2) Equipment operation in the ELZ is prohibited except as follows: In areas where side slopes are less than 30%, masticators will be allowed to enter and exit the ELZ perpendicularly to the watercourse to masticate material which cannot be reached from outside the ELZ. Masticators will not be allowed to come into contact with the watercourse except at existing crossings flagged by an RPF which are dry at the time of operations. 3) Woody material or sediment that is deposited within the watercourse shall be removed prior to November 15th or when the national weather service forecasts at least a 30% chance of rain. 4) Equipment crossings shall be hydrologically disconnected prior to November 15th or when the national weather service forecasts at least a 30% chance of rain in the next 24 hours. Refer to item 4.6.2(d), Table 11.	Determined by consultation with facility owner
Hand Treatment	1) At least 50% of the understory vegetation present before operations will be left living and well	Determined by consultation with facility owner	

	distributed within the ELZ to maintain soil stability. 2) Equipment limitations listed under "Mastication" items 2) – 4) above shall also apply to use of the tracked chipper.		
Follow-up Herbicide Application	Herbicide may be applied within WLPZ zones as approved through a written prescription issued by a licensed Pest Control Advisor. Refer to the "Biological Resources" section for other mitigations regarding special-status species.	Herbicide may be applied within WLPZ zones as approved through a written prescription issued by a licensed Pest Control Advisor. Refer to the "Biological Resources" section for other mitigations regarding special-status species.	Determined by consultation with facility owner.
Pile burning	Burning is prohibited within 20 feet of stream channels.	Burning is prohibited within 20 feet of stream channels.	Determined by consultation with facility owner.
Grazing	Livestock shall be fenced out of stream channels by at least 20 feet and shall not be allowed to traverse across or within stream beds.	Livestock shall be fenced out of stream channels by at least 20 feet and shall not be allowed to traverse across or within stream beds.	Determined by consultation with facility owner.

* *For all watercourse buffers, equipment is allowed to travel through the buffer at locations of existing and functional watercourse crossings.*

4.10.3 Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Hydrology and Water Quality to a less than significant level.

4.11 Analysis of Impacts to Land Use and Planning

Under CEQA, the effects of a Project on land use and planning are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

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

4.11.1 Discussion

a) The Project will not involve construction of barriers or block access routes which could divide an established community.

b) There are no land use plans, policies, or regulations, or ordinances which conflict with the Project. Local plans are listed in the introductory Section under Item 1.5. The Baltimore Ravine Specific Plan lists fuels reduction as a goal in land use in the Baltimore Ravine area.

c) The Project will not conflict with a habitat conservation plan or natural community conservation plan. Refer to Item 4.4.10.

4.12 Analysis of Impacts to Mineral Resources

Under CEQA, the effects of a Project on mineral resources are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Result in the loss of availability of a known mineral resource that would be of	☐	☐	☐	☒

value to the region and the residents of the state?				
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.12.1 Discussion

a,b) The Project will have no effect on mineral resource availability – all Project activities are above-ground and will not hinder future mining efforts.

4.13 Analysis of Impacts to Noise

Under CEQA, the effects of a Project on noise are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

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

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

4.13.1 Discussion:

a,d) The use of equipment associated with the Project has the potential to temporarily increase noise to a nuisance level, especially in close proximity to residences and/or businesses. While the Auburn Municipal Code does not address fuels reduction or general heavy equipment in the noise ordinance section, construction or similar activities are limited to Monday through Friday, 7:00 am to 6:00 PM, Saturdays from 9:00 am to 5:00 PM, and Sundays and holidays 10:00 am to 6:00 PM (City of Auburn 2024).

b) The Project will not generate ground borne noise or vibration.

c) All noise increases associated with the Project will be temporary.

e,f) The Auburn Municipal Airport is the closest airport to the Project and is 4.3 miles away. Therefore, the airport is not a significant noise source in the Project area.

4.13.2 Mitigations

a) Given the similarity in expected noise level between construction equipment and fuels reduction machinery, Project activities will adhere to the hours of operation listed under item 4.13.1 (a,d) above when working within 300 feet of residences or other areas occupied by humans. Piling without the use of gas-powered chainsaws may occur at any time, as can use of electric chainsaws.

4.13.3 Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Noise to a less than significant level.

4.14 Analysis of Impacts to Population and Housing

Under CEQA, the effects of a Project on population and housing are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 Discussion

a) The Project does not involve construction of homes, or infrastructure which could support future home construction.

b) The Project will not involve housing displacement.

c) The Project will not involve displacement of people.

4.15 Analysis of Impacts to Public Services

Under CEQA, the effects of a Project on public services are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service	☐	☐	☐	☒

ratios, response times or other performance objectives for any of the public services:

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

4.15.1 Discussion

a) The Project will have no impact on government facilities or public services.

4.16 Analysis of Impacts to Recreation

Under CEQA, the effects of a Project on recreation are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.1 Discussion

a) A small portion of the Project will take place on property owned and managed by the Auburn Recreation District; however, Project activities will take place outside of official recreation areas and will not impact user frequency.

b) The Project does not propose construction or expansion of recreational facilities.

4.17 Analysis of Impacts to Transportation/ Traffic

Under CEQA, the effects of a Project on transportation/traffic are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, considering all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or	☐	☐	☐	☒

incompatible uses (e.g., farm equipment)?				
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

4.17.1 Discussion

a) All Project work near roadways occurs in rural or residential settings where traffic levels are low. The Project will have no effect on these traffic levels.

b) The Project will not conflict with a congestion management program.

c) The Project will have no impact on air traffic.

d) The Project will not involve any road construction or alteration, and therefore will not increase hazards from road design features.

e) The Project will not involve changes in emergency access.

4.18 Analysis of Impacts to Tribal Cultural Resources

A tribal cultural resource is defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
Cause a substantial adverse change in the significance of a tribal cultural resource?	☐	☒	☐	☐

4.18.1 Discussion

Given the Project's location and history, it is possible that tribal cultural resources occur within the Project area. Refer to Item 4.5 of this document for a summary of the process used for cultural resource identification.

4.18.2 Mitigations

a) Prior to implementation of any Project treatment, a professional archaeologist will survey the proposed treatment area and prepare an associated archaeological report.
b) All sites shall be flagged by an archaeologist with a buffer sufficient to protect above-ground resources.
c) Tracked or wheeled equipment will be excluded from site boundaries except at existing roads and trails. Equipment may cross linear historic-era features at existing crossings, or at pre-determined crossings dictated by the Registered Professional Forester.
d) Trees shall be directionally felled away from sites wherever safe and feasible.
e) Pile burning shall not be permitted within site boundaries of prehistoric sites except at designated areas approved by a professional archaeologist.
f) Additional mitigations may be implemented as necessary.
g) If a cultural resource is discovered during operations, all ground-disturbing activities within 50 feet of the discovery shall be halted and the Registered Professional Forester shall be notified immediately. Protections will be implemented in consultation with the professional archaeologist.
h) Per California Health and Safety Code §7050.5, in the event of discovery or recognition of potential any human remains, no further excavation or ground disturbance within 100-feet of the discovery site shall occur until the County Coroner has determined whether the remains are subject to the coroner's authority.
i) Per California Public Resources Code §5097.98, the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code §7050.5, shall immediately notify those persons it believes to be descended from the deceased, referred to as the most likely descendant (MLD). With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

4.18.3 Conclusion

Incorporation of the mitigations listed above will reduce potential Project impacts on Tribal Cultural Resources to a less than significant level.

4.19 Analysis of Impacts to Utilities and Service Systems

Under CEQA, the effects of a Project on utilities and service systems are considered to be potentially significant if the proposed Project-related actions result in any of the following, (CEQA Environmental Checklist Appendix G):

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

4.19.1 Discussion

a,b,e) The Project will not involve generation of wastewater.

c) The Project will not significantly alter storm water flows, and therefore will not result in the need for construction of new storm water facilities.

d) The Project will not require water entitlements.

f,g) The Project will have no solid waste disposal needs.

4.20 Wildfire

Would the Project:	**Potentially Significant Impact**	***Less Than Significant with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

4.20.1 Discussion

a, b) The goal of the Project is to reduce fuels along ingress/egress routes and to minimize the severity of potential wildfires through fuels management. Therefore, the Project will not have a significant adverse impact on an emergency response/evacuation plan and will not exacerbate wildfire risks.

c) The Project does not involve installation of utilities or infrastructure.

d) The removal of vegetation for fuels reduction will not significantly adversely affect the post-wildfire state of the Project area. Ideally, the Project will aid in the prevention of high-severity wildfire. The Project does not propose construction of housing or facilities in an area that would experience elevated post-fire risks of landslides, flooding, or other environmental damages.

4.21 Mandatory Findings of Significance

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

4.21.1 Discussion

a) With the proposed mitigations incorporated (as summarized in Appendix A), the Project does not have potential to significantly reduce habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

b) Cumulative impacts are defined in Section 15355 of the California Environmental Quality Act (CEQA) Guidelines as *two or more individual effects, which when considered together, would be considerable or which would compound or increase other environmental impacts.* The proposed Project with site-specific mitigations, as summarized in Appendix A, will not have impacts related to aesthetics, agriculture/forest resources, air quality, biological resources, cultural resources, energy, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use planning, mineral resources, noise, population/housing, public services, recreation, traffic/transportation, tribal cultural resources, utilities/service systems, or wildfire, that would combine with similar effects such that the Project's contribution would be cumulatively considerable. The proposed mitigations are designed to reduce Project impacts to a less than significant level.

c) The implementation of mitigation measures specified in this IS-MND and summarized in Appendix A would reduce impacts to less than significant. The Project will not directly or indirectly result in environmental effects that could cause a significant adverse effect on human beings. Therefore, a less-than-significant impact will occur.

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APPENDIX A - MITIGATION MONITORING AND REPORTING PLAN

In accordance with CEQA Guidelines § 15074(d), when adopting a mitigated negative declaration, the lead agency will adopt a mitigation monitoring and reporting plan (MMRP) that ensures compliance with mitigation measures required for project approval. The City of Auburn is the lead agency for the above-listed project and has developed this MMRP as a part of the final IS-MND supporting the Project. This MMRP lists the mitigation measures developed in the IS-MND that were designed to reduce environmental impacts to a less-than- significant level. This MMRP also identifies the party responsible for implementing the measure, defines when the mitigation measure must be implemented, and which party or public agency is responsible for ensuring compliance with the measure. This form shall be kept on file by the Lead Agency and updated weekly during project implementation when operations are active.

Mitigation Measures
The following is a list of the resources that will be potentially affected by the project and the mitigation measures made part of the Initial Study-Mitigated Negative Declaration.

Mitigation Measure 4.1.2 – Aesthetics

c) Where feasible, treatment boundaries will be designed to connect with natural features such as topographic breaks and natural changes in vegetation type.
d) When implementing treatments on private property adjacent to residences, landowners will be contacted to identify potential locations of retained dense cover for the purposes of visual screening.

Schedule: Prior to operations
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.3.2 – Air Quality during pile burning

f) Burning will follow all regulations applicable to “Forest management burning” as defined and stipulated under Placer County Air Pollution Control District’s Rule 303 Prescribed Burning Smoke Management (Placer County 2012).
g) Pile burning will not occur within 500 feet of residences or other structures occupied by humans unless arrangements are made with the buildings occupants to assure impacts do not occur. Additionally, pile burning will be conducted with due consideration for wind direction, inversion, and other climatological factors that could cause adverse effects to neighboring populated areas.
h) All piles will be sufficiently dry and free of soil and other noncombustible material to allow for effective burning.
i) Piles shall be covered by plastic or wax paper. Covers shall be of a size that will allow for a sufficient dry zone for lighting of piles in wet conditions.
j) Piles must be burned or otherwise treated not later than April 1st of the year following their creation; or, for piles created on or after September 1st, not later than April 1st of the second year following creation.

Schedule: Prior to operations involving pile burning, with sufficient time for agency review of necessary Smoke Management Plans.
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.4.1.2: Biological- Special-status mammals

d) Retain standing, non-hazardous snags above 12 inches for wildlife purposes. Suitable roosting snags proposed for removal due to threats to health and safety shall be assessed for roosting bats prior to removal.
e) Caves and mineshafts should be clearly marked and reported to the RPF immediately. Avoid impacts to caves by observing a 100-foot no disturbance buffer around cave entrances.
f) If a roosting bat or ringtail is seen in the Project area during operations, the contractor shall promptly cease all vegetation-disturbing activities within 200 feet of the occurrence and notify the RPF immediately. RPF or qualified biologist will establish appropriate buffers before work continues.

Schedule: Item a: prior to tree removal. Item b: Within 72 hours of operations. Item c(i): prior to operations. Item c – during operations.
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.4.1.2: Biological- Special-status birds, raptors, and birds subject to the Migratory Bird Treaty Act

g) Suitable raptor nesting snags proposed for removal due to threats to health and safety shall be assessed for nests prior to removal.
h) If work is planned during the nesting bird season (April 1st – August 1st), a walking survey of all reasonably accessible areas of the treatment site and the immediate vicinity visible from the treatment site shall be conducted by a qualified individual within 72 hours of the start of work. This survey will include examination of suitable nesting trees for nests, whitewash, or any sighting/vocalization associated with nesting birds, including raptors.
i) For the bald eagle, golden eagle, yellow-breasted chat, yellow warbler, loggerhead shrike, olive-sided flycatcher, bank swallow, white-tailed kite, purple martin, or non-listed raptor:

    i. If an active nest is identified during a pre-work survey, a temporary, species-appropriate buffer will be established around the nest. If an active nest is identified during a pre-work survey, a temporary, species-appropriate buffer will be established around the nest. Buffer location and size will be determined by a qualified RPF or biologist and will be sufficient to prevent disturbance of breeding and nesting activities. Treatment activities will be implemented outside of the buffer until it is determined that the nestlings have fledged OR the nest is determined to be failed/abandoned. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest

height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities.

ii. If an active nest or vocal individual exhibiting behavior associated with nesting is discovered during operations, the contractor shall promptly cease all vegetation-disturbing activities within 200 feet of the nest and notify the RPF immediately. Buffers shall be established as described above before work can commence.

j) For those bird species not listed above that are protected by the Migratory Bird Treaty Act: if an active nest is encountered during the survey, a 50-foot no-activity buffer for mastication or a 25-foot buffer for hand removal shall be applied around the nest until the nestlings have fledged OR the nest is determined to be failed/abandoned.

k) A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors are showing signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases.

l) Implement the watercourse protection zones (Table 13, Section 4.10.2) to protect riparian habitat elements.

Schedule: Item a: prior to tree removal. Item b: Within 72 hours of operations. Item c(i): prior to operations. Item c(ii) – during operations. Item d – prior to operations. Item e – during operations. Item f – buffer zones must be flagged prior to the start of operations.
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.4.1.3: Biological- Foothill Yellow-Legged Frogs

d) Implement watercourse protection zones and associated protection measures as listed in Table 13 of this document (Item 4.10.2).

e) If a foothill yellow-legged frog or red-legged frog is discovered during operations, the contractor shall notify the RPF. Additional mitigation measures will be implemented if these species are detected. Measures could include buffers and timing restrictions.

Schedule: Item a: buffer zones must be flagged prior to the start of operations. Item b: during operations.
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.4.1.5: Biological – special-status fish

b) Implement watercourse protection zones and associated protection measures as listed in Table 13 of this document (Item 4.10.2).

Schedule: Buffer zones must be flagged prior to the start of operations**.**
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn

Initials: _____
Date(s): _____

Mitigation Measure 4.4.1.6: Special-Status Invertebrates

d) Implement watercourse protection zones and associated protection measures as listed in Table 13 of this document (Item 4.10.2).
e) Retain brush "islands" as described in Item 2.3, Tables 1 and 2.
f) The USFWS developed conservation guidelines for the Valley elderberry longhorn beetle that describe additional protective measures (beyond those listed above) used to avoid impacts to this species (USFWS 1999). Measures to be implemented by the Project are:
    i. Elderberry plants encountered during Project planning and layout will be flagged with pink "Do Not Cut" flagging. Contract crews shall be instructed on elderberry identification prior to start of work.
    ii. A 100-foot-wide buffer surrounding elderberry plants will fully protect the beetles from Project-related vegetation removal activities.
    iii. Use no insecticides, herbicides, fertilizers, or other chemicals within 100 feet of any elderberry plant with a stem measuring greater than 1 inch in diameter at ground level.
    iv. Removal of nearby ground vegetation (within 5 feet of elderberry plants) may be completed from July through April.

Schedule: Item a: Buffer zones must be flagged prior to the start of operations**.** Item b: During operations. Item c(i): Prior to operations. Item c(ii) and (iii): Flag exclusion zone prior to operations. Item c(iv): During project activities between July and April.
Responsible Party: Items a, c(i-iv): City of Auburn and/or contracted Registered Professional Forester. Item b: Contractor responsible for vegetation removal.
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.4.2.2 – Biological – Special-Status Plants

d) Focused surveys of suitable habitat shall be conducted by a qualified individual prior to the start of work. Surveys shall focus on *Balsamorhiza macrolepis* (Big-scale balsamroot), *Poa sierrea* (Sierra blue grass), *Viburnum ellipticum* (oval- leaved viburnum), and *Wyethia reticulata* (El Dorado mules ear).
e) If one of the sensitive plant species listed above is detected during surveys, zones of 15 feet around the plant or outermost individual in a group of plants shall be flagged with "Special Treatment Zone" flagging.
    i. Tracked or wheeled equipment shall not be allowed to enter these zones except on existing roads and trails.
    ii. Mechanical removal of woody shrubs and fuels may occur within these zones. Fuels must be hand-carried out of zones without disturbing special-status plants; i.e., fuels shall not be dragged over special-status plants, workers shall not trample special-status plants, etc.
    iii. Chips or other woody material may not be broadcast into these special treatment zones.
    iv. If herbicide use is planned near protection zones for special-status plants, the Pest Control Advisor or other entity prescribing chemical usage shall be notified and

appropriate protections for special-status plants shall be applied. This may include a wider buffer zone, special weather conditions, different chemical mixes, etc.

f) If a special-status plant species is detected during operations, all work will cease until the RPF is notified and appropriate buffer zones have been flagged as described above.

Schedule: Item a: Prior to operations. Item b: Buffer zones must be flagged prior to the start of operations, including herbicide application. Item c: Buffer zones must be flagged prior to the start of operations.
Responsible Party: Items a, c(i-iv): City of Auburn and/or contracted Registered Professional Forester**.** Item c: Contractor responsible for vegetation removal, along with City of Auburn and/or contracted RPF.
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measures 4.5.2 and 4.18 – Cultural Resources

j) Prior to implementation of any Project treatment, a professional archaeologist will survey the proposed treatment area and prepare an associated archaeological report.
k) All sites shall be flagged by an archaeologist with a buffer sufficient to protect above-ground resources.
l) Tracked or wheeled equipment will be excluded from site boundaries except at existing roads and trails. Equipment may cross linear historic era features at existing crossings, or at pre-determined crossings dictated by the Registered Professional Forester.
m) Trees shall be directionally felled away from sites wherever safe and feasible.
n) Pile burning shall not be permitted within site boundaries of prehistoric sites except at designated areas approved by a professional archaeologist.
o) Additional mitigations may be implemented as necessary.
p) If a cultural resource is discovered during operations, all ground-disturbing activities within 50 feet of the discovery shall be halted and the Registered Professional Forester shall be notified immediately. Protections will be implemented in consultation with the professional archaeologist.
q) Per California Health and Safety Code §7050.5 §7050.5, in the event of discovery or recognition of potential any human remains, no further excavation or ground disturbance within 100-feet of the discovery site shall occur until the County Coroner has determined whether the remains are subject to the coroner's authority.
r) Per California Public Resources Code §5097.98 §5097.98, the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code §7050.5, shall immediately notify those persons it believes to be descended from the deceased, referred to as the most likely descendant (MLD). With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

Schedule: Item a,b: Prior to operations. Item c, d, e, f, g: protection implemented during operations. Crossings will be flagged by an RPF prior to operations. Items h, i: only applicable immediately following discovery of human remains.
Responsible Party: RPF or City of Auburn
Verification of Compliance:

Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.6.2 – Geology and Soils

e) Vegetation removal and heavy equipment use shall not occur on an unstable area. Prior to treatment operations in an area over 30% slope; the treatment area will be traversed by a Registered Professional Forester or their supervised designee to identify any unstable areas requiring avoidance.

f) Heavy equipment use shall be limited to the following slopes:

Table 10. Maximum slope limitations for tracked and wheeled equipment.

Equipment type	Maximum percent slope
Wheeled front end loaders or masticators	30%
Tracked Chippers	40%
Tracked Masticators or front-end loaders	50%
Walking Excavators equipped with masticators	65%

g) Heavy equipment operations may not occur during Saturated Soil conditions defined as follows: Soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during equipment operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.

h) Trails created by equipment shall have waterbreaks installed per the standards below. Waterbreaks shall be installed disconnected prior to November 15th or when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours. Waterbreaks shall be cut diagonally at a minimum of six inches into mineral soil, and may be installed by hand or with equipment.

Trail Gradient (%)	≤10	11-25	26-50	<50
Maximum Distance Between Waterbreaks	200	150	100	75

Schedule: Item a: Prior to operations. Item b: During operations. Item c: During saturated soil conditions as determined by the Registered Professional Forester. Item d: Prior to November 15th OR when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours, whichever happens first.

Responsible Party: Items a and c: City of Auburn and/or contracted Registered Professional Forester. Items b and d: Contractor responsible for vegetation removal, along with City of Auburn and/or contracted RPF.
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.8.2 – Greehouse Gas Emissions

b) Prior to conducting burning operations an appropriate model will be used to determine the CO2e emissions from such burning. The burning will be conducted in a manner which the annual CO2e emissions from burning and equipment use related to the Project does not exceed the 10,000 MT CO2e threshold of significance set by the Placer County Air Pollution Control District.

Schedule: Prior to conducting burning operations.
Responsible Party: Items a and c: City of Auburn and/or contracted Registered Professional Forester.
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.10.2 – Hydrology and Water Quality

c) The mitigations listed under the geology and soils section will be sufficient to prevent an increase in sediment inputs from upslope areas.
d) Prior Project implementation, watercourses will be identified, and appropriate buffer widths will be flagged by a Registered Professional Forester or supervised designee. The following watercourse buffer widths and mitigations shall apply:

Table 13. Watercourse protection measures.

Slope Class	Class II (WLPZ)	Class III (ELZ)	Class IV
<30%	50	25	Determined by consultation with facility owner
30-50%	75	50	
>50%	100	50	
Mastication	No operations	1) At least 50% of the understory vegetation present before operations will be left living and well distributed within the ELZ to maintain soil stability. 2) Equipment operation in the ELZ is prohibited except as follows: In areas where side slopes are less than 30%, masticators will be allowed	Determined by consultation with facility owner

		to enter and exit the ELZ perpendicularly to the watercourse to masticate material which cannot be reached from outside the ELZ. Masticators will not be allowed to come into contact with the watercourse except at existing crossings flagged by an RPF which are dry at the time of operations. 3) Woody material or sediment that is deposited within the watercourse shall be removed prior to November 15th or when the national weather service forecasts at least a 30% chance of rain. 4) Equipment crossings shall be hydrologically disconnected prior to November 15th or when the national weather service forecasts at least a 30% chance of rain in the next 24 hours. Refer to item 4.6.2(d), Table 11.	
Hand Treatment	1) At least 50% of the understory vegetation present before operations will be left living and well distributed within the ELZ to maintain soil stability. 2) Equipment limitations listed under "Mastication" items 2) – 4) above shall also apply to use of the tracked chipper.	Determined by consultation with facility owner	
Follow-up Herbicide Application	Herbicide may be applied within WLPZ zones as approved	Herbicide may be applied within WLPZ zones as approved through a written	Determined by consultation with facility owner.

	through a written prescription issued by a licensed Pest Control Advisor. Refer to the "Biological Resources" section for other mitigations regarding special-status species.	prescription issued by a licensed Pest Control Advisor. Refer to the "Biological Resources" section for other mitigations regarding special-status species.	
Pile burning	Burning is prohibited within 20 feet of stream channels.	Burning is prohibited within 20 feet of stream channels.	Determined by consultation with facility owner.
Grazing	Livestock shall be fenced out of stream channels by at least 20 feet and shall not be allowed to traverse across or within stream beds.	Livestock shall be fenced out of stream channels by at least 20 feet and shall not be allowed to traverse across or within stream beds.	Determined by consultation with facility owner.

* *For all watercourse buffers, equipment is allowed to travel through the buffer at locations of existing and functional watercourse crossings.*

Schedule: Item a: Refer to mitigation measure 4.6.2. Item b: Buffer zones shall be flagged prior to operations. Consultation with landowners and facility owners shall occur during flagging of project boundaries, prior to implementation.
Responsible Party: City of Auburn and/or contracted Registered Professional Forester are responsible for flagging of buffer zones, and for communicating restrictions to vegetation management contractors. Contracted Pest Control Advisor is responsible for prescribing chemical that is appropriate for watercourse buffer zones.
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____

Mitigation Measure 4.13 - Noise

a) Given the similarity in expected noise level between construction equipment and fuels reduction machinery, Project activities will adhere to the hours of operation listed under item 3.13.1 (a,d) above when working within 300 feet of residences or other areas occupied by humans. Piling without the use of gas-powered chainsaws may occur at any time, as can use of electric chainsaws.

Schedule: During operations
Responsible Party: City of Auburn and/or contracted Registered Professional Forester
Verification of Compliance:
Monitoring Party: City of Auburn
Initials: _____
Date(s): _____