



Mokelumne Hill Veterans Memorial District

Mokelumne Hill Fuels Reduction Project Environmental Review Report for an Exempt Project

Note: This report form is intended for use by Mokelumne Hill Veterans Memorial District (MHVMD) to document a limited environmental impact analysis supporting the filing of a Notice of Exemption document for a proposed project. Although the project appears to fit within the descriptions for allowable categorical exemptions, this report presents MHVFA’s review for possible exceptions that would preclude finding the project to be categorically exempt as discussed in CEQA Guidelines Section 15300.2. This report will be filed with the CEQA administrative record for this project to document the environmental impact analysis conducted by MHVFA.

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Project Name:	2024 Mokelumne Hill Fuels Reduction Project
Agreement Number:	MHVFA 2024-1
Program Type:	Pacific Gas & Electric Company’s Vegetation Management Program
Political Units:	Mokelumne Hill Fire Protection District
County:	Calaveras
Acres:	Approximately 40
Legal Location:	Sections 4, 5, 7 & 9, T5N R12E, MDBM
Name of USGS 7.5’Quad Map(s):	Mokelumne Hill
<input checked="" type="checkbox"/> Project Vicinity Map Attached <input checked="" type="checkbox"/> Project Location Map Attached <input checked="" type="checkbox"/> Photos Attached	
Soils Reports are linked documents: https://websoilsurvey.sc.egov.usda.gov/DSD/Download/AOI/5smrv3tapev0m4ttcew2tcq1/wss_aoi_2024-03-13_08-37-01.zip BOSTON YALE https://websoilsurvey.sc.egov.usda.gov/DSD/Download/AOI/5smrv3tapev0m4ttcew2tcq1/wss_aoi_2024-03-13_08-47-50.zip MOKELUMNE HILL	

Other Public Agency Review or Permit Required:		
Would the project result in:	YES	NO
Alterations to a watercourse (DFW - Lake and Stream Alteration Agreement)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Conversion of timberland (CAL FIRE - Conversion Permit or Exemption)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Demolition (Local Air District - Demolition Permit)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil disturbance over 1 acre (RWQCB - SWPPP)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fill of possible wetlands (404 Permit - USACE)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Discuss any above-listed topic item checked Yes and consultation with agencies:		

Project Description and Environmental Setting (describe the project activities, project site and its surroundings, its location, and the environmental setting):
<p>The 2024 Mokelumne Hill Fuels Reduction Project (“Project”) is 0.25 miles and 1.5 miles east (respective units of Mokelumne Hill School and Boston Yale) of downtown Mokelumne Hill, Calaveras County, where it will provide the genesis for the Highway 26 Strategic Wildfire Defense System which runs from Mokelumne Hill on the west to Glencoe on the east. This project will treat approximately 40 acres of land (within and around which CEQA investigations have been conducted, with an approximate 300’ buffer area) on the rim of the North Fork Mokelumne River Canyon. The project is in the proximity of the 2015 Butte Fire. The understory is choked with brush and logs with dense ladder fuels that extend into a closed canopy of live oak, the recipe for catastrophic wildfire. The project will protect hundreds of structures in the vicinity of the treatment.</p> <p>The project’s two units are located in the WUI on the north rim of the Mokelumne River Canyon, just east of the town of Mokelumne Hill (see Appendix; Maps). The Highway 26 Corridor is an integral evacuation route for northern Calaveras County. This part of the Sierra Nevada Mountains also supports large tracts of commercial timber and a cattle industry on lands managed by Sierra Pacific Industries, Inc. (SPI) and the USFS Stanislaus National. It provides pure mountain water for regional domestic, industrial, and agricultural use as well as recreational opportunities, power generation, and wildlife habitat. It also supplies water to the Pardee and Camanche Reservoirs serving the Sacramento and San Joaquin Valleys and East Bay residents.</p>

Portions of the Highway 26 Strategic Wildfire Defense System are included in this project and serve as an evacuation corridor and – historically and projected – as a strategic location for Fire Suppression resources and will tie in with the Butte Fire Restoration project currently under development.

The project area vegetation is mixed Sierra montane conifer with a hardwood component of live oak. In the understory are shrubs/brush heavy to ceanothus species and grasses in openings. Due to past droughts and beetle activity, mortality is high in the pines; snags and downed logs exist in the project area. Management goals include restoring forest species composition and structure following large scale, stand-replacing disturbance events such as quick-moving fires or slow-moving insect outbreaks, and prevention of catastrophic wildfire.

The silvicultural strategy is to retain healthy trees to create a shaded fuelbreak condition with tree crowns spaced for full utilization of available sunlight, water and nutrients. This treatment will significantly reduce the opportunity for a crown fire. The majority of dead and decadent stands of shrubs/brush and other ladder fuels will be treated. Treatment methods include:

Mechanical Mastication: A mechanical masticator would be utilized to grind, chip, and shred vegetation on site. Equipment selected to carry out this task is designed to minimize ground disturbance such as tracked rather than rubber-tired vehicles and articulating booms. Multiple cutting attachments will be used to adapt to the fuel type and terrain. Ladder fuels will be eliminated in the project area, minimizing the risk of crown fire. The average depth of masticated material will be 2-7 inches deep; this mulch layer will assist in erosion control, soil moisture retention and will also suppress vegetative resprouting.

Manual Mastication: The project area contains some areas – particularly on slopes over 50% – that may be constructed by a hand crew (i.e., a California Department of Corrections and Rehabilitation (CDCR) inmate crew or a private contractor under the supervision of a Registered Professional Forester (RPF) in compliance with the CA Foresters Law). In addition to using chainsaws and other hand tools, crews would feed cut vegetation into a rubber-tracked brush chipper or similar chipper staged on existing roads and trails. The chipped vegetation would be broadcast over the project area which will aid in the suppression of undesirable brush sprouting. As an alternative where access for a chipper is not attainable, fuels may be reduced manually via “lop and scatter” of the material (vegetation is cut into short strips and dispersed evenly over the treatment area). This method would be limited to areas not accessible by machinery.

Environmental Impact Analysis

Aesthetics

- This topic does not apply to this project and was not evaluated further.
- This topic could apply to this project, and results of the assessment are provided below:

The visual landscape will not be adversely impacted due to the retention of overstory trees and not having “bare ground” as mastication efforts will provide a mulch layer covering the soil.

This project will reduce wildfire risk and strategically advance the protection of the WUI on the project’s western side (Mokelumne Hill School Unit) and northwestern side (Boston Yale Unit. Residents are keenly aware of the benefits that fuels reduction projects provide for their safety (direct protection, a place to make a stand, ideal aerial retardant locations and evacuation effectiveness), and the vast majority of residents welcome these efforts. Existing fuelbreaks/fuels reduction polygons are common in Calaveras County so this treatment will not be out of the norm.

No detrimental impacts to Aesthetics are anticipated to occur as a result of project implementation.

Agriculture and Forest Resources

- This topic does not apply to this project and was not evaluated further.
- Yes No Would any trees be felled? If yes, discuss protection of nesting birds, if necessary.
- Yes No Would the project convert any prime or unique farmland?
- Yes No Would the project result in the conversion of forest land or timberland to non-forest use?
- This topic could apply to this project, and results of the assessment are provided below:

Small trees (<12” diameter at breast height or ‘dbh’), dead and dying trees, brush and surface fuels will generally be removed for fuels reduction and ingress/egress safety purposes which will result in a shaded fuelbreak condition. Forest type and use will not change per this project’s implementation; forest resources will be improved via project implementation.

No detrimental impacts to Agriculture and Forest Resources are anticipated to occur as a result of project implementation.

Air Quality

- This topic does not apply to this project and was not evaluated further.
- Yes No The local Air Quality Management District guidelines for dust abatement and other air quality concerns were reviewed for this project.
- This topic could apply to this project, and results of the assessment are provided below:

For this project as proposed, no significant adverse impact is anticipated. Fuels will be reduced via mastication – mechanical and hand. No pile or broadcast burning will occur under this project. The treatment will potentially avoid an origin or spread of catastrophic wildfire which would significantly and adversely affect Air Quality. A greenhouse gas calculation assessment is provided in the **Greenhouse Gas** section below.

No detrimental impacts to Air Quality are anticipated to occur as a result of project implementation.

Biological Resources

- This topic does not apply to this project and was not evaluated further.
- Yes No Will the project potentially effect biological resources?
- Yes No Was a current California Natural Diversity Database review completed? Results discussed below:
- Yes No Was a biological survey of the project area completed? Results discussed below:
- This topic could apply to this project, and results of the assessment are provided below:

On March 13, 2024, the Mokelumne Hill 7.5’ Quad Search was conducted in the California Natural Diversity Data Base (CNDDDB).

Species listed as Federal, State and/or CDFW “Threatened, Endangered, Rare, Fully Protected or Species of Special Concern” and species ranked by the CA Native Plant Society as 2B.2 or higher were included, all of which were surveyed for in late Winter and early Spring 2024. The list is shown below:

Element	Taxonomic_Sort	Common_Name	El	Federal	St	Stat	CDFW	CA_Rare	Q	Q	D	Taxonomic_Sort	esriFieldTypeString
Animals - I	Batrachoseps diabolicus	Hell Hollow slender salamanc	A	None	None	-	-	-	#	N	Ur	Animals - Amphibians - Plethodontidae - Batrachoseps diabolicus	
Animals - I	Rana boylei pop. 5	foothill yellow-legged frog - s	A	Endangere	Endangere	-	-	-	#	N	M	Animals - Amphibians - Ranidae - Rana boylei pop. 5	
Animals - I	Bombus crotchii	Crotchs bumble bee	I	None	Candidate	-	-	-	#	N	M	Animals - Insects - Apidae - Bombus crotchii	
Animals - I	Desmocerus californicus din valley elderberry longhorn be	I	Threatene	None	-	-	-	-	#	N	Ur	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus	
Animals - I	Hydroporus leechi	Leechs skyline diving beetle	I	None	None	-	-	-	#	N	M	Animals - Insects - Dytiscidae - Hydroporus leechi	
Animals - I	Erethizon dorsatum	North American porcupine	A	None	None	-	-	-	#	N	M	Animals - Mammals - Erethizontidae - Erethizon dorsatum	
Animals - F	Emys marmorata	western pond turtle	A	Proposed	None	SSC	-	-	#	N	Ur	Animals - Reptiles - Emydidae - Emys marmorata	
Animals - F	Phrynosoma blainvillii	coast horned lizard	A	None	None	SSC	-	-	#	N	Ur	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii	
Communit	Ione Chaparral	Ione Chaparral	C	None	None	-	-	-	#	N	M	Community - Terrestrial - Ione Chaparral	
Plants - Va	Eriophyllum confertiflorum	tansy-flowered woolly sunflo	PE	None	None	-	-	4.3	#	N	Ur	Plants - Vascular - Asteraceae - Eriophyllum confertiflorum var. tanacetiflorum	
Plants - Va	Crocianthemum suffrutescer	Bisbee Peak rush-rose	PE	None	None	-	-	3.2	#	N	M	Plants - Vascular - Cistaceae - Crocianthemum suffrutescens	
Plants - Va	Arctostaphylos myrtifolia	Ione manzanita	PT	Threatene	None	-	-	1B.2	#	N	M	Plants - Vascular - Ericaceae - Arctostaphylos myrtifolia	
Plants - Va	Claytonia parviflora ssp. gra	streambank spring beauty	PE	None	None	-	-	4.2	#	N	Ur	Plants - Vascular - Montiaceae - Claytonia parviflora ssp. grandiflora	
Plants - Va	Erythranthe inconspicua	small-flowered monkeyflowe	PE	None	None	-	-	4.3	#	N	Ur	Plants - Vascular - Phrymaceae - Erythranthe inconspicua	
Plants - Va	Erythranthe marmorata	Stanislaus monkeyflower	PE	None	None	-	-	1B.1	#	N	M	Plants - Vascular - Phrymaceae - Erythranthe marmorata	
Plants - Va	Sphenopholis obtusata	prairie wedge grass	PF	None	None	-	-	2B.2	#	N	M	Plants - Vascular - Poaceae - Sphenopholis obtusata	
Plants - Va	Jepsonia heterandra	foothill jepsonia	PE	None	None	-	-	4.3	#	N	Ur	Plants - Vascular - Saxifragaceae - Jepsonia heterandra	



METHODS: The CNDDDB query and report for regulated species was completed on March 13, 2024. Pedestrian surveys to assess wetlands, plants, and wildlife resources within the project site were conducted in March and April 2024. This brief technical memorandum is intended to summarize survey findings of office and field investigations including biological surveys completed to date and include recommended protection measures to reduce project impacts.

RESULTS: To date, no regulated plant or wildlife species have been observed within the project site. Potential bird nesting habitat exists throughout the project site, primarily as cavities in standing snags.

- a. **WATERCOURSES** – To protect riparian resources, protection zones will be provided during project operations. The project site contains two (2) Class III watercourse at the Boston Yale unit’s southwest and north sides which outflows onto Dell’Orto private ranching lands; the watercourses will be protected with a 25’ Equipment Exclusion Zone.

- b. **BOTANICAL RESOURCES** – per the California Natural Diversity Database, plants listed as Federal/State/CDFW “Threatened, Endangered, Rare or Species of Special Concern” as noted above were not observed during multiple surveys of the project area. Field surveys searched for these plants on multiple occasions and none were located.
- c. **WILDLIFE HABITAT and RESOURCES** - The dominant vegetation type is Sierra Montane Conifer at the lower elevational band. The mature overstory canopy consists of scattered Ponderosa pine (*Pinus ponderosa*), and Gray pine (*Pinus sabiniana*), along with California Live oak (*Quercus agrifolia*), Canyon live oak (*Quercus chrysolepis*), and California Buckeye (*Aesculus glabra*). Shrubs consist of dense patches of Whiteleaf manzanita (*Arctostaphylos viscida*), Greenleaf manzanita (*Arctostaphylos patula*), Whitethorn (*Ceanothus cordulatus*), Buckbrush (*Ceanothus cuneatus*), Toyon (*Heteromeles arbutifolia*), Rabbitbrush (and Deerbrush (*Ceanothus integerrimus*)). These areas contain severe summer wildfire fuel risk. Ceanothus can provide nesting habitat for some migratory passerine species. As a result, some patches of live brush species will be retained to provide habitat for nesting birds and will be located within the Class III EEZ, in the steep swales and on rocky outcrops. The project area has been severely damaged by the Western Pine bark beetle and the outbreak continues to this day. Consequently, the project area contains standing dead snags and dying trees that will become snags; these snags can provide cavity nest habitat for birds and peeling bark for roosting bats. Some standing dead trees were identified with the presence of peeling bark which is ideal for bat roosting. Retention of the trees/snags with active use will be retained within the project area but others will be removed as they are a hazard during firefighting operations.

While birds were heard and seen in activity, no bird nests were observed in the project area. While no raptor nests were observed within the project area, the treatment prescription retains trees over 12” dbh, so large live trees (potential raptor nest trees) will be protected. If an active nest is observed, buffer protection around the tree will be established to protect nesting activities; the size of the buffer will be determined by the RPF based on the nesting species’ needs.

No woodrat nests were observed within the project area. Woodrats are important forage for California spotted owls and other raptors. Woodrat nests will be protected by avoidance during operations if located.

Preservation of larger conifers (trees over 12” dbh) and large Live oaks will provide nest habitat for many bird species. Because of the observed mortality and diseased Ponderosa pine and Gray pine, protection of larger conifer trees will provide recruitment of snags for wildlife habitat beyond the life of the project.

Per a November 8, 2023 input inquiry to RWQCB and CDFW by the RPF, CDFW Biologist Kelsey Vella responded on November 14, 2023 that she had no additional comments than those provided on a similar and nearby project with the applicable RPF responses:

CNDDDB shows nearby occurrences of foothill yellow-legged frog (FYLF) - listed as endangered under the California Endangered Species Act (CESA). In reading the project description below, it is unclear what watercourse protections will be in place during operations and also what kind of operations will occur. CDFW has regulatory authority pursuant to CESA over projects that have the potential to result in the take of any species designated by the California Fish and Game Commission as an endangered, threatened, or candidate species. Take of species protected pursuant to CESA is prohibited (Fish and Game Code § 2080 et. seq.). The project area may contain suitable habitat for Foothill yellow legged frog (FYLF). CDFW recommends that appropriate avoidance, minimization and/or mitigation measures are implemented for this project to avoid take of FYLF.

Response: The Class III watercourse will be protected by a 25’ Equipment Exclusion Zone (EEZ). Per the USFWS “The frog is closely associated with streams and is rarely observed far from the water’s edge. Breeding stream habitat is typically shallow, rocky watercourses and at least partially exposed to direct sunlight.”

Potential habitat for nesting birds may be present within the project area. If project activities occur during the nesting season (typically February 1 to August 31), a survey for nests should be performed prior to the beginning of project-related activities. If an active nest is observed within the project area, a buffer should be established between the construction activities and the active nest so that nesting activities are not interrupted (Fish and Game Code 3503 and 3503.5). The buffer(s) should be determined based upon the life history of the individual species, including their sensitivity to noise, vibration, ambient levels of human activity and general disturbance, the current site conditions (screening vegetation, terrain, etc.) and the various project-related activities necessary to implement the project.

Response: Both the RPF and RPF Designees constantly survey for active nests. Additionally, the Mastication Contractors will be on the lookout for active nests. If active nests are found, applicable protection buffers will be installed around the nest tree with buffer sized based on nesting species needs.

Notification of Lake or Streambed Alteration is required for any activity that will substantially divert or obstruct the natural flow or substantially change or use any material from the bed, channel or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. If any of these activities will occur to implement the Project, the project applicant (or "entity") must provide written notification to CDFW pursuant to section 1602 of the Fish and Game Code. Based on this notification and other information, CDFW then determines whether a Lake or Streambed Alteration (LSA) Agreement is required. Informational materials on the Lake or Streambed Alteration notification process can be obtained at <https://www.wildlife.ca.gov/Conservation/LSA/Notify-CDFW>.

Response: No project activity will alter a Lake or Streambed.

No detrimental impacts to Biological Resources are anticipated to occur as a result of project implementation as prescribed.

Cultural Resources/Tribal Cultural Resources

- This topic does not apply to this project and was not evaluated further.
- Yes No Was a current archaeological records check completed? Results discussed below:
- Yes No Was a CAL FIRE staff or contract archaeologist consulted? Results discussed below:
- Yes No Was an archaeological survey of the project area completed? Results discussed below:
- Yes No Will the project effect any known historic, archaeological or tribal cultural resources?
- This topic could apply to this project, and results of the assessment are provided below:

Professional Archeologist Dr. Julia Costello/Foothill Resources, LTD and RPF Jan Bray/Paraprofessional Archeologist, conducted preparatory and field investigations for cultural resources between March and April 2024 for a total investigation entailing 24 hours. Consultation with Native Americans has been ongoing and all Native American input was carefully considered. Notification was made utilizing the CAL FIRE list (List Date of February 28, 2024) and the Native American Heritage Commission's Native American Contact List (List Date of March 25, 2024) for outreach purposes, notifying a total of 15 tribal representatives. A Confidential Archeological Survey Report is on file at the Mokelumne Hill Veterans Memorial District (MHVMD) headquarters at 8160 Church Street, Mokelumne Hill, CA.

A CHRIS Information Center Record Search was utilized for the assessment of cultural resources (#12863J and #12873J). While there are sites near the project area on other ownerships, one known site within the project area – which was not listed on the CHRIS Record Search Response - will be recorded and protected via avoidance. If any additional sites are located, such site(s) will be protected via avoidance.

No detrimental impacts to Cultural Resources are anticipated to occur as a result of project implementation.

Energy

- This topic does not apply to this project and was not evaluated further.
- This topic could apply to this project, and results of the assessment are provided below:
- No known energy development or extraction is occurring in or near the project area.

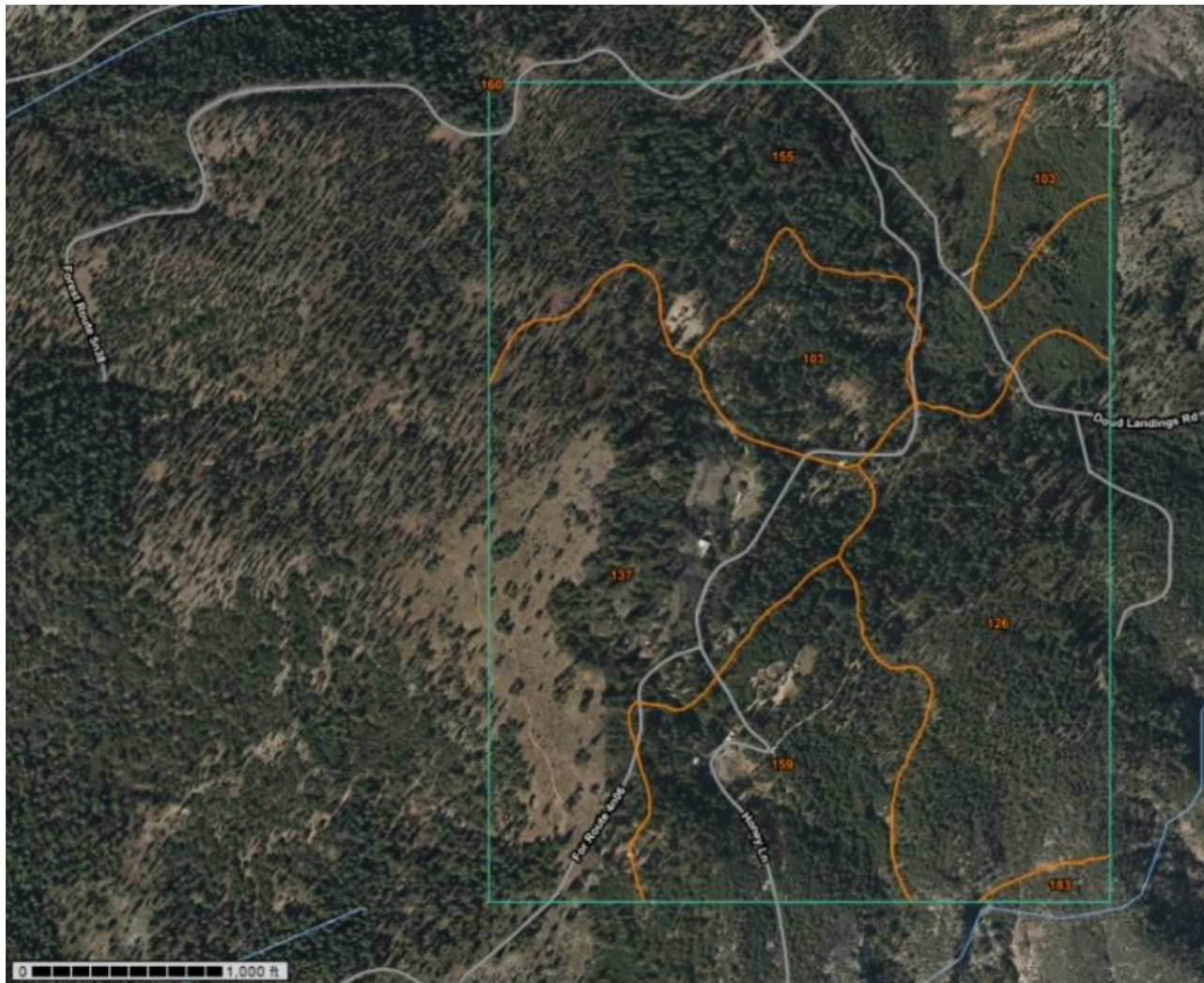
No significant adverse impact related to Energy is anticipated to occur as a result of project implementation.

Geology and Soils

- This topic does not apply to this project and was not evaluated further.
- This topic could apply to this project, and results of the assessment are provided below:

The vast majority of the soils found in the project area are in the Ultic Haploxeralfs-Mollic Haploxeralfs complex, Nedsgulch-Wallyhill-Arpatutu complex, Angelscreek-Pentz complex and Wardsferry-Millvilla complex. These are classified as well-drained, moderately deep to deep soils with rock outcrops, receiving 30-60 inches of annual precipitation with high runoff potential. While not prime farmland, these soils are in the landform of mountains and they are high-site forestlands. Forest management activities are acceptable on these soils. There are no known limitations based on soil types for the proposed project activities. A Custom Soils Report was constructed for this project and the link to the Report is: https://websoilssurvey.sc.egov.usda.gov/WssProduct/Iqod4nsdczvkspckewauxb5/GN_00000/20230905_19545607366_1_Soil_Report.pdf

A Web Soil Survey was conducted of the Mokelumne Hill Fuels Reduction Project Area. Soil surveys include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. The Web Soil Survey included the project area and adjacent surrounding area:



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of A
103	Dystric Lithic Xerochrepts-Rock outcrop-Josephine family moderately deep complex, 35 to 110 percent slopes	32.7	10.2%
126	Holland family, deep, 5 to 35 percent slopes	71.4	22.3%
137	Holland, deep dark surface-Moderately deep dark surface-McCarthy, moderately deep families complex, 5 to 35 p	87.4	27.3%
155	Josephine-Sites families association, deep, 5 to 35 per cent slopes	82.5	25.7%
159	Josephine family, moderately deep-Deep complex, 5 to 35 slopes	44.1	13.8%

Forest management activities are acceptable on these Holland and Josephine family soils. Ground-based equipment shall operate only when soils are not saturated with high soil strength and bearing capacity. Mechanical equipment is prohibited from operating during saturated soil conditions (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 implementation 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 inadequate traction without blading wet soil or surfacing materials).

Roads shall be left in the same or better condition following treatment activities. Operations conducted within the Winter Operating Period (November 15 – April 1) shall be intensely monitored to prevent soil compaction as well as loss of road surface during the Winter Operating Period for administrative access on these native-surfaced (dirt) roads.

No significant ground disturbance or soil disturbance is anticipated as part of this project. Masticators typically have low contact pressure between the track/tire and the soil, thereby reducing on surface and subsurface soil compaction. No significant adverse impact related to geology and soils is anticipated with project implementation which will only occur on non-saturated soils. With the prescribed treatment of hand crew work and mechanical mastication, the soil O (Organic) horizon layer and underlying A layer will be protected and retained.

No detrimental impacts to Geology and Soils are anticipated to occur as a result of project implementation.

Greenhouse Gas Emissions

- This topic does not apply to this project and was not evaluated further.
- Yes No Would the project generate significant greenhouse gas (GHG) emissions?
- Yes No Would these GHG emissions result in a significant impact on the environment? Discuss below:
- Yes No Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Discuss below:

Greenhouse Gases (GHGs) which are present in the atmosphere naturally are released by natural and anthropogenic (human-caused) sources, and are formed from secondary reactions taking place in the atmosphere. The following are GHGs that are somewhat accepted as the principal contributors to human-induced global climate change:

- ▶ Carbon dioxide (CO2)
- ▶ Nitrous oxide (N2O)
- ▶ Perfluorocarbons
- ▶ Methane (CH4)
- ▶ Hydrofluorocarbons
- ▶ Sulfur hexafluoride

Assembly Bill 32 (AB 32) established legislation in September 2006 for the State of California to combat human-induced GHGs and promote the development and use of energy-efficient technologies. In addition, AB 32 established a comprehensive program of regulatory and market mechanisms to achieve quantifiable, cost-effective reductions of greenhouse gas emissions. The law requires a reduction of carbon emissions in California to 1990 levels by 2020. CARB – the California Air Resources Board - is the primary state agency designated to implement the requirements outlined in AB 32. Direct effects of forest restoration and fuels reduction treatments include the machinery involved in project implementation.

Woody material would not be removed from the site under project implementation, but would be rearranged into a surface fuel; decomposition will occur slowly over a 20-year period. Carbon from this rearranged material would be stored on site until the material decomposes or is burned, ultimately releasing the carbon back to the atmosphere. Additional activity-generated fuels may be left in the woods and would slowly emit carbon back to the atmosphere. Other emissions include smoke, dust, and greenhouse gases from pile burning, and vehicle and equipment use during implementation.

It is anticipated that the mastication and harvesting operations would reduce the current live vegetation crown closure by 45% (the majority reduction component in the project will be in ladder fuels as brush with a less significant amount as tree canopy). It is anticipated the project would take approximately 1 year to complete and the time required for complete sequestration is 2.8 years. Thinning trees and reducing ladder fuels would increase growing space, providing more sunlight, nutrients and water for residual trees which will sequester more carbon in the long term. Some conifers (generally less than 10” dbh) will be retained to ensure species diversity and a full range of age and size classes. The proposed project is not expected to result in a significant effect regarding greenhouse gas emissions. In fact, the project would result in the avoidance of a significant release of greenhouse gases by reducing the likelihood of an uncontrolled wildfire during periods of precarious air quality (late Summer through Fall). The estimated GHG emissions from this project do not meet the significance threshold that CAL FIRE – in conjunction with the California Air Resources Board - utilizes (California Air Pollution Control Officers Association) to assess significant impacts with regard to GHG emissions which is 900MT/year.

The worksheet below calculates Greenhouse Gas estimations per project implementation as being less than significant:

Project Name	2024 Moke Hill FR		Blue = Variable Inputs	
Project Acres		40	Black = Equation Produced Data	
Total Project Days		15	Red = Constants	
Exhaust CO2 Emissions				
Total Round Trip Miles		20	Total Chipper days	0
# of Chainsaws		1	Total Chainsaw days	10
# of Chippers		0	Total Masticator days	18
Diesel Kilograms/Gal		10.15	Masticator Diesel Gal/day	24
Gas Kilograms/Gal		8.91		
Pounds of CO2/Kilogram		2.20462		
One Chipper Gas Gal/day		10		
Crew Bus MPG		8		
Chainsaw Gas Gal/Day/Saw		1.5		
Conversion Factor Pounds to Ton		2000		
Conversion Factor Tons of Biomass to Tons CO2		1.65	Masticator Total Gal Diesel Needed	432
Crew Bus Total Miles		300	Chainsaws Total Gal Gas Needed	15
Total Gal of Diesel Needed		470	Chipper Total Gal Diesel Needed	-
Total Kilograms of Diesel Produced		4,765	Total Kilograms of Gas Produced	566
Diesel Total Pounds of CO2 Produced		10,506	Gas Total Pounds of CO2 Produced	1,247
Diesel Total Tons CO2		5	Gas Total Tons CO2	1
Smoke or Decay CO2 Emissions				
Est. Biomass Tons Per Acre Removed (Fuel Model)		5		
Biomass Total Tons Removed		200		
Total Tons of CO2		330		
Final Outputs				
Total Tons of CO2 for Project		336		
Sequestration Rate 2 - 6 Tons/Ac/Yr		3		
Total Sequestration Rate/Yr		120		
Years Required for Complete Sequestration		2.8		

No significant adverse impact related to greenhouse gas emissions is anticipated.

Hazards and Hazardous Materials

- This topic does not apply to this project and was not evaluated further.
- This topic could apply to this project, and results of the assessment are provided below:

No known hazardous waste disposal or Superfund cleanup sites are in or near the project area. No herbicides, pesticides or hazardous material use is proposed under this project.

No significant adverse impact related to Hazards or Hazardous Materials is anticipated to occur as a result of project implementation.

Hydrology and Water Quality

- This topic does not apply to this project and was not evaluated further.
- Yes No Will the project potentially affect any watercourse or body of water?
- This topic could apply to this project, and results of the assessment are provided below:

Two Class III watercourses are present within and adjacent to the project area. To protect riparian resources, a 25' Equipment Exclusion Zone (EEZ) will be provided during project operations. Operations will not when soils are saturated.

No significant adverse impact to watercourses or bodies of water are anticipated due to project implementation.

Land Use and Planning

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

No significant impacts to Land Use and Planning are anticipated to occur as a result of project implementation.

Mineral Resources

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

A Custom Soils Report was generated for the project (see the link in the **Geology and Soils** section above).

No significant adverse impacts on Mineral Resources are anticipated to occur as a result of project implementation.

Noise

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

Proposed project activities will result in some noise from mechanical mastication equipment and chainsaws. The equipment shall only be operated during normal daylight hours. The equipment use in any given area will be generally short-lived (1-3 days near any given residence) as the nature of this project will result in a moderate to rapid progression of fuels treatment through the project area. Many of these residents are participating landowners in the project, along with the Mokelumne Hill Elementary School (Calaveras Unified School District). When working in areas away from residences, the noise of the equipment in the distance will not be significant as they will be only slightly/moderately above the ambient noise levels and the area is rural with scattered residences within/adjacent to the project area.

No significant impacts from Noise are anticipated to occur as a result of project implementation.

Population and Housing

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

No significant impacts to Population and Housing are anticipated to occur as a result of project implementation.

Public Services

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

No significant impacts to Public Services are anticipated to occur as a result of project implementation.

Recreation

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

The project area is on private lands and on public lands (Mokelumne Hill Veterans Memorial District and Calaveras Unified School District lands) not available for public recreation.

No significant impacts to Recreation are expected as a result of project implementation.

Transportation and Traffic

- This topic does not apply to this project and was not evaluated further.
 This topic could apply to this project, and results of the assessment are provided below:

There are multiple access routes to the project area. For the Mokelumne School Unit: Highway 26, Prindle Road, and Italian Vista Court. For the Boston Yale Unit: Highway 26, Montgomery Drive and an unnamed road just east of Montgomery Drive. Roads shall be left in the same or better condition following treatment activities.

Warning signs shall be the responsibility of the Contractor to alert motorists/residents of current operations.

The project is not expected to have any significant adverse impact on Transportation or Traffic.

Utilities and Service Systems

- This topic does not apply to this project and was not evaluated further.
- This topic could apply to this project, and results of the assessment are provided below:

The project will protect critical infrastructure in Mokelumne Hill and the Boston Yale subdivision.

No significant impacts to Utilities and existing Service Systems are anticipated to occur as a result of project implementation.

Wildfire

- This topic does not apply to this project and was not evaluated further.
- This topic could apply to this project, and results of the assessment are provided below:

Mitigation for a catastrophic wildfire is at the heart of this project. Implementation of this project will reduce wildfire threat. This project is in a wildland urban interface residential area, and is being implemented in direct response to prevention of a catastrophic wildfire event. Implementation of the project will reduce the spread of fire and increase the ability to suppress the fire while still small.

No significant adverse impacts to the Wildfire situation are expected.

Changes Made to Avoid Environmental Impacts:

Changes are inherent in the protection measures noted above and in Attachments.

Mandatory Findings of Significance:

	YES	NO
(a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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 probably future projects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Justification for Use of a Categorical Exemption (discuss why the project is exempt, cite exemption number(s), and describe how the project fits the class):

The project will create a large-scale shaded fuelbreak condition, amplifying safety for landowners, residents, travelers along Highway 4 and its feeder roads. Vegetation to be removed is flammable and presents a hazard that will be reduced via project implementation. This project fits under portions of the above-listed Class 4 Categorical Exemption listed in CEQA Guidelines §15304 pertaining to Minor Alterations to Land.

Previous consultation with a representative from the Regional Water Quality Control Board was received and an applicable mitigation measure was incorporated. MHVMD staff have concluded that no significant environmental impacts would occur to aesthetics, agriculture and forestland/timberland, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, wildfire, or utilities and service systems. Documentation of the environmental review is available at the MHVMD, 8160 Church Street, Mokelumne Hill, CA.

Conclusion:

After assessing potential environmental impacts and evaluating the description for the various classes of categorical exemptions to CEQA, MHVMD has determined that the project fits within one or more of the exemption classes and no exceptions exist at the project site which would preclude the use of this exemption. MHVMD considered the possibility of (a) sensitive location, (b) cumulative impact, (c) significant impact due to unusual circumstances, (d) impacts to scenic highways, (e) activities within a hazardous waste site, and (f) significant adverse change to the significance of a historical resource. A notice of exemption will be filed at the County of Calaveras.

After assessing potential environmental impacts and evaluating the description for the various classes of categorical exemptions to CEQA, MHVMD has determined that the project does not fit within the description for the various exemption classes or has found that exceptions exist at the project site that precludes the use of a categorical exemption for this project. Additional environmental review will be conducted and the appropriate CEQA document used may be a negative declaration or a mitigated negative declaration.

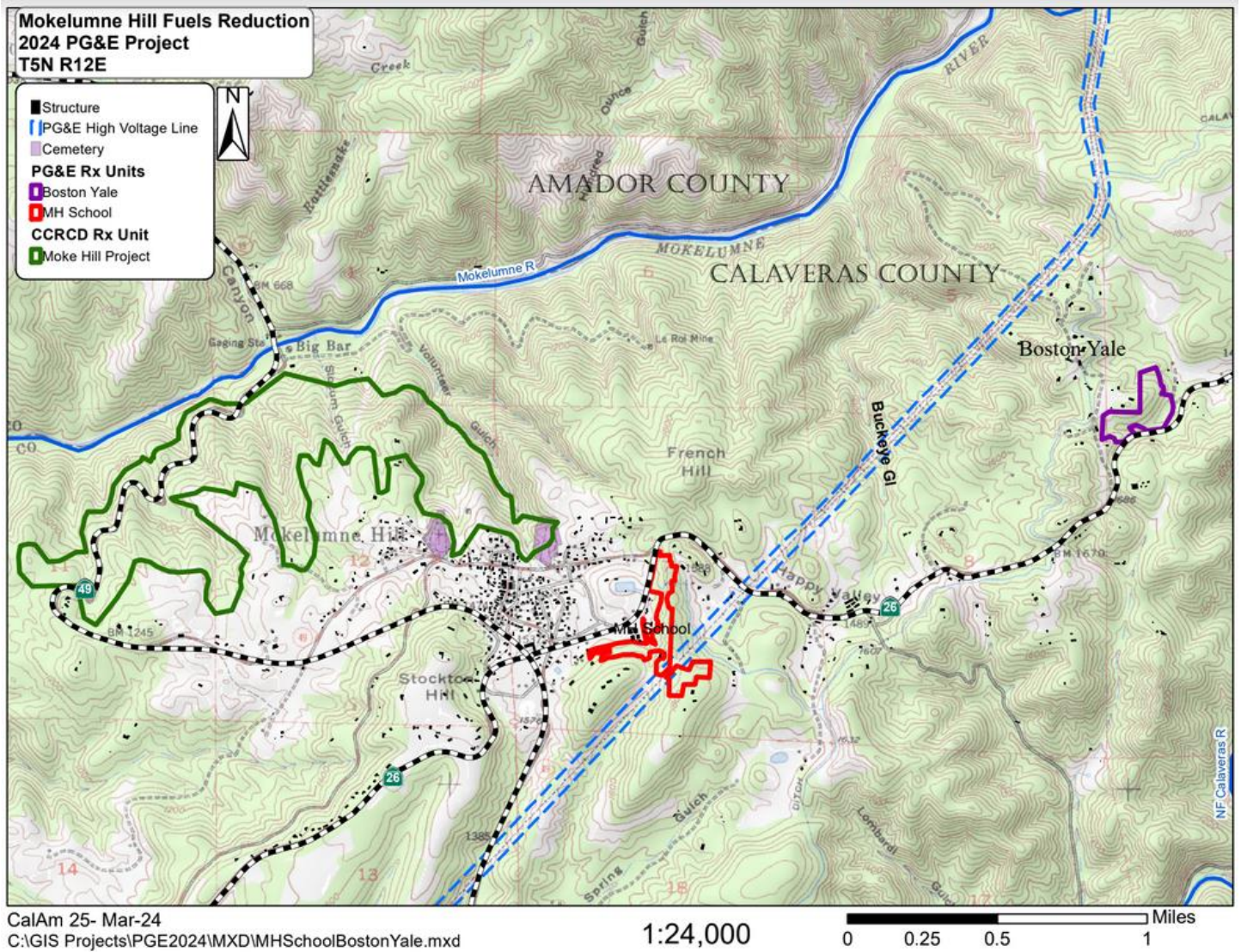
APPENDICES:

A. ANTICIPATED PARTICIPATING LANDOWNERS

Mokelumne Hill Fuels Reduction [2-Apr-2024]							
APN	Name	Contacted?	Phone	Email	Address 1	Address 2	Situs 1
Mokelumne Hill School Unit Parcels (Owners in yellow require CEQA)							
Project Parcels- Need Right of Entry Permits							
18-009-030	Mokelumne Hill Veterans Memorial District	Resolution Mar-25		Thomas.Ringlein@y	P.O. BOX 286	Mokelumne Hill CA 95245	
18-010-012	Mokelumne Hill Veterans Memorial District	Resolution Mar-25		Thomas.Ringlein@y	P.O. BOX 286	Mokelumne Hill CA 95245	
18-010-019	Mokelumne Hill Veterans Memorial District	Resolution Mar-25		Thomas.Ringlein@y	P.O. BOX 286	Mokelumne Hill CA 95245	
18-010-022	Mokelumne Hill Veterans Memorial District	Resolution Mar-25		Thomas.Ringlein@y	P.O. BOX 286	Mokelumne Hill CA 95245	
18-010-023	Mokelumne Hill Veterans Memorial District	Resolution Mar-25		Thomas.Ringlein@y	P.O. BOX 286	Mokelumne Hill CA 95245	
18-012-006	Calaveras Unified School District	Resolution Apr 11		Mark campbell	P.O. Box 788	San Andreas CA 95249	8350 Hwy 26
18-010-020	Kevin T Brady et al	Mike	(209)770-4710		8392 Prindle Rd	Mokelumne Hill CA 95245	8392 Prindle Rd
18-010-021	Kevin T Brady & Marta Johnson	Mike			8392 Prindle Rd	Mokelumne Hill CA 95245	
18-011-001	Eleanor L Peterson	Mike			8320 Prindle Rd	Mokelumne Hill CA 95245	8320 Prindle Rd
16-018-061	David Madariaga Trustee	USPS Apr 1			3519 Tilden Ave	Los Angeles CA 90034	
16-018-124	Joseph Jerome Agular & Cheri Garamendi et al	Mike		cgaramendi@yahoo	P.O. Box 200	Mokelumne Hill CA 95245	9490 North Sport Hill Rd
18-010-032	Brittany Bendix (Hilltop)				268 Santa Clara Ave	Redwood City CA 94061	7000 Italia Vista Dr
18-010-033	Brittany Bendix (Slope)	Mike			268 Santa Clara Ave	Redwood City CA 94061	6979 Italia Vista Dr
18-010-034	Brittany Bendix (Slope)	Mike			268 Santa Clara Ave	Redwood City CA 94061	6961 Italia Vista Dr
18-010-006	Theodore R and Alice R Shannon	Print agreement			2015 Finley Rd Unit 12	Lombard IL 60148	8470 Hwy 26
Boston Yale Unit Parcels							
Project Parcels- Need Right of Entry Permits							
16-019-011	Mykelina Quick Vinciguerra	Mike			10525 Hwy 26	Mokelumne Hill CA 95245	10525 Hwy 26
16-019-038	Aissatou Diene	USPS Apr 1			2920 Northgate Blvd S	Sacramento CA 95833	
16-019-039	Sandra C White	USPS Apr 1			4297 Dulcey Dr	San Jose CA 95136	10411 Hwy 26

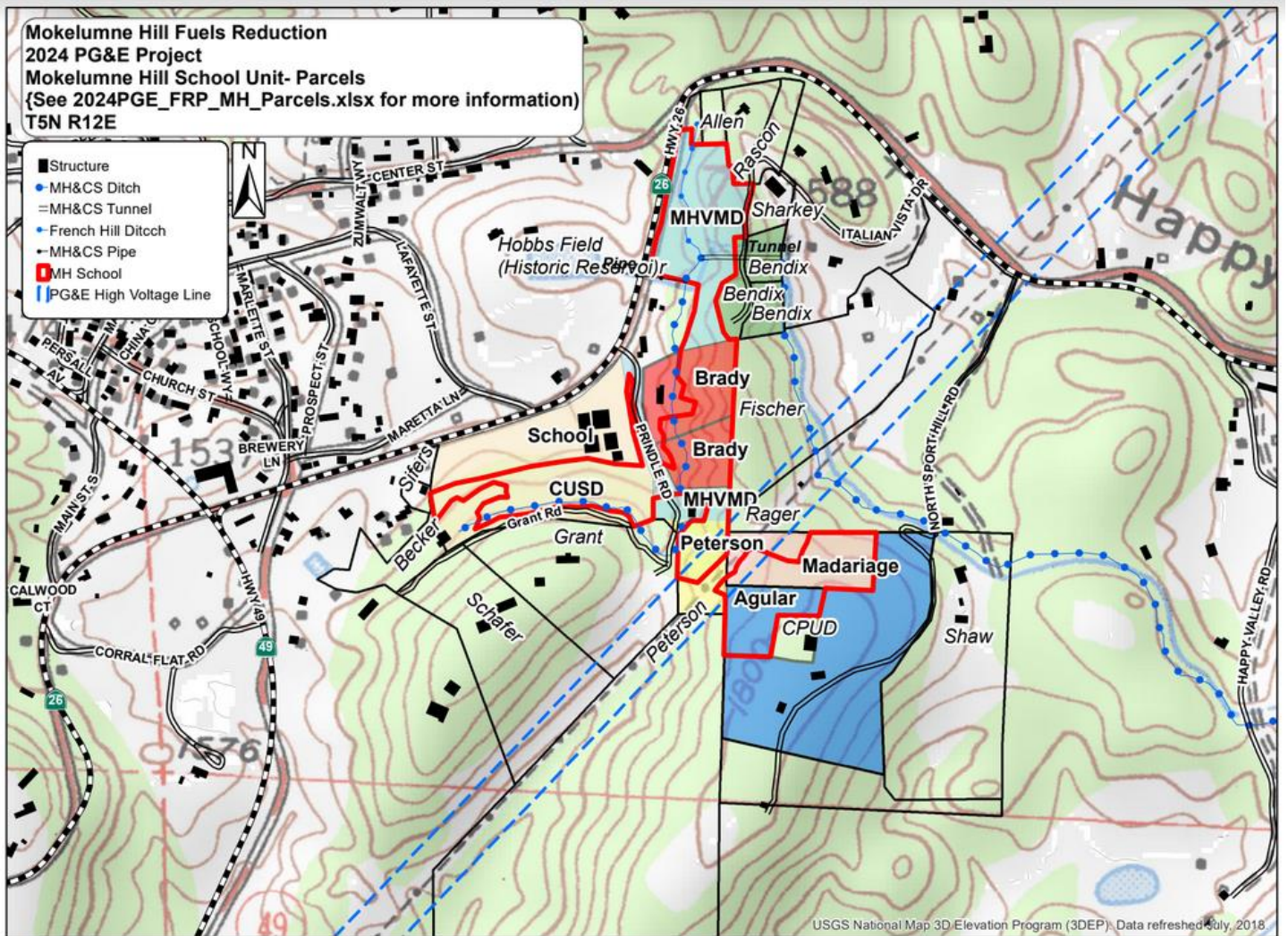
B. MAPS

Project Vicinity Map



Project Topographic Maps:

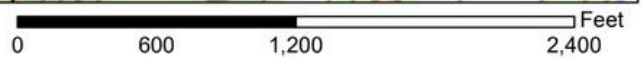
A. Mokelumne Hill Unit



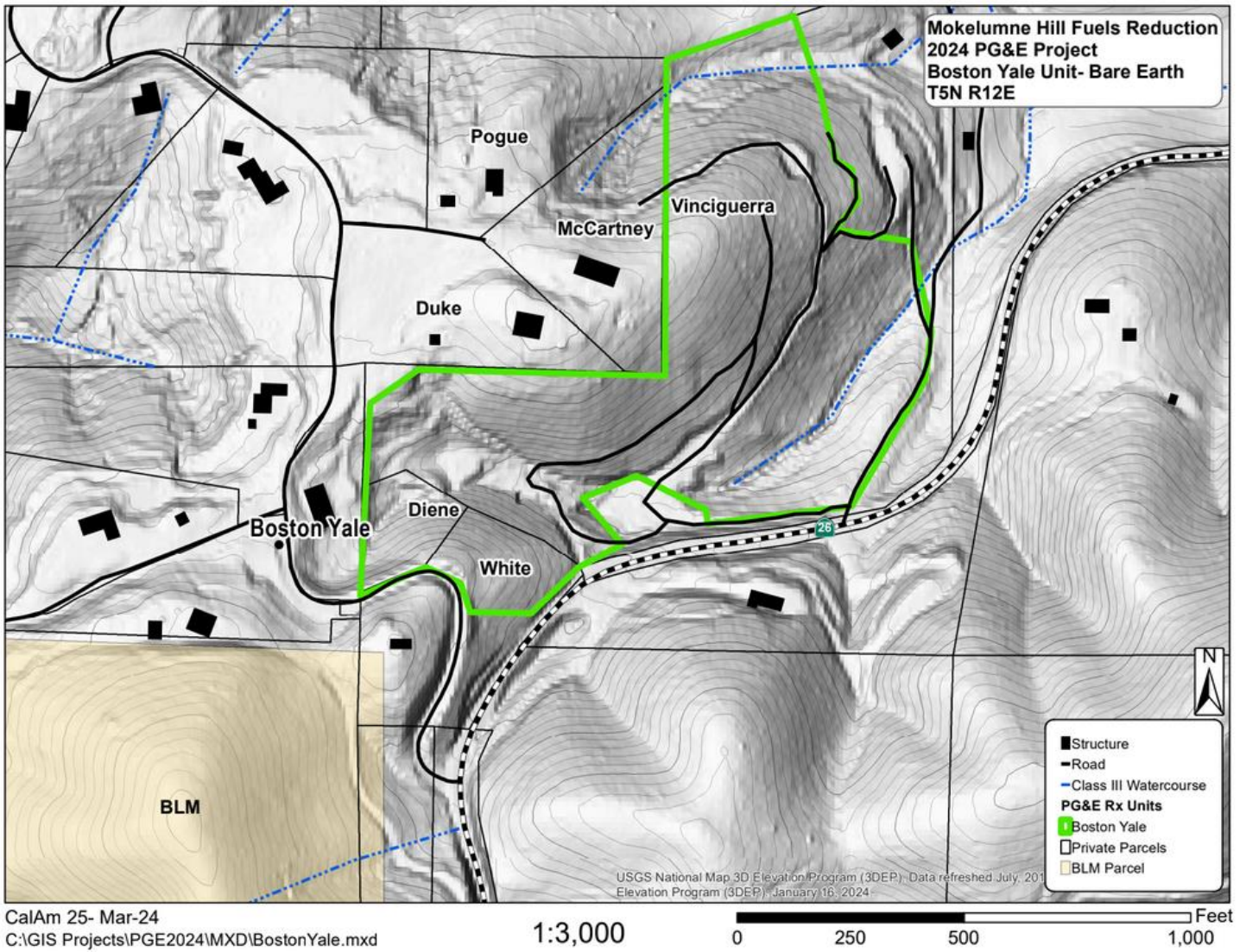
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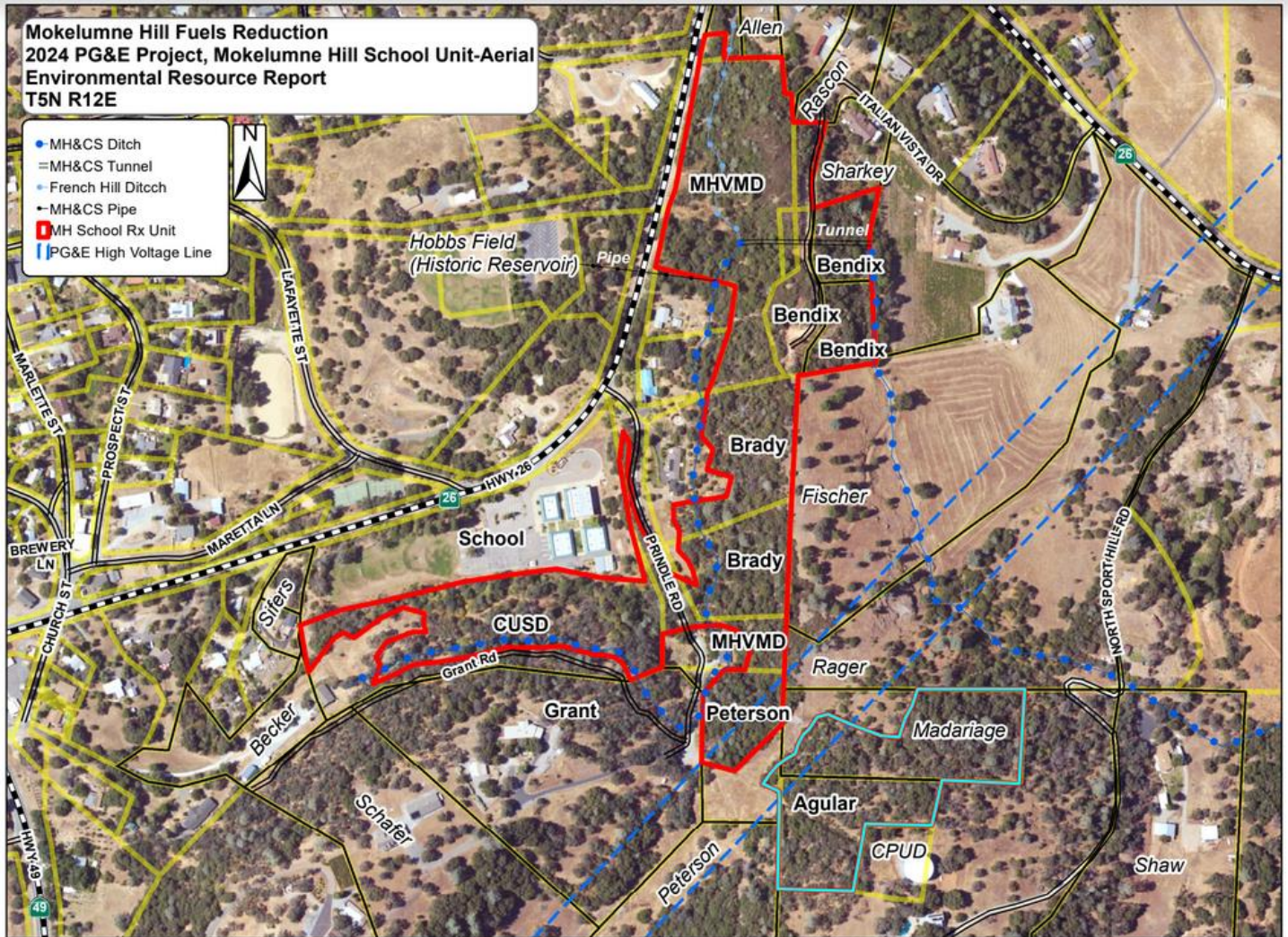


B. Boston Yale Unit



Project Aerial Maps:

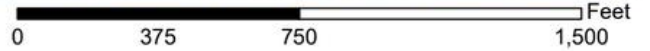
A. Mokelumne Hill Unit



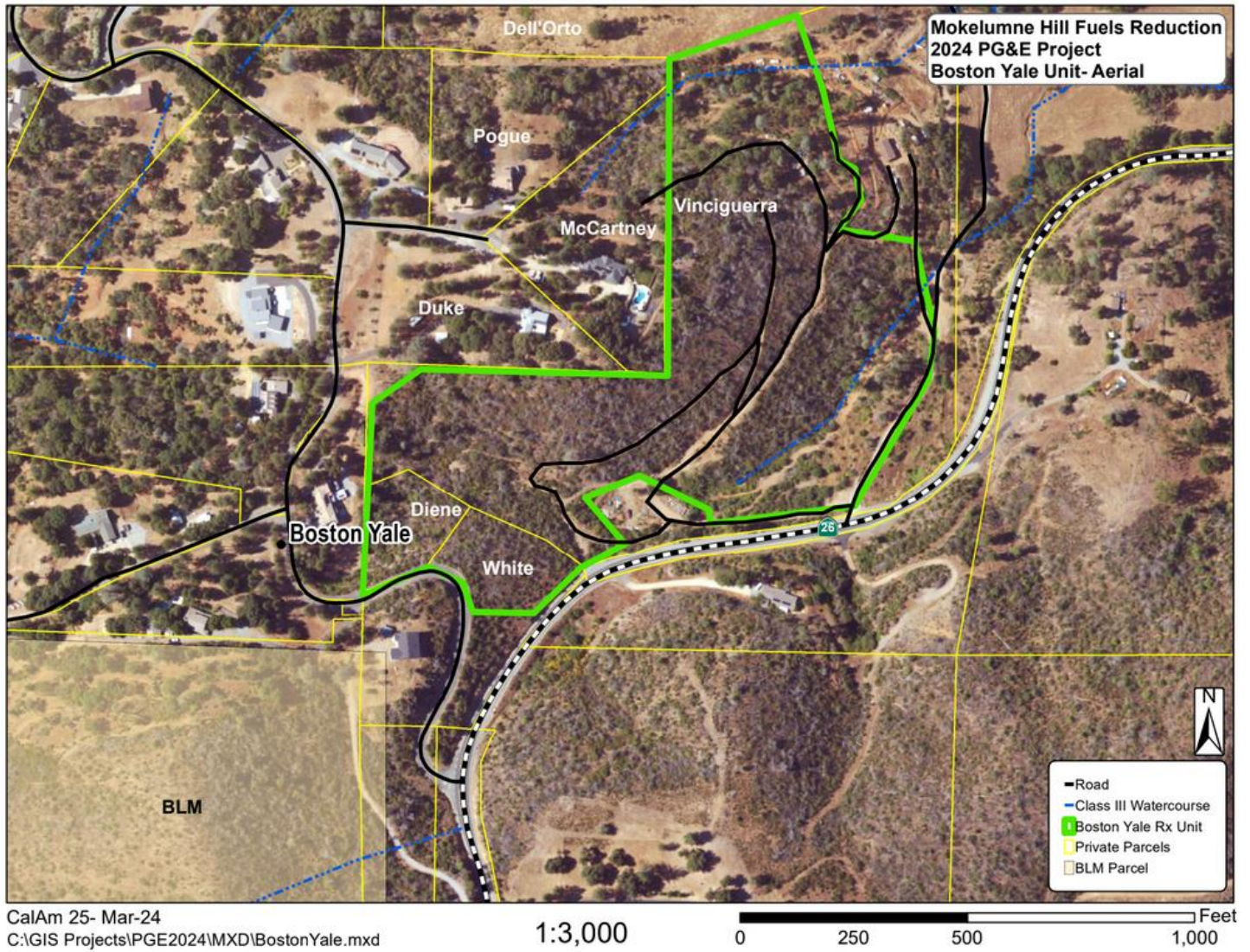
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B. Boston Yale Unit



C. PHOTOS

1. Eastern edge of Mokelumne Hill School Unit; fuels on ridge and decrepit power pole.



2. Boston Yale Unit; Highway 26 and fuel loading with interspersed Structures.

