

WESTERN EL DORADO COUNTY COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

February 15, 2022

ABSTRACT

This document is the update to the Western El Dorado County Community Wildfire Protection Plan 2017

RESOLUTION 2022-09 OF THE BOARD OF DIRECTORS OF THE EL DORADO COUNTY FIRE SAFE COUNCIL

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RESOLVED,

The Board of Directors of the El Dorado County Fire Safe Council has reviewed and hereby adopts this El Dorado County Wildfire Protection Plan (CWPP) for the benefit of the County of El Dorado for the purpose of increasing wildfire safety for its citizens while reducing the risk of loss of life and property.

SO RESOLVED.

Executed this April 20, 2022 at Diamond Springs, California

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Chairman, El Dorado County Fire Safe Council

ACCEPTED BY:

El Dorado County Board of Supervisors

20/2022 Date

5-24 Date

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Executive Summary

This update to the Western El Dorado County Community Wildfire Protection Plan (ECCWPP) signed in February 2017 comes in the years after some of the most devastating wildfires in the recorded history of California.

٠	Thomas Fire,	December2017	281,893 acres
٠	Carr Fire, J	July 2018,	229,123 acres
•	Mendocino Complex	July 2018	459,123 acres
•	SQF Complex	August 2020	167,766 acres
•	North Complex	August 2020	318,930 acres
٠	LNU Lightning Complex	August 2020	363,220 Acres
•	SCU Lightning Complex	August 2020	396,424 Acres
٠	August Complex	August 2020	1,029,605 Acres
•	Creek Fire	September 2020	341, 722 Acres ¹
٠	Dixie Fire	August 2021	963,276 (9/21)
•	Caldor Fire	August 2021	219,101 (9/21)

These fires contain five of California's six largest fires in modern history² In addition to the acres of resource damage losses from the fires in 2017 through 2020 has been more that acres lost.³

Year	Fatalities	Structure Loss
2017	47	10,280
2018	100*	24,226*
2019	3	732
2020	33	10,488
2021		1003 Caldor
TABLE 1: LIVES LOST A	1,329 Dixie	

* 85 fatalities, 18,804 structures lost, and 153,336 acres burned in the Camp Fire that burned through the Butte County City of Paradise and other communities within the fire perimeter.

These grim statistics and the growth of the number of local Fire safe councils associated with the El Dorado County Fire Safe Council from 17 in 2017 to 25 in 2020 and the desire by the County

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¹ California's Wildfire and Forest Resilience Action Plan, January 2021, <u>https://fmtf.fire.ca.gov/</u>

³ CAL FIRE <u>https://www.fire.ca.gov/</u>

Board of Supervisor, Cal Fire Amador El Dorado Unity and the County FSC to incorporate the needs of the associate Fire Safe Councils into one document have made it necessary to update the 2017 ECCWPP.

Chapter 1 Introduction 1.2 Plan Objectives

The Update to the 2017 ECCWPP Provides the communities an opportunity to update their previous projects and plans as well as input from the stakeholder, local fire protection districts, CAL Fire and Federal Land management agencies to give input and recognize the needs of the communities that surround their property responsibilities for protecting their land as well as the homes and private properties adjacent to them. This update does not replace the 2017 Plan it only modifies it and brings it up to date. The 2017 CWPP is still in effect and can still be used to identify the problems that have not changed and does not update the Fire behavior assessment.

1.22 Consistency with state and federal Guidelines

CAL FIRE has provided us with several documents that are important to the CWPP Update.

- State of California, California Department of Forestry and Fire Protection, Strategic Plan 2019 <u>Strategic Plan 2019 (ca.gov)</u>
- 2. 2020 Unit Strategic Fire Plan Amador-El Dorado Unit https://osfm.fire.ca.gov/media/j0zbdecg/2020-aeu-fire-plan.pdf
- 3. Maps of CAL Fire priority Roads are attached

1.2.2.1 Cal Fire Amador El Dorado Unit (AEU)

Has a new unit Fire Plan Dated May 2020 and contains the following objectives in priority order.

- 1. Support project work (fuels reduction) and planning efforts that encourage the development of safe ingress and egress routes for emergency incidents.
- 2. Continue to provide operational training that will support safe and successful suppression operations.

- 3. Utilize CAL FIRE and community resources to mitigate large and damaging wildfires with defensible fuel zone/fuels reduction (prescribed fire) projects at critical operational locations.
- 4. Continue to support the implementation of fire safe clearance around structures.
- 5. Support implementation of the new 2008 WUI Building standards through cooperation with local government planning departments.
- 6. Conduct incident analysis to evaluate Unit success in achieving the 95% threshold of keeping fires less than 10 acres in size.
- 7. Continually educate the community on their role in the wildlands and support Resource Conservation Districts and Fire Safe Council activities.
- 8. Utilize prevention operations to reduce ignitions within the Unit.
- 9. Nurture and build relationships with local public and private industries to develop cooperative project plans.
- 10. Continually reassess local mitigation projects and update this Fire Plan⁴.

AEU Fire plan location is:

https://osfm.fire.ca.gov/media/j0zbdecg/2020-aeu-fire-plan.pdf

State of California Task Force

A newly formed group created by the Governor which will make it easier to coordinate activities, the group is *California Forest Management Task Force* Which is made up of State, local, tribal, and federal agencies and non-governmental organizations that play critical land management or permitting roles for forest management and restoration project. This group has the following:

Management Goals

1. Implement the forest practices called for in the Forest Carbon Plan.

2. Take all necessary steps to double the total statewide rate of forest treatments within 5 years to at least 500,000 acres per year.

⁴ 2020 Unit Strategic Fire Plan Amador-El Dorado Unit, May 2020

3. Increase new landowner agreements and memoranda of understanding, such as Good Neighbor Authority agreements, to accelerate forest restoration thinning and prescribed fire projects across jurisdictions.

4. Integrate fire prevention activities into landscape forest restoration efforts in and near WUI areas.

5. Integrate the goals of the Executive Order in fish and wildlife habitat restoration programs, mitigation- related land conservation, and conservation planning.

6. Build local capacity by promoting and expanding regional forestry collaboratives. More information go to the following link <u>https://fmtf.fire.ca.gov/</u>

The group has created a document California's Wildfire and Forest Resilience Action Plan

https://fmtf.fire.ca.gov/media/cjwfpckz/ californiawildfireandforestresilienceactionplan.pdf

1.2.2.2Federal Agencies El Dorado National Forest, Bureau of Land management and the Bureau of ReclamationThe federal agencies direction remains the same as it did in the 2017ECCWPP. New, particularly to El Dorado county, has been the creation of the group South Fork of the American River Cohesive Strategy

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SOFAR South Fork of the American River Cohesive Strategy

SOFAR Cohesive Strategy Has brought together numerous fire protection agencies, community organizations county wide fire safe councils, resource agencies such as the Resource Conservation Districts of El Dorado County and environmental concerns, that focus on the South Fork of the American River watershed. It's purpose to implement the National Cohesive Wildland Fire Management Strategy. This has provided the forum to implement numerous projects through out the water shed.

SOFAR Collaborative charter signatories:

- <u>California Forestry Association</u>
- Catalytic Connections
- <u>California Native Plant Society</u>
- <u>El Dorado County and Georgetown Divide Resource Conservation Districts</u>

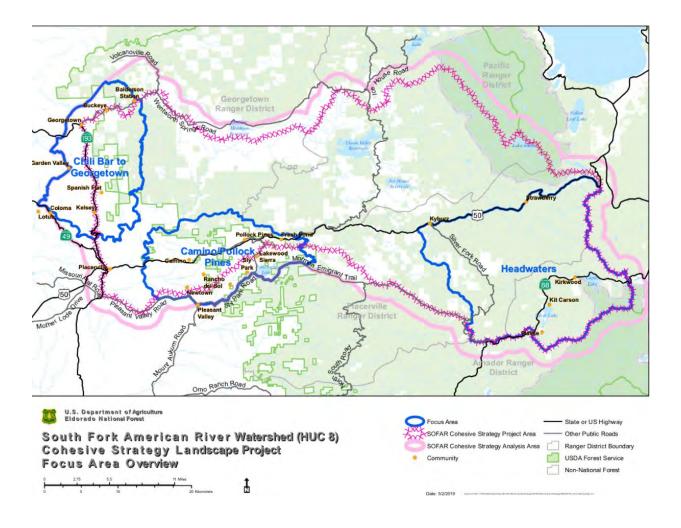
- Eldorado Fire Chiefs' Association
- Eldorado National Forest
- Fire Restoration Group
- <u>Georgetown Divide Firesafe Council</u>
- National Wild Turkey Federation
- Northern Sierra Summer Home Association
- Pollock Pines-Camino Firesafe Council
- Sierra Club
- Sierra Forest Legacy
- <u>Sierra Pacific Industries</u>

Partial list of SOFAR Collaborative partners:

- American River Conservancy
- Associated California Loggers
- <u>Cal Fire</u>
- <u>California Off-Road Vehicle</u> <u>Association</u>
- <u>California State Assembly</u>
- California State Parks
- <u>Center for Sierra Nevada</u>
 <u>Conservation</u>
- El Dorado County Sheriff
- El Dorado County Supervisor
- El Dorado Firesafe Council
- El Dorado Irrigation District
- El Dorado Northern Lumber Co
- <u>Georgetown Fire Department</u>
- Integrated Natural Resource
 Management
- Landmark Environmental, Inc
- <u>Natural Resources Conservation</u>
 <u>Service</u>
- Pacific Biocontrol Corporation
- Pacific Gas and Electric
- Pacific Southwest Research Station
- Placer County Supervisor
- Placer County Water Agency
- Private Citizens
- Recreation Residences Area Rep.
- <u>Sacramento Municipal Utility District</u>
- Sierra Business Council
- <u>Sierra Nevada Conservancy</u>

- <u>Sierra-At-Tahoe</u>
- Spatial and Thematic Group
- <u>Tenso Barterre Group</u>
- The Nature Conservancy
- Tree Mortality Task Force
- UC Davis
- US Forest Service, Region 5

The following maps are examples of those project focus areas within the western slope UCWPP. The SOFAR projects have brought new emphasis to areas of the county and project cooperation.



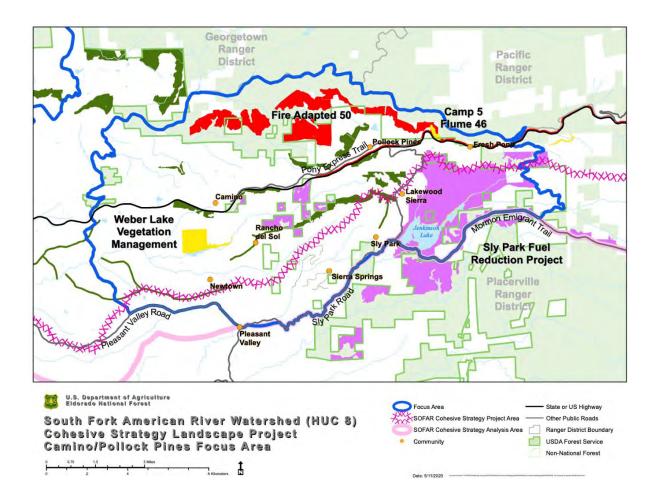


FIGURE 1 CAMINO POLLOCK PINES AREA

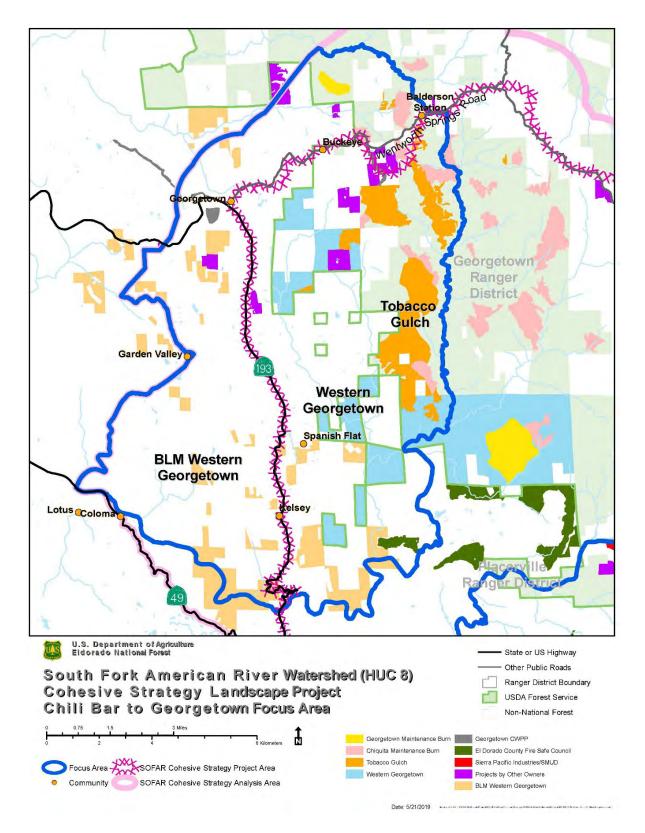
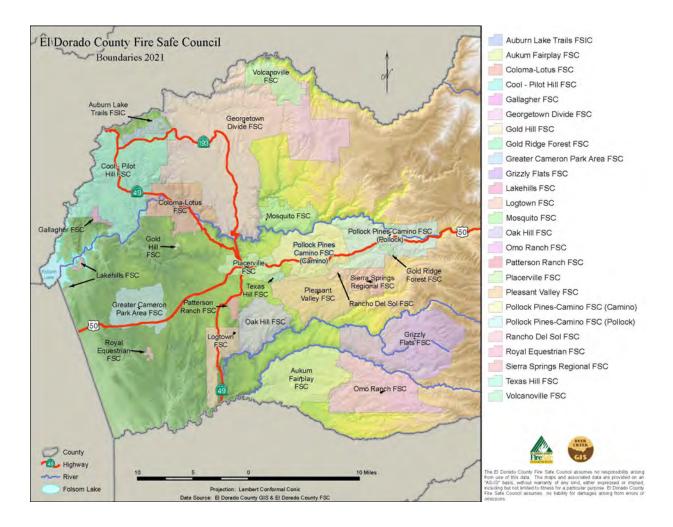


FIGURE 2 GEORGETOWN AREA

1.3 CWPP Planning Area Boundaries



1.5 Community and Agency Involvement

1.51 Public Meetings and Other Outreach

The community and public meetings were curtailed in March 2020. Up to that point there was a meeting held with the El Dorado County Fire Safe council in conjunction with their monthly meetings. A meeting with the Fire Safe Council stakeholders was also held in February 2020 to explain the update and to give opportunities to provide input. We were also able to have in person meetings with three fire safe councils' boards before the COVID shut down. We then changed to live digital ZOOM meetings with the remaining councils that wished to participate. The participants really like the meetings and understood completely the necessity of the meetings. The meetings allowed more participation and easier scheduling.

Chapter 2 Defensible Space and Home Protection

2.1 Defensible Space

The Governor's Forest Task Force in the California Wildfire and Forest Resilience Action Plan has recommended on page 29 key actions has recommended that CAL FIRE through a public process will assist the Board of Forestry with updating defensible space regulations to meet AB 3074 a five foot ember resistant zone around homes. It also recommends Increase defensible space Inspections, improve defensible space compliance, expand home hardening Programs and wok with the Department of insurance and implement the provision of SB 824 (2017).

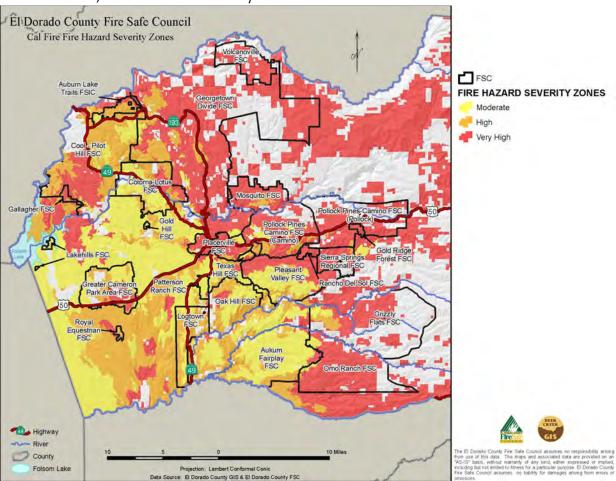
An example of Harding can be found in *Wildfire Home Retrofit Guide*,(<u>http://ucanr.edu/HomeRetrofitGuide</u>)

Eldorado County amendment to Ordinance No. 5101

February 25, 2020 El Dorado County Board of Supervisors adopted the amendment to Ordinance 5101 adding Chapter 8.09 to Title 8 Public health and safety, vegetation management, and defensible space. This chapter is to provide for the removal of hazardous vegetation and combustible materials situated in the unincorporated areas of the county. https://www.edcgov.us/Government/CAO/VegetationManagement.

This document adds more enforcement to weed abatement and defensible space regulations and allows for collection of costs for abatement

Chapter 3 Fire Risk and Fire Behavior



3.1 CAL FIRE, Fire Hazard Severity Zones

Many of the communities have used the CAL FIRE Fire Hazard Severity to identify the risks of wildfires to their community. A very extensive analysis of Fire Risk was done in Chapter 3 of the Western El Dorado County CWPP, 2017 and those risks and fire behavior has change very little since then. Also located in the Western El Dorado County CWPP Appendix 4 Modeled Flame Length, Appendix 5 Modeled Rate of Spread, And Appendix 6 Modeled Fire Type has not changed and take a very good look at fire behavior for the entire Western El Dorado County.

Chapter 4 Fire Risk Mitigation Strategies

This section of the update to the 2017 CWPP is meant to reemphasis what has already been document in the 2017 CWPP. What follows is a summary of those sections, taken directly form the 2017 document.

4.1 Fire Risk Mitigation Strategies

- Improving road access, generally and specifically for emergency response and evacuation
- Improving water supply and water delivery infrastructure
- Enforcing defensible space regulations and generally reducing risks due to accumulations of trash and other flammable material on commercial and residential properties
- Reducing hazardous fuels
- Public education and fire prevention measures

Improving Road Access

There are many aspects to the issue of roads and adequacy of access, but at the community scale, facilitating emergency response and evacuation in the event of a fire is essential. Respondents to the on-line survey done as part of this CWPP raised this issue with respect to road width to simultaneously accommodate evacuees and incoming fire equipment, bridge width and strength (to support fire apparatus) and grown-over or brushed-in roads. Steep terrain and narrow, steep roads, poorly maintained roads, locked gates, and dense roadside vegetation can all impair the movement of equipment in to fight a fire and movement out by affected people. In the worst of cases, "traffic jams" caused by the combination of poor access and heavy traffic can contribute to the spread of fire and fatalities.

Improving Water Supply and Delivery Infrastructure

Rural communities in El Dorado County depend on a variety of water supplies and associated infrastructure. In many instances, water supply is the responsibility of the individual property owner who may or may not have a storage facility (e.g., tank, pond, or swimming pool) that can provide a source of water for fighting a fire. In other cases, communities and groups of properties depend on inherited water delivery systems such as flumes and ditches. Flumes and ditches are susceptible to failure and obstructions, particularly during large fires where they may be physically burned or impacted by falling trees. For example, in an evaluation of historic failures along the water conveyance facility associated with one of El Dorado Irrigation District's water supplies, numerous breaches due to excessive flow, landslides, and trees toppling into the open ditch were observed (Harris, personal observations). Water supply and infrastructure is considered a serious potential constraint on response to wildfire in El Dorado County. The El Dorado Irrigation District (EID) is currently underway on a project to replace a 3-mile section of

a water supply ditch with a buried pipeline. Objectives of this project include; reduction of water loss due to seepage and vegetation water-use, protection of drinking water quality, and a reduction operations and maintenance costs.

Meeting these objectives will thereby contribute to EID's overall water conservation efforts and protect the supply from impacts of wildfire and associated hazards. More info can be found at: http://www.eid.org/about-us/project-updates/upper-main-ditch-piping-project

4.11 Enforcing Defensible Space Regulations

Enforcement of policies, codes and ordinances can have an important impact on risk. For example, the extension of defensible space provisions from 30 feet to 100 feet from a structure had a positive effect that was triggered in part by the requirements of insurance companies. Strategies implemented in other counties, such as Placer County, include provisions for defensible space treatments beyond

a property line onto adjacent property. Consistently mentioned in the community survey was an overall concern of overgrown and un-managed vegetation on vacant lots owned by absentee landowners. Location of these lots and taking action to get them cleaned up is of great importance to many local community members.

Structure loss and Recommendations for reducing the impacts Current situation

Fire Year	Number of Structures Damaged or Destroyed
2021	3,629
2020	10,488
2019	732
2018	24,226
2017	10,280

The losses have been the highest in California in the past 5 years than at any other time since the 19th century The loses in the Caldor fire alone are staggering as of September 14th, 2021, were 782 Single Residences destroyed, 18 Commercial properties destroyed, and 203 minor structures destroyed. It has become a statistic that makes it difficult to predict loss. It is not if structures in the WUI will be damaged or destroyed but rather when.

A report has recently been published in the Journal of Fire Ecology titled "Housing arrangement and vegetation factors associated with single-family home survival in the 2018 Camp Fire, California" by Eric E. Knapp, Yana S. Valachovic, Stephen L. Quarles and Nels G. Johnson

https://fireecology.springeropen.com/track/pdf/10.1186/s42408-021-00117-0.pdf

"Strong associations between both distance to nearest destroyed structure and vegetation within 100 m and home survival in the Camp Fire indicate building and vegetation modifications are possible that would substantially improve outcomes. Among those include improvements to windows and siding in closest proximity to neighboring structures, treatment of wildland fuels, and eliminating near-home combustibles, especially in areas closest to the home (0–1.5 m).....

.....While our data show a relationship between home loss and vegetative fuels (high pre-fire overstory canopy

cover likely associated with a greater litter and woody fuel abundance, as well as other wildland understory vegetation) that can contribute to fire intensity and ember generation, the WUI fire loss issue has been described as home ignition problem more so than a wildland fire problem (Cohen 2000; Calkin et al. 2014). The damaged home data were in line with this view, with few homes showing evidence of continuity with wildland fuels that would contribute to flame impingement, but numerous homes with near home fuels, both from manmade and natural sources, that led to direct or indirect ember ignitions."

This document is well worth the read for all homeowners and those assessing risks to homes in the Wildland Urban Interface (WUI). It addresses issues of home hardening and vegetation in and near homes Another source of information Reducing the Vulnerability of Building to wild Fire: Vegetation and Landscaping guidance <u>https://anrcatalog.ucanr.edu/pdf/8695.pdf</u>

Jeff Dowling our RPF has made some recommendations about treatments

- The .25 mile defense and 1.25 mile threat zones should be increased to 1 mile and 2 miles.
- Stands in defense zones should be open and dominated primarily by larger, fire tolerant trees.
- Surface and ladder fuel conditions should be such that crown fire ignition is highly unlikely.
- The openness and discontinuity of crown fuels, both horizontally and vertically, result in very low probability of sustained crown fire.
- Move the project area toward a pre-Comstock era vegetative condition related to stand density, tree size class, and species composition that provides for healthy forest conditions resilient to disturbance such as fire, insects and disease, and drought, thereby decreasing the risk for widespread tree mortality during drought conditions. Pre Comstock era condition is open to interpretation. A basal area standard of 75 square feet for tree stocking is necessary to lower crown bulk density and increase crown base height. Where stand conditions allow, a quadratic mean diameter of at least 16 inches should accomplish this goal. If this can be adjusted for existing plantations.
- Improve forest health by thinning trees in areas where densities are high, leading to decreased potential for insect infestation, spreading of diseases, and density-dependent mortality. Improve forest health to increase the stability of the forest carbon sink (i.e. less potential for loss to catastrophic wildfire, insects/disease, density-dependent mortality), and quality of the carbon sink (i.e. more carbon in live versus dead pools, increasing sequestration rates due to healthy growing conditions versus decreasing sequestration rates due to intense competition).
- Continuous brush fields require mastication to create a mosaic of 1 acre openings between groups of plants. Discontinuity in the fuels can be achieved while providing travel corridors for species that use these sites.
- Trees less than 6 inches in diameter at breast height (DBH)t should be made horizontally and vertically disconnected from surrounding overstory vegetation. Depending upon the site, trees less than 18 inches (DBH) should have crown base height of 20 feet and crown spacing of at least 10 feet. All larger diameters need to be well spaced as stated above.

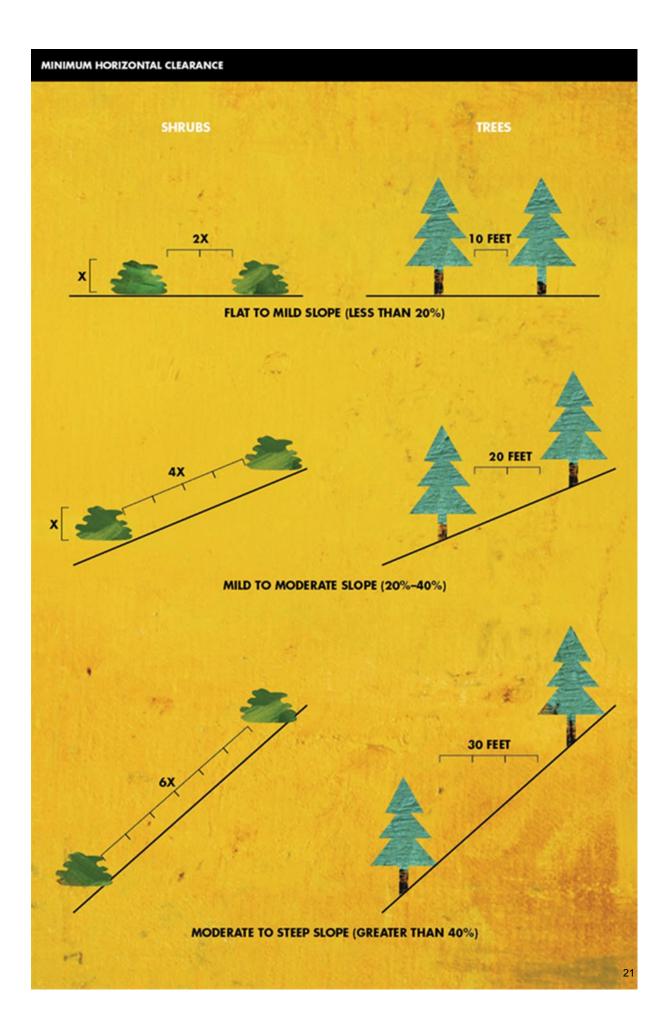
Recommended improvements to California Public Resources Code 4291

Remember that the code makes recommendations that are a minimal requirement. Those minimal requirements are up to interpretation of the landowner and or the agency tasked with enforcement or inspection. The following are thoughts about what should be considered in the aftermath of structure fire loss over the past 5 years addressed in the previously recommended paper by Knapp et all.

When 4291 was conceived, it was meant to keep fire from leaving the structure and entering the wildland. The revision circa 2006 was meant to do the opposite.

Current PRC 4291 is insufficient to prevent fire spread from vegetation to a structure. Current fire behavior indicates the distances in these diagrams should be increased by at least a factor of 1.





4.12 Reducing Hazardous Fuels

Projects aimed at reducing fuels and creating community fuel breaks are described in section 4.3 of this CWPP. Several communities such as Logtown, Grizzly Flats, Auburn Lake Trails and others have been aggressive about seeking funding and implementing fuel treatments to reduce risk in their communities. One of the goals of this CWPP is to increase awareness among communities that have not been as active in this regard and to encourage increased efforts to reduce hazardous fuels.

4.13 Public Education and Fire Prevention Measures

Public education on wildfire risk and prevention is carried out in El Dorado County by the Fire Safe Councils, Fire Districts and Departments, Office of Emergency Services, Resource Conservation Districts, University of California Cooperative Extension, U.S. Forest Service, and CAL FIRE. There is an abundance of information on wildfire risk and prevention, though it can be difficult to filter and distribute it to the public in a way that encourages them to use on their property. A list of resources is available in Appendix 8; some of them include:

- EL Dorado County Fire Safe Council http://www.edcfiresafe.org/
- Community fact sheets for fire prevention (http://calfire.ca.gov/communications/communications_factsheets)
- Child-focused activities (http://calfire.ca.gov/communications/communications_justforkids)
- PreventWildfireCA.org
- Firewise communities (<u>http://www.firewise.org/usa/index.htm</u>)
- California Wildland Coordinating Group (preventwildfireca.org)
- Other publications, webinars, and fact sheets (<u>http://ucanr.edu/sites/forestry/Wildfire/</u>)

There are several events at which wildfire awareness and prevention are showcased. These include the National Fire Prevention Week held annually in October (<u>http://www.nfpa.org/fpw)</u>, Firewise workshops, and Community Wildfire Preparedness Day usually held in May.

One relatively new program is Ready, Set, Go! (<u>http://www.readyforwildfire.org/</u>) managed by the International Association of Fire Chiefs, which was launched in 2011. In this program, being "ready" means doing as much as possible to reduce risk on your property. Getting "set" for evacuation during a fire means preparing emergency items and staying in touch with local media. "Going" when there is a fire means following your personal plan, which may include evacuation, sheltering in place, and/or other actions.

There are Firewise communities in El Dorado County that have met the standards of the program for being relatively aware of fire risk.

Preventing fire starts is an important mitigation strategy that is applied at the community scale. Since 1980, CAL FIRE's "volunteers in prevention" program has engaged many people in making classroom presentations, disseminating information on preventative measures to the public, and developing procedures for reducing ignitions in areas where they have been historically common. During periods of high to extreme fire danger, signs may be used to inform people of the danger. There may also be bans on open burning and adjustments in fire agency personnel schedules. There are many instances where extensive wildfires have been caused by accidental ignitions due to campfires or trash burning during prohibited weather conditions.

As previously noted, there is no lack of information available on reducing community risk of wildfire. The greater issue is whether this information is reaching potentially affected community members in meaningful ways that catalyze action for readiness. Recommended ways to effectively engage the public in the educational process include workshops, media campaigns, informational booths at local fairs and events, and person-to-person dialogue. Effective information transfer is a critical challenge and experience shows that a "one size fits all" approach doesn't work. Seizing opportunities when they arise demands skill and attentiveness on the part of service providers.

For mitigation strategies such as improving emergency access and roads generally, improving water supply, enforcing regulations, and implementing fuel treatments there must be concerted and sometimes costly efforts spearheaded by local agencies and entities such as the county Fire Safe Council. Public education can play a role in rallying support for projects that reduce risk. Ultimately, prioritization of projects will be constrained by the availability of funding and/or assistance programs that can provide financial support.

.2 Fire Risk Mitigation Strategies for Individual Property Owners

There are three general classes of property in El Dorado County: land that is developed with residential, commercial, or industrial uses; agricultural land (e.g., crop fields, pasture, vineyards); and undeveloped land. The focus of this CWPP is on protecting and defending developed land and infrastructure from wildfire and facilitating safe evacuation of residents through identified community ingress and egress routes. It should be acknowledged, however that unmanaged undeveloped land can contribute very significantly to community risk. The options for reducing fuel on public lands will not be addressed in this document but is being considered through other planning processes.

Confining the discussion to developed land, there are numerous factors affecting risk of ignition and losses during a wildfire. These include lot size, density and set-backs between buildings, the age of the structure and building materials, and defensible space. Some of these factors are unalterable, at least until a fire occurs. Therefore, the focus of mitigation strategies is on those things that an individual property owner can do to reduce risk. These include:

- Implementing defensible space measures
- Providing adequate access for emergency vehicles
- Providing signage to identify the property.
- Ensuring that structures are compliant with current building codes.

El Dorado County Fire Stations and Staffing

The following table is a list of the fire stations, Agency and staffing. The seasonal staffing of the stations is usually limited to the start and the end of wildfire season as determined by the agencies responsible for their opening and closing. The engines are dispatched through the CALFIRE and US Forest Service Dispatch center in Camino, Calif.

Agency	Station	Location	Staffing Level
Cal Fire	5	South Lake	Seasonal
Cal Fire	20	Camino	Staffed
Cal Fire	43	El Dorado	Staffed
Cal Fire	50	Garden Valley	Staffed
Cal Fire	70	Pilot Hill	Seasonal
El Dorado County Fire	15	Strawberry	Unstaffed
El Dorado County Fire	16	Kyburz	Unstaffed
El Dorado County Fire	17	Pollock Pines	Staffed
El Dorado County Fire	18	Sierra Springs	Unstaffed
El Dorado County Fire	19	Pleasant Valley	Staffed
El Dorado County Fire	21	Camino	Staffed
El Dorado County Fire	23	Oak Hill	Unstaffed
El Dorado County Fire	25	Placerville	Staffed
El Dorado County Fire	26	Placerville	Unstaffed
El Dorado County Fire	27	Gold Hill	Unstaffed
El Dorado County Fire	28	Shingle Springs	Staffed
El Dorado County Fire	72	Cool	Staffed
El Dorado County Fire	73	Pilot Hill	Unstaffed
El Dorado County Fire	74	Coloma/Lotus	Unstaffed
Pioneer	31	Willow Springs	Unstaffed
Pioneer	32	Sand Ridge	Unstaffed
Pioneer	35	Grizzly Flat	Unstaffed
Pioneer	37	Omo Ranch	Unstaffed
Pioneer	38	Mt. Aukumn	Staffed
Diama and Cravin as Fina		L a starres	l la staffa d
Diamond Springs Fire	44	Logtown	Unstaffed
Diamond Springs Fire	46	El Dorado	Unstaffed
Diamond Springs Fire	47	Sleepy Hollow Missouri Flat	Unstaffed Unstaffed
Diamond Springs Fire	48		Staffed
Diamond Springs Fire	49	Diamond Springs	Stalled
Garden Valley	51	Garden Valley	Staffed
Garden Valley	52	Kelsey	Unstaffed
Garden Valley	53	Greenwood	Unstaffed
Garden valley	55	Greenwood	Unstanted
Georgetown	61	Georgetown	Staffed
Georgetown	62	Balderston	Unstaffed
Georgetown	63	Volcanoville	Unstaffed
Georgetown	64	Sliger Mine	Unstaffed
Georgetown	65	Quintette	Unstaffed
Georgetown		Quintette	
Mosquito	75	Mosquito	Part Time Staffed
inosquito	,,,	mosquito	i art inne Staneu

Rescue	81	North Rescue	Unstaffed
Rescue	83	South Rescue	Staffed
El Dorado Hills	84	North EDH	Staffed
El Dorado Hills	85	Central EDH	Staffed
El Dorado Hills	86	East EDH	Staffed
El Dorado Hills	87	South EDH	Staffed
Cameron Park	88	North Cameron	Staffed
Cameron Park	89	South Cameron	Staffed
Latrobe	91	South Latrobe	Staffed
Latrobe	92	North Latrobe	Unstaffed
Mosquito	75	Mosquito	Part Time
USFS		Pacific	Seasonal
USFS		Pacific Helicopter	Seasonal
USFS		Sly Park	Seasonal
USFS		Georgetown	Seasonal
USFS		Silverfork	Seasonal
USFS		Grizzly Flat	Seasonal

Chapter 5 Community Specific Wildfire Protection Plans

Auburn Lake Trails Fire Safe Council



Update to the Western El Dorado County CWPP

September 2021

Auburn Lake Trails is a 2628 acre gated subdivision containing 1,106 buildable lots ranging in size from .33 acre to 14 acres and established in 1970 in the small foothill community of Cool. Currently there are over 1,000 completed homes in Auburn Lake Trails (ALT) with a population of approximately 2,800 residents.

ALT is located at the 1360 to 2125 foot elevation in the foothills of northern California about 36 miles northeast of Sacramento. It is situated on the rim of the American River Canyon which holds the Middle Fork of the American River and is immediately adjacent to Bureau of Reclamation land, an area currently by the California State Parks as the Auburn State Recreation Area. ALT is a community of residents with a wide range of interests from horseback riding to golfing, to tennis, to hiking, and to swimming all of which is demonstrated by its numerous committees, clubs, and organizations. Within ALT are 22.5 miles of hiking and horseback riding trails, maintained by the ALT Property Owners Association (POA), which connect to hundreds of miles of trails on the adjacent Auburn State Recreation Area and nearby Eldorado National Forest.

The vegetation (fuels) within and adjacent ALT is a mosaic of fuel types and much of which was rated by the Calif. Department of Forestry as located in a Very High Fire Hazard Severity Zone. The community of Cool is listed in the Federal Register as a Community At-Risk. The steep terrain coupled with the composition, density, structure and heavy fuel loading of the vegetation, adjacent to ALT in the federal lands include all of the elements for a catastrophic wildfire which would engulf ALT. Portions of the subdivision are fractured by drainages, saddles, ridges and steep side slopes. This combination of existing fuels and topography can cause erratic and catastrophic fire behavior.

ALT is a "World Class WUI" trying our best to mitigate our internal fuel load condition and help the adjacent Federal Land become a Healthy Neighbor.

Thus, it is clear that Auburn Lake Trails needs to take action to prevent a disastrous fire from destroying the homes and lifestyles that its residents enjoy.

A Plan ("Auburn Lake Trails Fuel Safe and Fire Reduction Plan") was developed by two Registered Professional Foresters. This Plan prioritized the actions that needed to be undertaken in order to make ALT safe from a catastrophic Wildfire. This Plan was endorsed by fire agencies at all levels and was signed as agreement by the ALT Board of Directors.

The Auburn Lake Trails Fire Safety and Improvement Council (FSIC) was formed in 2005 by the ALT residents. The FSIC is a recognized Fire Safe Council (FSC) by the California State FSC and the El Dorado County FSC.

• In 2005, a Perimeter Shaded Fuel Break (150 to 300 feet wide) was initiated by a series of Grants through the Calif. Dept. of Forestry, the Bureau of Land Management, The National Forest Foundation, the US Forest Service, the California State Fire Safe

on the Canyon edge of the subdivision and is scheduled to continue until completed, all subject to funds and work crews being available.

- Fuel reduction was completed in the ALT campground area and numerous lots, comprising a total of 172.5 acres owned in common by the ALT POA for the members' enjoyment. These holdings are used for recreational purposes and will remain as fuel-treated Greenbelts.
- ALT's Recycling Area, which was located in an extremely dense fuel area, was closed due to fire danger and is now a fuel break area.
- The POA has deeded property that is used for the 34.6 miles of roadway within ALT. ALT's roadways are continuously cleared of brush and trees to enable residents to evacuate safely, if necessary.
- Common areas with heavy grasses are mowed repeatedly in preparation for the fire season, and maintained as necessary during the fire season.
- The POA provides free Roadside Chipping to all of its residents through a program which is monitored by the FSIC. The POA also sponsors Centralized Chipping Days are held to enable residents to bring slash to be chipped. When funds are available, the El Dorado County Fire Safe Council also provides Free Roadside Chipping to residents. A limited number of Green Waste vouchers are provided by El Dorado Disposal to residents for disposing of leaves, needles, and other small clippings.
- A subdivision requirement was passed in 2004 which required all property owners to create 100' of Defensible Space around all structures.
- ALT resident-volunteers ("Volunteers in Prevention") inspect every ALT property to ensure compliance of the 100' requirement.
- A Fire Compliance Officer was hired to follow up on all non-compliant properties. Deadlines for compliance were established and if properties are still not cleared, Contractors are hired to clear the non-complying properties, and a Lien placed on the property for the cost of the clearing.
- Numerous community meetings are held to provide residents with important information about creating their Defensible Space, FireWise Landscaping techniques, Home Hardening, and other fire safety efforts.
- A "Fire Safety" column has been instituted in the monthly residents' newspaper, "The Trail Views" featuring fuel reduction information, FireWise Landscaping ideas, fire danger cautions, and other relevant fire safety information.
- Brochures on numerous Fire-Safe practices are made available to residents through FireWise community outreach programs.
- Collaboration has been established, and continues, with local, regional, and state fire agencies to maximize fire safety efforts and to maximize fire safety education.
- Representative ALT residents are actively involved in the County and State level Fire Safe Councils.

• Auburn Lake Trails has been designated a "Firewise USA®" community by the NFPA. ALT was the third community in California to receive this award, and has continuously maintain this designation since 2005.

There are several types of landholdings within ALT, which present varying wildfire risks:

- Developed Lots These are privately owned lots that have homes constructed on them. They represent a high value-add to the community and are all protected by the 100' defensible space requirements.
- Vacant and Undeveloped Lots These are privately owned lots that have not been developed. The property owners are required to maintain a defensible space of 100' from neighboring habitable structures.
- POA Owned Common Areas and Lots These lots are owned and maintained by the POA. They must also maintain a defensible space of 100' from neighboring habitable structures.
- Land Inholdings There are four parcels of privately held land, totaling 60 acres, within ALT. Three of these parcels are contiguous. These properties could constitute a wildland threat to ALT.

The ALT members enjoy many amenities, including a recreation lake, athletic fields, a golf course, a campground, several meeting facilities, a competition swimming pool, and 22.5 miles of equestrian/hiking trails.

ALT is provided water by GDPUD, and incorporates a water treatment plant, two head tanks and over 170 hydrants. ALT is provided electric power by PG&E, through a 21kV pole-mounted distribution system. Many homes have solar panels to augment PG&E's supply.

Treatment Prescriptions

Treatment is best accomplished mechanically via mastication or thinning from below with a harvester. Hand treatment is viable and necessary on the steep slopes. A combination of the two techniques may be necessary in some areas. Fire is an option, but in most cases pretreatment will be necessary. Mechanical treatment will be the most quick and yield results that will not require pile burning. The carbon benefit of not burning and allowing more rapid growth in the remaining vegetation is maximized in this case.

Treatment Area Wildland Urban Interface (WUI)

Note: tons per acre of fuel - dead and live load ranges from 5->20 tons per acre depending upon whether the area has been treated before or is having a first treatment. The generic fuel structure modification suggestions have been taken from 14 CCR 1299 and PRC 4291. Please see the drawing taken from the California Forest Practice Rules on page 4 of this document.

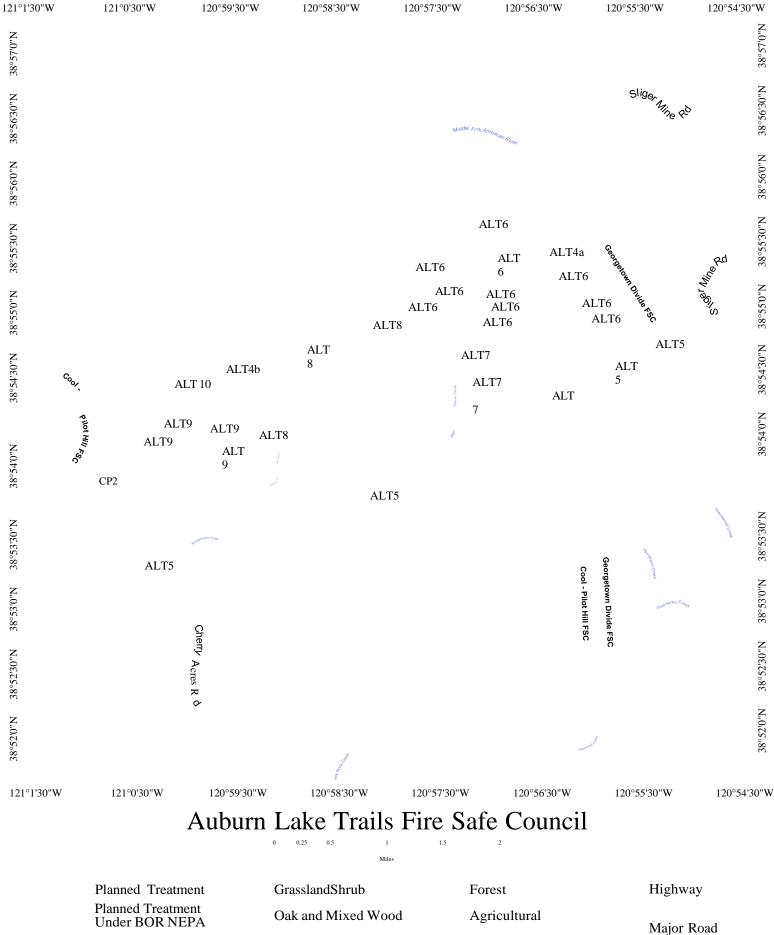
Change vertical and horizontal continuity through fuel structure modification. Changingfuel structure is accomplished through horizontal and vertical spacing. Horizontal separation should be 10-30 feet depending upon slope and vegetation size and type. Vertical separation should be 4-40 feet depending on slope and vegetation size/type.

Note: Prescribed fire with either pile and let creep or broadcast is recommended for allproject areas when smoke and escape issues can be mitigated.

Auburn Lake Trails #10 and #4a Shaded Fuel Breaks:

ALT # 10 and #4a – Chaparral and oak with conifer overstory (Ponderosa, Grey pine and Douglas fir) – Remove brush via mastication, hand cut and chipping or hand pile and burn. Mastication can be used where slope steepness allows – trees should be spaced to obtain a minimum of 15 feet between crowns. Due to the density of the vegetation, only trees greater than 12 inches in DBH should be left where feasible.

Mastication via advanced methods such as tethering equipment should be considered for this project. There are "spider" type machines with mastication heads which can be used for steep terrain as well. Even though cost may be high for this type of work, the result is better than hand piling and yields a chipped product which will mitigate erosion. The fuel left in place with mastication tends to decompose more rapidly due to the size of the chip and prescribed broadcast fire is an option.

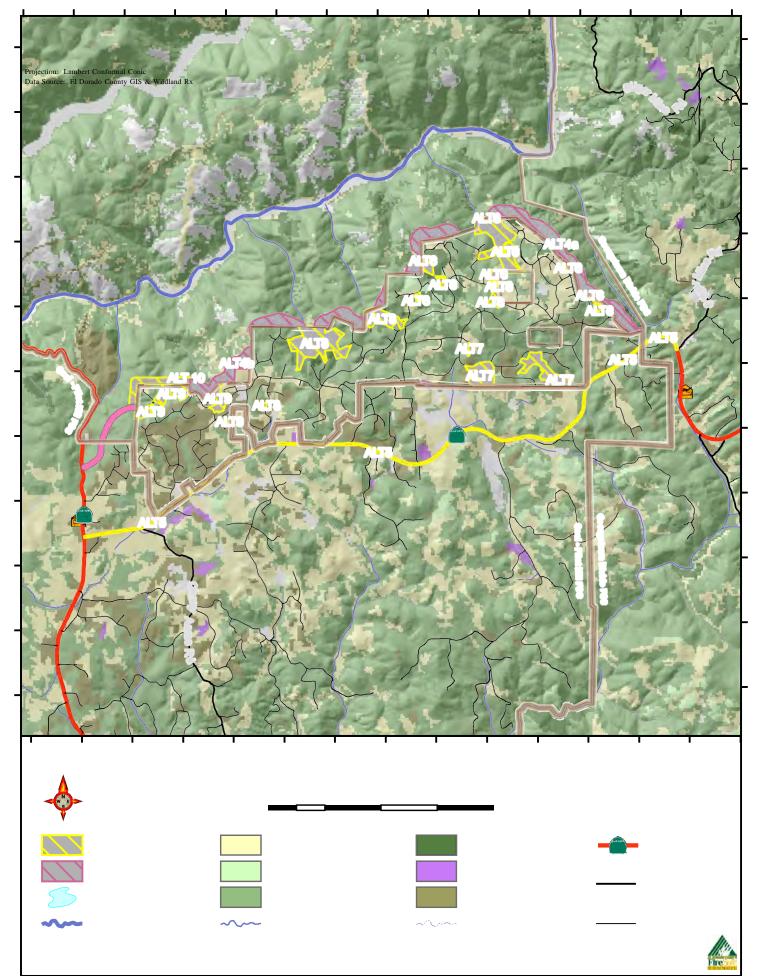


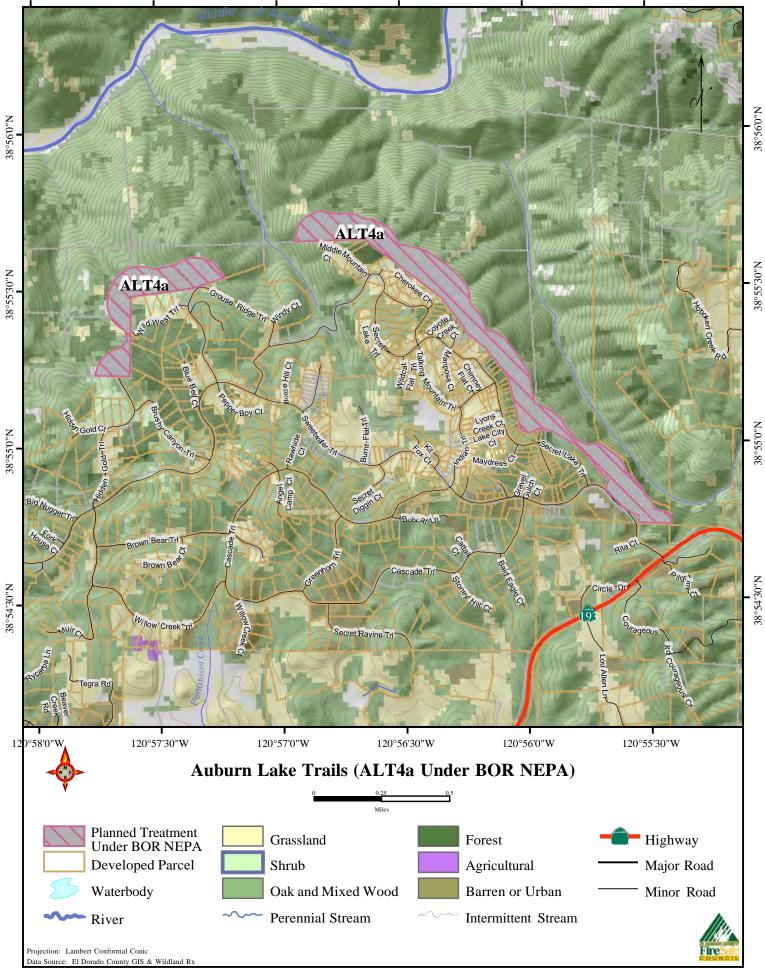
WaterbodyRiver

Perennial Stream

Barren or Urban Intermittent Stream Minor Road

35





120°56'30"W

120°56'0"W

120°58'0"W

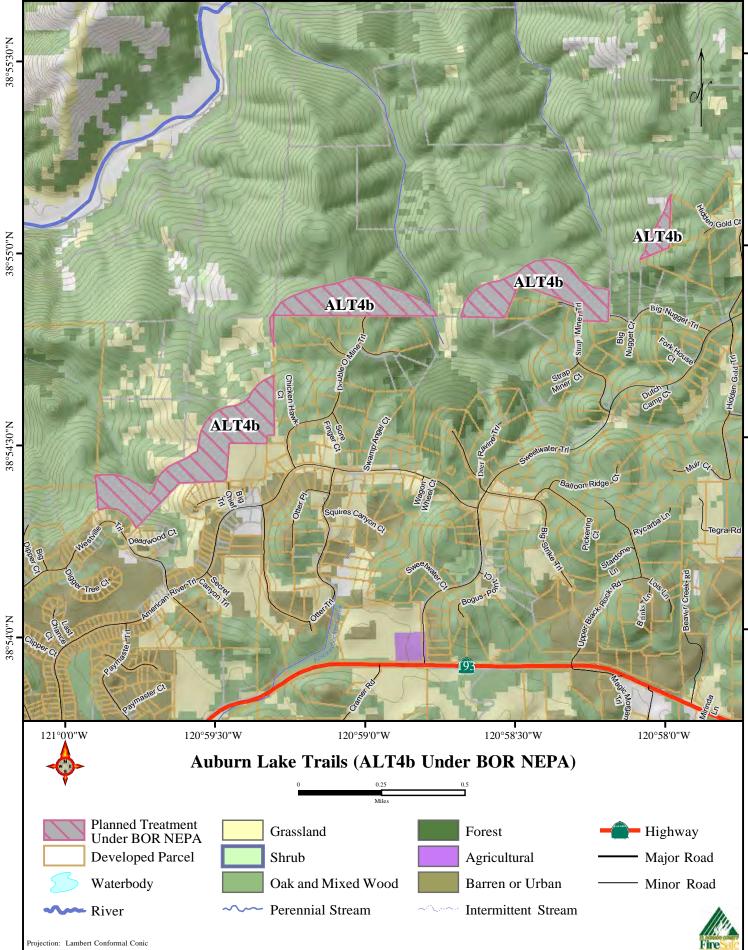
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120°57'0"W

38°54'30"N

120°55'30"W

37



Data Source: El Dorado County GIS & Wildland Rx

38

121°0'0"W

120°59'30"W

120°59'0''W

120°58'30"W

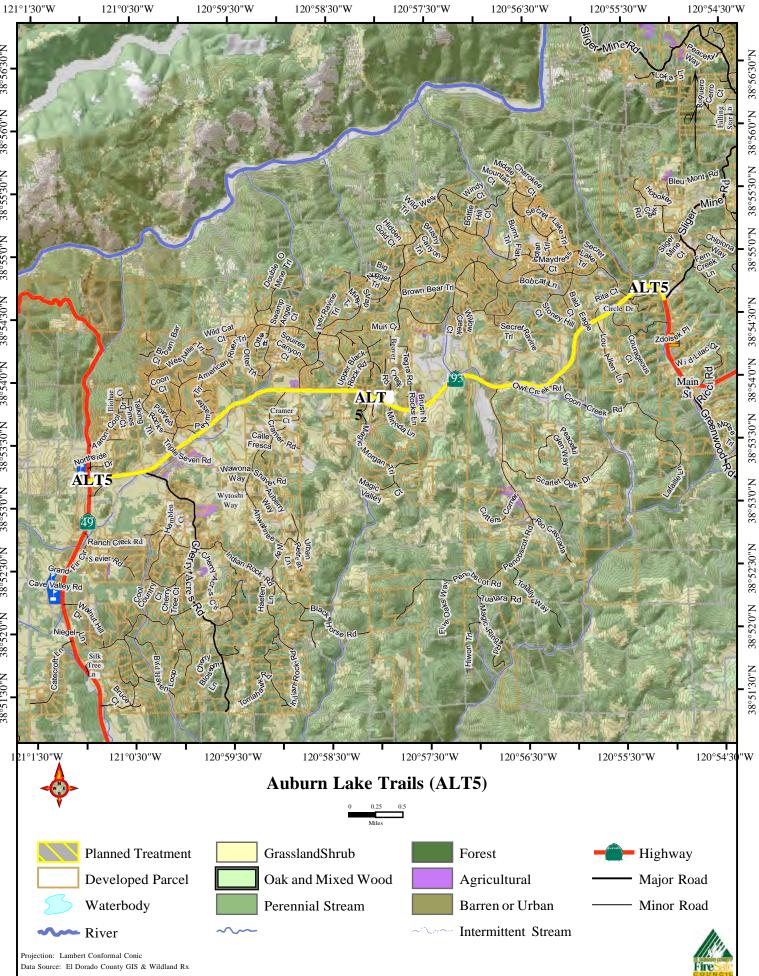
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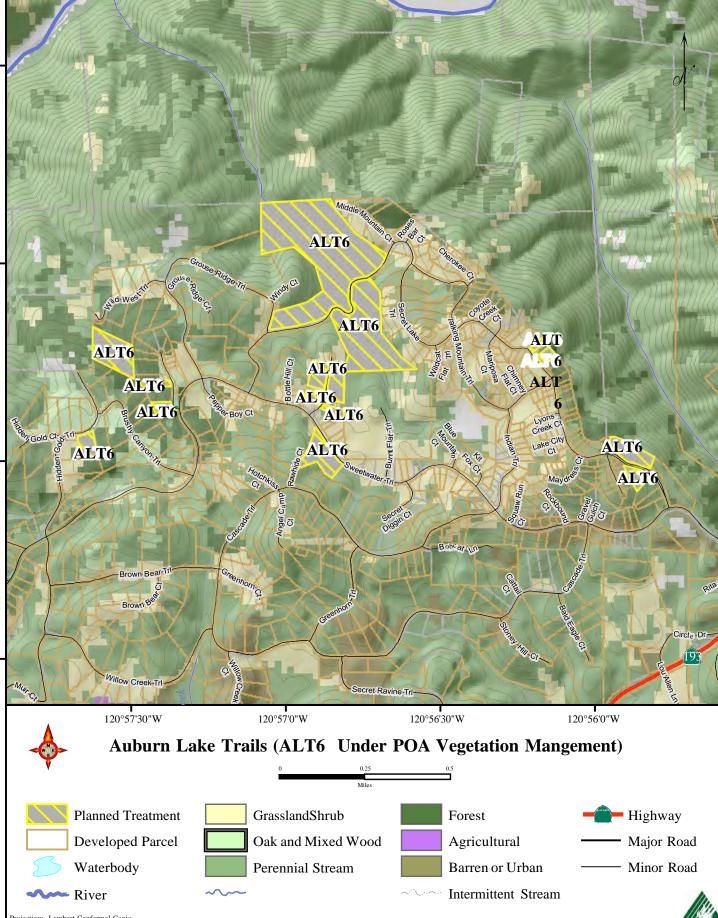
38°55'30"N

38°55'0"N

38°54'30"N

38°54'0"N





Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx

120°57'30"W

38°56'0"N

38°55'30"N

38°55'0"N

38°54'30"N

120°57'0"W

120°56'30"W

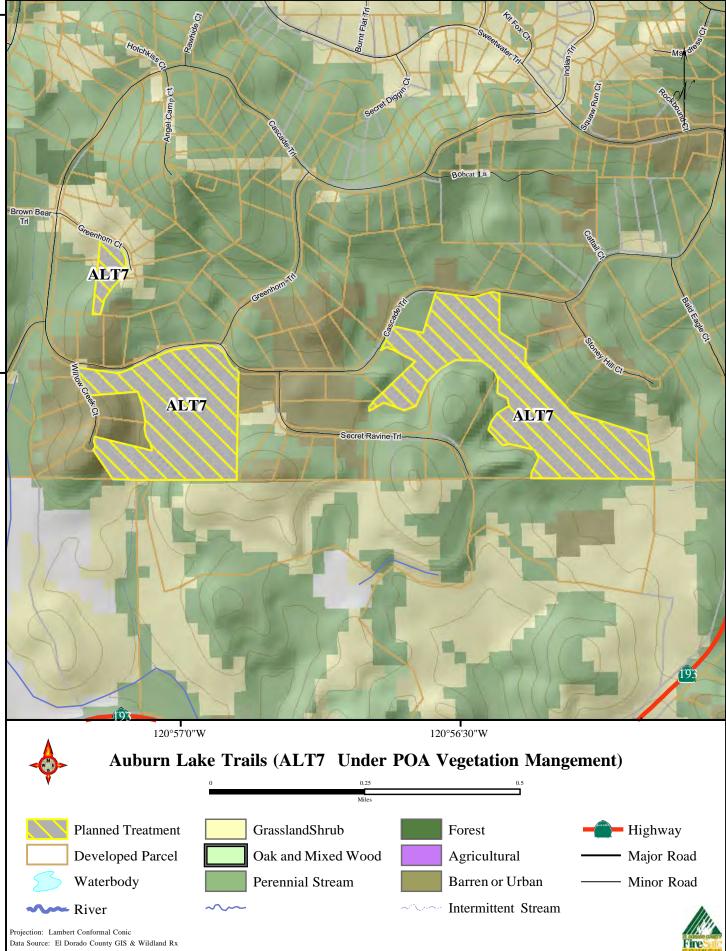
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38°55'30"N

38°55'0"N

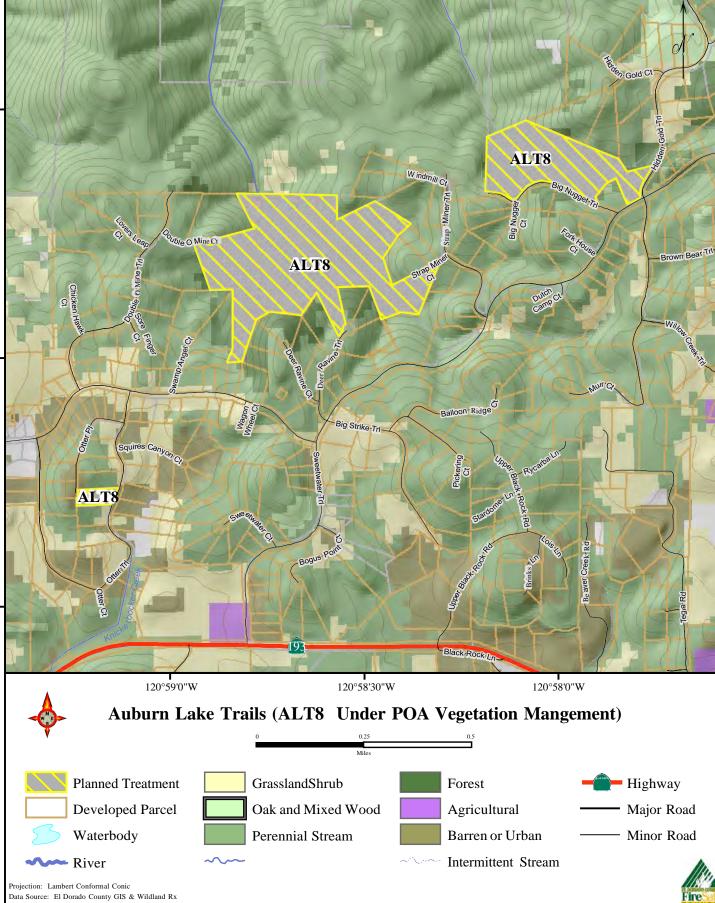
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38°55'0"N

41

38°54'30"N



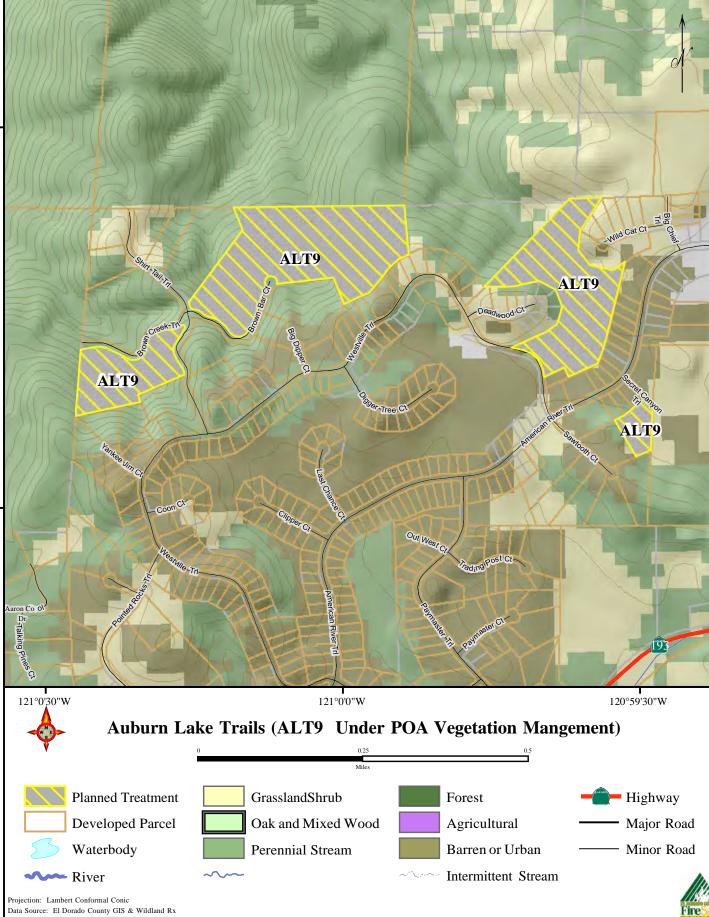
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38°55'0"N

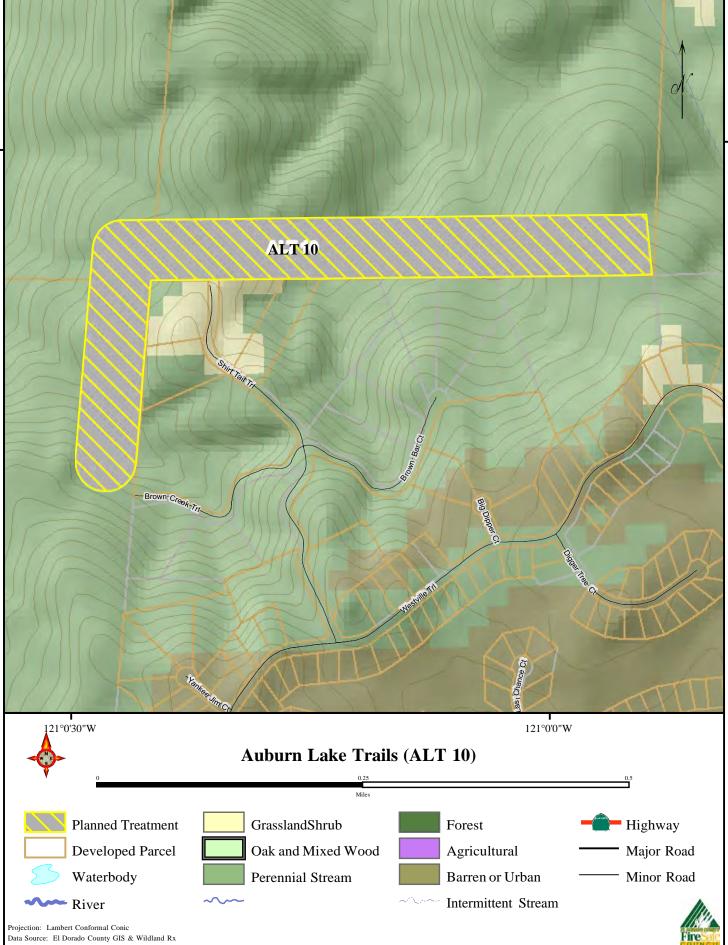
38°54'30"N

38°54'0"N



38°54'30"N

38°54'0"N



121°0'30"W

121°0'0"W

38°54'30"N

Auburn Lake Trails FSIC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
		Alt 3	Fuel Break also CP 2	Shaded Fuel	29	
				Break/Vegetation		
				Management		
ASRA PSFB East	2	ALT 4 a	Fuel break On Bureau of	Shaded Fuel		
			Reclamation East	Break/Vegetation		
			sections	Management		
ASRA PSFB West	3	Alt 4 b	Fuel Break on Bureau of	Shaded Fuel		
			Reclamation West	Break/Vegetation		
			sections	Management		
Highway 193	4	Alt 5	Roadside Hazard reduction	Roadside		
HazardReduction			CP 7along Hwy 193	Hazard Reduction		
				100feet		
POA Land East	6	ALT 6	Fuel break maintenance	Shaded Fuel		
				Break/Vegetation		
				Management		
Campground	5	ALT 7	Fuel break maintenance	Shaded Fuel		
SteeverRanch				Break/Vegetation		
				Management		
POA Land Central	7	Alt 8	Fuel break maintenance	Shaded Fuel		
				Break/Vegetation		
				Management		
POA Land West	8	ALT 9	Fuel break maintenance	Shaded Fuel		
				Break/Vegetation		
				Management		
Cool Cave	1	ALT 10	Fuel Break between ALT &	Shaded Fuel		
QuarryPSFB			CoolQuarry	Break/Vegetation		
				Management		

Aukum Fairplay Fire Safe Council Section to the Update to the El Dorado County CWPP



Introduction

The Aukum Fairplay Fire Safe Council (AFFSC) was created by local citizens in April 2019 to address concerns regarding threat of wildfire to the community. The AFFSC is an all-volunteer organization that is a satellite group of the El Dorado County Fire Safe Council (EDCFSC). Fire safe councils are community-led organizations that have been formed to prevent wildfires and reduce their potential impacts on the community. These councils work to educate homeowners and residents about wildfire preparedness and how to plan for and prevent wildfires. Fire safe councils conduct numerous outreach events and implement projects such as cooperative fuel-reduction projects in neighborhoods and collaborate with other agencies to complete landscape-level vegetation management projects.

The mission of the AFFSC is to mitigate loss of life and property from the effects of catastrophic wildfire within the eight neighborhoods forming the AFFSC. The AFFSC works to mitigate loss through prevention activities, outreach, and collaboration. The volunteer membership conducts community education, treatment planning, treatment implementation, and works with other fire safe councils, stakeholder agencies, and organizations. The goals of the AFFSC are to create defensible fuel profile areas near values, on perimeter areas, and along transit routes of the included neighborhoods and properties by:

- Informing residents and associated stakeholders on fire safe practices and prevention measures
- Developing and maintaining an AFFSC section within the EDCFSC Community Wildfire Protection Plan (CWPP)
- Achieving and maintaining an NFPA Firewise Community, USA designation
- Providing area-wide wildland fire safety through planning and cooperation with allied organizations
- Improving ingress and egress routes in cooperation with allied organizations
- Proactively applying for and securing grants to complete projects, including fuel reduction, education, and other fire prevention and preparedness activities

AFFSC – Sphere of Recognition (SOR)

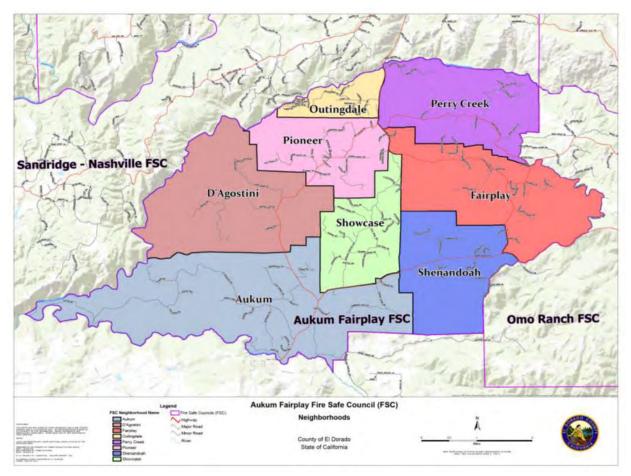
Description

The AFFSC Sphere of Recognition (SOR) is shown in the map below. It is bounded on the north and west by the Middle Fork of the Cosumnes River and on the south by the South Fork of the Cosumnes River. The eastern boundary abuts the Omo Ranch Fire Safe Council SOR.

The AFFSC SOR encompasses approximately 33 square miles (21,000 acres) which includes the Showcase Community Services District, the Outingdale Homeowners Association (EID purveyor of water), the River Pines Estates Homeowners Association, and eight neighborhoods with 1,481 parcels. These parcels range in size from small lots up to 40 acres, and the area includes a few parcels of about 250 acres. Approximately 1,000 parcels are developed (68 percent), with about 480 undeveloped parcels. Interspersed in the area, the Bureau of Land Management (BLM) and the United States Forest Service have isolated land holdings under their respective managements. The SOR encompasses two mobile home parks, the Pioneer School District including Pioneer School (grades K-4) and the adjacent Middle Creek School (grades 5-8), and numerous vineyards and wineries. The AFFSC SOR falls fully within the Pioneer Fire Protection District. Non-federal lands within the AFFSC SOR are designated as State Responsibility Area (SRA) for wildland fire protection, with suppression provided by the California Department of Forestry and Fire Protection (CAL FIRE). The community has been designated as a Wildland Urban Intermix area and has been identified as a Community at Risk of Wildfire in the Federal Register. The AFFSC area is designated by CAL FIRE as a moderate to high fire hazard severity zone.

The AFFSC has designated the following eight communities within the SOR: Mt. Aukum, Fairplay, D'Agostini, Outingdale, Pioneer, Showcase, Shenandoah, and Perry Creek.

SOR - Map



Demographics of the SOR

The 2010 census does not provide specific data for the AFFSC boundaries. However, the data provided for the 95684 zip code is used as a very close approximation. The SOR demographics show a median population age of 50.8 years, with an average household income of \$56,063.

The current population is approximately 2,600, with close to 2.4 persons per household. The average home value is estimated at \$291,300. Therefore, with the approximately 1,000 dwellings in the SOR, the constructed value of homes alone is over \$291 million. Homes in the area were primarily built in the 1970s and 1980s (www.unitedstateszipcodes.org/95684/). This impacts the wildfire resiliency of the SOR due to the less advanced building codes for fire protection. In 2008 the California building fire codes were modified to require the use of fire-resistant materials in areas at risk of wildfire. There has been little new residential building in the AFFSC area since 2008, and therefore most of the current housing stock in the SOR does not meet these updated standards. This presents an opportunity to educate homeowners about materials available to harden structures from wildfire impacts such as ember intrusion.

Land Uses in the SOR

The AFFSC area has a significant residential component, but is dotted with vineyards, wineries, farms, and ranches. During the Gold Rush, Fair Play was a prosperous mining town with several stores and hotels.

El Dorado County is a major transit route for commercial, recreational, and local traffic traveling east-west along the Highway 50 Corridor. Highway 49 provides highway access to the northern and southern portions of the county, connecting with extensive county and residential road networks. Primary transit routes in and adjacent to the SOR are two lane roads with limited alternate routes. The main thoroughfares are Mt. Aukum Road (E 16), Fairplay Road, and Omo Ranch Road.

There are additional secondary roads within each neighborhood that feed into these primary roads, many feeder roads are single lane, or narrow roads. A detailed description of the road network within El Dorado County is provided in the El Dorado County General Plan.

Landscape Features in and around the SOR

Topography

Topography of the area is dominated by forested lands and rolling hills, with elevations ranging from 896 feet to 3,095 feet above sea level. The SOR is bounded on the north and west by the Middle Fork of the Cosumnes River and on the south by the South Fork of the Cosumnes River. Both river drainages have steep canyons with heavy fuel loading, and difficult access.

Climate and Vegetation

El Dorado County has a Mediterranean-type climate which features hot, dry summers, and cool, moist winters. The June to October dry season produces conditions that are conducive to wildfire ignition and spread. Annual plants die and perennial plants lose moisture and become highly flammable. Fires burning toward the end of the dry season are intense, resist suppression efforts, and threaten lives, property, and resources. Drought conditions intensify the wildfire danger, and can accelerate late season conditions to earlier in the year.

El Dorado County is situated almost entirely within the Sierra Nevada foothills, and is characterized by scrubland, woodland, and lower-montane forest ecological zones. The following are the primary vegetation types found within the AFFSC SOR:

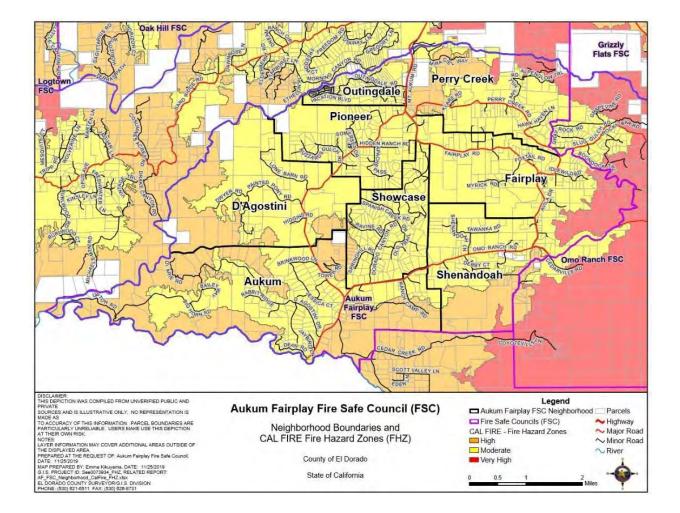
- Foothill scrubland vegetation, which is made up of foothill pine, interior live oak woodlands, mixed hardwood, and chaparral scrublands
- Lower montane forest, the most prevalent vegetation type, is made up of California black oak, ponderosa pine, white fir, incense cedar, Douglas fir, other mixed conifer and evergreens, and interspersed with chaparral and meadows
- The SOR also includes a mosaic of grassland dominant areas with mixed oak and scrubland, vineyards, and stands of second growth mixed conifers with an

understory of excessive ladder fuels that would quickly propagate wildfire into the canopy

Fire Risk in the SOR

Private land ownership within the AFFSC falls within the Pioneer Fire Protection District and State Responsibility Area (SRA), with scattered Federal Responsibility Lands (FRA) interspersed. CAL FIRE has created maps designating fire hazard severity for all non – FRA lands, and it identifies the majority of the SOR as moderate to high fire hazard severity zones. Although the FRA lands are not designated, they are assumed to carry the same designation due to their proximity.

The CAL FIRE website includes a disclaimer regarding the limitations of the data used in creating the fire hazard maps. Nonetheless, these maps are a valuable tool to convey the potential threat of wildfire to a community, and the importance of creating more defensible space and greater wildfire resiliency in higher risk areas.



The CAL FIRE Fire Hazard Severity Zone map for the AFFSC:

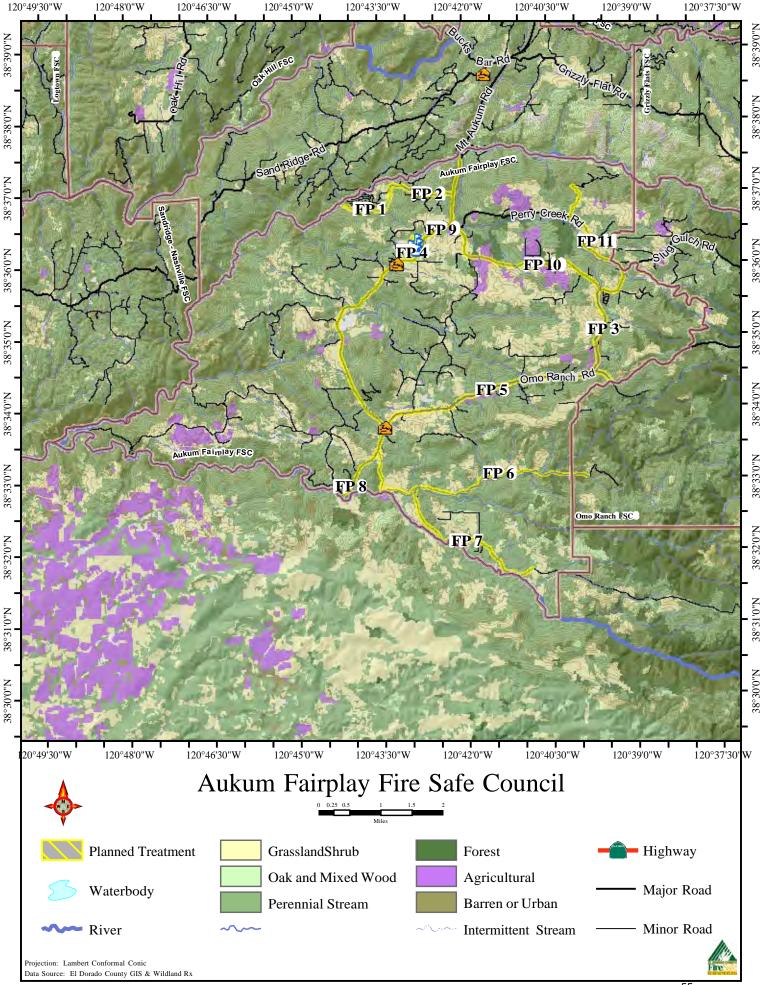
Recommendations

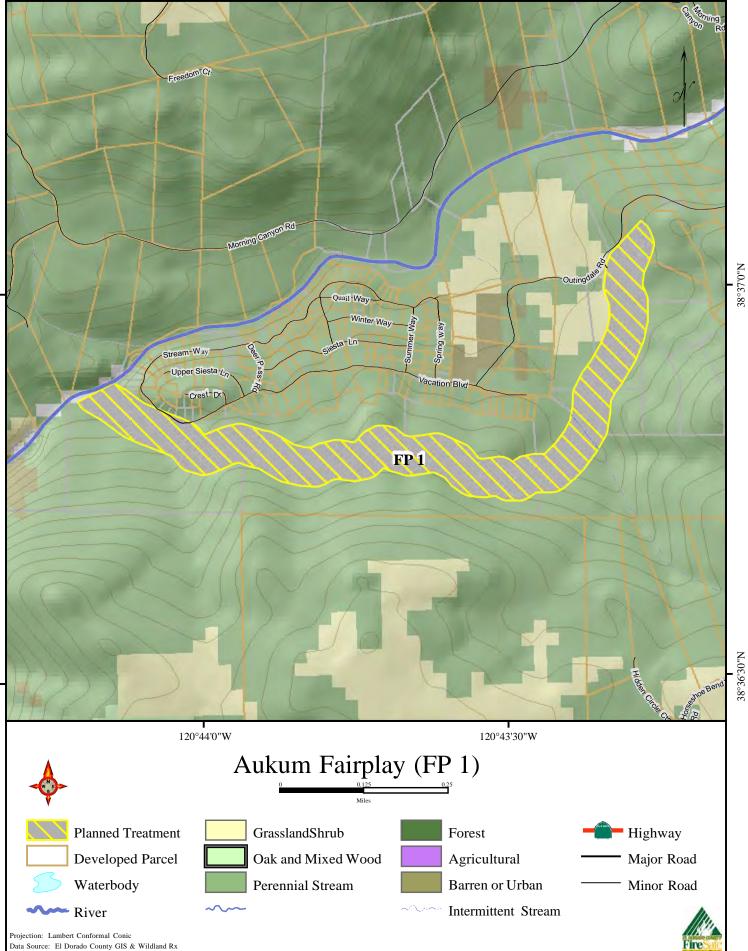
Based on the risk assessment conducted, and a review of the resulting information by the Risk Assessment Committee, the following action items were identified. These prevention activities are designed to reduce wildfire risk within the AFFSC SOR:

- Apply for, establish, and maintain a Firewise, USA Community designation
- Work with the Pioneer Fire District, CAL FIRE and the El Dorado County Sheriff's Office to initiate a standardized address marking effort
- Continue, and document, regularly scheduled AFFSC meetings
- Plan and conduct public educational meetings and activities each year. Events may include a fire prevention safety day in coordination with the Pioneer Fire District as well as other topics and demonstrations such as evacuation "Go" Bags, and defensible space examples and visual aids
- Develop mailers to residents, property owners and businesses within the AFFSC area
- Update and maintain the AFFSC Website; utilize social media resources, including Facebook and Next Door to communicate with residents and stakeholders
- Continue the program utilizing volunteers to complete home defensible space assessments for residents of the AFFSC
- Plan and implement at least one volunteer workday annually to perform fuel reduction
- Prepare wildfire prevention educational brochures, handouts, newsletters, graphics, and displays for public meetings and other outreach venues
- Coordinate with PG&E, EDC Department of Transportation, and the Pioneer Fire Protection District to address fuels reduction along roadways and adjacent lands
- Identify opportunities for community-scale fuel reduction/fuel break projects
- Seek grant opportunities to support AFFSC activities
- Develop and initiate fundraising activities to leverage grant funds and provide additional local resources

Aukum/Fairplay Fire Safe Council Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
Outingdale	2	FP 1	Fuel Break construction		41	
FuelBreak 1						
Outingdale 2	1	FP 2	Roadside hazard reduction		40	
Fairplay 3	6	FP 3	Roadside hazard		50	
			reductionFuel Break			
Pioneer School	4	FP-4	Fuel hazard reduction on		36	
			School			
			Grounds			
Fairplay 5	5	FP-5	Roadside hazard reduction		142	
Fairplay 6	10	FP 6	Roadside hazard reduction			
Fairplay 7	9	FP 7	Roadside hazard reduction			
Fairplay 8	3	FP 8	Roadside hazard reduction			
Fairplay 9	7	FP 9	Roadside hazard reduction			
Fairplay 10	11	FP 10	Roadside hazard reduction			
Fairplay 11	8	FP 11	Roadside hazard reduction			



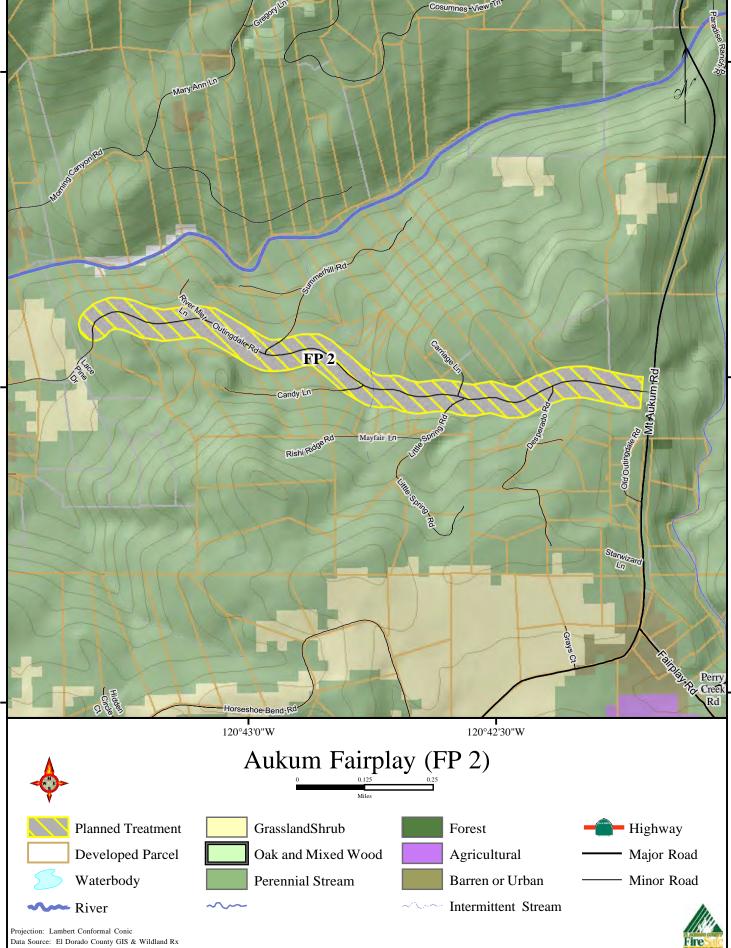


120°43'30"W

38°37'0"N

120°44'0"W

38°36'30"N



120°42'30"W

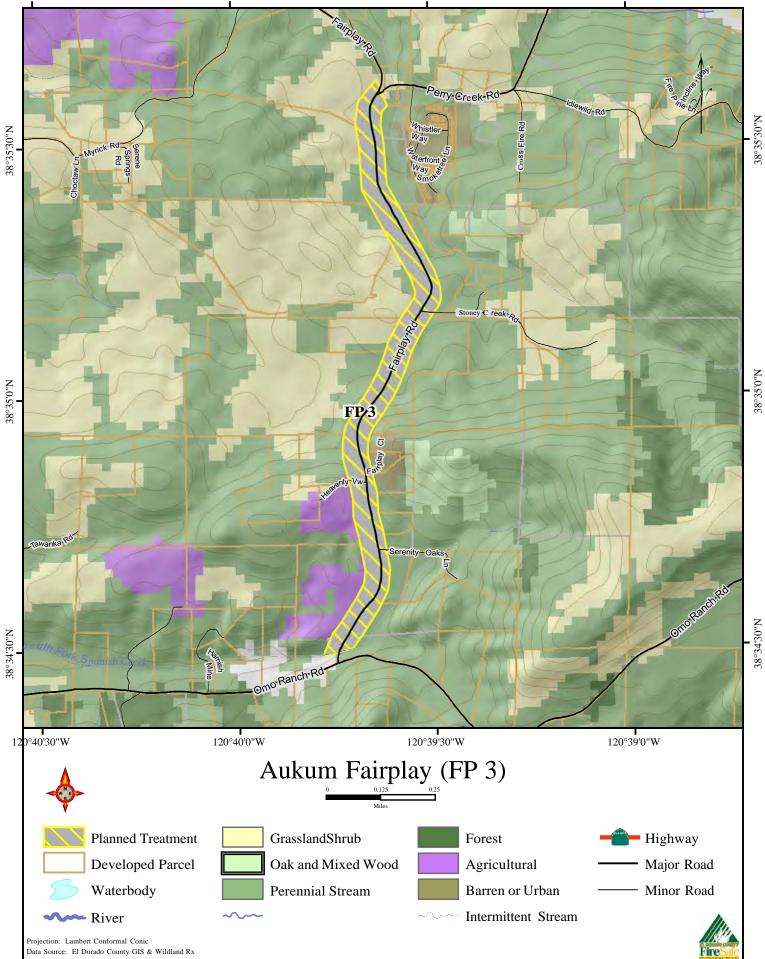
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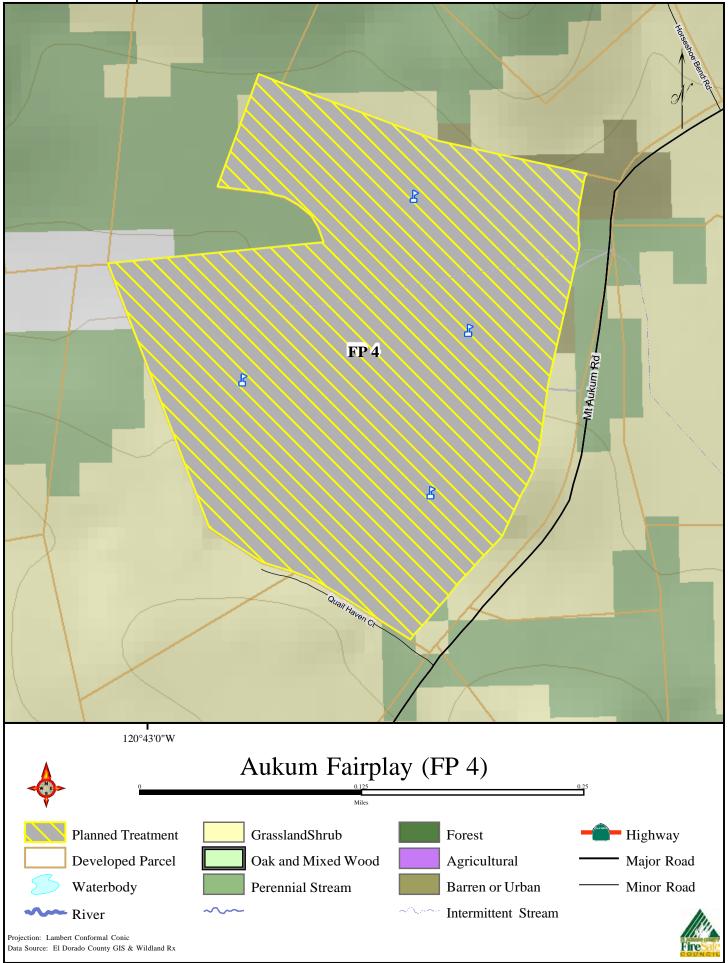
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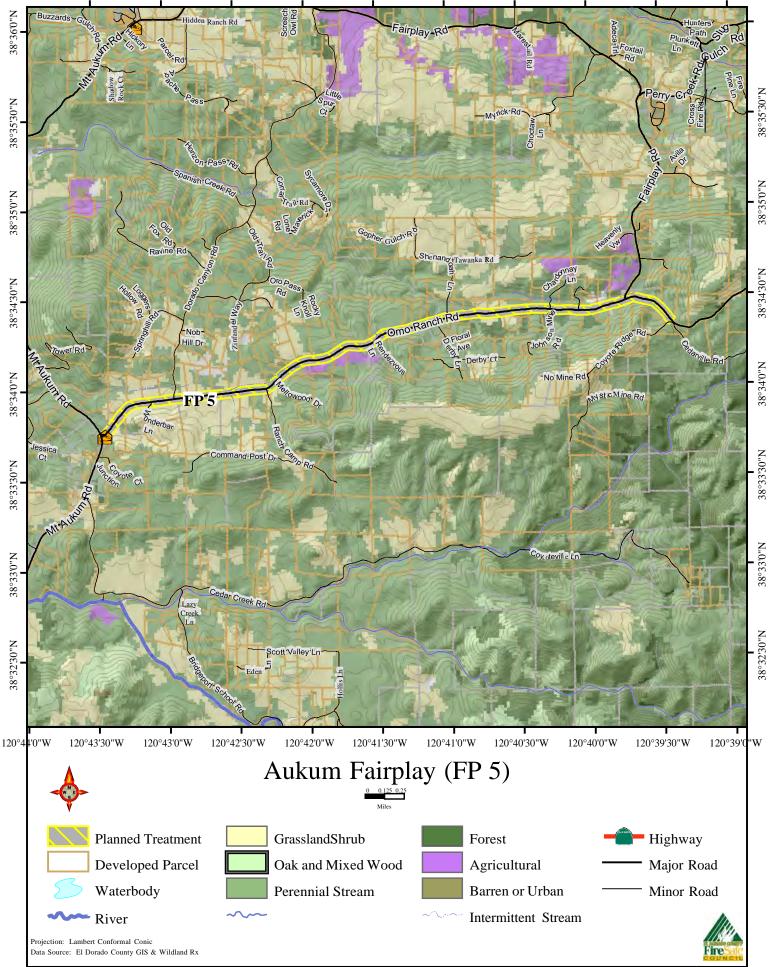
38°37'0"N

38°36'30"N



120°39'0"W





120°43'30"W

120°43'0"W

120°42'30"W

120°42'0"W

120°41'30"W

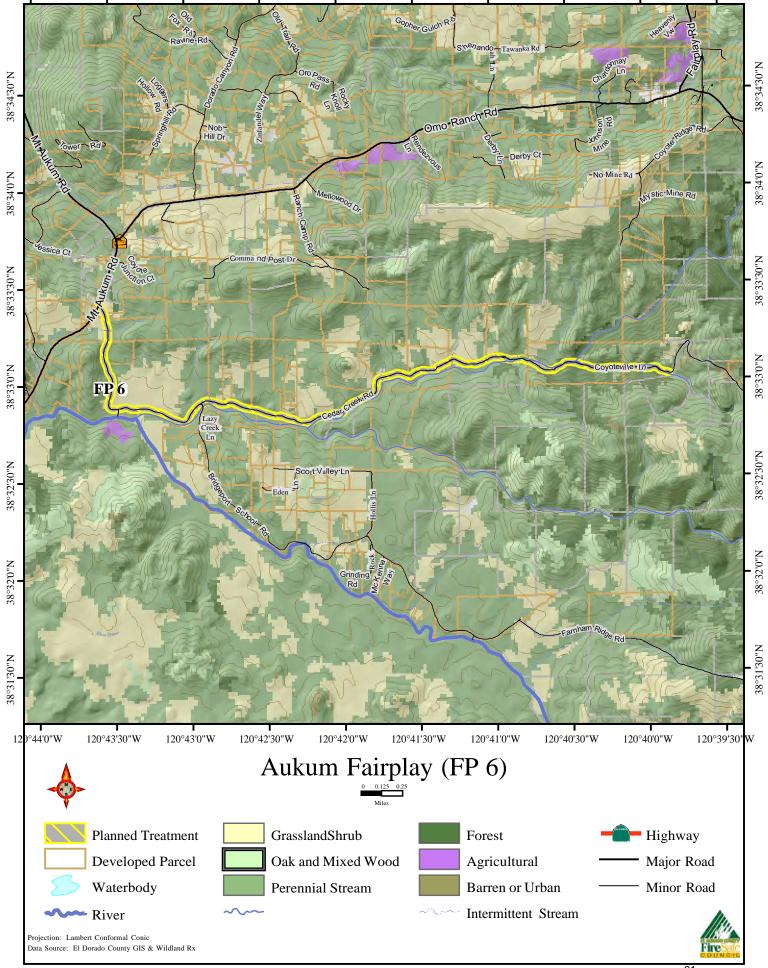
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120°40'0"W

120°39'30"W

120°39'0"W

120°40'30"W



120°44'0"W

120°43'30"W

120°43'0"W

120°42'30"W

120°42'0"W

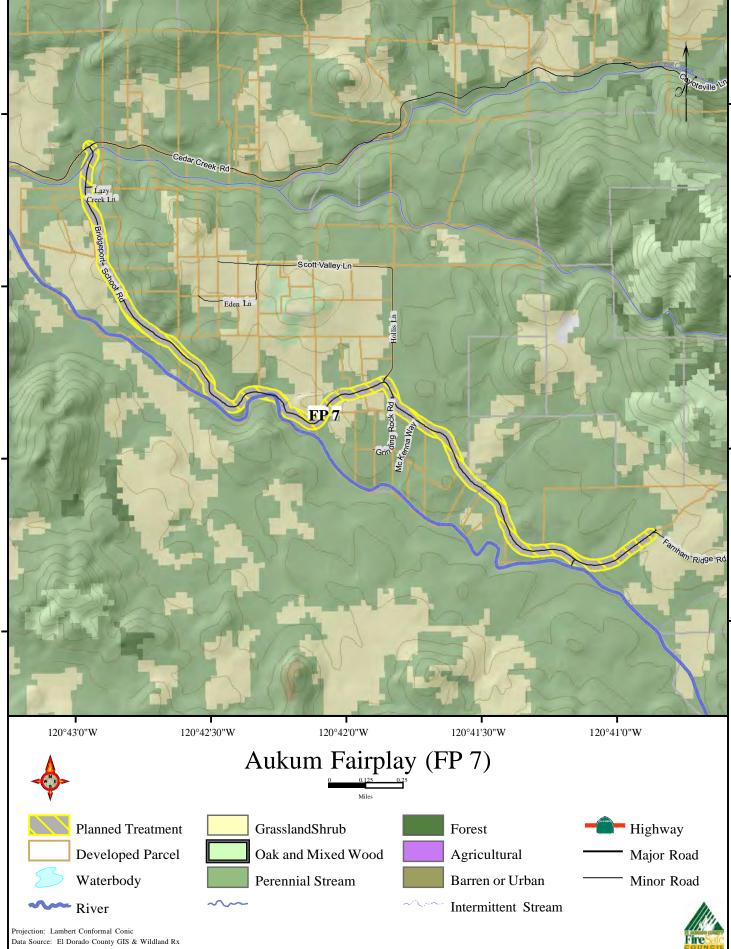
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120°41'0"W

120°40'30"W

120°40'0"W

120°39'30"W



120°42'0"W

120°41'30"W

120°41'0"W

38°32'30"N

38°32'0"N

38°31'30"N

62

38°33'0"N

38°32'0"N

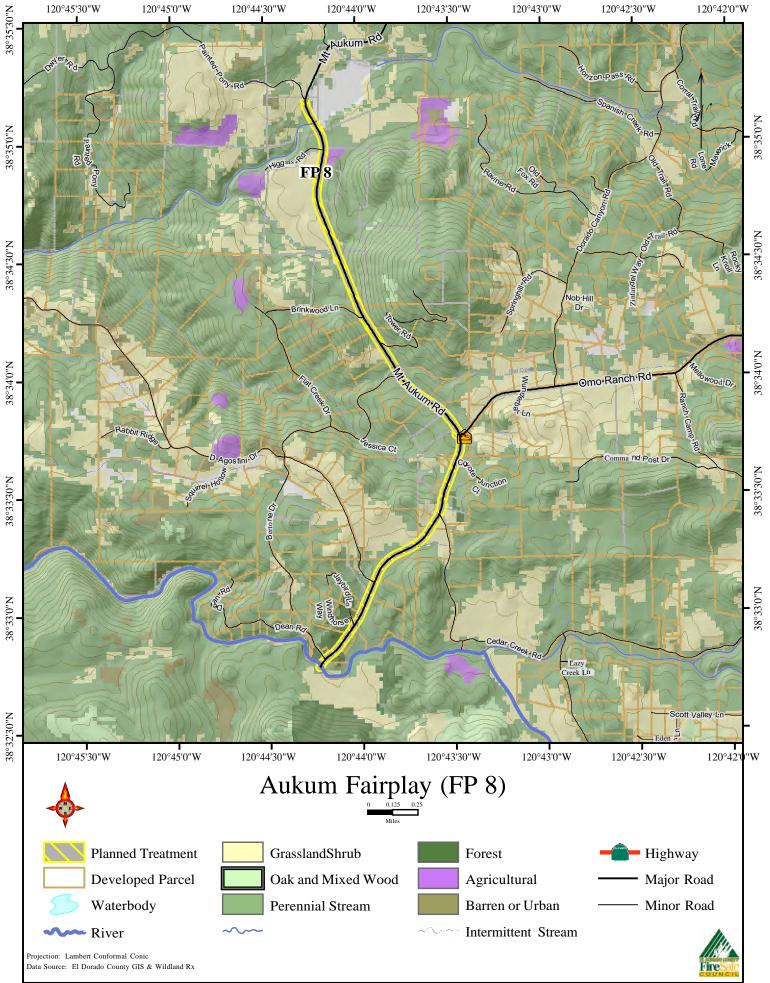
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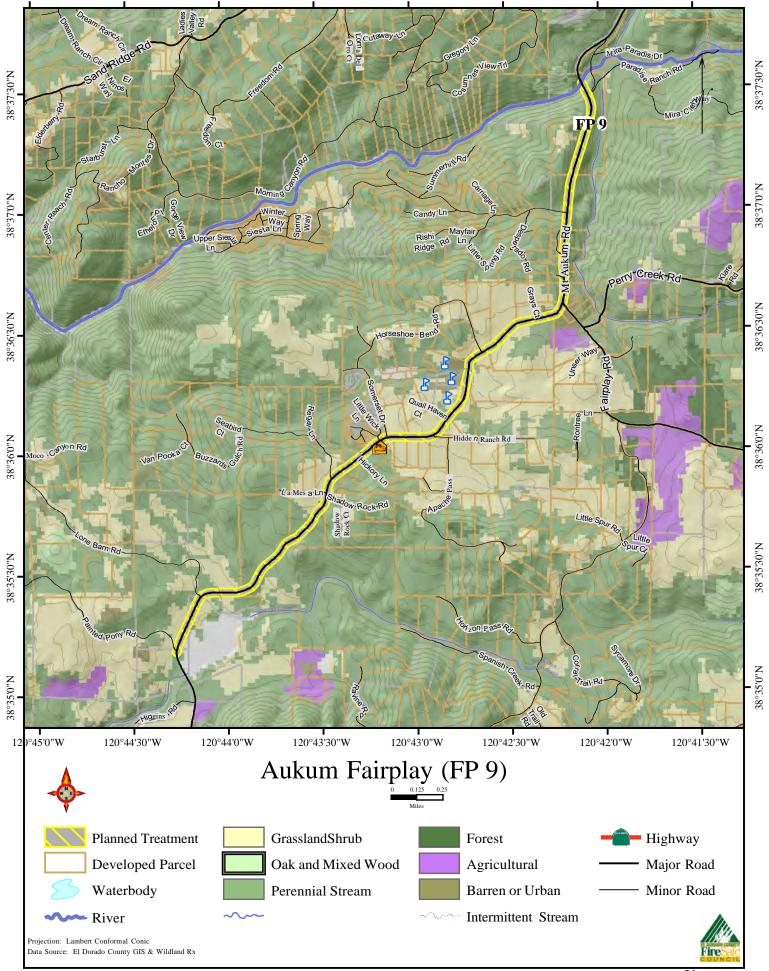
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120°43'0"W

120°42'30"W

38°31'30"N





120°43'30"W

120°44'0"W

120°43'0"W

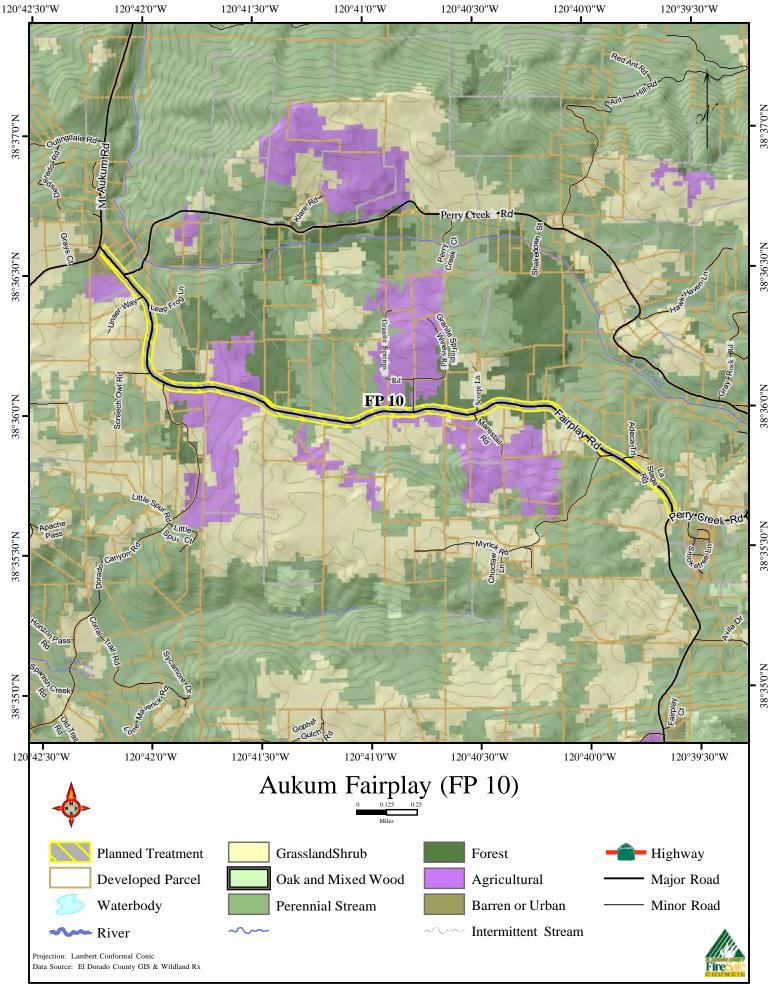
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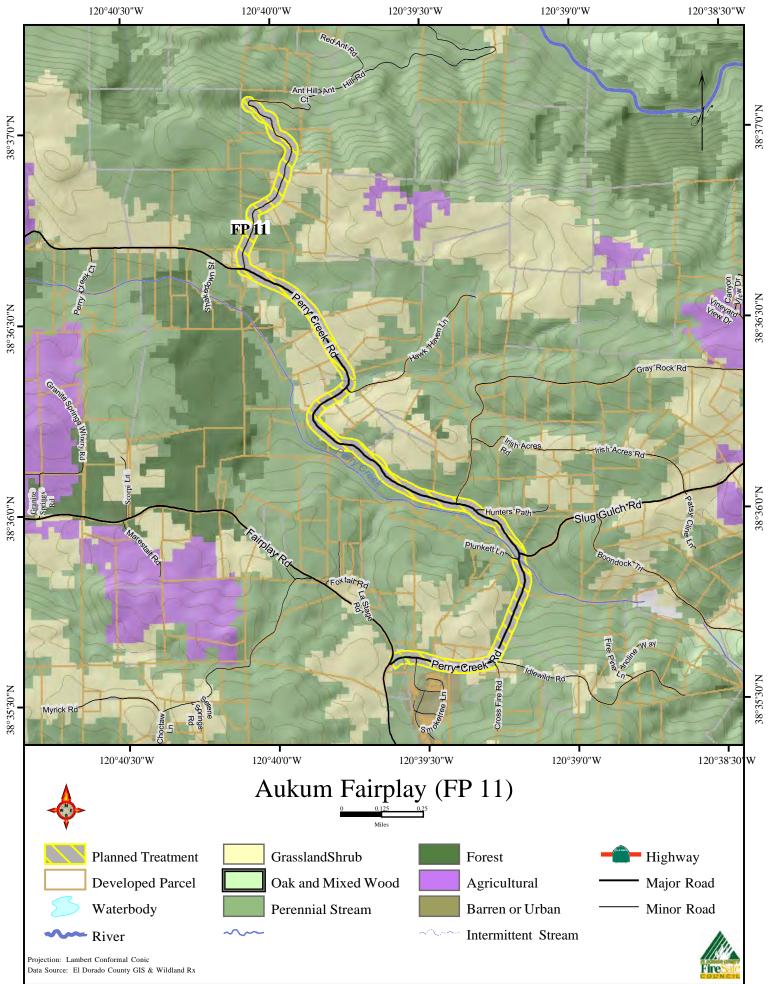
120°42'0"W

120°41'30"W

120°45'0"W

120°44'30"W





El Dorado County

COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for CAMINO-CEDAR GROVE FIRE SAFE COUNCIL



Prepared for Inclusion in the:

EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update

Prepared for:

CAMINO-CEDER GROVE FIRE SAFE COUNCIL

November 2021

Overview

Camino/Cedar Grove Community area is adjacent to the Pollock Pines Community is primarily an agricultural community with small family owned fruit orchards, vineyards, and Christmas tree farms. Since the formation in the 1960's, Apple Hill has become California's largest concentration of apple groves as well as a significant tourist destination in the fall. It is known for its rural ambiance, apple products, pies, cider other products and attractions.

The community has about ½ of its acreage in private forest land and National Forest land on the north side and south side of the community. The Sphere of Influence includes 15,292 acres of agricultural lands, the 2019 population is 6675 and 2,285 housing units. The apple harvest brings many visitors to the community during the height of fire season. It's easy access off Highway 50 brings visitors to the back roads all year long. These visitors bring the potential for human caused ignitions into a high fire danger area.

The elevation of the Camino area ranges from 3000 to 3500 feet elevation. Much of the area is covered with a mixed conifer forest with area interspersed with chaparral. The area fire protection is provided by El Dorado County Fire Protection District for the structure protection and CALFIRE provides the wildland fire protection. Both agencies have mutual aid agreements with the US Forest Service and adjoining local fire agencies.

The Pollock Pines Camino Fire Safe Council (PPCFSC) currently covers most of the unincorporated communities, while activity recruiting to have Camino and Cedar Grove establish their own fire safe council. The Pollock Pines FSC has been meeting with residents, hosting fire safe educational workshops, and has a board member from the community as their representative.

The PPCFSC was able to help the gated community of Rancho Del Sol to organize into their own Fire Safe Council. The community consisting of 135 homes is very vulnerable to threatening wildfire cutting off ingress and egress during an evacuation. The community is in a drainage with pour access due to overgrown, narrow, steep, and winding roads. Road clearance and shades fuels breaks projects are greatly needed.

Wildfire Risk

The goals of fuels reduction projects are to protect large portions of Camino and surrounding communities from wildfire originating from the north or the south. This is a very inhabited area within the western Sierra slope of El Dorado County.

Ignitions from southern roads and neighborhoods have the potential for rapid rate of spread heading north-northeast into heavily populated area of Camino and Cedar Grove. The river drainages and ridgelines combine with typical prevailing SE winds to cause a canyon alignment that feeds directly into these communities. During the 2021 Caldor Fire this area was evacuated. The initial wildfire was less than a mile away from one of these drainages that feeds directly into Camino. If the wind shifted north, it would have spread the fire west, just enough for an ember to land one ridgetop west ... then Camino would have been threatened by a running wildfire heading directly towards them.

Equally, an ignition originating out of the northeast (Pollock Pines) during a foehn wind event would rapidly spread southwest and across Highway 50. Fire Behavior Analysist, Robert Patton, conducted a near term fire behavior run out of WFDSS. He used the data from a NE wind event that occurred during the Fred's Fire (along HWY 50 / 97 percentile) to conduct this run. It determined a wildfire origination east of Pollock Pines would overcome Pollock Pines within three hours and Camino within 9 hours.

Tree Mortality

Widespread tree mortality has occurred throughout the eastern slopes of the Sierra Nevada Mountain range of El Dorado County. The region experienced a severe drought in 2012–2015. Tree die off is being seen again in 2021. The ponderosa pine, a large tree that lives at higher elevations, suffered the most, as it's the only host for the western pine beetle. In addition, changing climate conditions can impact insects, fungi and other biological agents of tree mortality. The effects of climate change will increase the rate of dead and dying trees threatening public safety and infrastructure; through falling limbs and trees, increases short-term and long-term fire danger, reduces carbon absorbed and stored, and reduced wildlife habitat.

Values at Risk

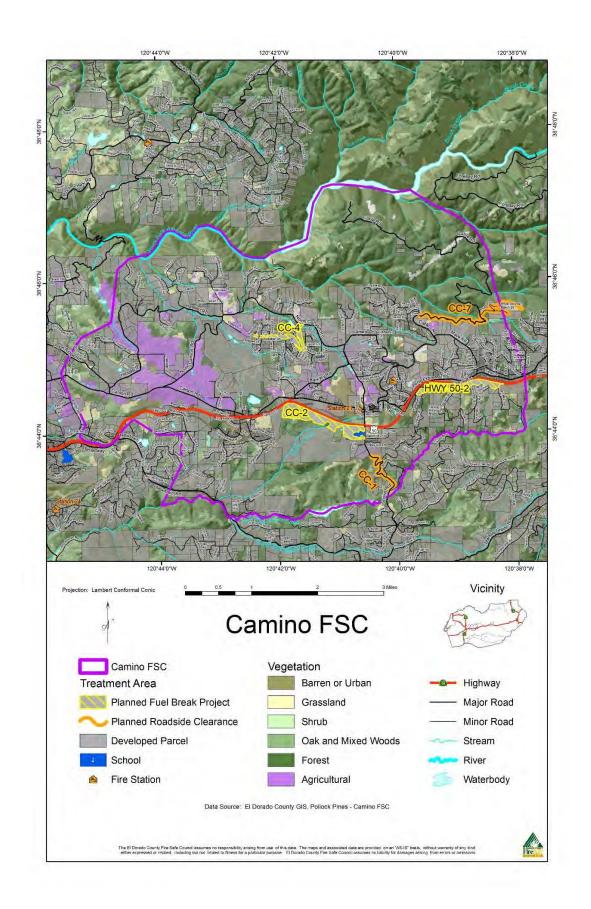
Ideal soil and climate conditions support Camino's fruit-growing region. Camino is the gateway to the ranches of the Apple Hill Growers Association. Six small production wineries produce award winning wines and friendly tasting rooms.

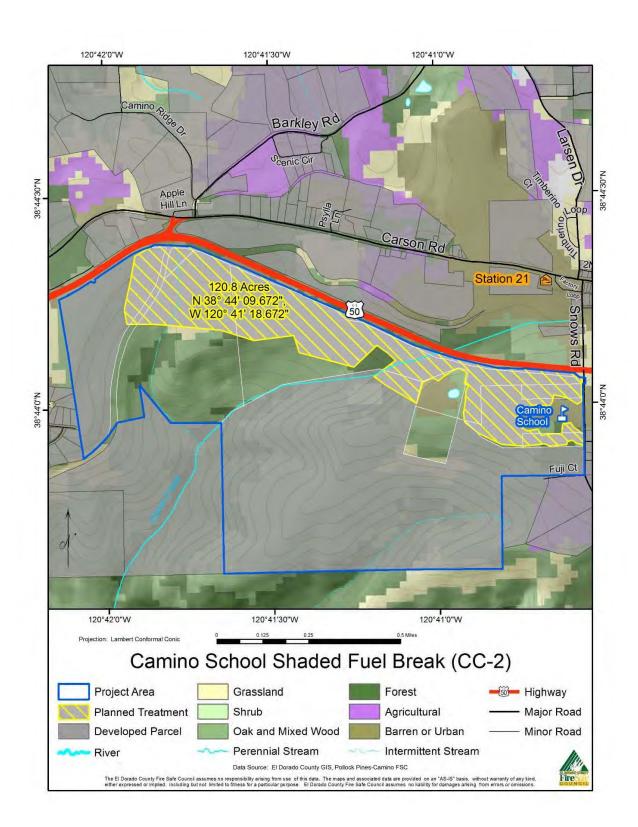
Camino Union Elementary School District ranks among the top 20% of public school district in California. There are two schools, Camino Union Elementary, K-8 with a student population about 408 and Camino Polytechnic Charter, K-8 with approximately 66 students.

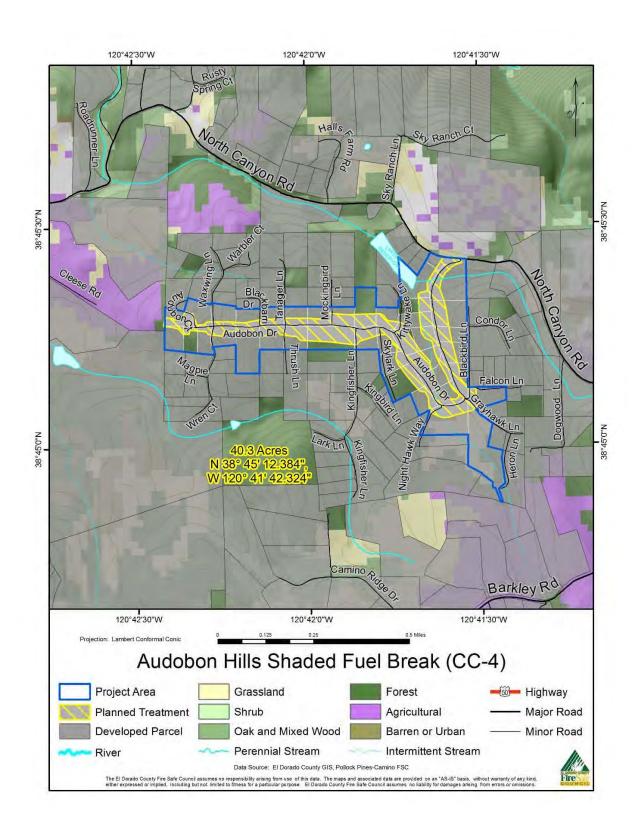
Many fire agencies and their infrastructure are located in Camino; the Emergency Communication Center (ECC) which dispatches for both the Eldorado National Forest and CAL FIRE, the CAL FIRE Amador-El Dorado Unit, the Placerville Ranger District, & the El Dorado County Fire Protection District.

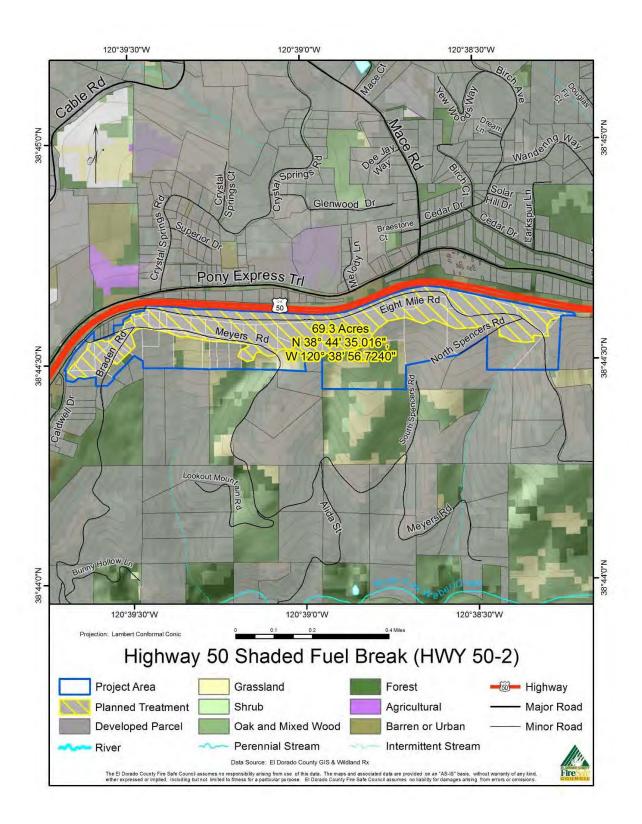
Proposed Fuel Reduction Projects Maps and Summary Table

The following pages contain maps and a summary table describing proposed fuel reduction projects for the Camino-Cedar Grove Area



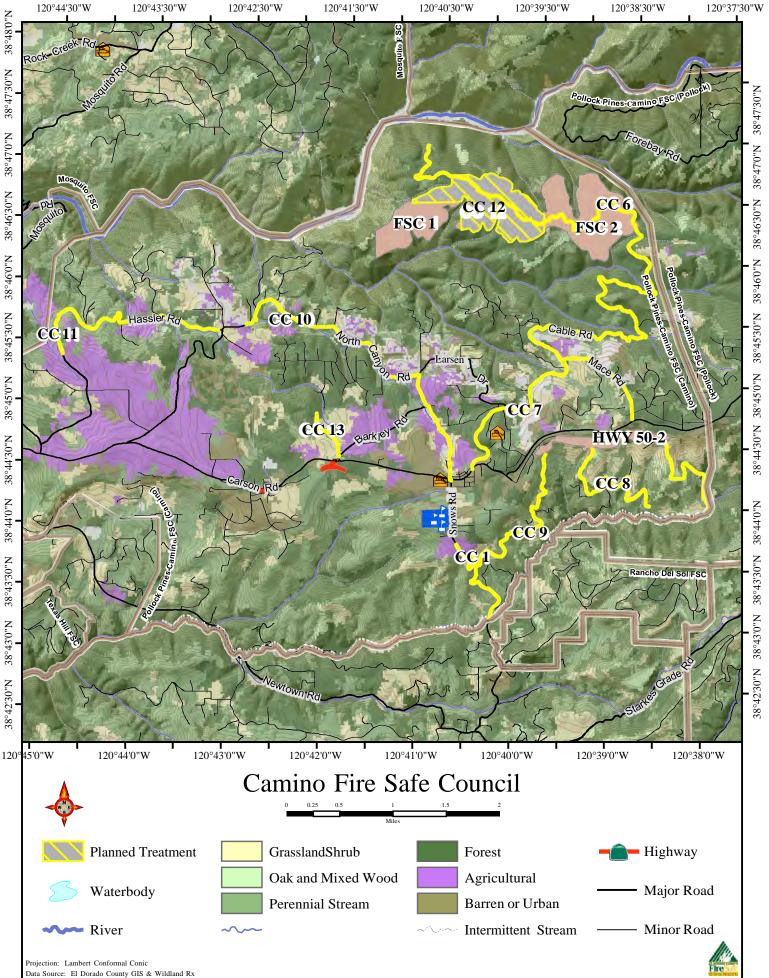




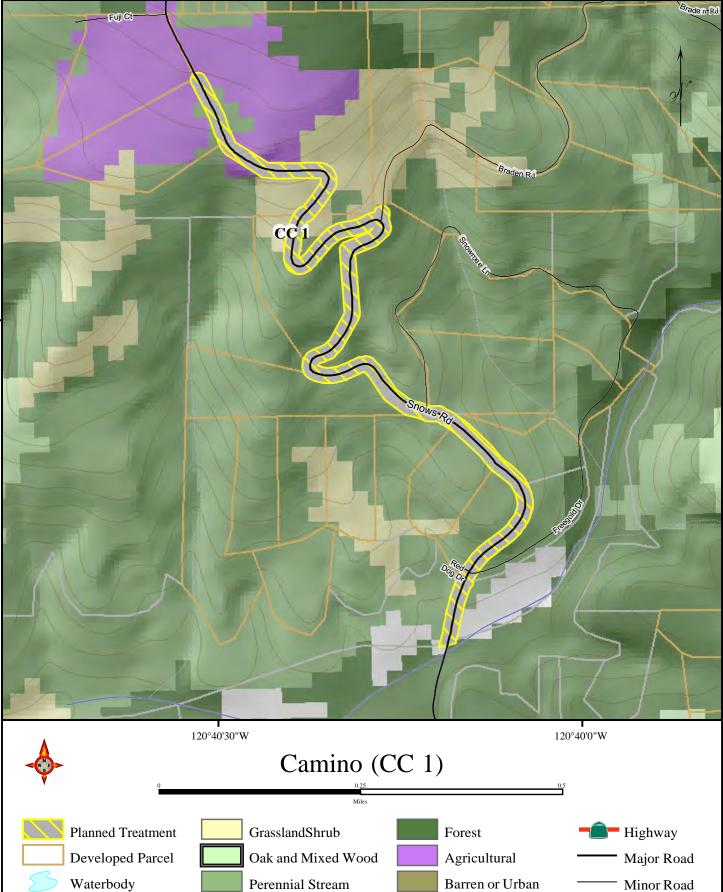


	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIN CC
Camino	1	CC-2	Camino School Fuel Break	Fuel Break	120		\$240,
Camino	3	CC-4	Audubon Hills Fuel Break	Fuel Break	40		\$80,0
Camino	4	HW-50-2	HW 50 Fuel Break	Road Hazard	69	2.0	\$138,
Camino			Total Camino		229	2.0	\$458 <i>,</i>

Summary of proposed treatment by cost for the Camino-Cedar Grove Area



76



River

Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx

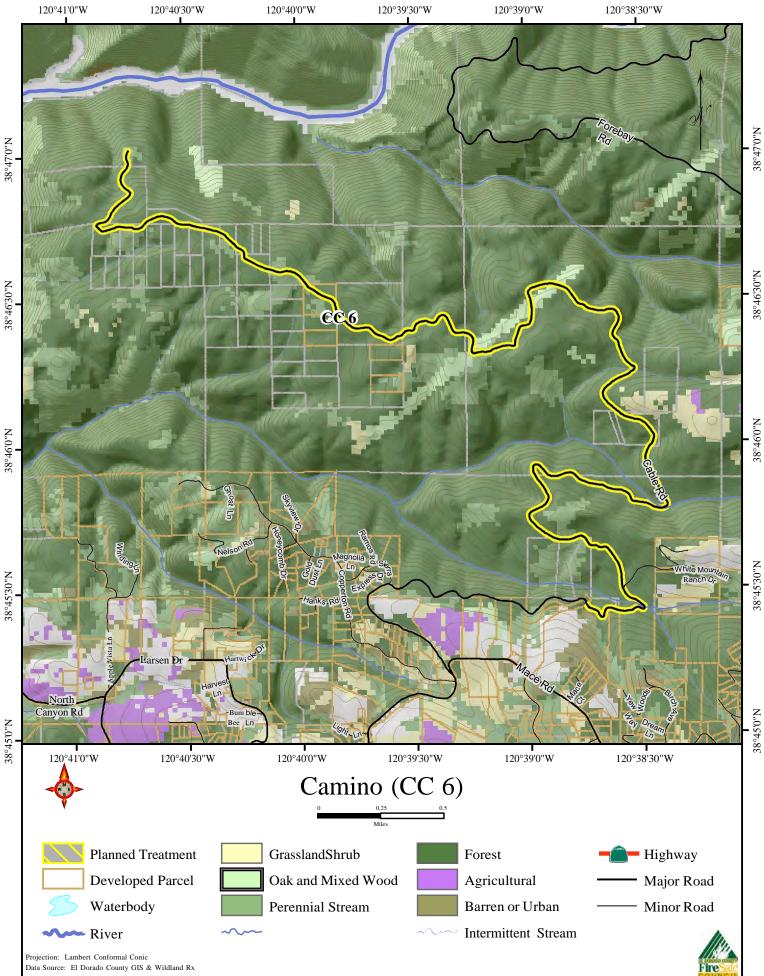
120°40'30"W

120°40'0"W

ire

Intermittent Stream

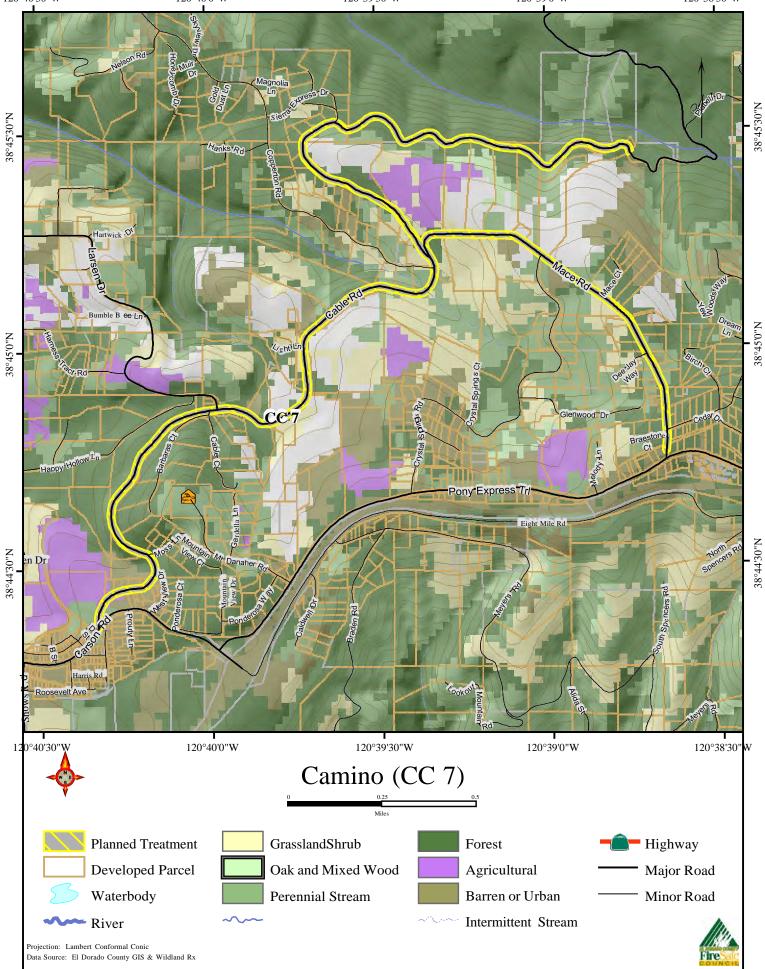
38°43'30"N



78

120°39'30"W

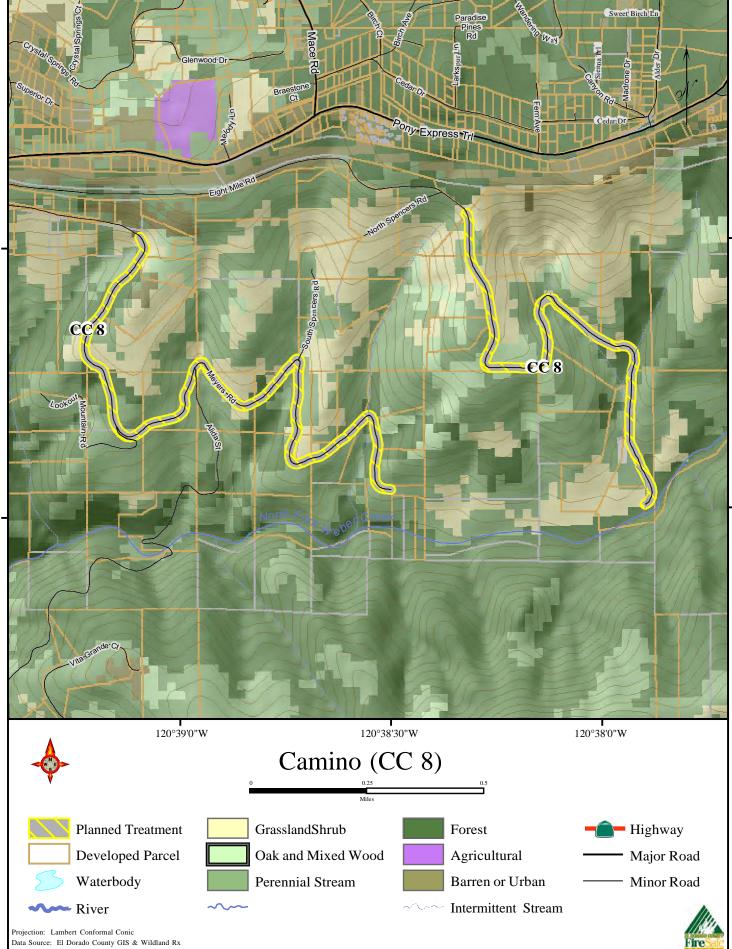
120°38'30"W



120°39'0"W

38°44'30"N

79



38°44'30"N

38°44'0"N

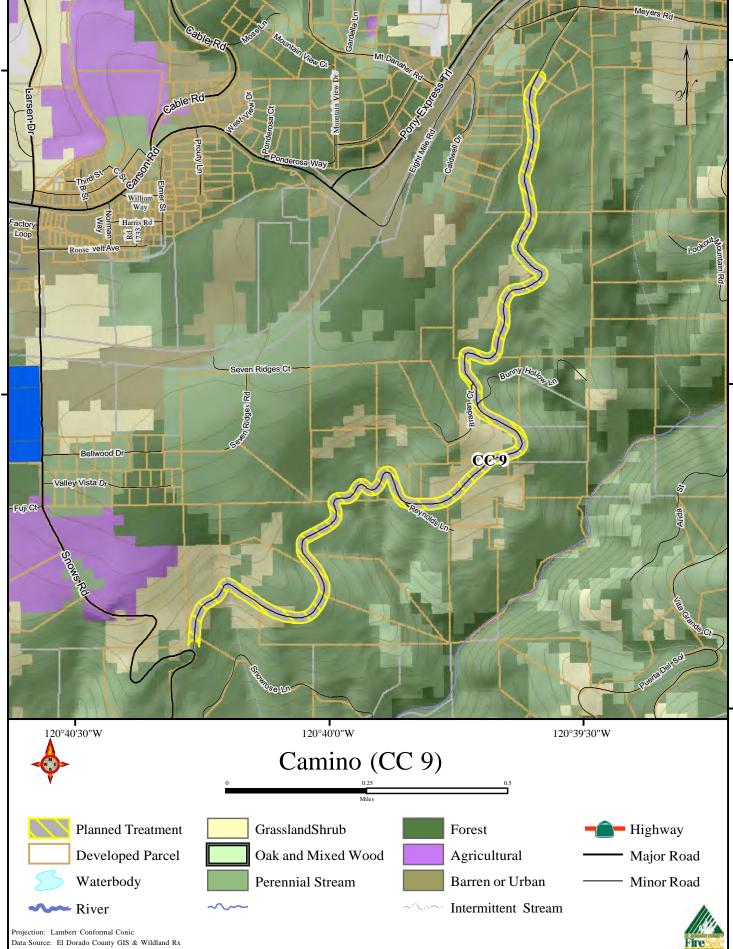
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38°44'0"N

80

120°39'0"W

120°38'30"W



120°40'0"W

120°39'30"W

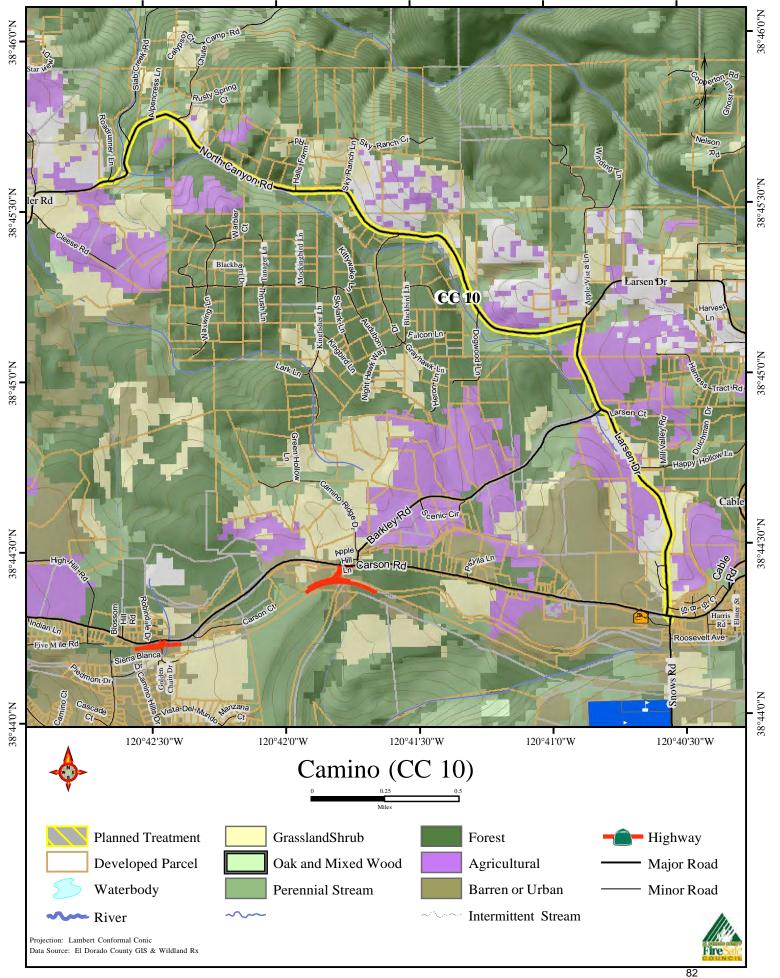
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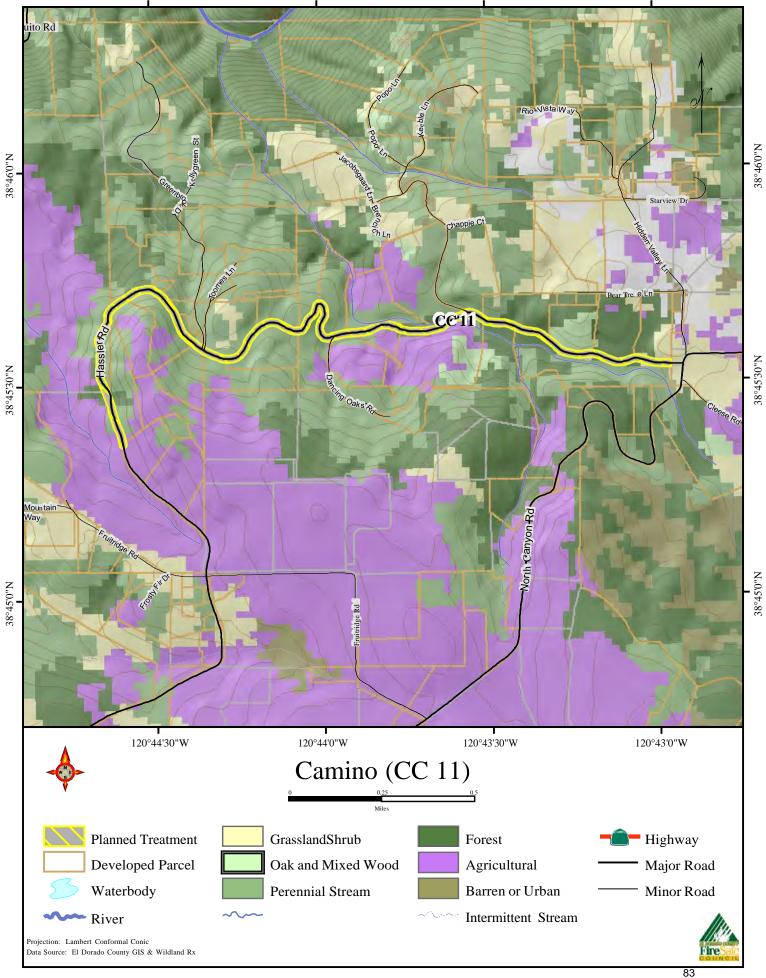
38°43'30"N

81

38°44'30"N

38°44'0"N



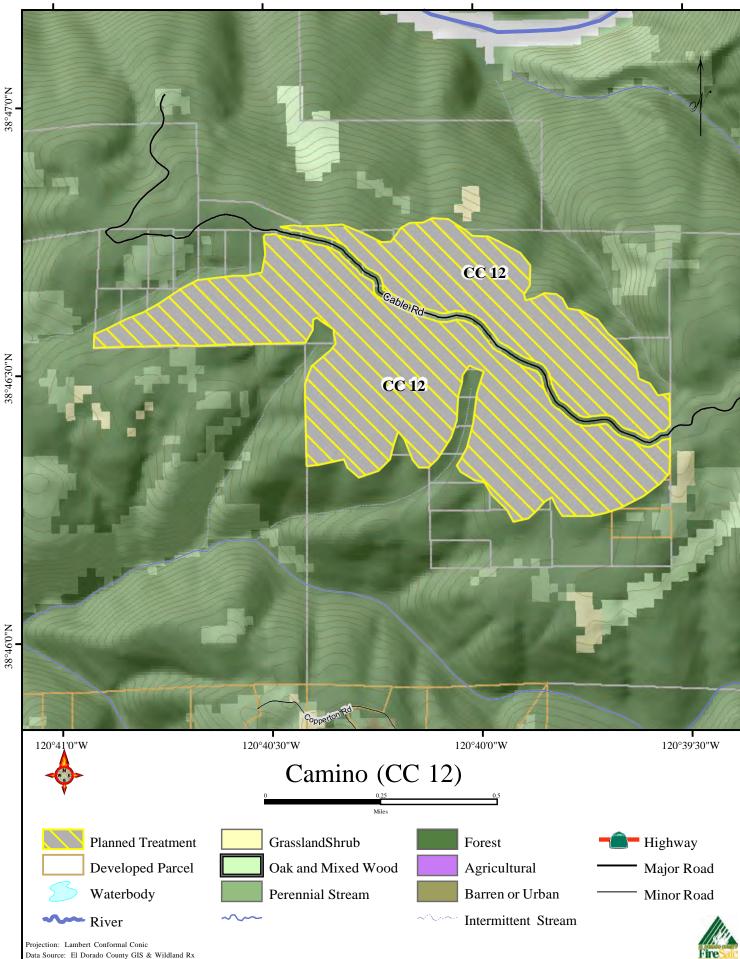


120°44'30"W

120°44'0"W

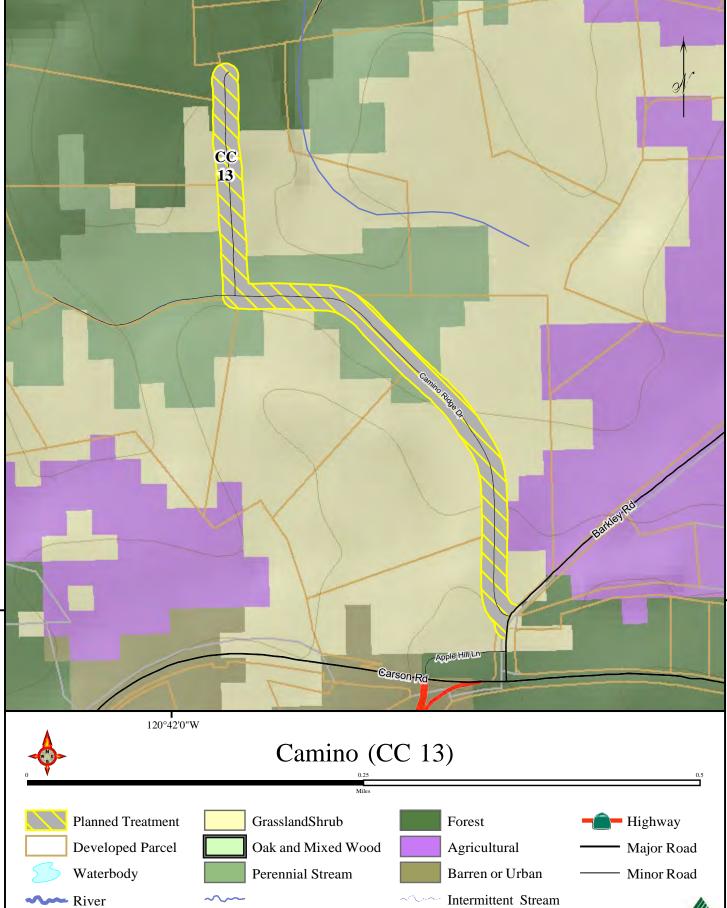
120°43'30"W

120°43'0"W



120°39'30"W

84



Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx 38°44'30"N

ire

85

Proposed Treatment 2017 CWPP Camino FSC.

COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Camino	1	CC 2	Camino School Fuel Break	Fuel Break	120		240,000
Camino	3	CC 4	Audubon Hills Fuel Break	Fuel Break	40		80,000
Camino	4	Hw- 50-2	HW 50 Fuel break	Road Hazard	69		138,000
		CC 1	Snows Road	Roadside Hazard Reduction			

Camino FSC Community Projects 2020

PROJECT NAME CWPP update	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
		CC 8			35	
		CC 9			22	
		CC 10			27	
		CC11			40	
		CC 12			248	
		CC 13			7	
		FSC 1			141	
		FSC 2			297	

Cameron Park Fire Safe Council UPDATE TO THE COMMUNITY WILDFIRE PROTECTION PLAN

June 2021



Prepared for Inclusion in the:

El Dorado County Fire Safe Council

2021 Community Wildfire Protection Plan (CWPP) Update

EXECUTIVE SUMMARY

Cameron Park is an unincorporated community with approximately 7,000 parcels and 20,000 residents. Cameron Park straddles Deer Creek forming a small valley containing a full-service community. The Cameron Park Fire Safe Council (CPFSC) was formed in 2002 and considerable work has been accomplished to make Cameron Park a fire safe community since then. The community area is surrounded by, and intermixed with, steep topography, heavy fuel loading, and a long history of wildfire. The history of ignitions, and the extensive and diverse uses of land in the area make wildfire an ever-present threat to this transitional foothill Wildland Urban Interface (WUI). These and other characteristics are clear reason why Cameron Park is listed as a *Community at Risk* in the federal registrar.

Severe fire seasons in the western United States led to the enactment of the Healthy Forest Restoration Act (HFRA) of 2003, a significant step toward cooperation for fire planning at the national, state, and local level. In addition to the creation of fire safe councils in their present form, the HFRA can provide funds for fuel treatment planning and implementation for communities at risk, and additional resources when private lands are in close proximity to Forest Service (USFS) and Bureau of Land Management (BLM) lands. The HFRA provides communities with an opportunity to influence where and how federal agencies implement fuel reduction projects on federal and non-federal lands. A Community Wildfire Protection Plan (CWPP) is the most effective way to take advantage of this opportunity. The Handbook "Preparing a Community Wildfire Protection Plan" was used as a guide in preparing the Cameron Park CWPP. The Cameron Park Fire Safe Project was prepared by the Cameron Park Fire Safe Council (CPFSCFSC) and addresses the hazards and risks within and adjacent to the community. This document is based on the 2008 Cameron Park CWPP, and incorporates summaries of information contained therein.

The greatest threat to the community would be a fast moving wildfire originating outside the Cameron Park boundaries. A brush fire could pose control difficulty, and the community could be impacted before sufficient resources could respond. Once in the community, conflagration of homes and vegetation would be very likely, and catastrophic. Fuels of the area have been identified and classified into four standardized, Fire Behavior Fuel Models. Fuel Treatment Guidelines were developed for each fuel type, and can be applied for fuel reduction elements.

Community hazard reductions were prioritized and displayed in 6 Elements: (1.) Structure Defensible Space (Residential & Commercial), (2.) Vacant Lots (Residential & Commercial), (3) Cameron Park East- Brush Field, (4.) Roadside Fuel Treatments (5.) Existing Fire Safe Plans and (6.) Wildland Rx Hazard and Risk Assessment. The Plan also addresses maintenance, new home fire safe features, periodic reviews, and recommendations for developing Wildfire Ignition Prevention and Evacuation Plans. A WUI boundary was established by the Cameron Park Fire Safe Council(CPFSC). Many residents have completed Defensible Space around their homes as a good first step. Full implementation of the CWPP, over time, will continue to help make Cameron Park a Fire Safe Community. The CWPP was certifiedby CAL FIRE, reviewed by the Bureau of Land Management for the Cameron Park Unit of the Pine Hill Preserve (PHP) and adopted by the Cameron Park Community Services District (CSD).

INTRODUCTON

Cameron Park and the CPFSC is located in the lower foothills of the west slope of the Sierra Nevada range. It is situated in western El Dorado County, and features a Mediterranean climate, with hot, dry summers and cool, moist winters. The June – October dry season produces ideal conditions for wildfires, and on some years can receive no wetting rains from May through November. Annual plants die off, and perennial plants lose moisture and become highly flammable. Fires burning towards the end of the dry season are intense, resist suppression efforts and threaten lives, property, and resources. Drought conditions intensify the wildfire danger, and accelerate the dormancy of woody and herbaceous plants earlier in the year.

Two climatic conditions aggravate this already serious wildfire problem. Periodically, but which has become an annual event, a Pacific High-Pressure System moves eastward over California and brings very hot, dry weather with low humidity. This "Heat Wave" can occur at any time during the dry season and under the wave, wildfires can start easily and are difficult to extinguish. The other extreme weather condition is, thankfully, less frequent. The wind event usually occurs in the fall and early winter, when strong north and east winds subside from the Great Basin (Foehn Winds), and become dry and warm as they descend the western front. Under these conditions, a wildfire can quickly evade control, and effect great damage before the winds stop blowing. Historic examples of Foehn winds and the intensity they have had in Northern California can be found with the Oakland Hills Fire of 1991 that destroyed 3810 homes in Oakland. Each year, hundreds of homes are destroyed or damaged by fires starting in wild lands. Cameron Park is no exception from wildfire losses. In El Dorado County in 1985 the Eight Mile fire destroyed 14 homes, and in 1992 the Cleveland Fire destroyed over 40 homes and claimed the lives of two air tanker pilots. In 2007 the Angora Fire destroyed over 250 homes in the lands adjacent to Lake Tahoe. In 2014 the King Fire burned 161,253 acres, caused the evacuation of 3000 people and destroyed 80 structures. Most recently in August 2021 was the Caldor Fire which burned 221,835 acres, with 782 structures destroyed.

El Dorado County welcomes people who move to our communities from all areas. However, people who choose to live in, or plan to move into, the wildland environment, they should be aware that fire is as likely as a thunderstorm. Where homes are intermixed with grasslands, woodlands, or forests, these residents should be aware that fires are going to occur, and they need to create the conditions that reduce the change of losing life and property through defensible space and thoughtful planning. Public memory may not remember the last wildfire in Cameron Park, but fire history and tree ring analyses tell us that wildfires will occur; it's not if, but when. While people who live through a wildfire event will likely never forget what they learned and felt, it is incredibly difficult to convince people who have not had that experience the immense consequences of either preparing, or choosing not to. The CPFSC is dedicated to helping people make the right choice well ahead of any disasters in our community.

Community Description

The CPFSC encompasses an unincorporated foothill community El Dorado County. Cameron Park was formally established as a Community Service District in 1961. The community initially consisted of several hundred residents living around a golf course and a small commuter airport along the Highway 50 corridor. In the 40 plus years since the CSD has become a full facility community, the area has grown significantly. The community contains approximately 7000 single family homes, 1000 apartment

dwelling units, many commercial buildings, a host of retail centers, a county Library, three schools, various medical facilities, and seven local parks. All of this has been developed in a nine square mile area, and approximately 80% of this development has occurred in the WUI.

There has been residential development throughout the Cameron Park CSD, including the valley floor, ridge tops and on many sloped areas. Many of the homes were built in the 1970's and 1980's before higher county standards were adopted for roads, and fire-safe building materials. Homes with wood siding and shake roofing are commonly nestled into heavy fuels on steep slopes, with decks protruding out over fuels. Narrow and winding dead-end roads further complicate fire suppression actions, and evacuation emergencies by having one-way ingress and egress infrastructure. These matters create a situation where suppression resources and residents are faced with limited opportunities for success in mitigating the loss of life or property.

The expansion of CPFSC urbanization has the potential to increase at a greater rate in the years ahead, and with this increased human activity, will be an increase on wildfire starts and impacts. Wildfire protection is provided by CAL FIRE and structural fire protection by the Cameron Park Fire Department (under contract with CAL FIRE).



"Homes at Risk"

Vegetation and Topography

The CPFSC area historically consisted of mature stands of brush, large oak stands, and expansive fields of grass. However, many of these stands have been fragmented by development. Manzanita and chamise are the most common brush species, growing in thick stands greater than 10 feet in height, and developing a high percentage of dead material as the species age. Oak species are primarily Blue Oak (Quercus kelloggi), Valley Oak (Quercus lobata), and Live oak (Quercus wislizenli). Lower elevations of the community have large areas of annual grasses, with some brush encroachment. A high percentage of the homes have been landscaped with exotic plants such as Monterey Pine, juniper, and other highly

flammable plants. Landscaping practices often show little regard for Defensible Space and California codes of fire prevention.

Within the WUI boundary, and immediately adjacent to homes in CPFSC, there is a BLM preserve for native plants and habitat. The Pine Hill Preserve (PHP) Cameron Park Unit covers 455 acres, with 392 acres owned by the BLM, and 63 acres by El Dorado County. The PHP has a combination of mature chaparral and patches of woodlands and grasslands, and has multiple management units in the area. The PHP is managed by the BLM for the protection of eight rare native plants in western El Dorado County, and more information can be found online (pinehillpreserve.org), and in the "Fire Ecology and Fuels Management at The Pine Hill Preserve" brochure, which can be found locally upon request.

Cameron Park sits within a large saddle-type feature, with Deer Creek dissecting the CPFSC from north to south. Slopes extend up to the east and west to the ridges on either side, and form a small valley where the majority of homes are located.

Fire Behavior

Some ecosystems in the Greater Cameron Park area have become overgrown, homogeneous in structure, and decadent in composition. This continuous, flammable vegetation creates the foundation for an intense wildfire that would scour ecosystems as well as the community. To appropriately articulate the estimated fire behavior, this document uses standardized Fire Behavior Fuel Models.

The primary Fire Behavior Fuel Models (FBFM) in the CPFSC area are:

- Grass savannas, (Fuel Model 1),
- Blue Oak/Grass(Full Model 2),
- Interior Live Oak/ with grass and brush (Fuel Models 4 and 6)
- Chaparral (Fuel Model 4). Intermixed are small patches of Native Pine and Ponderosa Pine.



Grass Savanna, Fuel Model 1

<u>Grass savannas</u> (Fuel Model 1) are comprised of very porous and continuous herbaceous grass fuels, generally below knee level and fuel loads are about 1 ton per acre. Less than one-third of the area has other vegetation like shrubs and trees. Surface fires will move rapidly with flame lengths up to 11 feet when cured.



<u>Blue Oak Savannah/Woodland,</u> <u>Fuel Model 2</u>

Blue Oak Savannah/Woodland (Fuel Model 2) is comprised of oak and gray pine overstory (20% to 40% canopy closure), grass ground cover 1 to 2 feet tall with scattered Poison Oak and mixed brush. The Blue oak woodlands also have intermixed Interior Live Oak and California Buckeye. A moderate fuel ladder is established, however fire spread is mainly in the grass. Fires are more intense than Fuel Model 1, but with a reduced rate of spread.

Interior Live Oak Woodland, Combination of Fuel Models 4 and 6



Interior Live Oak Woodland with grass and brush (combination of Fuel Models 4 and 6) are comprised primarily of mixed oak, Live Oak, Blue Oak, Valley Oak, with some scattered Native Pine and Ponderosa Pine. However, Live oak species often dominate the overstory. The understory is Poison Oak, mixed brush, oak and Native Pine seedlings and saplings. Ground cover is grass with liter (tree limbs, and logs). Canopy closure is 80% to 100%. Fuel loading is 6 to 13 tons per acre. Ladder fuels are significant and consistent throughout this fuel type.

Chaparral, Fuel Model 4



Chaparral (Fuel Model 4) consists of Chemise and manzanita brush with a high ratio of dead to live fuel loading, and an average of 18 to 20 tons per acre. The largest brush field is located on the west facing slopes adjacent commercial and residential lots on CPFSC's eastern boundary from Highway 50 to Mira Loma Drive. Fire is able to carry from surface fuels through convection into the crowns with relative ease. Ladder fuels are fuels that provide vertical continuity between the ground fuels and a tree canopy. Ladder fuels are present as shrubs and tree saplings and poles. Single or multiple tree torching can occur whenever surface fire intensity generates flame lengths that can carry into the crowns,

The following displays rate of spread for the fuel models found in the CPFSC area³.

Fuel Model	Flame Length (ft)
1. Grass	4 - 11
2. Blue Oak/Grass	6 - 10
6. Interior Live Oak	19 -20
4. Chaparral	5 - 19

Risk and Hazard Assessment

Plan Goals

- Reduce the number and size of wildfires
- Work to make CPFSC a Fire Safe Community
- Ensure Defensible Space is provided around structures
- Ensure fuel treatment measures are maintained
- Promote land management practices that will maintain a healthy stand of native vegetation, consider wildlife habitat and protect the soil, waterand visual resources
- Cooperate with the PHP on implementation and planning for fuels management of the PHP
- Prepare, or cause to be prepared, an Evacuation Plan, an Action Plan, and a Wildfire Prevention Plan

Fuel Reduction Elements

Fuel treatments to help protect CPFSC are organized into Six Elements:

- 1. Defensible Space Residential & Commercial
- 2 Vacant Lots Residential & Commercial
- 3. Cameron Park East Brush Field
- 4. Roadside Clearing
- 5. Existing Fire Safe Plans
- 6. Wildland Rx Hazard and Risk Assessment

These Elements constitute the Fuel Reduction Measures for the CWPP.

Risks

Wildfire risks (fire causes) for CPFSC are ranked as follows:

- Ignitions along Highway 50 and Green Valley Road
 - Fire starts adjacent to these roads can be from vehicles, cigarettes, arsonists, or traffic collisions, and have the potential to spread quickly into CPFSC
- Ignitions around homes
 - Fire starts within the urban complex of homes from human activity, i.e. the improper use of lawn mowers, bladed trimmers, and children playing with fire. Fires are usually small but can quickly threaten homes
- Ignitions in the brush field along the eastern boundary of CPFSC
 - Fire starting in this area can be caused by activities on residential and commercial parcels that abut the brush and visitor use in the PHP
- Due to the heavy fuel loading and steep topography wildfires can become large quickly and threaten multiple homes that surround this brush field
 - Ignitions in the vacant lands south of CPFSC (Marble Valley, Deer Creek and the Consumnes River Canyon)
 - Fire starts in this area can be from vehicles and recreation users and can become large very fast threatening Cameron Estates and Cambridge Oaks

- Ignitions in the grass fuels at the Highway 50 Bass Lake Interchange, and along Bass Lake Road
 - Fire starts in this area from vehicles will have a rapid rate of spread and can threaten homes within the WUI boundary
- Ignitions in the small, interior brush fields intermix with homes
 - Fire starts from human activities in these brush fields can become intense and threaten adjacent homes very quickly

Hazards

Mid slope topography and heavy fuel loading of chaparral fuels along CPFSC's eastern boundary has all the elements for a catastrophic wildfire to threaten CPFSC under severe burning conditions.

A fire in this area, aligned with seasonal drying and high winds, would exhibit extreme fire behavior, and could likely overwhelm suppression resources, if not evacuating residents. Community training for early evacuation combined with landscape fuels treatments could mitigate aspects of this risk

Light fuels along the Highway 50 corridor and the CSD western boundary and the brush fuels on the north side of Highway 50 (Palmer Fire 2007) has a history of numerous ignitions with a rapid rate of spread.

Fire history has demonstrated that grass and other light fuels are a threat to other vegetation as well as people. There is a strong tendency for the public, and even some firefighters to discount the serious nature of grass dominated wildfire. For instance, a grass stand of 1 ton per acre has approximately 8000 BTU's per acre. A study conducted on 100 fires where 31 fire fighters lost their lives revealed many of these burned in light fuels such as grass. Fire in the open grass and under oak stands is a serious wildfire situation in CPFSC.

Roadside fuel treatments are inadequate for a number of roadswithin CPFSC.

Radiant heat from burning roadside fuels could jeopardize evacuation and suppression ingress and egress; additionally, roads would not be reasonable points to control a fire

Wildland fire ignitions will increase as interface populations and usesgrow.

New homes are being built at an increasing rate; the increase in population will further stress travel corridors and existing road systems for extremely high flows during an evacuation event

Homeowners often do not understand or realize their responsibility for implementing and maintaining adequate wildfire mitigation measures.

A review of many wildfires has conclusively shown that the most home losses occur when: (1) there is inadequate clearing of flammable vegetation around the house; (2) roofs are not fire resistant; (3) homes are in hazardous locations; (4) firebrand ignition points and heat traps are not adequately protected and (5) access roads are unsafe for fire suppression forces due to roadside excess fuels.

Provisions must be made to maintain all fuel treatment projects.

The wildfire protection values of fuel modification are rapidly lost if notmaintained; in grass and perennial shrubs, the threat of standing cured vegetation is annual

Topographic features combined with weather influences create erratic wind patterns, and could have unexpected impacts on fire behavior

Steep slopes, drainage areas, and other funneling features should be targeted for fuels removal if adjacent to a travel corridor or other significantly built features

Some locations within the CPFSC have latent emergency response times, or are more difficult to make access or egress at the same time.

The CPFSC, in coordination with other organizations, needs to prepare Evacuation and Preparedness Plans; specific roads or community areas could be identified for early evacuation and specific traffic control. Working with the El Dorado County Office of Emergency Services, or the Sheriff department could provide additional resources for planning and evacuation

Fuel Complexes

East Cameron Park- Brush Field

From Palmer Drive north along residential and commercial lots toMira Loma Drive and eastward to the CSD boundary is a large brush field of approximately 600 acres. The chaparral species are mature with a high ratio ofdead to live, and an overstory of scattered Gray Pine.

The topography is moderate with a southwest exposure. Two intermediate draws bisect the southern portion of the brush field, and extend up toward two broad ridges. Predominant southwest winds have the potential to funnel heat through this feature, and generate extreme fire behavior into the community.

This is a classic wildland urban interface where homes and businesses create and immediate perimeter of 90% of the brush field. This combination of flashy fuels, heavy fuel loading, southwest exposure, broken topography create a solid foundation for extreme fire behavior in the WUI environment.

Pine Hill Preserve – Cameron Park Unit

The PHP was established to protect rare and native plants in chaparral areas in western El Dorado County. The PHP covers 4042 acres in total, and is separated into five Units. The Cameron Park Unit is 455 acres and abuts residential areas along its western, eastern and northern boundaries.

The PHP is managed by the Folsom Field Office (FFO) of the Mother Lode District of the BLM, and coordinated with eight other entities. The PHP is included in the American River Assessment Area which is a subunit of the Sierra Planning Area. The PHP is also a Special Management Area, a Fire Management Unit, and a proposed Area of Critical Environmental Concern. The PHP has developed a draft Management Plan and will continue to develop fuel treatments. for the different units to determine the safest and most effective way to protect surrounding communities from wildfire while ensuring that the habitat and the rare and native plants will be protected.

The BLM has constructed a Perimeter Fuel Reduction Zone (PFRZ) approximately 60 to 100 feet wide abutting rear residential lot lines in CPFSC and the Northview Subdivision. This work was suspended by BLM in 2005 due to smoke complaints from one resident.

Defensible Space

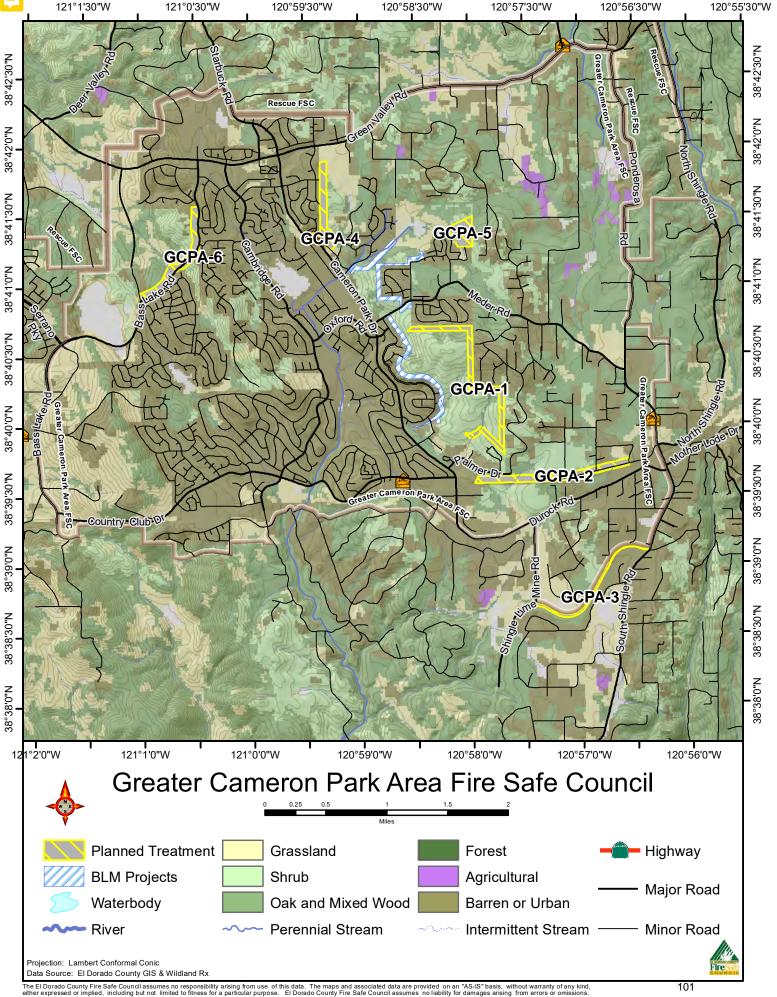
In January 2006 the CAL FIRE and State Board of Forestry and Fire Protection (BOF) adopted new "General Guidelines to Implement Performance Based Defensible Space Regulations" under PRC 4291 and with 14 CCR 1299. These updated Defensible Space Guidelines (DSG) expand the defensible space clearance requirements from 30 feet of a structure to 100 feet or the property line. The new 100' requirements are law. Also, 4291 "allows insurance companies to require home/building owners to maintain firebreaks greater than 100 feet." The Brochure "Why 100 Feet" is available online. Management and enforcement of the Defensible Space requirements within the CPFSC and the CSD is with the Cameron Park Fire Department, the Cameron Park CSD, and CAL FIRE. These Authorities Having Jurisdiction (AHJ) can be partners with the CPFSC in creating consistent outreach and access to resources. Additional county ordinances for vegetation clearing may be appropriate in mitigating hazards and fuel complexes described above.

Greater Cameron Park FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
BLM Pine Hill	2	GCPA-1	Fuel Break around open space BLM	Fuel Break	27	67,500
Hwy 50 North side frontage	1	GCPA-2	Fuel Break alone Hwy 50	Fuel Break	15	37,500
South Shingle RR Grade	6	GCPA-3	Rail Road Tracks	Fuels Reduction	15	37,500
LaCrescenta/Alhambra	3	GCPA-4	Fuel Break	Fuels Reduction	28	70,000
Connery Dr	4	GCPA-5	Fuel Reduction,Eldorado co Parcel	Fuel Reduction	22	55,000
Bass Lake Rd	5	GCPA-6	Roadside Hazard reduction	Roadside hazard reduction	8	20,000

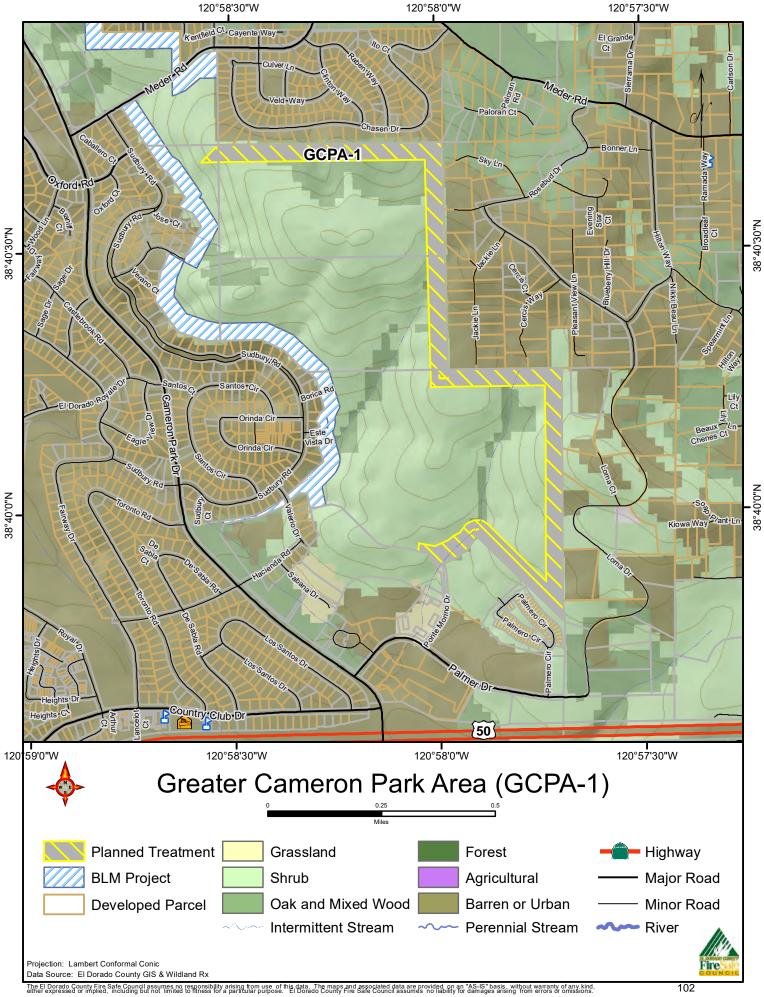
Fuel Break 200 feet wide

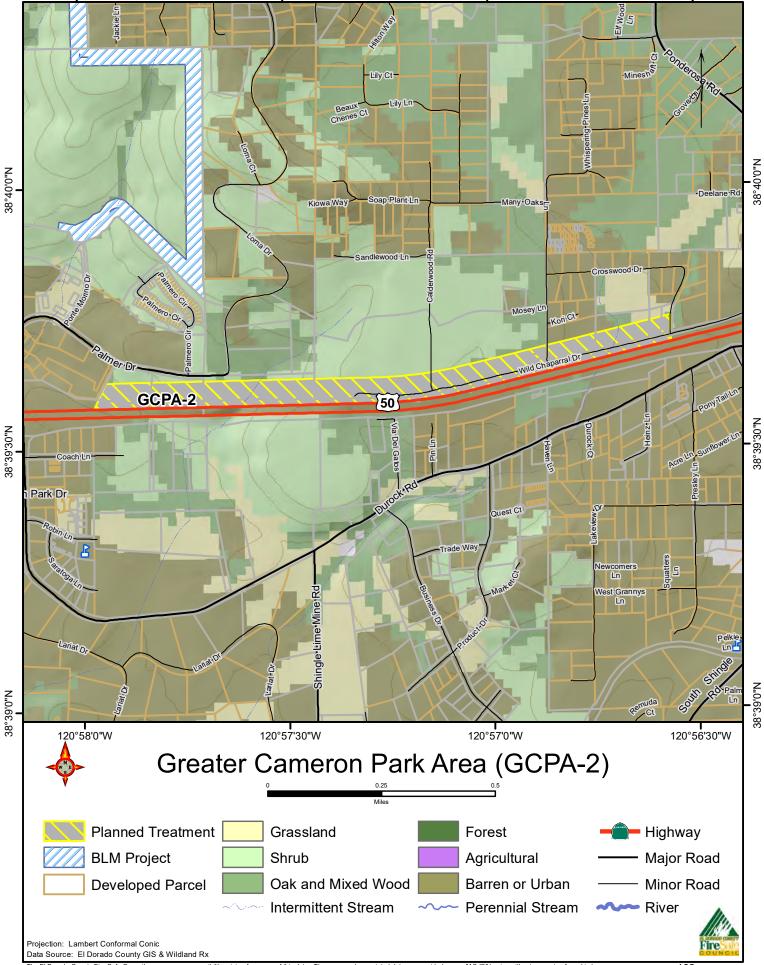
Roadside Hazard reduction 50 on each side of the road



38°42'30"N 38°42'0"N 38°41'30"N

120°55'30"W



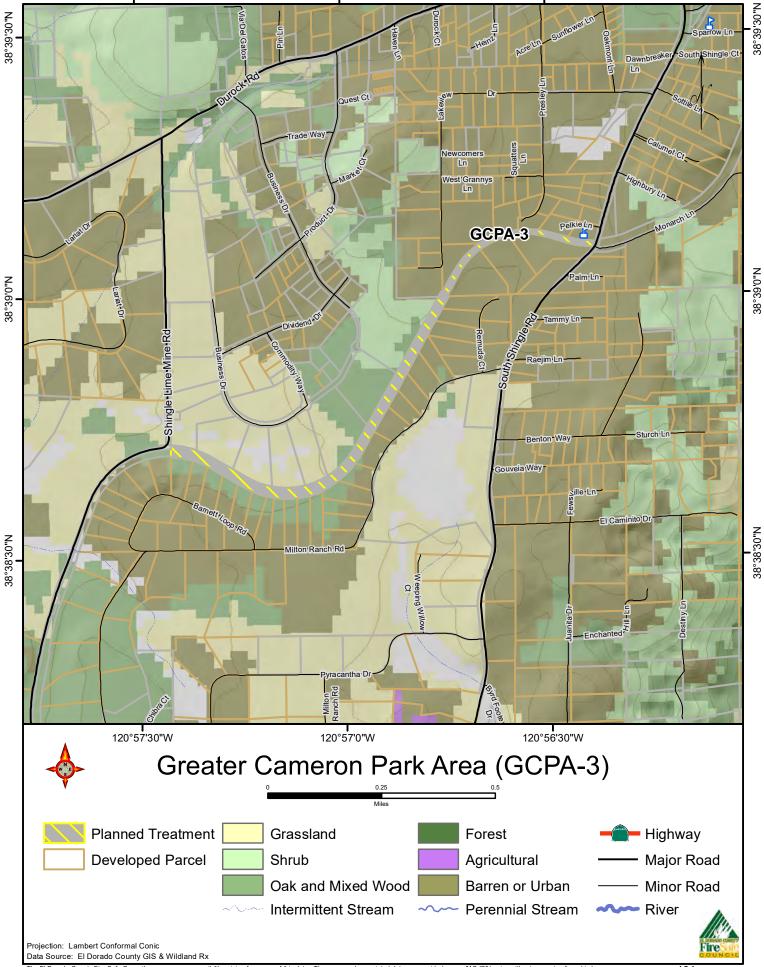


120°57'30"W

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120°58'0"W

The El Dorado County Fire Safe Council assumes no responsibility arising from use of this data. The maps and associated data are provided, on an "AS-15" hasis, without warranty of any kind, either expressed or implied, including but not limited to filmes for a particular program. El Dorado Council Assumes no liability for damages arising from errors or omissions. 120°56'30"W

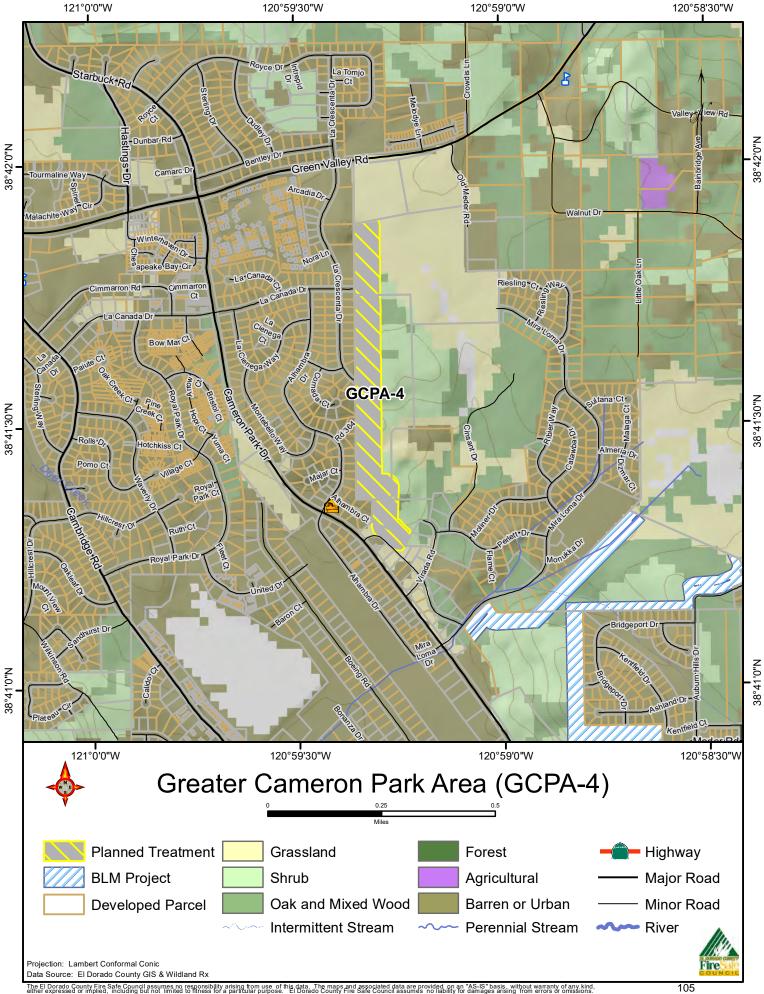


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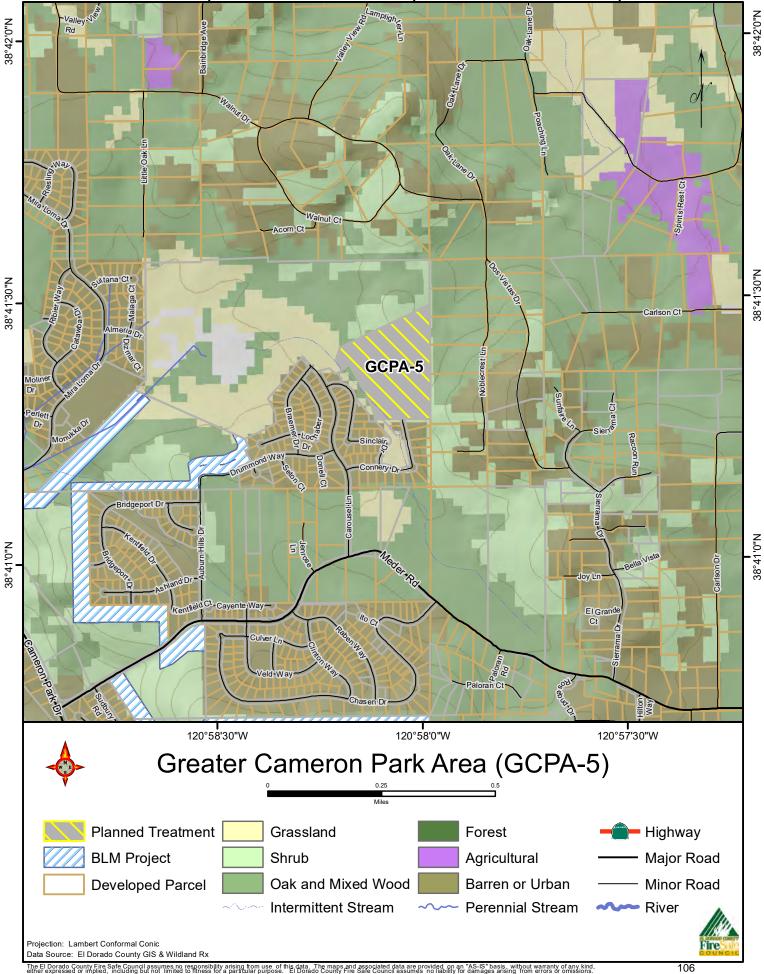
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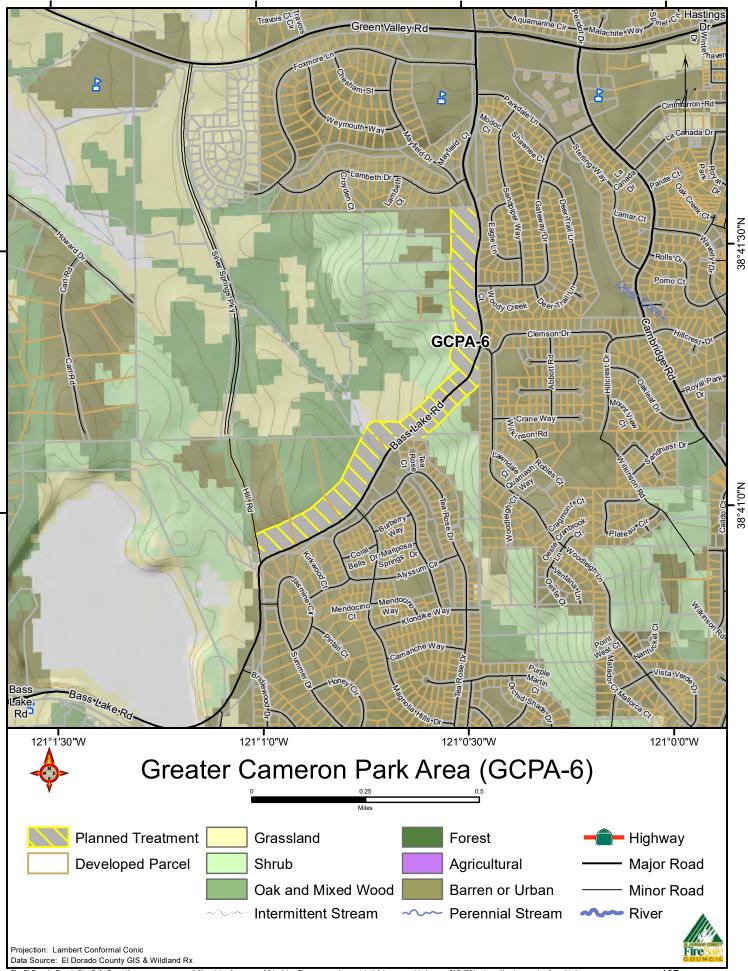


120°58'0"W

120°57'30"W

120°58'30"W

106



121°0'30"W

121°1'0"W

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121°1'30"W

Cool Pilot Hill Fire Safe Council



Prepared for Inclusion in the:

EL DORADO COUNTY FIRE SAFE COUNCIL

Community Wildfire Protection Plan Update

Prepared for: COOL-PILOT HILL FIRE SAFE COUNCIL

June 2021

History of Cool and Pilot Hill

Originally, Cool was known as the Cave Valley area, because of the limestone caverns in the area. These caves were a major tourist attraction. Eventually, the caves became a commercial source of limestone and were closed to the public. In 1956, the California Journal of Mines and Geology (Vol. 52, Number 4), reports "Cool-Cave was a major source of limestone for cement, lime, and beet-sugar industries for many years."

Cave Valley was a crossroads for merchants, miners, families, and travelers because it was located on the Gold Country Road that later became Highway 49. It was also the intersection of the road that led to Georgetown and other smaller gold rush communities to the east. That road is now Highway 193.

Sphere of Recognition Description

The Cool-Pilot Hill community was established in the early 1850's as a result of the gold rush and the advent of gold discovered nearby in Coloma (Marshall Gold Discovery Park which attracts school children and visitors annually). Pilot Hill is South of Cool on Highway 49.

Cool and Pilot Hill are wildland urban interface communities located on the West Slope of El Dorado County, just South of Placer County.

The community has been identified as a Community at Risk for wildfire in the Federal Register. The 2010 U.S. Census lists over 5,000 people living in Cool/Pilot Hill combined. These numbers will have increased in the subsequent 6 years. Forty percent are between the ages of 45-64 and the median age is 48. In 2010 there were over 3,000 housing units and nearly 30 percent are households include individuals 65 or older. Cool and Pilot Hill are essentially rural residential, with Cool having a downtown main street at the intersection of Highways 49 and 193. There, one finds several restaurants, a new Holiday Market, Wells Fargo Bank, real estate offices, gas station/convenience store, feed store, gift store, dentist, optometrist, post offices, and other primarily family owned and run store fronts. The Cool main street shopping area has essentially doubled in size in the last several years. There are many residential and agricultural properties distributed throughout Cool and Pilot Hill. Northside School, a California Distinguished School, is located in Cool on Highway 49. There is an El Dorado County fire station at the entrance to Cool on Highway 49 – this is not always manned.

The Auburn State Recreation Park entrance is located in Cool behind the fire station. From there, visitors can hike, bike, ride horses, walk their dogs and participate in major national competitive bike and running races, at the same time enjoying the beautiful open landscape. Many large competitive runs and biking events are staged out of the Cool fire station and enjoy the Auburn State Recreation Park rolling hills for their national and international races. Today, families as well as retired folks alike, enjoy and appreciate all that Cool and Pilot Hill offer.

Emergency Services

The El Dorado County Fire Protection District provides primarily the structure firefighting resources as well as wildfire protection for the community. There is fire equipment based at the Cool fire station #72. This is a volunteer station, which is only periodically staffed. The next nearest station is Garden Valley and then Georgetown. The closest ambulance is located in Georgetown. The closest CAL FIRE station is Pilot Hill.

Existing Condition/ Area Description

Ponderosa pine in the community is included in the tier one tree mortality high hazard zone. A large section of forest east of the community above the town of Georgetown is identified as tier two tree mortality high hazard zone. Cool contains isolated patches of Ponderosa pine at the lower elevation of its range and drought and disease has already killed many of these trees.Cool/Pilot Hill and surrounding communities are experiencing tree mortality from isolated groves to whole neighborhoods.

Areas of Greatest Threat

The areas of greatest threat are divided into two areas, Internal and External to the Cool-Pilot Hill Sphere of Recognition.

Internal threats are:

- The need for an ambulance and full time staffed community fire station in Cool. At times, the ambulance in Georgetown is not sufficient and an ambulance must be sent from further away. Thirty percent of the residences in Cool and Pilot Hill include individuals 65 and older.
- Evacuation routes and routes of travel are limited. If a major route, such as Highway 49 and/or 193 are blocked, then evacuation capacity is severely limited. In a sudden emergency, many automobiles will travel on the same major highways with many areas using the same routes, including Auburn Lake Trails, Georgetown, Garden Valley, and Greenwood, to name a few. Northside School and adjacent Cool Community Church could have a sudden major influx onto Highway 49 in an emergency.
- Failure of the residents to have adequate defensible space for their homes. (Violations of the California Public Resources Code (PRC) 4291)
- Failure of vacant landowners who do not remove hazardous vegetation. (Violation of the El Dorado County Nuisances Code Section 25845 Chapter 9.02)
- Cool and Pilot Hill have a larger than normal number of large animals, including horses and cattle. If a sudden need to evacuate occurred, this could present a serious problem.

The major evacuation routes (Highway 49 and 193) are very important due to the location of the community and the difficulty of evacuation in the event of a wildfire in or near the Sphere of Recognition. The evacuation routes can be easily cut off due to the location of the only access to and from the area. It is important that these routes be cleared in order to protect them from wildfire.

- Provide the residents with an external evacuation route that would improve the current situation. During each community forum of the Fire Safe Council, individual residents noted neighbors had serious need for clearly their property to protect against fire. Some streets were reported to be blocked off in case of emergency.
- Treat fuels along collector roads in such a manner so they can be used as evacuation routes.
- Work with the El Dorado County Fire District and CAL FIRE to build a stronger Defensible Space Program resulting in fire safe clearance on individual lots and working with the County Board of Supervisors to enforce hazardous vegetation nuisance code.

Treatment Area Vegetation and Treatment Suggestions

Vegetation ranges in type from the Foothill Belt to Yellow Pine Belt.

Species in the Foothill belt include chaparral: chamise, ceanothus, yerba santa and toyon, as well as live oak, blue oak and grey pine. Freemont cottonwood can be present in more moist sites. Native and nonnative grasses and forbs are also present where shrub and tree canopy are not closed. This contributes to the formulation of an oak woodland ecotone where the oaks are scattered and grasses inhabit the open areas between trees.

Species in the Yellow Pine Belt include white fir, Douglas fir, Ponderosa pine, incense cedar, sugar pine, black oak, broad leaf maple, dogwood and golden-cup oak. Brush species include ceanothus and white leaf manzanita both of which carry fire well when moisture stressed. Leaf litter and long needle cast is present on the forest floor. This contributes to 1 hour fuel loading. Black cottonwood and alder may be present in riparian areas.

Soils range from shallow and rocky to deep loam. Soil on the west slope of the Sierra is older and well developed. Consequently, it supports very good conifer growth and rapid invasion of brush post disturbance. This factor contributes to maximum vegetation density on a site. Precipitation ranges from 15 to >70 inches per year which contributes to rapid and dense plant growth.

The vegetation ranges and grades from one plant community into the next and is predominately non-homogenous. Elevation ranges from 1000 feet to 4000 feet and topography can be 0% to greater than 100% slope. All aspects are present with many drainages trending west to east in line with the prevailing westerly air flow. This alignment of topography, wind and fuels can lead to extreme fire behavior.

Treatment Suggestions

Treatment is best accomplished mechanically via mastication or thinning from below with a harvester. Hand treatment is viable and necessary on the steep slopes. A combination of the two techniques may be necessary in some areas. Fire is an option, but in most cases pretreatment will be necessary. Mechanical treatment will be the most quick and yield results that will not require pile burning. The carbon benefit of not burning and allowing more rapid growth in the remaining vegetation is maximized in this case.

Treatment Area Wildland Urban Interface (WUI)

Note: tons per acre of fuel - dead and live load ranges from 5->20 tons per acre depending upon whether the area has been treated before or is having a first treatment. The generic fuel structure modification suggestions have been taken from 14 CCR 1299 and PRC 4291. Please see the drawing taken from the California Forest Practice Rules on page 4 of this document.

Change vertical and horizontal continuity through fuel structure modification. Changingfuel structure is accomplished through horizontal and vertical spacing. Horizontal separation should be 10-30 feet depending upon slope and vegetation size and type. Vertical separation should be 4-40 feet depending on slope and vegetation size/type.

Note: Prescribed fire with either pile and let creep or broadcast is recommended for allproject areas when smoke and escape issues can be mitigated.

Cool Pilot Hill - CP #1 and #2 Roadside vegetation treatment:

CP # 1 and #2 – Oak and grass woodland with chaparral/chamise in the understory. Some (Ponderosa, Grey pine and Douglas fir) are present depending upon slope aspect and elevation – Remove brush via mastication, hand cut and chipping or hand pile and burn. Grass may be mowed. Mastication can be used where slope steepness allows – trees should be spaced to obtain a minimum of 15 feet between crowns. Due to the density of the vegetation, only trees greater than 12 inches in DBH should be left where feasible.

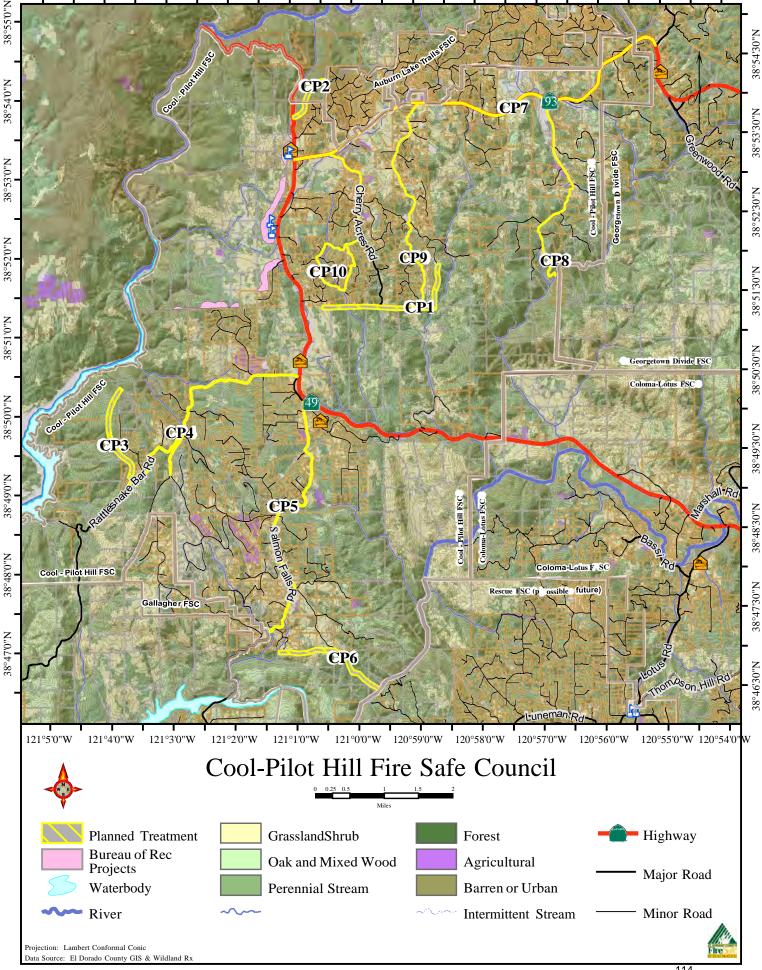
Cool Pilot Hill has a vegetation matrix that is fire adapted. Grazing should be reinstituted were feasible. Mowing grass or prescribed fire can provide mitigation for the ladder fuels. Mastication of the heavier fuels is recommended.



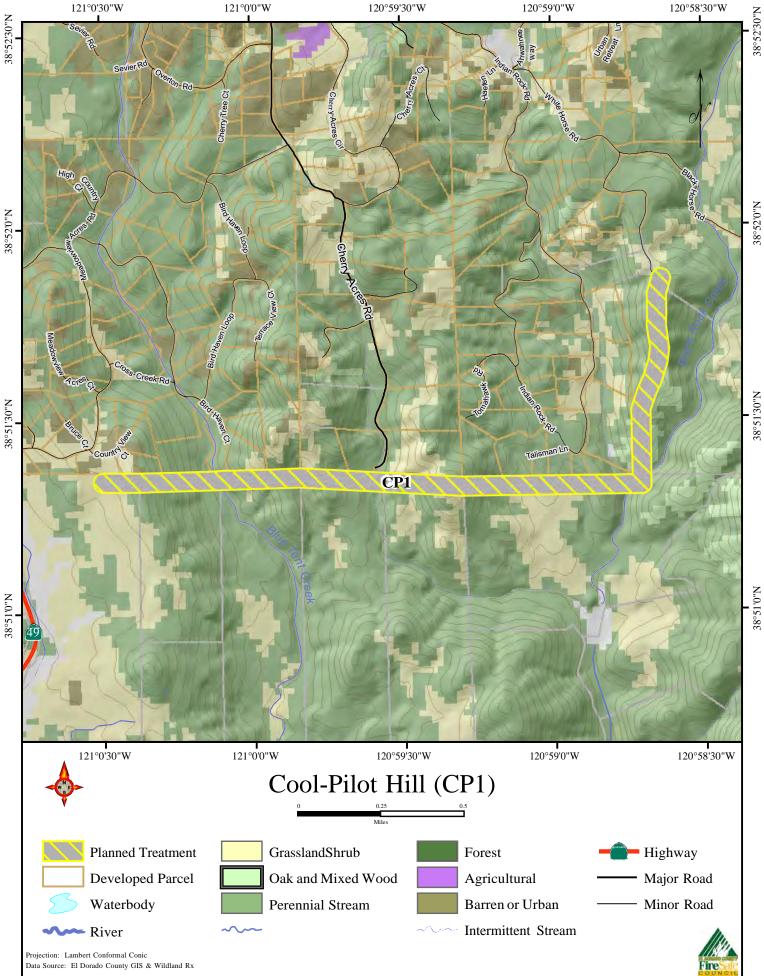
Cool-Pilot Hill (CPHFSC) CWPP 2021-22 Projects

COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Cool-Pilot Hill	0	CP-0*	Community – Communications/WUI Drill/Wildfire Simulation/Air Siren/Evacuation Drills/Evacuation Routes/State of CA – ASRA plan.	Pro-active Education Community-Outreach	N/A	N/A	N/A
Cool-Pilot Hill	1	CP-1*	Cool-Pilot Hill Fuel Break	Fuel Reduction	83	N/A	N/A
Cool-Pilot Hill	2	CP-2*	Cool-Pilot Hill Fuel Break	Fuel Reduction	28	N/A	N/A
Cool-Pilot Hill	3	CP-3*	Cool-Pilot Hill Fuel Break	Fuel Reduction	54	N/A	N/A
Cool-Pilot Hill	4	CP-4*	Rattlesnake Bar/Russell Hollow Roadside Fuel Reduction	Road Hazard	55	N/A	N/A
Cool-Pilot Hill	5	CP-5*	Salmon Falls Roadside Fuel Reduction	Road Hazard	52	N/A	N/A
Cool-Pilot Hill	6	CP 6*	Cool American- River Fuel Break	Fuel Reduction	64	N/A	N/A
Cool-Pilot Hill	7	CP 7*	Hwy 193 Roadside Hazard Reduction	Roadside Hazard	75	N/A	N/A
Cool-Pilot Hill	8	CP 8*	Penobscot/Magic Ring Roadside Hazard Reduction	Roadside Hazard	16	N/A	N/A
Cool-Pilot Hill	9	CP 9*	Ahwahnee Way Roadside Hazard Reduction	Roadside Hazard	17	N/A	N/A
Cool-Pilot Hill	10	CP 10*	Cherry Acres Roadside Hazard Reduction	Roadside Hazard	19	N/A	N/A

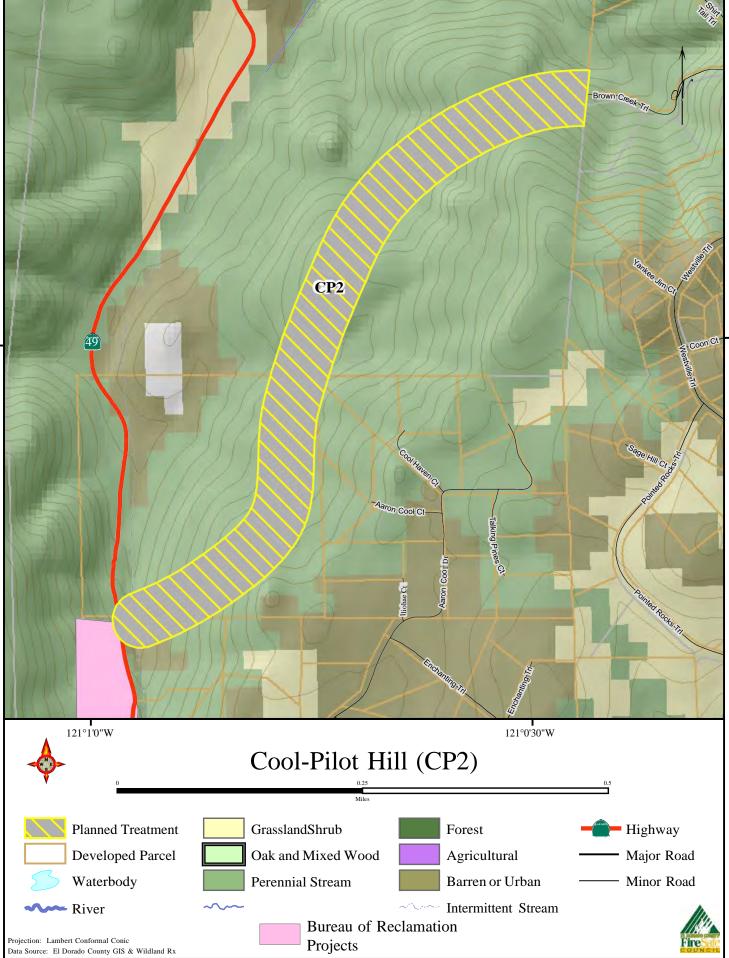
*2017 - CWPP recommended projects were never planned/implemented by the County; EDC County has failed the community in every aspect of Wildfire Fighting/Education/Suppression/Protection/Fuel(s)Mitigation/Planning/Communications/Community Outreach.



121°5′0″W 121°4′0″W 121°3′0″W 121°2′0″W 121°1′0″W 121°0′0″W 120°59′0″W 120°58′0″W 120°57′0″W 120°56′0″W 120°55′0″W 120°54′0″W

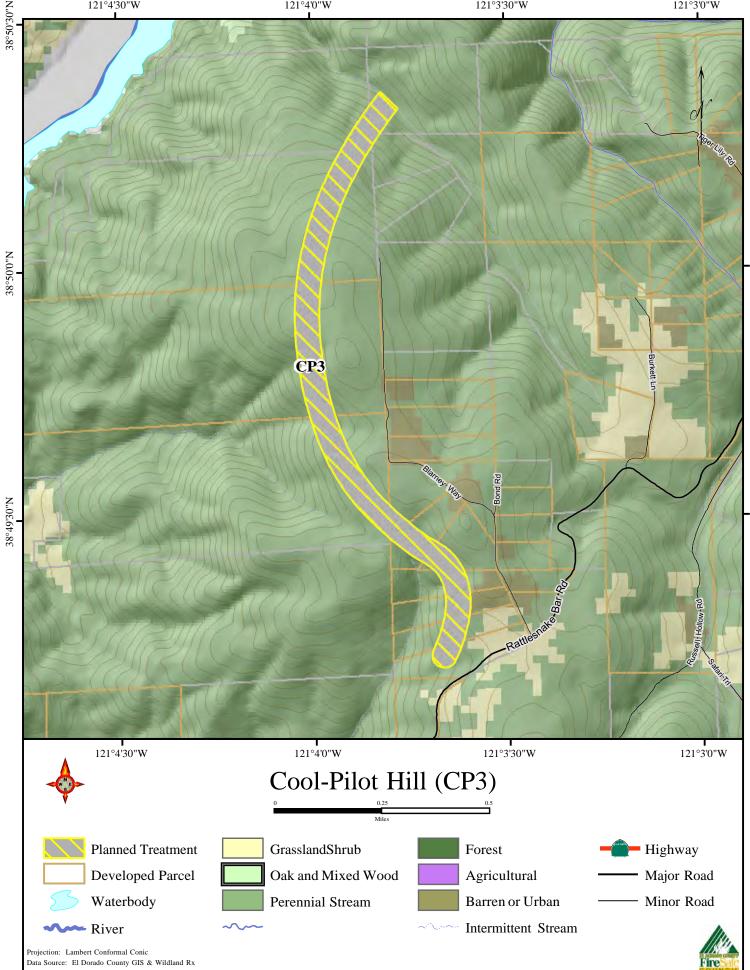


38°51'0"N



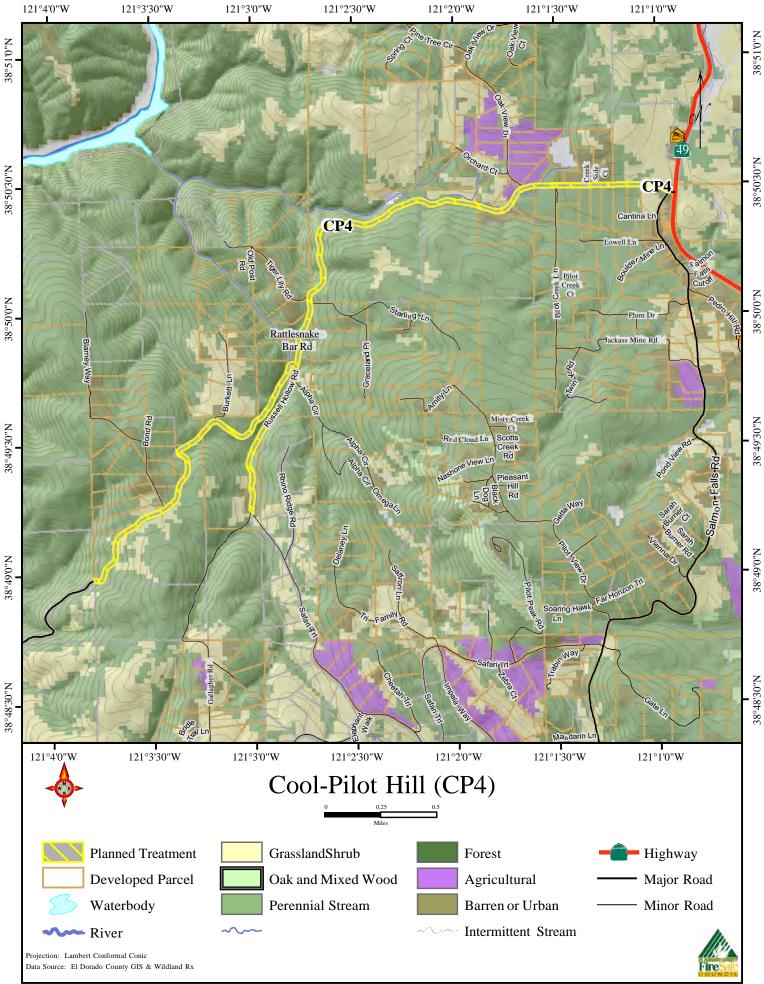
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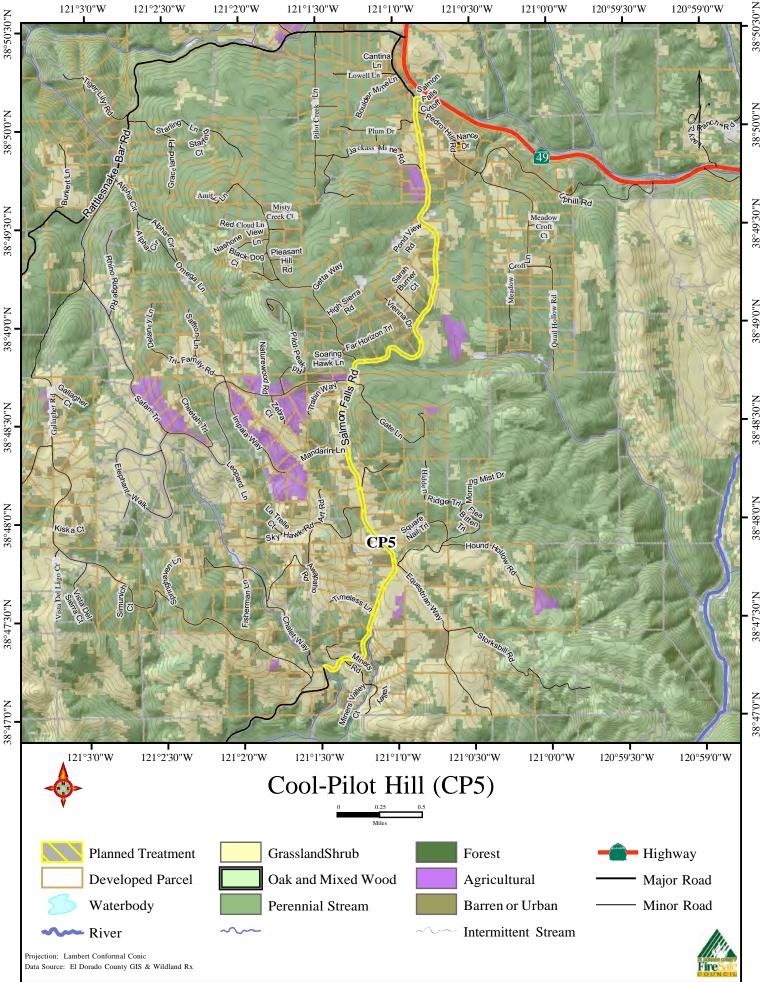
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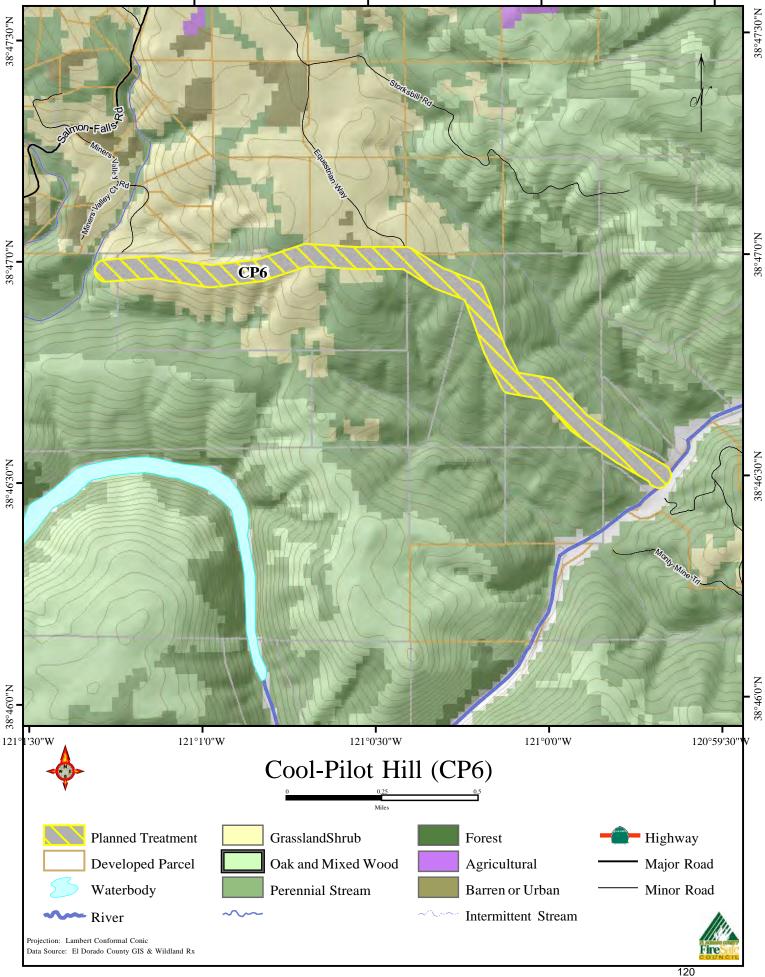


121°3'30"W

121°3'0"W



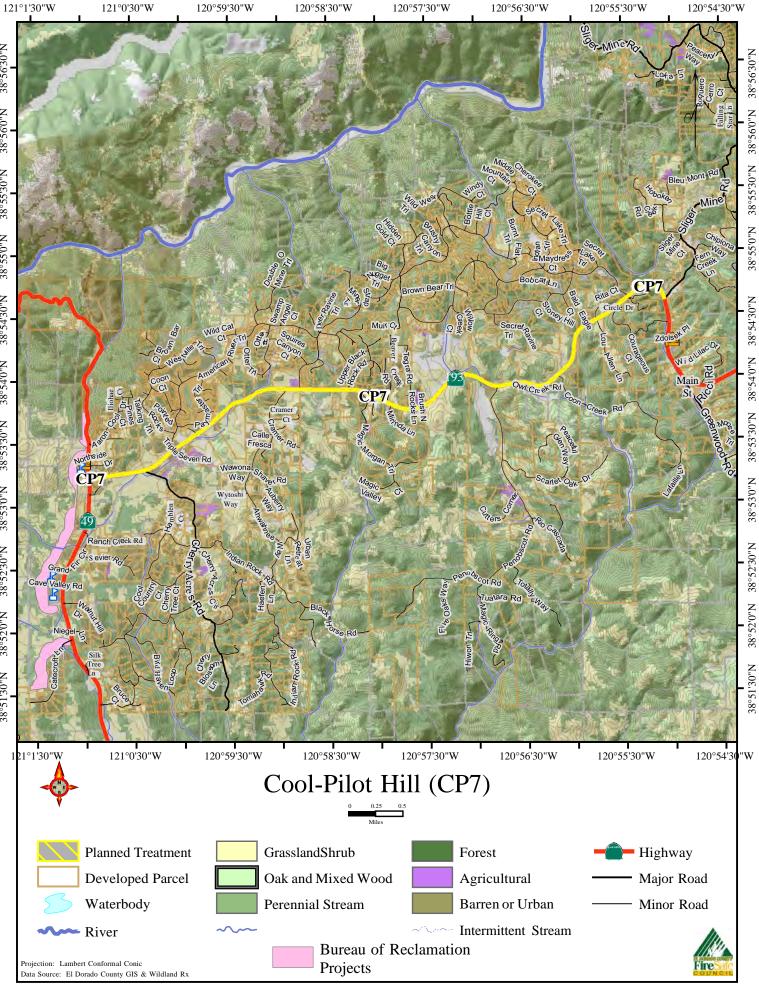


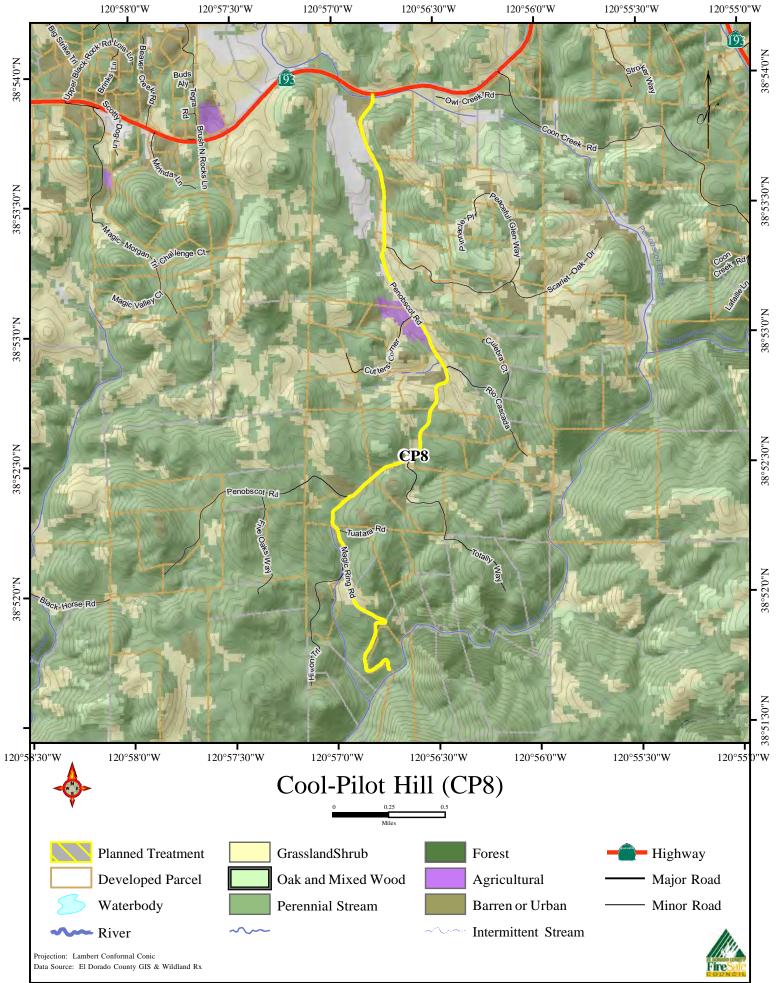


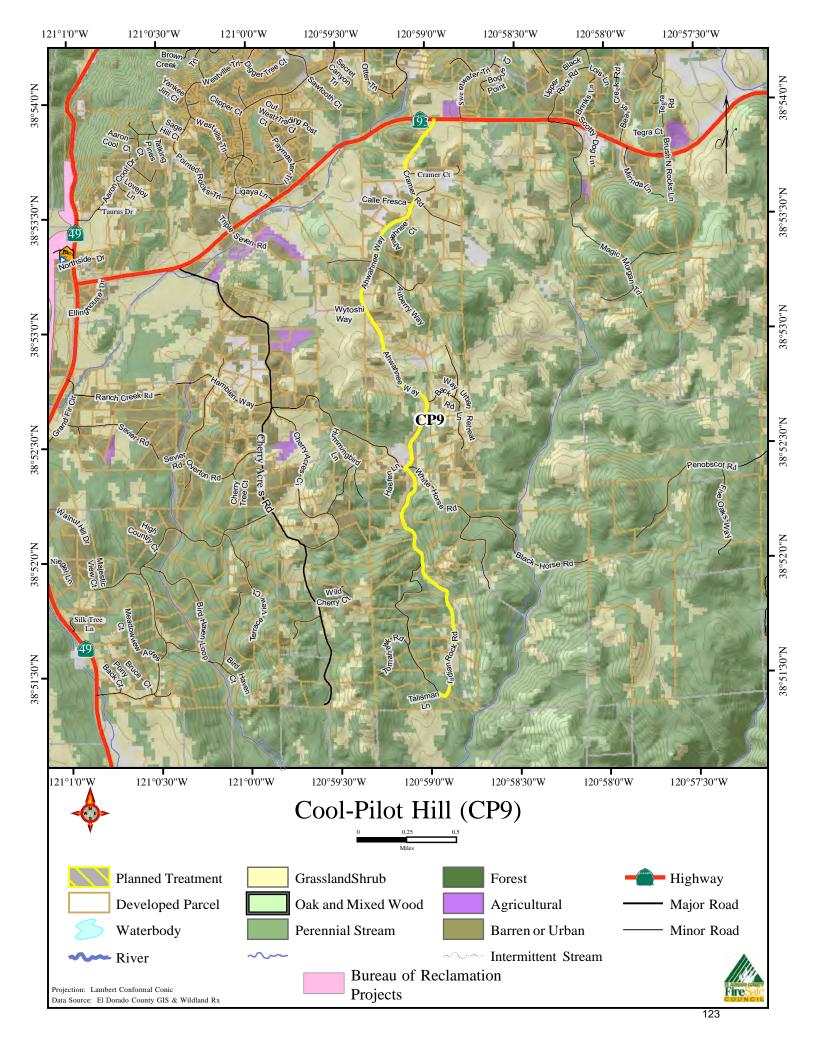
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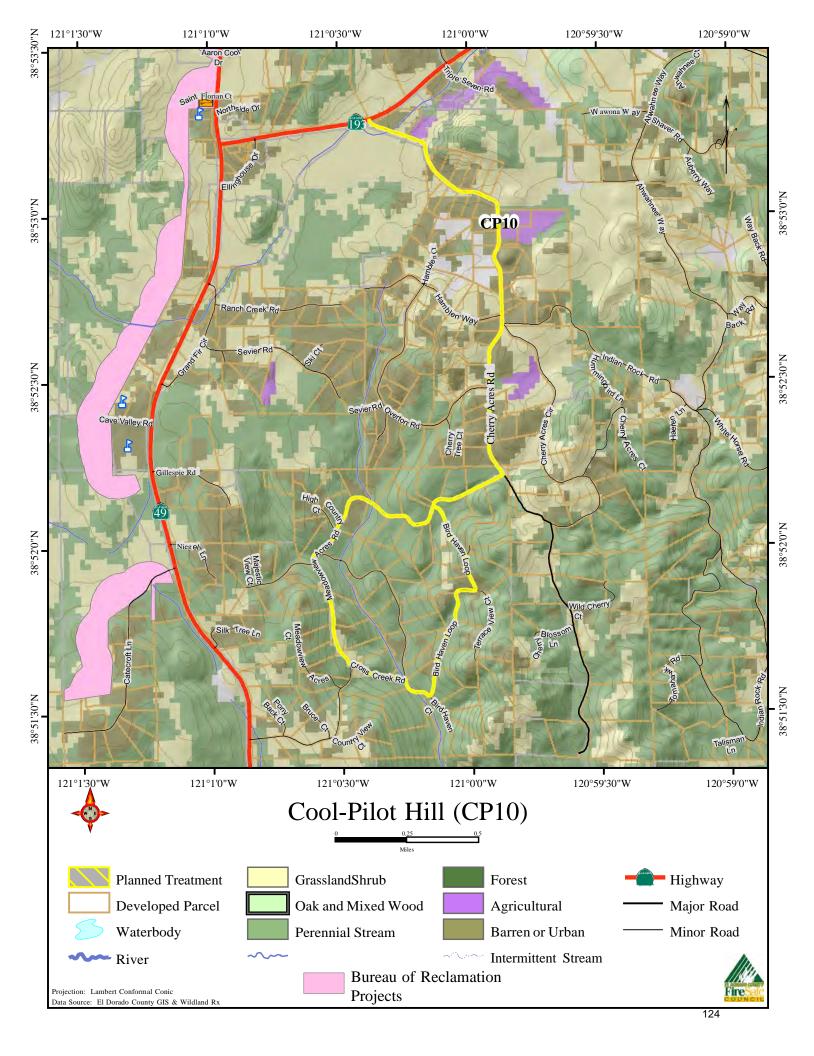
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Gallagher Homeowners Fire Safe Council Update to the El Dorado County C.W.P.P.

September 2021



Fire Safe Council Background

Introduction

The information in this document was taken from the Gallagher Homeowners Fire Safe Council(GHFSC) Firewise assessment created in 2020 and is on file with the FSC

The Gallagher Homeowners Fire Safe Council is in the northwestern area of El Dorado County, within the rolling terrain below the mixed conifer transition. It is about halfway between El Dorado Hills and Pilot Hill on Salmon Falls Road, in the foothills of El Dorado County. The community was established in 1973, and consists of 10-acre sized lots along the three-mile-long Gallagher Road. There are 70 lots with about 53 homes and 120 residents. Some residents have mobility issues and may require assistance in an emergency. About 40% of our residents are over age 65, and some residents own and raise domestic animals and livestock. The age of the community and the domesticated animals may need extra consideration and planning in case of an emergency. There are about 17 vacant lots in the sub-division, most with non-resident owners. The homes rely on wells as a watersource.

Gallagher road is a private road maintained by the community via the Gallagher Road Landowners Association(GRLA). The Gallagher Road Land Association (GRLA) is considered equivalent with the Gallagher Homeowners Fire Safe Council (GHFSC) for the boundaries of this document and associated planning. The community is open to public access via Salmon Falls Road, but it is gated at the north end to ensure it is not used as through access with heavy traffic to the State Park. The road beyond the gate is known as Russell Hollow Road that is periodically maintained by the county, as is their obligation of ownership. Russell Hollow Rd is used for emergency purposes only and is not open to through traffic. Local fire and emergency personnel are aware of the gate codes that close the road and reported no access problems. Russell Hollow Road is also a potential escape route if the Salmon Falls Road is not open. All homeowners are aware of the gate code.

The GHFSC is located within extensive, contiguous vegetated areas with limited access and many values interspersed. The community is bordered by large ranches and vacant parcels, with Folsom State Parkto the west. Most of the bordering areas consist of grass lands, oak woodlands, and stringers of timber and brush. Historic grazing is relatively nonexistent, and brush and shrubs are encroaching into grasslands and creating more complex fuels on the landscape.

The GHFSC is within the El Dorado County Fire Protection District (EDCFPD), the provider of structure fire protection. El Dorado County FPD Station 72 in Cool is staffed with 2 fire fighters. Fire Station 72 is about 10 miles north and about 30 minutes away. Fire Station 73, located in Pilot Hill and about 5 miles or 20 minutes away, is no longer staffed. In 2019, the Fire Lookout Station on top of Pilot Hill was staffed for the first time in several years. Apart from the county fire response, there is a Cal Fire Station in Pilot Hill, which is about 20 to 30 minutes away. This is considered to be the closest all-risk fire protection to the community.

Fire Hazards and Risks

The vegetation and weather of the area lends a high potential for fires to have a rapid rate of spread and flame lengths that make control by ground resources difficult. Fires in the rolling, open terrain are highly responsive to winds, and fine fuels create a receptive bed for ignitions. Fire hazards and risks are listed, followed by potential mitigation measures:

Fire History

Events in the GHFSC have offered landowners multiple opportunities to recognize the risk of wildfire in the area. Within the GHFSC area there have been two house fires that resulted in the loss of homes, and other fire events. In 2018 there was a fire visible a half mile north of our community that burned 17 acres and one house. In 2009 there was a three-acre grass fire caused by an electrical short at a well head in someone's field. From these fires, the community learned that it takes 20 to 30 minutes or more for fire equipment to get to our area, and this initial resource may not act until a second crew arrives, thus it can take up to 40 minutes before suppression resources are engaged. This amount of time puts the impetus of prevention and supplemental response on home and landowners, and protective measures could be evaluated that would provide fire response until fire suppression resources arrive or engage.

Fuel and Fire Behavior in the area:

Fuel Type	Rates of Spread (Feet/Hour)	Flame length (Feet)
Grass Oak Savana	5148	4
Grass Understory	2310	6
Light Brush (2')	1188	4
Intermediate Brush	2112	6

**Rates of spread and flame length are impacted by wind and slope

GHFSC - Themes and Priorities for Prevention and Preparedness

Priorities from the Gallagher Road and Land Association (GRLA) offered significant input to address community concerns and lessons about fire risk for the current update. The GHFSC update includes that input, as fundamental to designating priority risks and mitigations. Generally, the community and GHFSC members need to assess the risks of the community, engage in programs to organize around shared risk, and seek funding to plan and implement the appropriate mitigations. Partnerships and cooperation will be critical to addressing desired improvements of road infrastructure, pre-planning emergency response information, strategic fuels reduction, and the necessary improvements of individual home and landowners to mitigate vulnerable structures and meet their obligations in a wildfire environment.

The GHFSC members and residents should implement and continue community risk assessments to better catalog and plan for mitigating strategies, both for internal GHFSC purposes, and working with

organizations to prepare for options outside of the GHFSC area of influence. The priority themes of wildfire risk and mitigations can be narrowed down to four categories:

- Hazardous Vegetation and Fire Breaks
- Roads and Evacuation
- Home Hardening and Defensible Space
- Communication and Emergency Response

Hazardous Vegetation and Fire Breaks

The GHFSC is surrounded by open spaces of vegetation, or sparsely populated areas, on all sides. When upslope, upcanyon winds align with the terrain an ignition from the south or west could bring significant fire behavior directly into the GHFSC. A possible ignition could come from a fire starting along Rattlesnake Bar Road, or at the Peninsula Campground in Folsom State Park, or in one of our neighbor communities. Because the fuels of the area are annual, susceptible to environmental influence, and continuous from ignition sources to the community fire breaks and annual treatments could mitigate some of the risk. Some dense vegetation areas may be the responsibility of one or multiple landowners and will require planning and implementation funds to address. In many areas within and around the community, landowners and homeowners will also need to address the canopy and brush fuels to interrupt the continuity and height of fuels, and perhaps address the encroachment of these dense fuels into the grasslands. Creating fire breaks in the fine fuels around the community at a landscape scale may be ideal for the vulnerable south and west facing slopes; annual treatments should be applied, in contrast to the limited entries necessary to maintain shaded fuel breaks.

Roads and Evacuation

The roads and access to the GHFSC need improvement within and without the community. Gallagher road is a three-mile-long road, with a gate at the north end leading to Russell Hollow Road. Conditions along Gallagher Road, the primary route out of the community, and Russell Hollow Road, a potential secondary route out, are hazardous for evacuation and would be more hazardous for suppression resources. Abundant vegetation along the roads would put off significant heat and offer limited utility to suppression resources trying to contain a fire on either side. Russell Hollow Road is maintained by El Dorado County, and mitigation will require planning and coordination; Gallagher road is within the bounds of the GRLA and GHFSC and could be improved with internal cooperation.

Additionally, the community should create evacuation plans that are commensurate with the population and obligations of the community. Where a percentage of residents have limited mobility, early and assisted evacuation plans should be paramount. Individuals needing physical help or additional information and communication should be the priority for folks planning evacuation, lives have been lost to wildfire when residents did not have the ability or the capability to quickly exit their homes and community. Further, livestock and logistically demanding pets should be incorporated into evacuation planning; trailers, staging areas, and off-site destinations should be addressed in detail in evacuation plans and working with the county and other aligned organizations.

Home Hardening and Defensible Space

Because residents of the GHFSC are in a wildfire prone environment, protection around structures and the construction of the structures themselves is a significant factor for limiting loss of property. Older structures within the area may need retrofitting with current fire protection building materials and design to reduce the probability that it would be impacted by embers or direct flame impingement. In some cases, residents will need to modify attic vents, windows, gutters, soffits, decking, siding, and many other areas where homes and structures are vulnerable. The susceptibility of structures is one component where individual landowners have an obligation to maintain their values, the surrounding space is also very influential and another area where residents are obligated to maintain "fire-safe" landscaping.

Some Property Owners may not meet the current Defensible Space requirements of State Responsibility Area, or the El Dorado County Vegetation Ordinance. The flammability of vegetation in proximity to structures can be a severe hazard for the ignition of structures. A clearance of 100 feet is required by both local and state codes, and under the EDC Vegetation Ordinance, that distance can extend onto neighboring property. As a result, there are many, existing resources for informing and empowering residents to come into compliance and increase the safety of theirs and neighboring properties. Vacant lots need to have fire clearances. Clearance is especially important where vacant lots are immediately adjacent to homes. All structures need to have fire clearance, this is particularly true for electrical sources in the fields (ie. wells, well houses, solar structures, livestock shelters).

Home hardening and defensible space may take irrigation into consideration. Because, where power is often shut off during a wildfire emergency, or can get shut off in expected wildfire conditions, residents (PGE Public Safety Power Shut-off) who rely on the electrical grid to irrigate their landscaping will need to plan for the loss of power. Generators and other emergency equipment and supplies are essential if a home's irrigation systems are not operational due to a power outage.

Communication, and Emergency Response

Some residents, when faced with an evacuation order, were uncertain what the routes are and what route they would take to comply the evacuation, and effectively escape the path of the wildfire. In 2018, a nearby fire forced the evacuation of the community, but residents did not feel they had sufficient information about what was happening, where the fire was spreading, and the evacuation order was not totally understood and much confusion resulted. There is currently no single source for residents in the GHFSC to get actionable information when an emergency occurs. A credible, local source of information should be made available to residents to share information before, during, and after an incident. This information source could range from basic planned community actions to more sophisticated maps, automatic calling, and data resources for suppression agencies. Availability of the communication mediums should also be evaluated relative to a power-outage, and if residents would be able to access the information without standard electrical power.

Pre-planning with local the EDCFPD and Cal Fire is also a significant area of concern. Where resources are not aware of the community's water availability, their suppression strategies and tactics may not take full advantage of the community's 35,000-gallon water source. Additionally, the community has two pond-fed

hydrants, and there are about 20 swimming pools and several ~2,500-gallon water tanks. It is essential that suppression resources, whether local and familiar, or incidental coverage by unknown fire fighters, be informed well in advance of these water sources and other assets so that they may take advantage with or without the presence of residents or the GHFSC.

In recognition of the large areas of fine fuels surrounding the community, and due to response time estimates of wildfire suppression resources, the GHFSC could reduce loss of life and property by creating static fire protection in some essential areas beyond fire breaks and fuel reduction. Long term fire retardant or strategically placed sprinklers may provide additional protection before suppression resources arrive.

Mitigation Strategies and Tasks

Based on the concerns from and assessment of the GHFSC, the above concerns are delineated into risks and associated mitigations. This list should be reviewed as tasks are completed or moved into a different phase, and additional refinement of the tasks should be done whenever a review or update occurs where this plan would be incorporated into larger planning efforts.

- 1. The area is defined by fine fuels and subject to significant rates of fire spread and fire potential. Annual fire breaks around community perimeter and structures are essential.
 - i. Task 1A. Annual fire line/disk/spray to address external threats.
 - ii. Task 1B. Defensible Space Requirement for structures (PRC 4291, EDC VegOrdinance)
- 2. Road clearing and maintenance to meet county standards for ingress / egress.
 - i. Task 2A. Roadside clearing
 - ii. Task 2B. Bring roads up to county standards.
- 3. All developed and vacant properties need be maintained in a fire safe condition
 - i. Task 3A. All lots maintained to meet EDC Vegetation ordinance standards, orGRLA required fire safe requirements
- 4. Developed properties may need to upgrade structures to meet current fire safe standards to reduce structure ignitions. Homeowners should be familiar with Cal Fire outreach on home hardening and current building codes for El Dorado county and consider potential upgradestotheir structures.
 - i. Task 4A Structural retrofitting to meet current materials and design standards.
- 5. Create an opportunity to brief local fire resources on location of community water sources.
 - i. Task 5A: Brief local fire protection districts and Cal Fire on locations of water sources and create signage and identification for all emergency water sources.
- 6. Work with local fire protection resources to address access through gates, preplanningmeasures, and other resources for fire suppression and protection.
 - i. Task 6A: Meet with emergency responders about concerns with our area and information they may need, like gate codes, water resources and contacts.
- 7. Engage local fire protection districts for risk assessments and advice on fire protection, actions residents should and should not take, and other measures that would enhance fire safety in and around homes.
 - i. Task 7A: Fire fighters to meet with homeowners about fire safety.
- 8. Conduct annual or semi-annual events to engage the GHFSC community on all priorities and actions contained in this plan.
- 9. Reduction and thinning of understory vegetation of areas surrounding the community, beyond 200 feet from homes.
 - i. Task 9A. Create shaded fuel break conditions around community within

timberareas

- ii. Task 9B. Remove understory vegetation extending from homes tocommunity edge
- 10. Establish communications process or method to distribute information before, during, and afteran emergency
 - i. Task 10A Establish communications for prevention information.
 - ii. Task 10B. Establish communications in case of an emergency.
 - iii. Task 10C. Meet with and participate with the EDC Fire Safe Council, and otherpartners, to stay engaged with fire response and outreach developments
- 11. Work with EDC Dept. of Transportation to ensure Russell Hollow Road meets standards foremergency equipment access.
 - i. Task 11A. Determine process for privately or collaboratively implementingvegetation clearance to meet fire clearance standards.
- 12. We need to help maintain Russell Hollow Road as a viable alternate escape route in case of anemergency.
 - i. Task 12A. Create vegetation clearance to reduce flammable fuels along road
- 13. Determine and pursue grant funds.
 - i. Task 13A. Secure grants or other funding where possible for tasks.
- 14. Residents need to recognize what the potential evacuation routes are and what they would take if they were to evacuate.
 - i. Task 14A Evacuation Plans
- 15. Defensible Space around structures and homes, including for adjoining parcels and the requiredclearance of neighboring structures
 - i. Task 15A. Property Owners need to clear vegetation annually to maintaincompliance with county and state laws and ordinances.
- 16. Securing necessary equipment and supplies to be prepared for an emergency when electricity isnot on
 - i. Task 17A. Acquire generators, spare batteries, and communication methods foroff-grid fire response and/or evacuation.
- 17. GHFSC should develop evacuation plans with the community and encourage individuals tocreate their own plans and supplies for evacuation.
 - i. Task 18A. Property Owners and GHFSC need to create an Evacuation Plan.
- 18. Develop a communication medium or method for communicating with other communitymembers.
 - i. Task 19A. Property Owners may want to establish a community communicationplatform.

Priority of Tasks

The County Wildfire Project Plan (CWPP) describes a basis for project priority. Using the CWPP priorities and the Tasks related to each Mitigation Strategy, the GHFSC identifies the following priorities:

1) Evacuation Routes Out of the Community

- 1. Tasks 1A, 8A, 9A Fire Lines (breaks) around community to address external threats
- 2. Task 2A Roadside clearing
- 3. Task 2B Bring roads up to county standards for emergency equipment
- 4. Task 11A Maintain Russell Hollow to meet emergency equipment standards
- 5. Task 12A Maintain Russell Hollow Road as a viable escape route.
- 6. Tasks 14A, 18A Property Owners need to create Evacuation Plans
- 2) Private Residences
 - 1. Task 1B Clearances around homes
 - 2. Task 15A Property Owners need to have Defensive Space compliance.
 - 3. Task 9B Remove understory vegetation and establish clearances to trees
 - 4. Task 4A Retrofitting older structures to reduce ember ignitions
 - 5. Task 17A Property Owners may want equipment needed in case of a fire or emergency (waterpumps, generators, etc)
 - 6. Task 7A Fire fighters to meet with homeowners with fire equipment related to safety (waterpumps, generators, etc)
- 3) Major Roads and Highways
 - 1. Task 2A Roadside clearing
 - 2. Task 2B Bring roads up to county standards for emergency equipment
- 4) Power Production and Transmission Infrastructure
 - 1. Task 17A Property Owners may want equipment needed in case of a fire or emergency
 - 2. Task 7A Fire fighters to meet with homeowners with fire equipment related to safety
- 5) Communication Infrastructure
 - 1. Task 5A Meet fire fighters coming to an emergency to ensure they know water resources and haveinformation needed
 - 2. Task 6A Meet with emergency responders about concerns with our area and information they mayneed, like gate codes, water resources and contacts
 - 3. Task 10A Establish communications for prevention information
 - 4. Task 10C Meet with and participate with the County Council and other partners to stay current onissues
 - 5. Task 10B Establish communications in case of an emergency
 - 6. Task 19A Property Owners may need to establish access to a community communication platform.
- 6) Vacant (undeveloped) Parcels
 - 1. Task 3A All lots maintained to fire safe standard
 - 2. Task 9B Remove understory vegetation and establish clearances to trees
- 7) A task in general:
 - 1. Task 13A Secure grants or other funding where possible for tasks.

Appendix A - Online Resources

El Dorado County Fire Safe Regulations

https://www.edcgov.us/Government/building/documents/Fire_safe_regs.pdf

El Dorado County Building Services Regulations

https://www.edcgov.us/Government/building/Pages/fire_safe_regulations_title_14_article_2.aspx http://www.edcfiresafe.org/wp-content/uploads/2017/05/WF_California_IBHS.pdf

El Dorado County Emergency Apparatus Access Ways

http://pioneerfire.org/wp-content/uploads/2018/06/Emergency_Access_Ways_B003_050509.pdf

Current 2016 CA Title 14 Defensible Space Regulations

http://www.eldoradocountyfire.com/wp-content/uploads/2017/10/CA-Title-14-Fire-Safe-Regulations.pdf

El Dorado County Fire District Ordinance No. 2016-02

http://www.eldoradocountyfire.com/wp-content/uploads/2017/10/Ordinance-2016-02.pdf

Board of Forestry Defensible Space Guidelines

www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_.pdf

CAL FIRE Home Page <u>www.fire.ca.gov</u>

Cal Fire - Why 100 feet? <u>www.fire.ca.gov/education_100foot.php</u> <u>https://www.fire.ca.gov/programs/communications/defensible-space-prc-4291/</u>

Homeowners Responsibility www.fire.ca.gov.education_homeowner.php

California Fire Safe Council Home Page: Contains educational material and information on the Grants Clearing house an excellent resource <u>http://firesafecouncil.org/</u>

El Dorado County Fire Safe Council: an excellent resource for information <u>www.edcfiresafe.org</u> Firewise Resource a national level organization for information and materials <u>www.firewise.org</u> CalFire wildfire preparedness website (lots of great information on this site):<u>https://www.readyforwildfire.org/</u>

Specific link that provides information related to being trapped in a car or at home: https://www.readyforwildfire.org/prepare-for-wildfire/go-evacuation-guide/what-to-do-if-trapped/

Specific link to the webpage that tells you how to download the CalFire app that will also send you automated wildfire alerts via text: https://www.readyforwildfire.org/more/ready-for-wildfire-app/

Link to El Dorado County Code Red Alert Notification website to sign up for text/phone alerts for various types of emergencies (not just fire): <u>https://ready.edso.org/</u>

The CalFire "readyforwildfire.org" has existing outreach materials that can be printed or digitally

Project ID: Russell Hollow Rd - GRLA Emergency Road Improvement

Background: Russell Hollow Road is a one lane periodically maintained county road which is not usable for through traffic. It is available to Gallagher Road Landowners Association (GRLA) for emergency access and egress only. It is not regularly maintained by the county. It is periodically maintained by members of GRLA. There are two locked gates that keep it from being used as a regular road, both are located at the southern end of the road. Fire and ambulance equipment use the road to get quick access to the GRLA community. Gallagher Road, a private road, has only one access - egress point at its intersection with Salmon Falls Rd. In case of an emergency Russell Hollow Road can be used for GRLA residents to escape a fire or other disaster. There are 2 sections of Russell Hollow Road that are a primary concern, each about 0.6 mile long.

Also, the potential for a wildfire is a major concern for the GRLA community. Two high public use areas that could be main sources for a wildfire to start would be the day use area at the bridge on Salmon Falls Road at Skunk Hollow / Skunk Canyon and the Peninsula Campground at Folsom Lake. Both are south west of GRLA and have high use by campers and day use individuals. These fire source points are concerning as winds are predominately from the south west and would drive a wildfire to the GRLA community.

Concerns, by priority:

1) The first 0.6 mile section of Russell Hollow Road, from Gallagher Road going north to the intersection of Safari Trail, may be needed to be used at the same time by both emergency equipment to access the GRLA community and residents to egress the area in an emergency. It is not wide enough to accommodate the needed two way traffic.

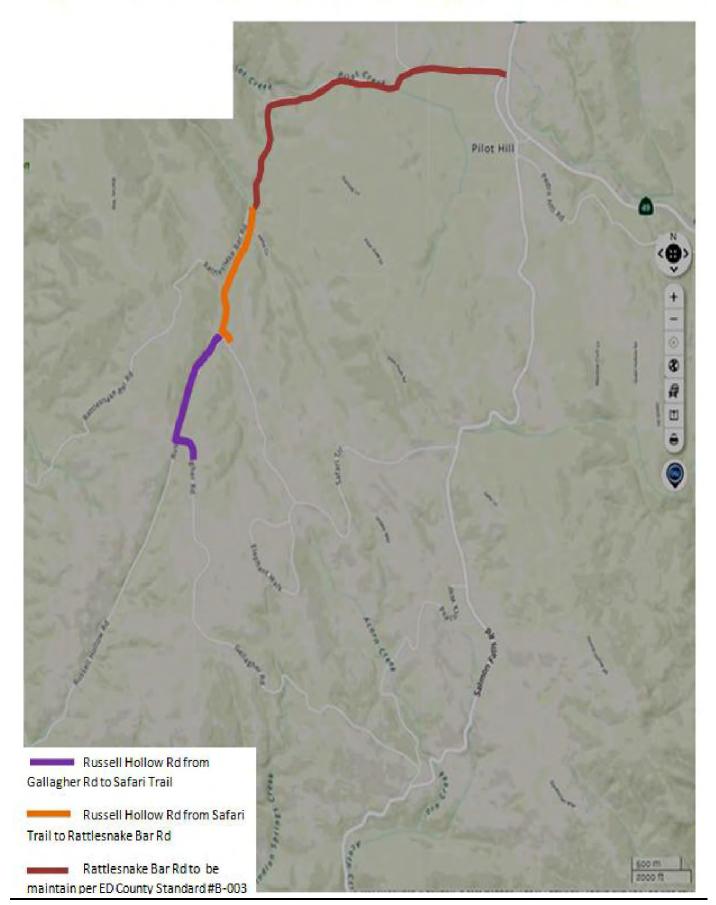
2) The second 0.6 mile section of Russell Hollow Road is going north from its intersection with Safari Trail to its intersection with Rattlesnake Bar Road. This section is also part of an emergency egress route for Safari Estates. Russell Hollow Road in this section may not be able to accommodate emergency equipment trying to access both GRLA and Safari Estates communities while residents are trying to escape on the same road.

3) The third section, Rattlesnake Bar Road going north east from its intersection with Russell Hollow Road to its intersection with Highway 49 is very narrow in a number of places. Rattlesnake Bar Road in this section may not be able to accommodate both emergency equipment trying to access the communities while residents and visitors to the Peninsula Campground are trying to escape on the same road.

Recommendation:

1) All three sections of Russell Hollow Road and Rattlesnake Bar Road should be upgraded and maintained to El Dorado County Standard #B-003 (attached) for access and egress of emergency equipment. The roads need turn outs, turn arounds, and widened to accommodate both emergency equipment entering the area and residents evacuating their community at the same time.

Project ID: Russell Hollow Rd - GRLA Emergency Road Improvement



GRLA Letter to ED County regarding Russell Hollow Road

11/11/2020

Director Rafael Martinez El Dorado County DOT 2850 Fairlane Court, Building C Placerville, Ca 95667

Dear Director Martinez,

Since 2004 I have had discussions with several DOT officials regarding the condition of Russell Hollow Road (#41). The majority of my focus has been on the 6/10 of a mile section that ends at Gallagher Road, a private road maintained by our association (Gallagher Road Landowners Association). We have a gate there and Russell Hollow Road serves as an emergency egress/ingress for our residents (49 homes & 120 residents) and responding emergency vehicles and personnel

Gallagher Road is a 3.2 mile road that starts at Salmon Falls Road and ends at Russell Hollow Road Our 720 acre development is in a high risk wildfire area. If a wildfire occurs, Salmon Falls Road and Russell Hollow Road are the only two ways out for our residents and in for emergency vehicles and personnel

In 2004, the referenced 6/10 mile section of Russell Hollow Road was impassable After several discussions with DOT officials, the road was cleared and repaired. Since the 6/10 of a mile section that ends at Gallagher Road is gravel/dirt, it always needs some attention after the rainy season. We do some of the work ourselves, and thankfully, your DOT has kept it passable.

We very much appreciate the DOT efforts but we have one lingering and rather critical concern. The 6/10 of a mile section of Russell Hollow Road I have referenced and, in fact, much of the rest of Russell Hollow Road, is one lane. In case of evacuation with emergency vehicles coming in, residents leaving and possible breakdowns/accidents, the road could easily become blocked.

It would be most appreciated if the DOT could investigate what could be done to help mitigate this issue and enhance the safety of our residents, residents of Safari Estates, residents who live off of Russell Hollow Road and responding emergency personnel.

Sincerely,

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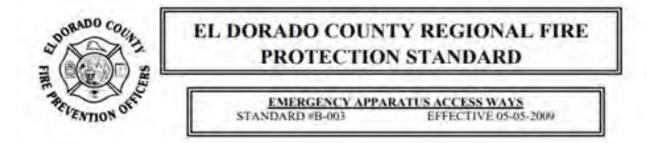
Andrew Spiess 6400 Gallagher Road Pilot Hill, Ca. 95664 916-941-6724

cc Supervisor Lori Parlin

Ken McKinstry, Chairperson, GRLA FireSafe Council Rich Gray, President, GRLA Andy Conti, Vice President, GRLA Chris Herron, Secretary/Treasure GRLA

El Dorado County Standard - Emergency Apparatus Access Ways

GRLA Fire Safe Plan - Oct. 2020



PURPOSE

To establish a consistent guideline for fire access roudways required by the Fire Department.

SCOPE:

This standard applies to every public and private street, mad, alley, drive and access way within the boundaries served by the Fire Department.

AUTHORITY:

This standard is adopted under authority of the 2008 Edition of the California Fire Code (CFC) and the Title 14 Natural Resources Code, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 of the Fire Safe Regulations as adopted by the Fire Department.

DEFINITIONS;

Bollards – Permanent or removable poles that are placed across a roadway for the purpose of restricting vehicular access to a portion of a site or to protect a piece of equipment from potential vehicular damage.

Fire Access Roadways – A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, Public Street, Private Street, parking lot lane, and access roadway. Roadways must extend to within 150 feet of all portions of the exterior of the first floor of any structure and must meet specified criteria for width, pavement characteristics, roadway gradient, turning radius, etc. Fire access roadways are also referred to as fire lanes.

Fire Lane Identification - Specific requirements that allow fire access roadways to be readily recognized so that they will remain unobstructed and available for emergency use at all times.

Gates and Barriers - Devices that restrict pedestrian and vehicle ingress and egress to and from a facility.

Gate and Barrier Locks - Devices that are installed on gates and hurriers to secure a property or facility shall be required to have a key switch and electronically controlled switch to facilitate fire department and police access.

Std. #B-003

Page 1 of 6

Emergency Access Roadways Rev. 05-05-09

mun

Dage 35

Premises Identification – The visual means used to readily identify a property or facility. It is also the numbering system that is placed on structures for the purpose of identification of separate buildings within a single facility.

REQUIREMENTS:

Fire Access Roadways

Fire access roadways, sometimes referred to as fire lanes, shall be provided for every facility or building when any portion of an exterior wall of the first story is located more than 150 feet from a public roadway, as measured along an approved route. Extenuating circumstances, increased hazards, and additional fire safety features may affect these requirements.

- Fire Apparatus Access Readway Construction Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete, or other approved driving surface capable of supporting the imposed load of fire apparatas weighing at least 75,000 pounds.
- 2. <u>Vehicular Access During Construction</u>: The development and each phase shall have at least two (2) points of vehicular access for Fire Department and other emergency vehicles as well as for routes of egress for evacuations. Fire Access Roads shall be constructed and approved prior to combustibles being brought onto the site. Temporary "NO PARKING FIRE LANE" signs shall be posted during construction as needed. All construction shall comply with Fire Apparatus Access during Construction Standard F004.
- Number of Fire Department Access Roads Required:
 - a) Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this standard and shall extend to within 150 feet of all portion of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.
 - b) The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.
 - c) The maximum length of a dead-end residential road, including all dead-end roads accessed from that dead-end road, shall not exceed the following cumulative lengths, regardless of the numbers of parcels served:

Parcels zoned for less than one acre 800 feet Parcels zoned for 1 acre to 4.99 acres 1320 feet

Std. #B-003

Page 2 of 6

Emergency Access Roadways Rev. 05-05-09

Parcels zoned for 5 acres to 19.99 acres	2640 feet
Parcels zoned for 20 acres or larger	5280 feet

- d) All road lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes, requiring length limits, the shortest allowable length shall apply.
- 4. Width of Fire Access Roads The minimum width of a fire access roadway is 20 feet. The width of the roadway is measured from curb face to curb face, flow line to flow line, curb face to flow line, or from the inside of a defining edge stripe. Where a raised center median is included the required width shall be provided on both sides of the median. (See Page 5)
- <u>Width of Fire Access Road at a Fire Hydrant</u> The minimum road width shall be 26 feet, 10 feet on either side of the fire hydrant. Each end shall be tapered to enable a fire apparatus to maneuver in and out of the access.
- Aerial Fire Apparatus Access Road The minimum unobstructed width of 26 feet in the immediate vicinity of any building or portion of buildings more than 30 feet in height shall be maintained for Aerial Fire Apparatus.
- 7. Parking adjacent to fire access roadways Whenever the parking, stopping or standing of any vehicle would encroach into the minimum 20' foot clearance requirements for fire access roadways, said parking, stopping or standing shall be restricted by the use of signs or red curb markings (or both) with the requirements.
- <u>Vertical Clearance</u> Fire access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. If trees are located adjacent to the fire access roadway, the owner is responsible for keeping the overhanging vegetation cleared to this standard. (See Page 6)
- Inside and Outside Turning Radii The inside turning radius for an access road shall be 40 feet or greater. The outside turning radius for an access road shall be 56 feet or greater. (See Pages 5 & 6).
- <u>Turn-around/Hammerheads</u> Terminating roadways in excess of 150 feet shall be designed to accommodate emergency equipment to turn around using a hammerhead or cul-de-sac as specified in appendix D of the California Fire Code. The minimum cul-de-sac radius is 40 feet with no parking allowed.
- <u>Turn Outs</u> Turn outs shall be provided for any road longer than 400 feet long and every 400 feet thereafter. Roadway turnouts shall be a minimum of 10 feet wide and 30 feet long with a minimum 25 foot taper on each end.

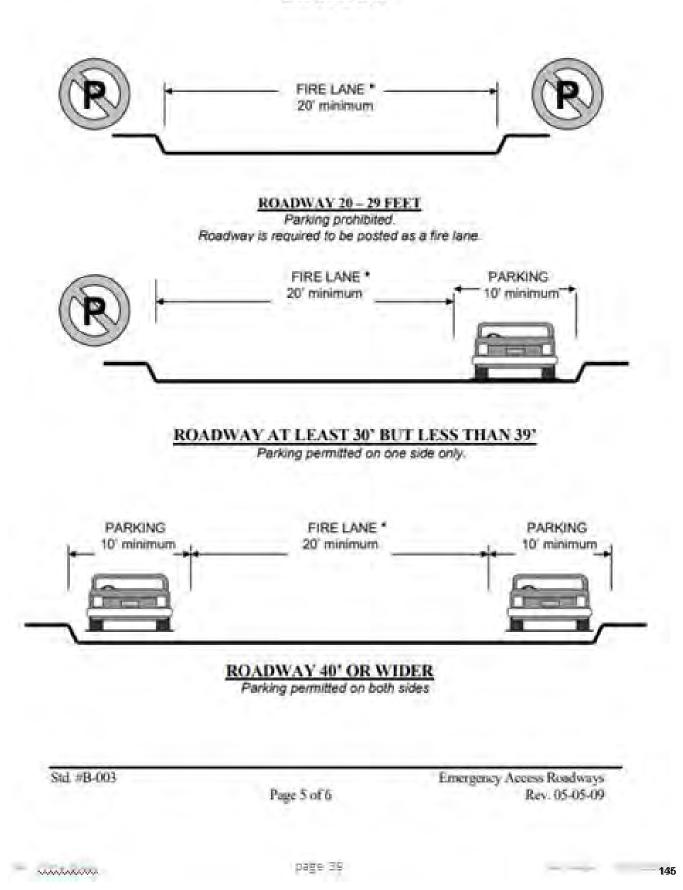
Std. #B-003

Page 3 of 6

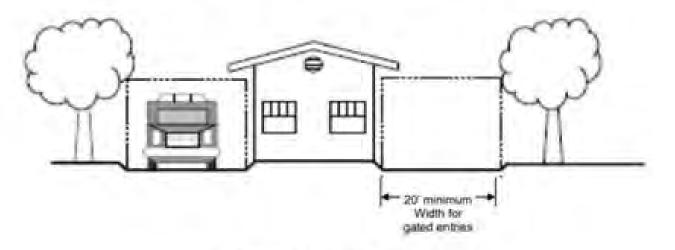
Emergency Access Roadways Rev. 05-05-09

- <u>Gates</u> The Fire Department shall approve Emergency gated access. Proposed gated Commanities and/or secured commercial/industrial sites shall comply with the El Donado County Regional Standard B002.
- Speed Bumps Traffic calming devices such as speed bumps or lower dips are allowed by the discretion of the Fire Chief or his designee.
 - 14. <u>Access to Multi-Family Residential Units</u> In all apartments, duplexes, triplexes, condominium or cluster-type housing, all portions of buildings shall be within one hundred fifty feet (1507) of the edge of the travel way of an improved public alley, street, driveway or designated fire lane. Walkways to buildings shall be a minimum of five feet (57) in width and shall be provided at no less than one hundred fifty foot (1507) intervals.
 - Easements Access drives which cross property lines shall be provided with CC&R's, access easements or reciprocating agreements and shall be recorded on the titles of affected properties. Copies of the recorded documents shall be provided at the time of Fire District Plan Review.

STANDARD



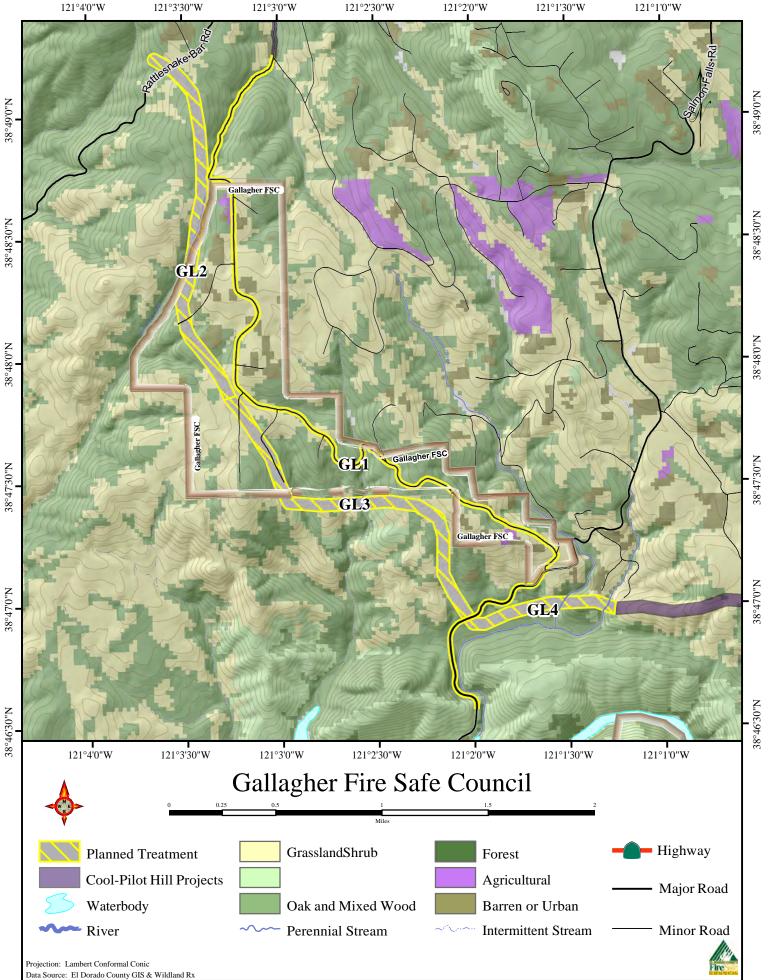
Fire Department Access Roadway Clearance For Typical Gated Community Security Post

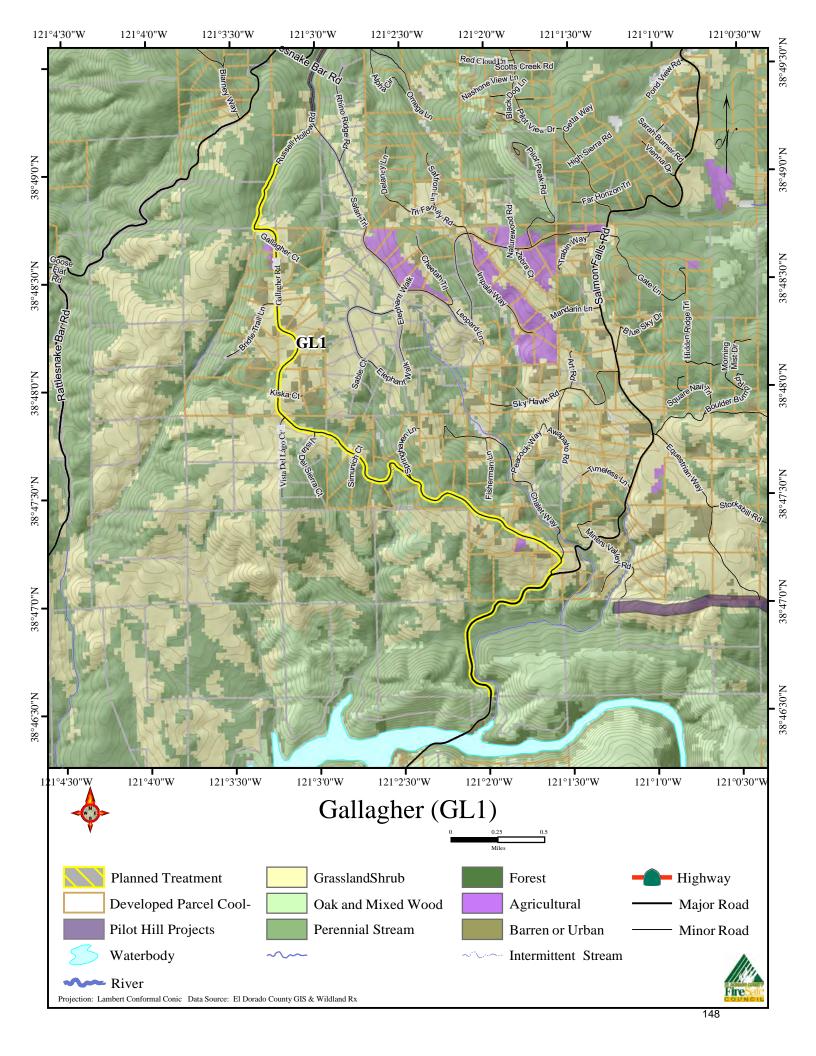


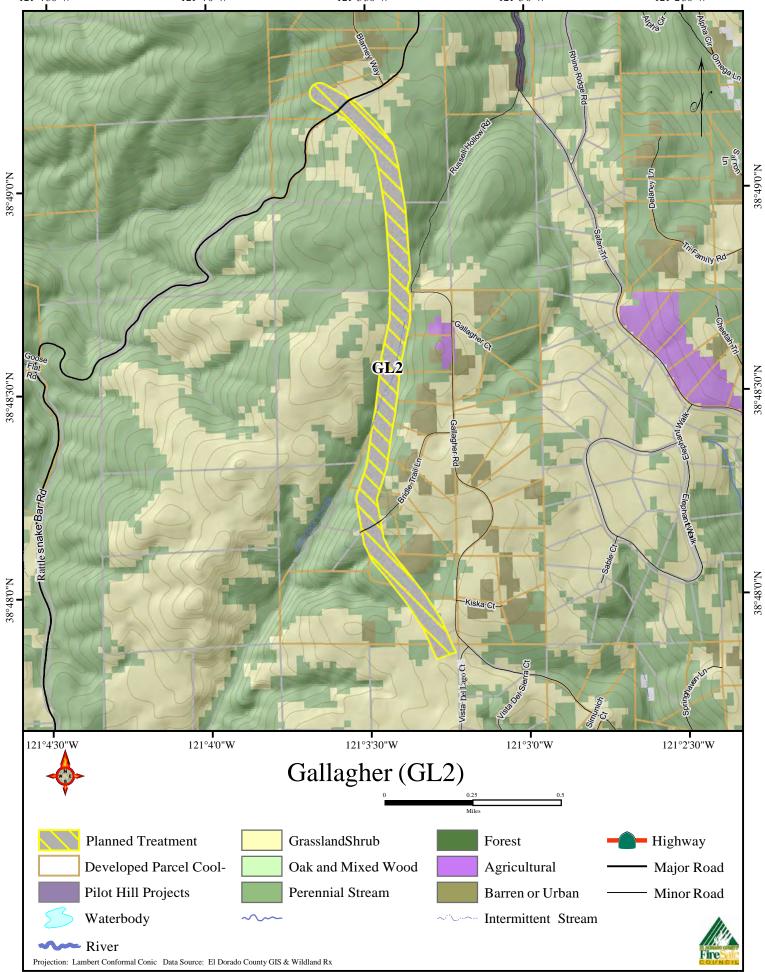
PROPER CLEARANCE PROVIDED

Eaves and vegetation do not encroach upon the 20'- wide by 13'-6" High fire access roadway envelope required for gated entries.

Std. #B-003







121°4'30"W

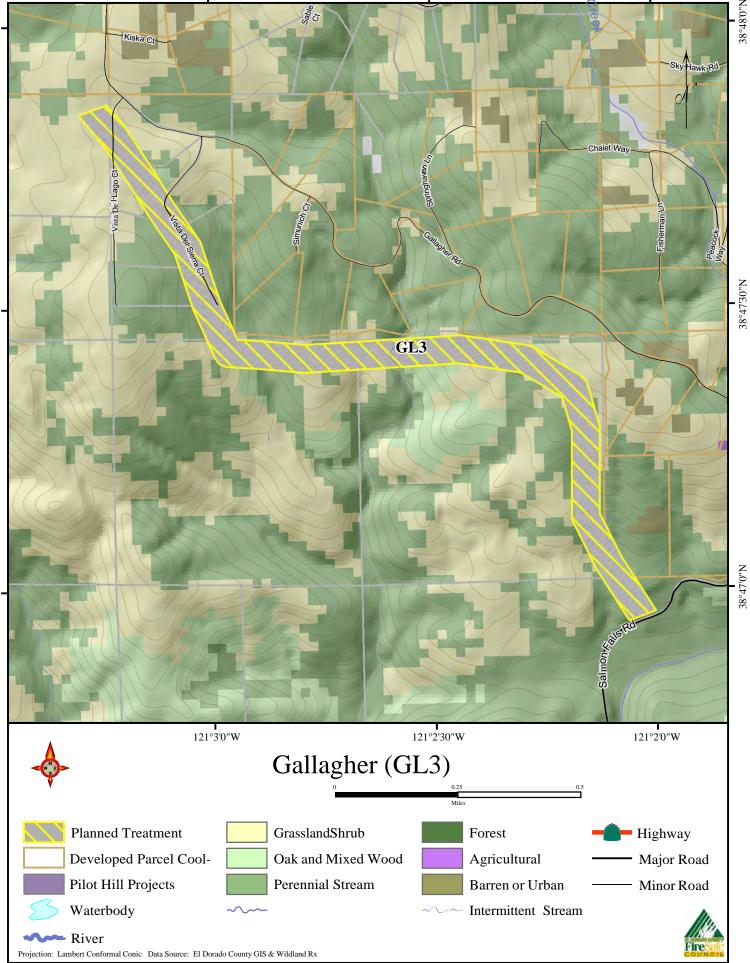
121°4'0"W

121°3'30"W

W

121°3'0"W

121°2'30"W



121°2'30"W

121°3'0"W

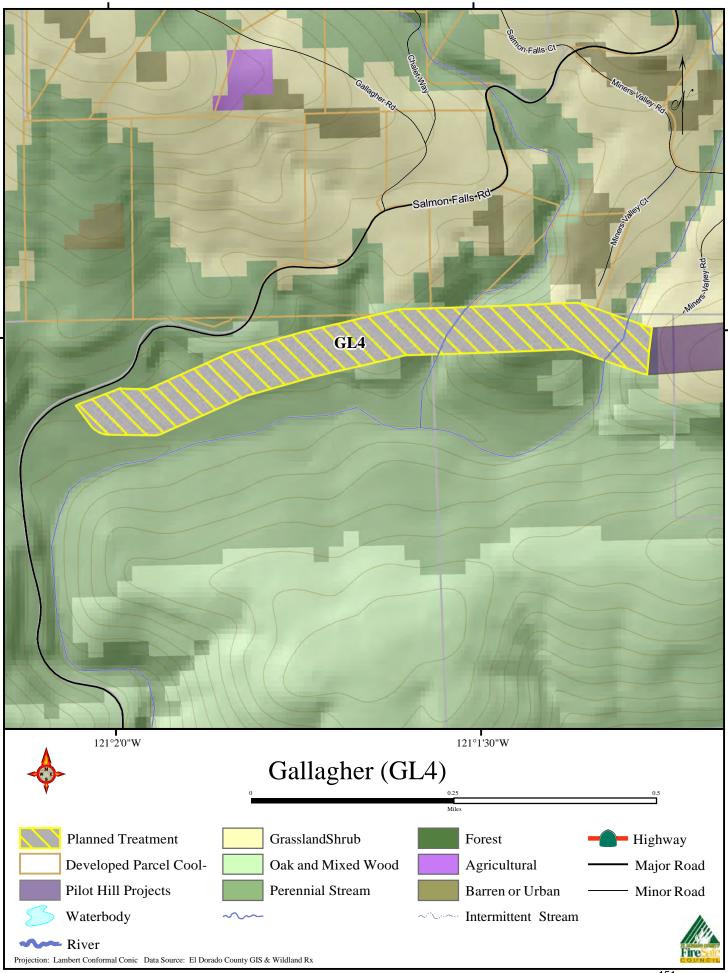
38°48'0"N

150

38°48'0"N

38°47'0"N

121°2'0"W



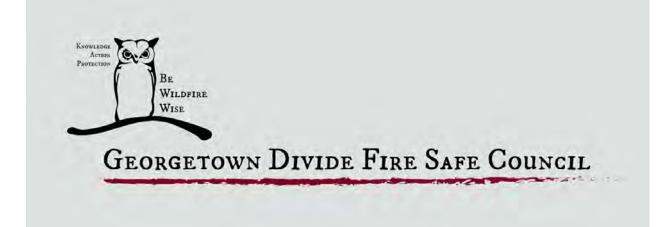
38°47'0"N

Gallagher Landowners FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
		GL 1	Roadside Hazard Reduction		60	
		GL 2	Fuel Break		64	
		GL 3	Fuel Break		65	
		GL 4	Fuel Break		26	

Georgetown Divide Fire Safe Council

September 2021



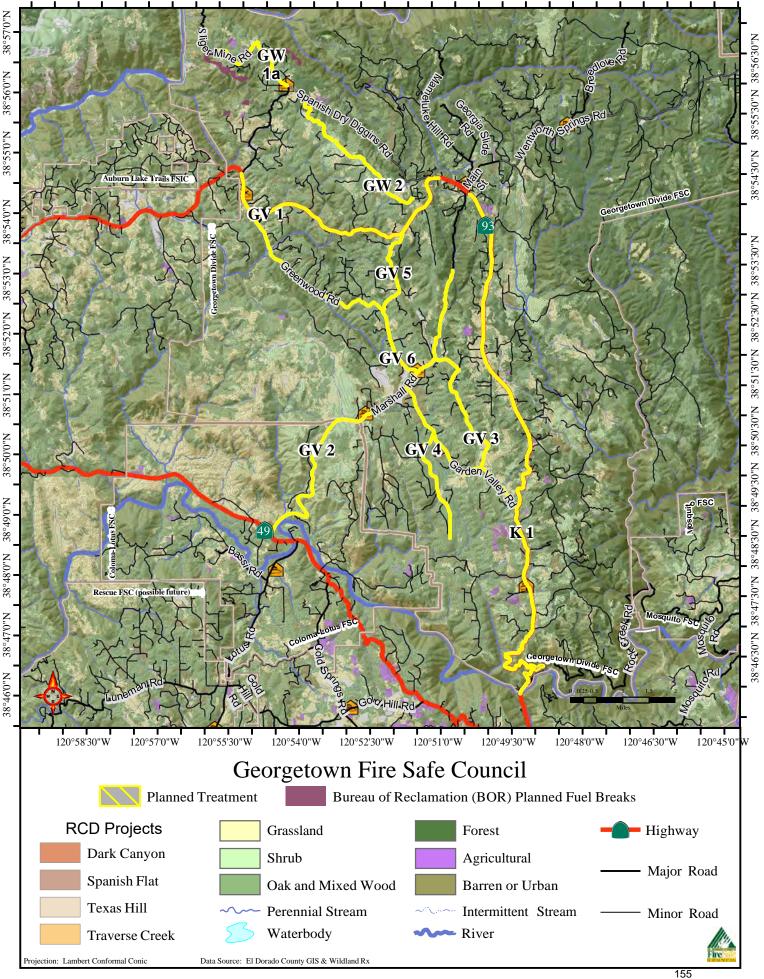
The Georgetown Divide Fire Safe Council mission is to protect the people of the Georgetown Divide and their community assets from the effects of catastrophic wildfire through education, cooperation, innovation and action. The Current Fire Safe Council area takes in two Fire Districts Georgetown Fire District and Garden Valley Fire District. This is one of the big changes to the 2017 El Dorado County CWPP. This adds the Kelsey and Garden Valley areas to the original boundary of the Fire Safe Council area.

he District saw slow continuous growth over the years. Presently, the District covers 96 square miles containing 2330 parcels. The population of the District is about 6,500. The District has one elementary school, an alternate education primary grade school facility, and a small K-4 schoolhouse within its boundaries. Commercial development is located in primarily two geographical areas of the District within a mile of each other. In addition, there is a general aviation airport, a water treatment facility and two bulk propane plants that are known target hazards.

The Garden Valley Fire Protection District, a combination paid and volunteer staffed department is an "all risk" agency providing fire protection, rescue and initial response medical aid to a population of approximately 7,500. The District consists of an area of approximately 60 square miles of unincorporated area on the Georgetown Divide in northern El Dorado County which includes the gold rush communities of Garden Valley, Kelsey and Greenwood and covers part of the historic Mother Lode Gold Country from the South Fork of the American River at Chili Bar, North to Gate Three of Auburn Lake Trails in the Greenwood area, Northeast to Shoemaker Road South of Georgetown, East as far as Darling Ridge in the El Dorado National Forest and West to the American River near the famous Marshall gold discovery site at Coloma. We border the El Dorado National Forest and have within our district approximately 8 square miles of Forest Service land that we are responsible for, as well as many BLM parcels (often old abandoned mining claims). See Less

Current Projects

The FSC has been working with the El Dorado & Georgetown Divide Resource Conservation District on the Georgetown (Kelsy) Fuels. The project intends to treat 2100 +/- acres to create fore resilient ecosystems and fire adapted communities. This is in collaboration between the Georgetown Divide RCD, Georgetown Divide Fire Safe Council, South Fork American River Cohesive Strategy, Bureau of Land Management, U S Forest Service, Amador El Dorado Unit of CAL FIRE, Eld Dorado County Department of Transportations, and local community me



120°59'30"W

120°58'0"W

120°56'30"W

120°55'0"W

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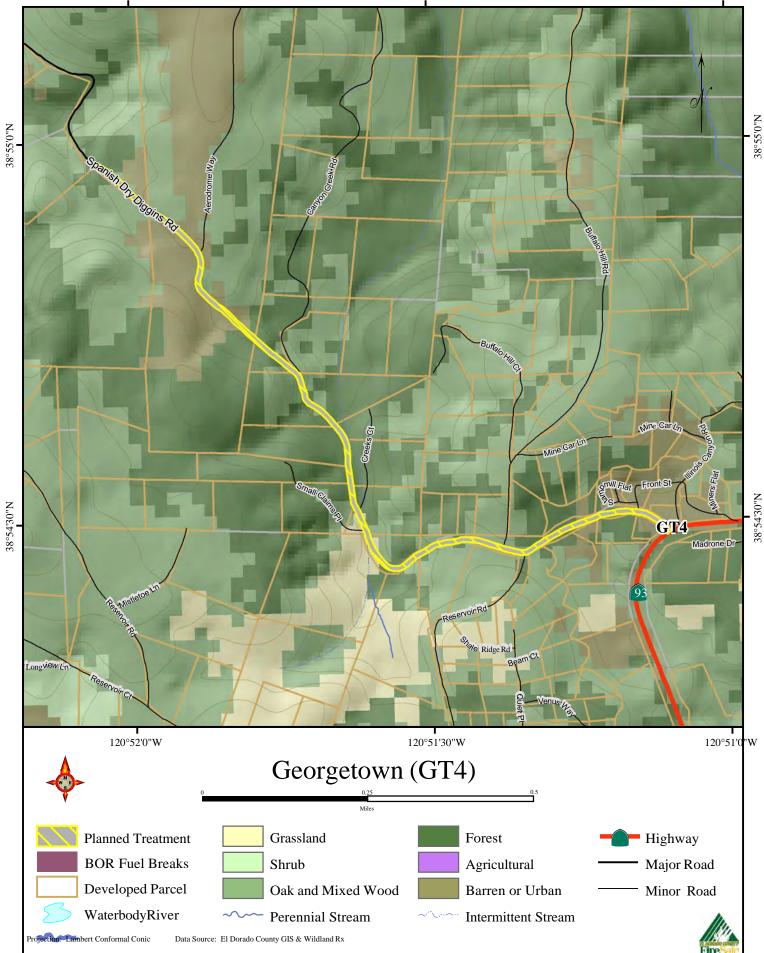
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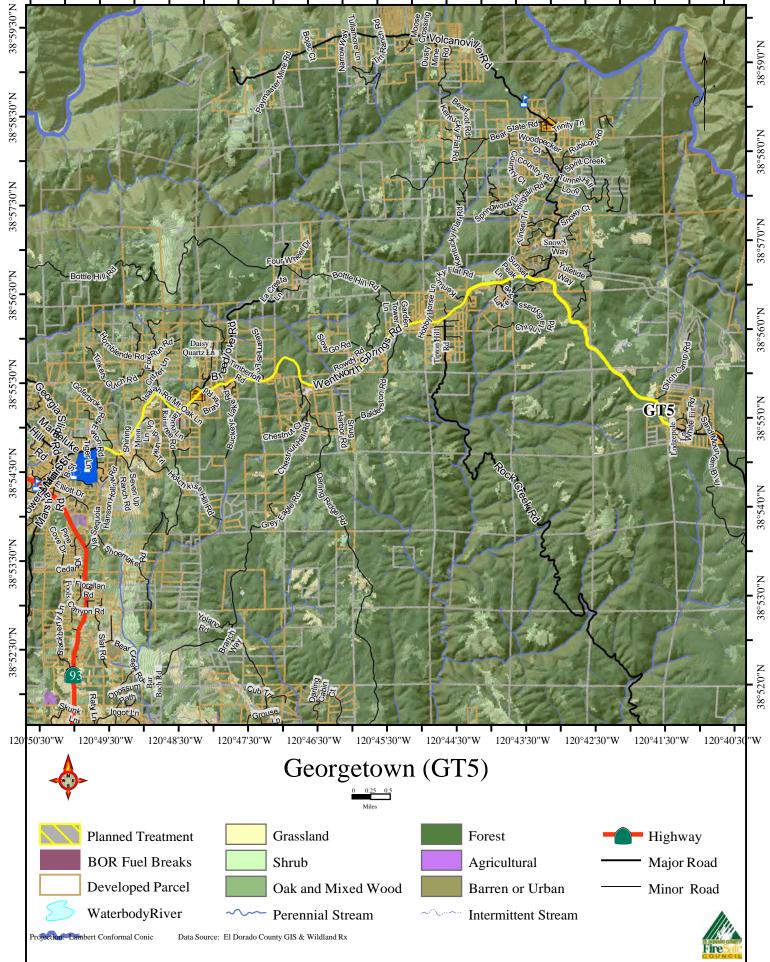
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120°47'30"W

120°46'0"W 120°44'30"W





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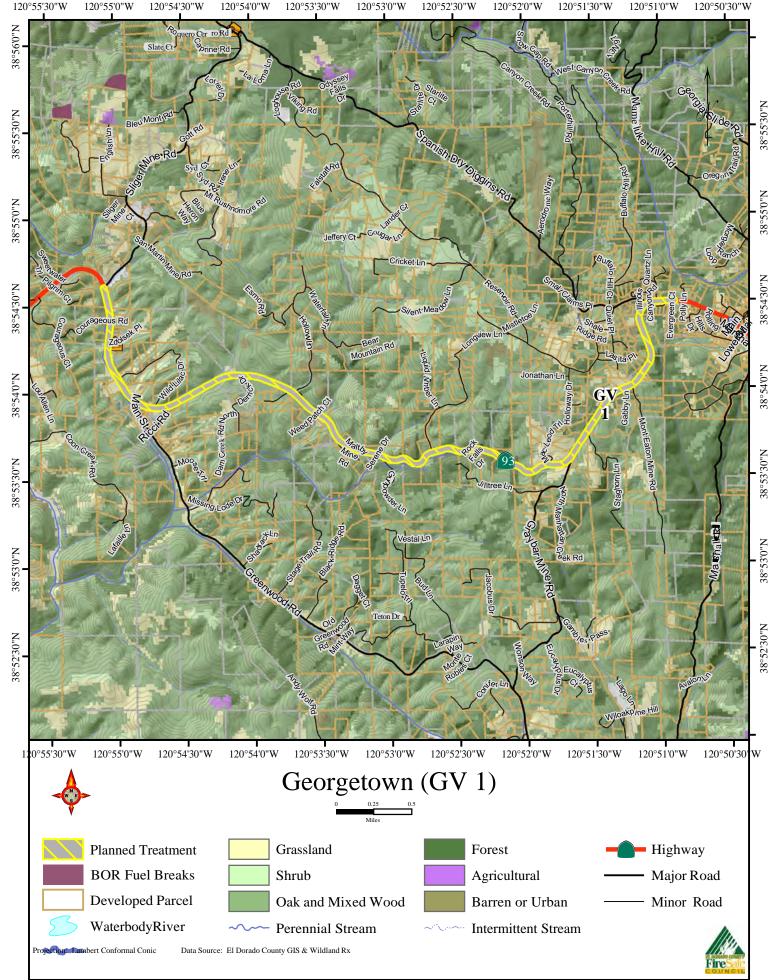
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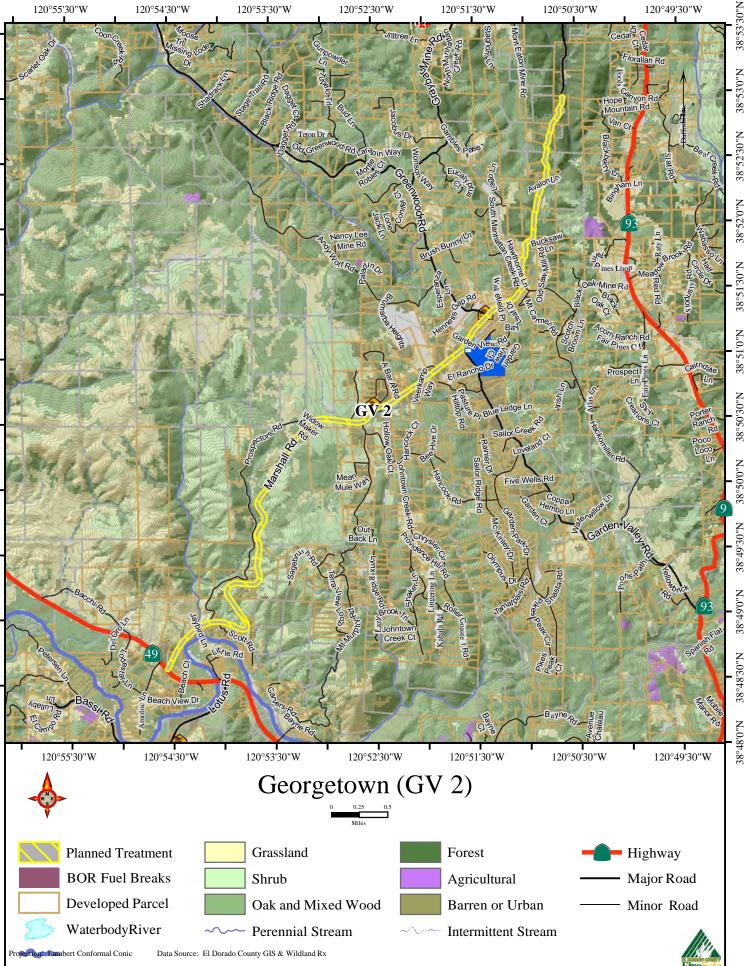
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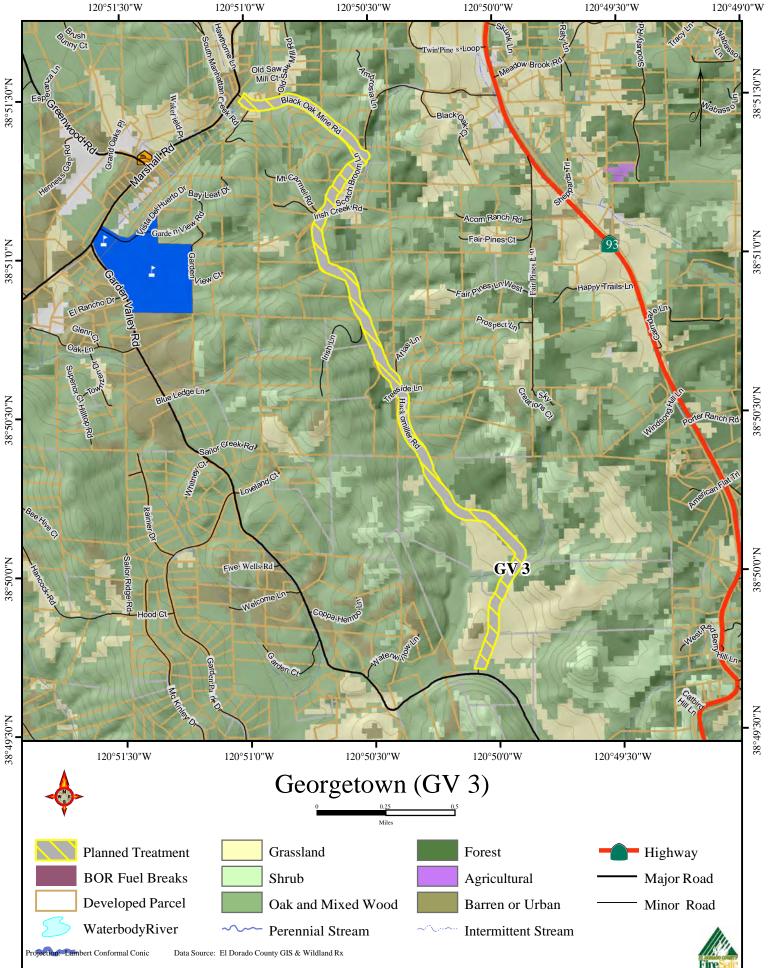
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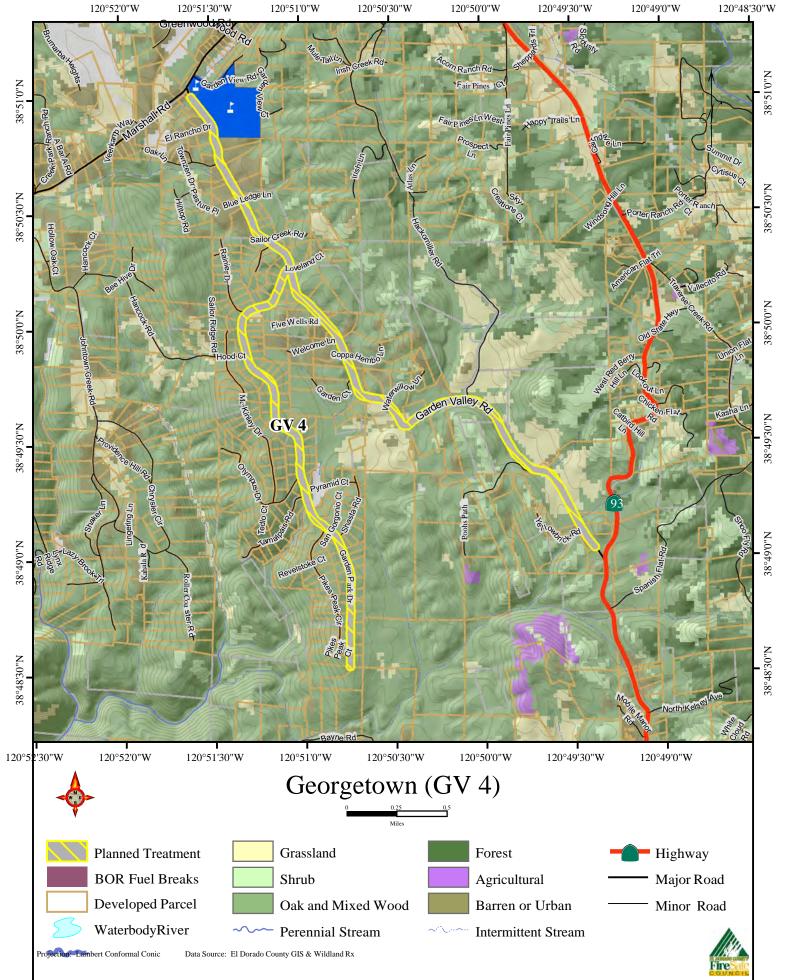
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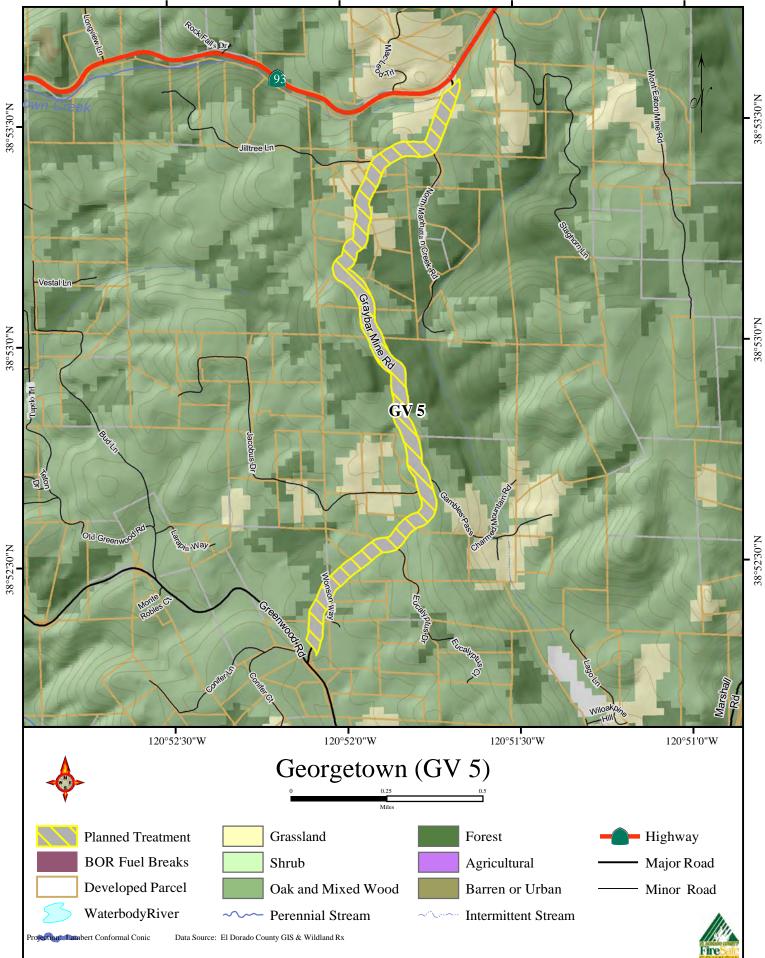
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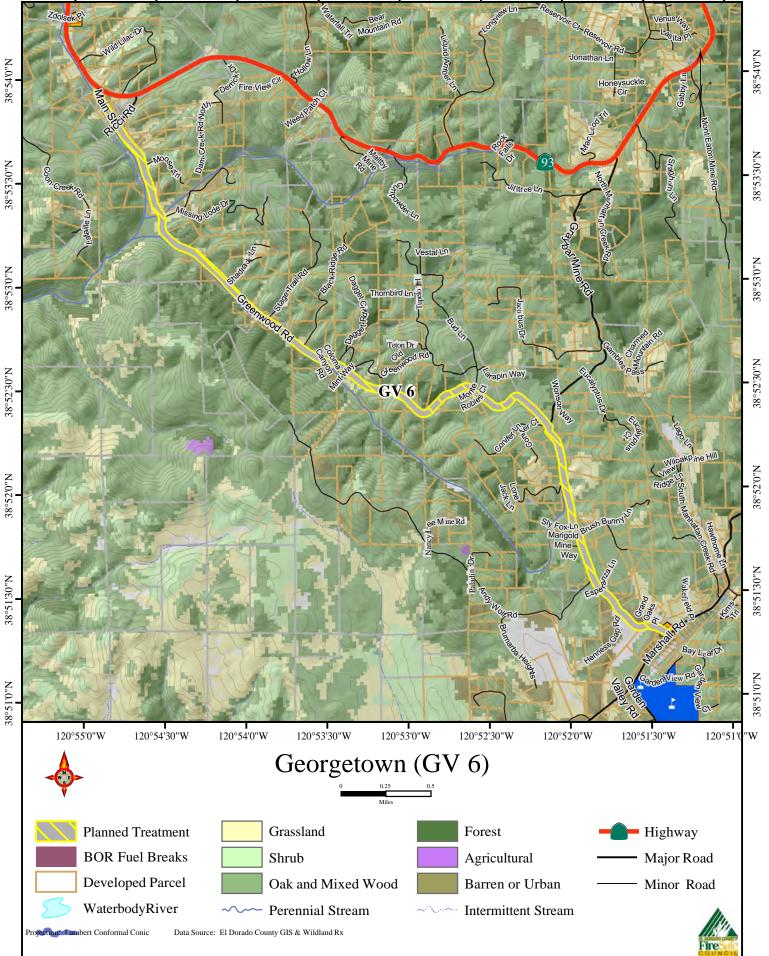


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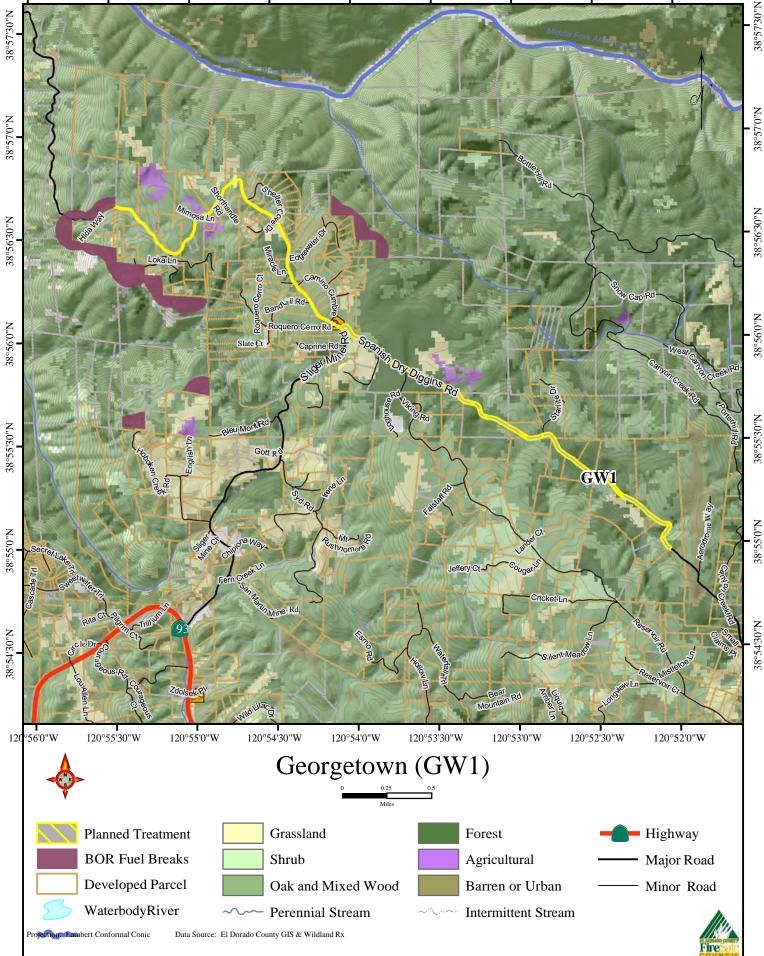
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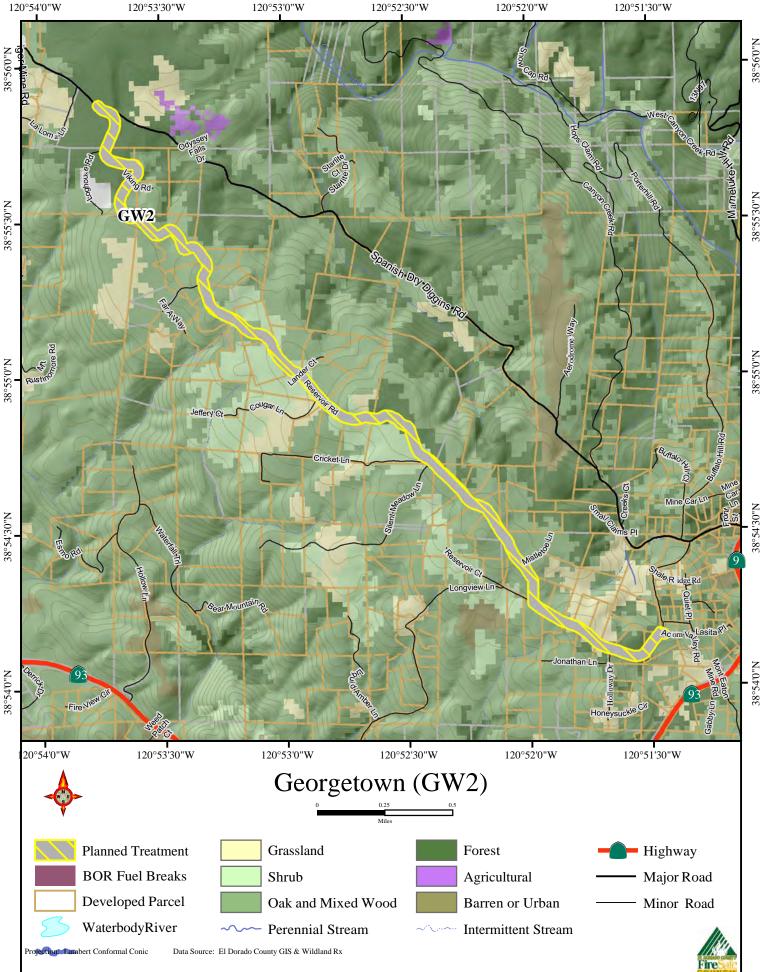
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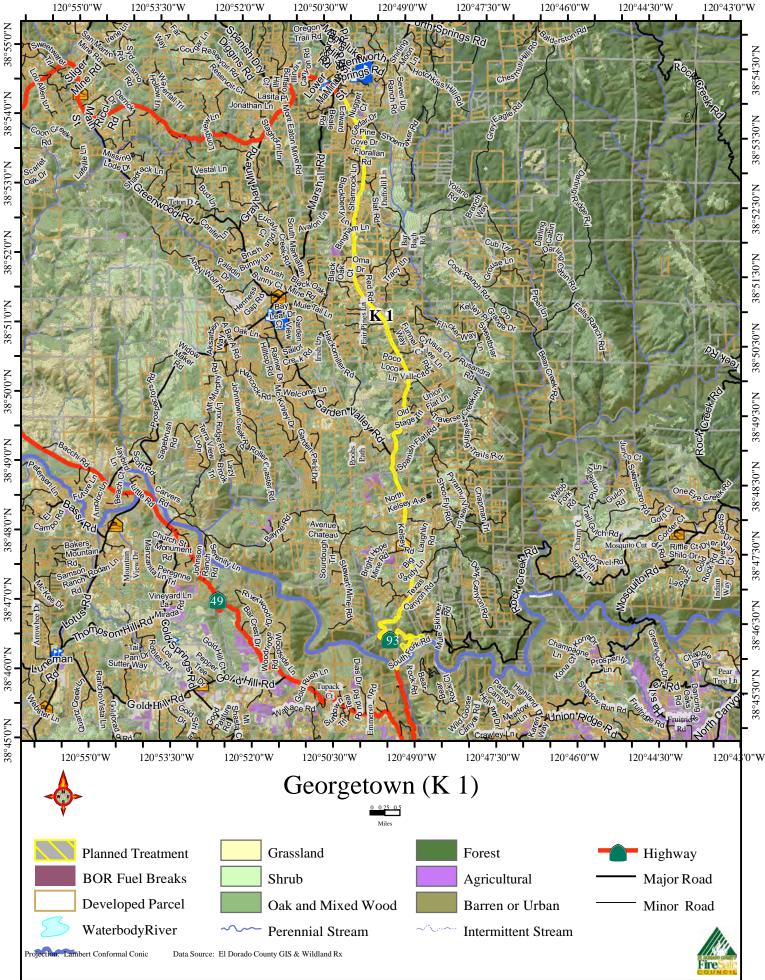
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120°52'0"W



Georgetown Divide FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT	PROJECT DESCRIPTION	TREATMENT	ACRES	ESTIMATED
CWPP update		NUMBER		ТҮРЕ		COST
Garden Valley	1	GV1	Roadside Hazard Reduction		134	
		GV 2	Roadside Hazard Reduction		179	
		GV 3	Roadside Hazard Reduction		68	
		GV 4	Roadside Hazard Reduction		139	
		GV 5	Roadside Hazard Reduction		44	
		GV 6	Roadside Hazard Reduction		121	
Greenwood		GW 1a	Roadside Hazard Reduction		54	
		GW 2	Roadside Hazard Reduction		85	
Kelsey		K 1	Roadside Hazard Reduction		292	
Kelsey RCD						
Treatment Area*						
1 - Texas Canyon			Fuel Treatment		292	
2 – Dark Canyon			Fuel Treatment		292	
3, 4, 5, 6 – SpanishFlat			Fuel Treatment		620	
7, 8, 9, 10 – TraverseCreek			Fuel Treatment		920	

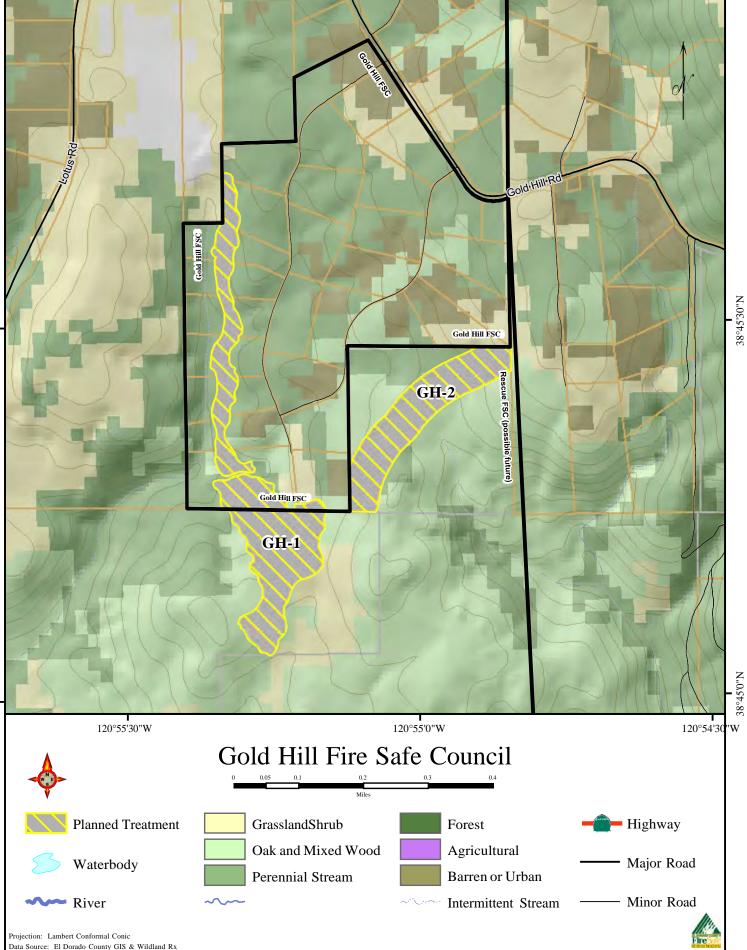
*"In all 10 areas the prescription will be to thin forest stands by removing all trees less than 12 inches in diameter breast height or to space trees at a distance of 20 feet apart in smaller-diameter stands. Residual trees will be pruned to a height of 10 feet and understory brush will be removed to reduce ladder fuels and thereby discourage crown fires in the event that a wildfire occurs." Kelsey Fuel Reduction Project, May 2020

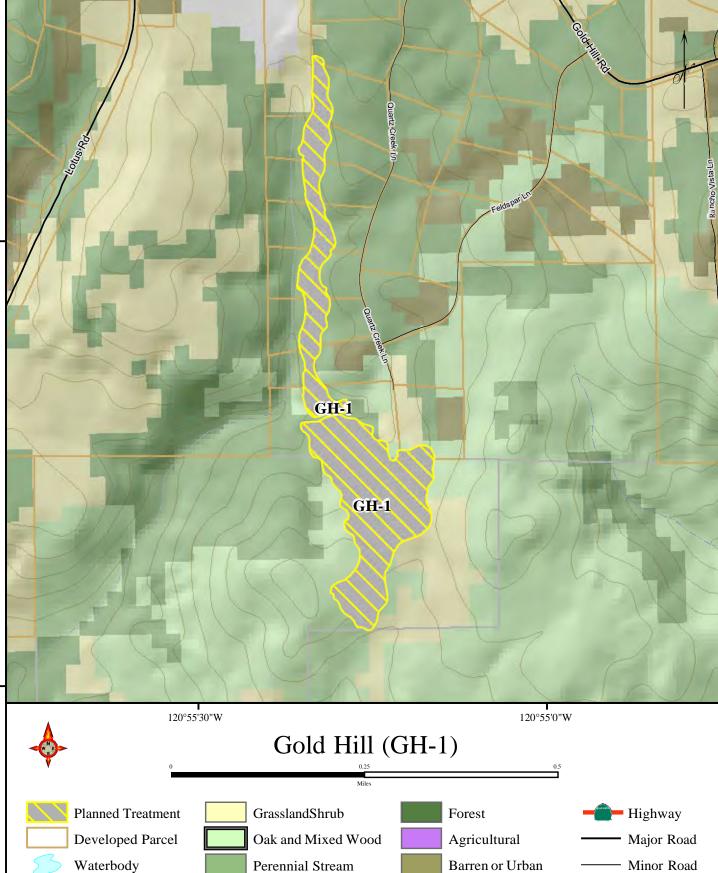
El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE Community Tab for

Gold Hill Estates Fire Safe Council

Prepared for Inclusion in the:

EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update November 2021





River

Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx 38°45'0"N

38°45'30"N

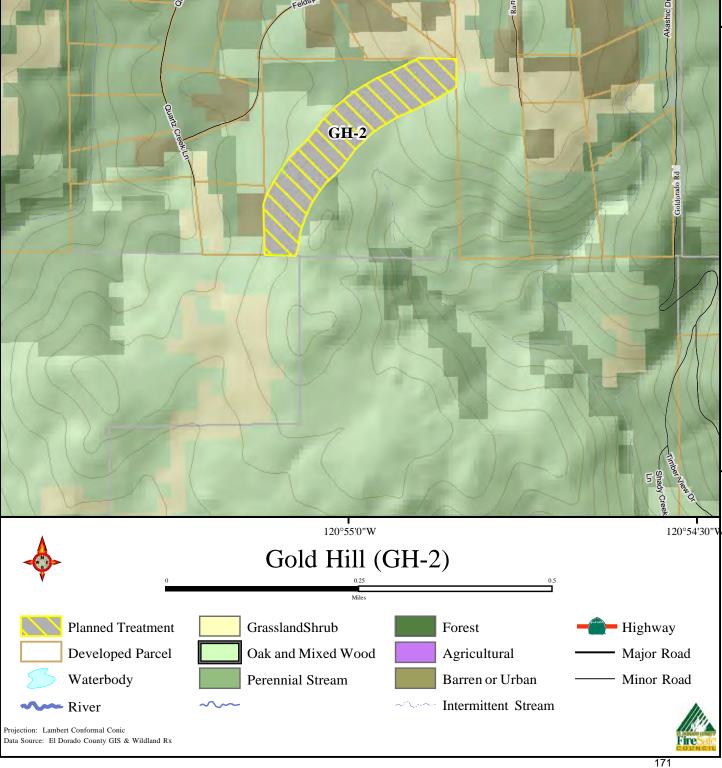
170

Intermittent Stream

120°55'30"W

120°55'0"W





38°45'30"N

38°45'0"N

Gold Hill Rd

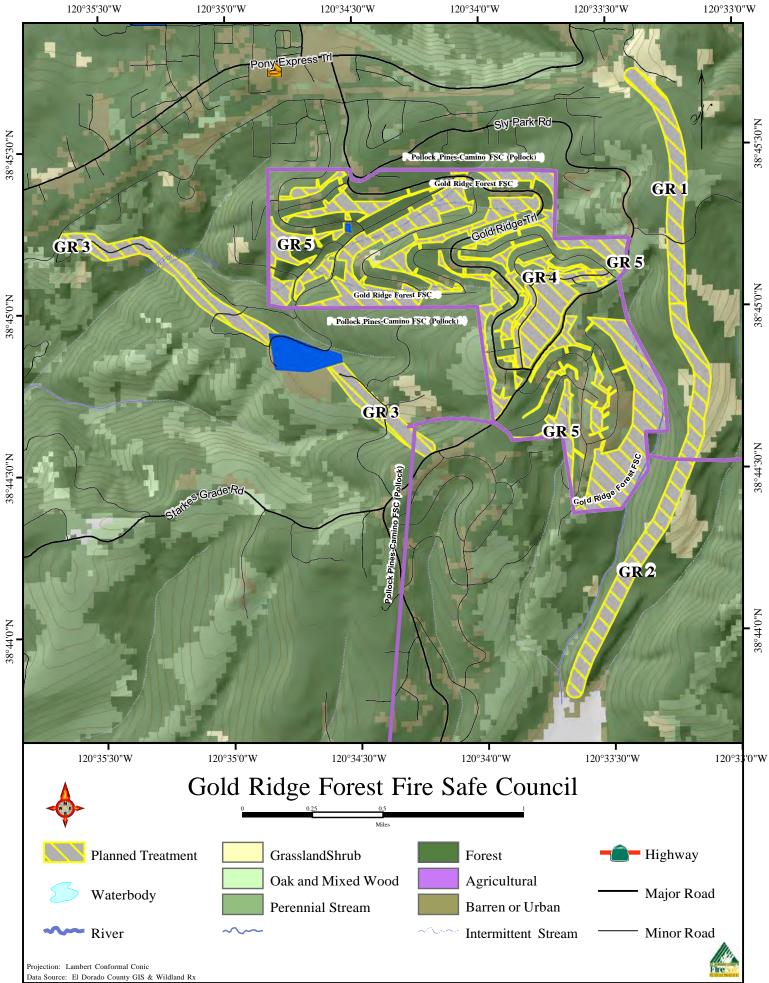
Gold Hill FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
		GH-!	Project Maintenance	Hand Crew Chipper and Masticatio n		
		GH-2	Fule Break	Mastication		

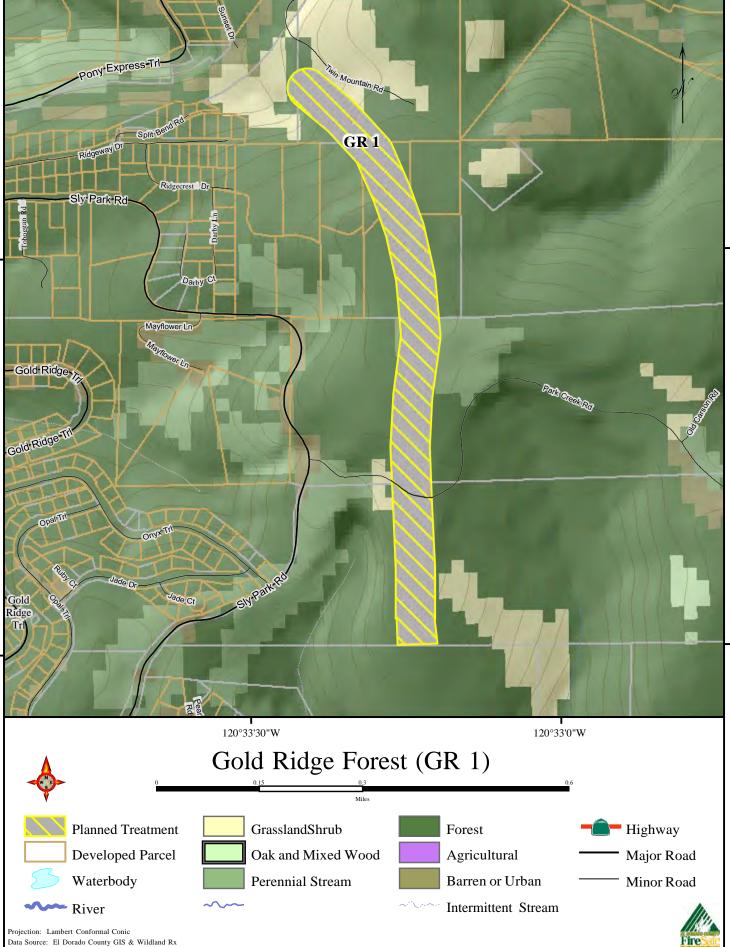
El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE Community Tab for

Gold Ridge Forest Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update November 2021

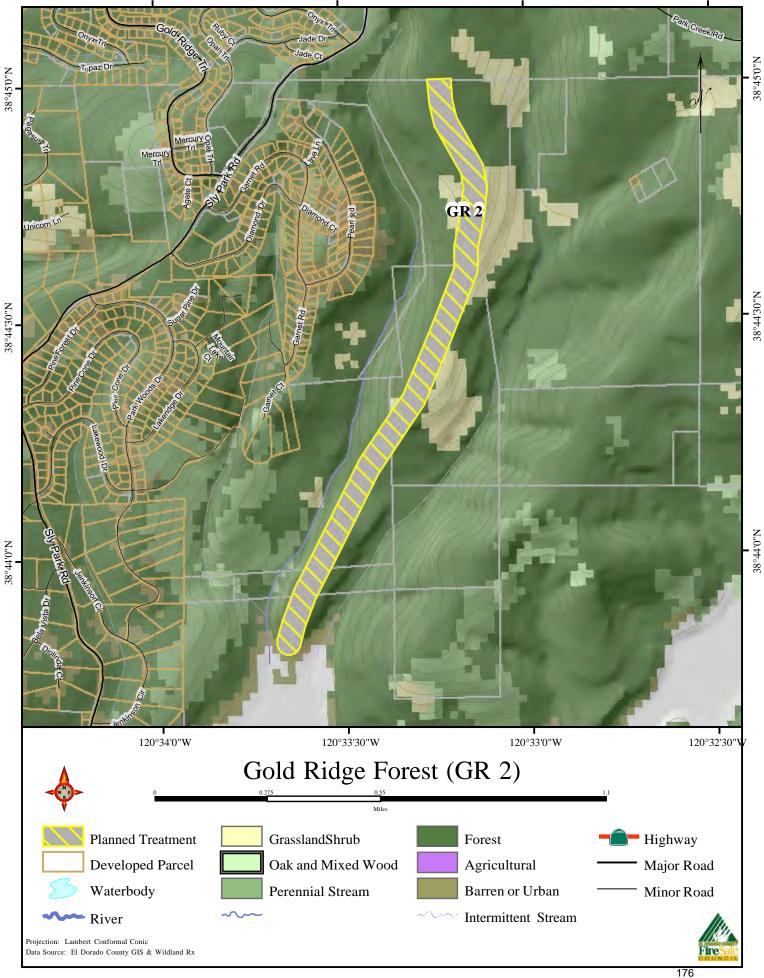






38°45'30"N

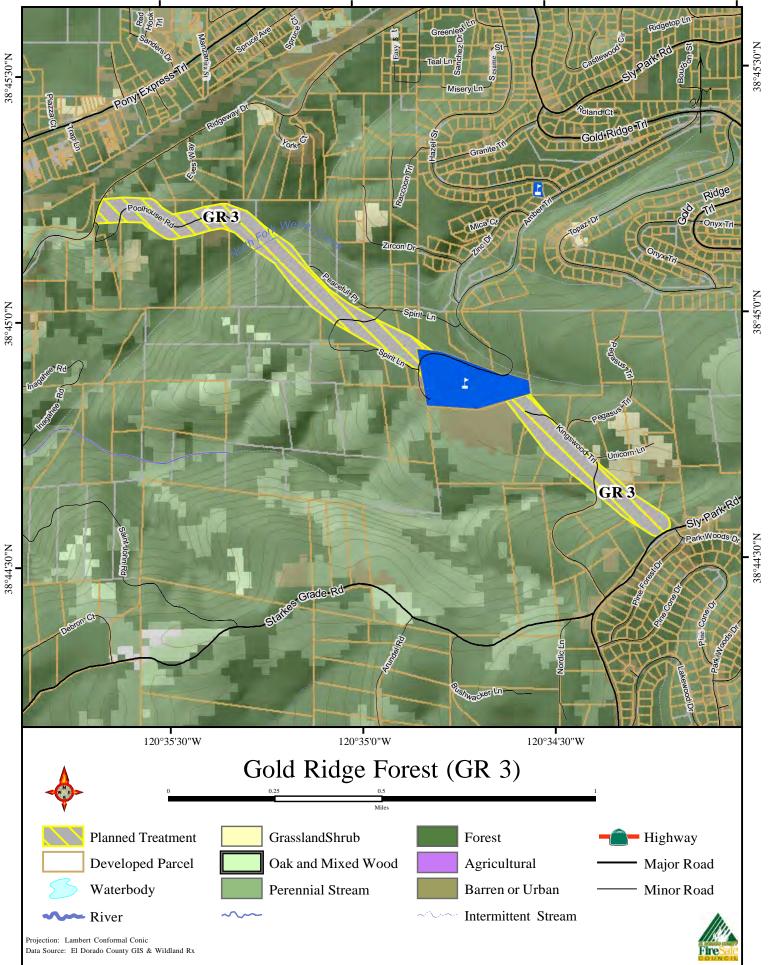
38°45'0"N



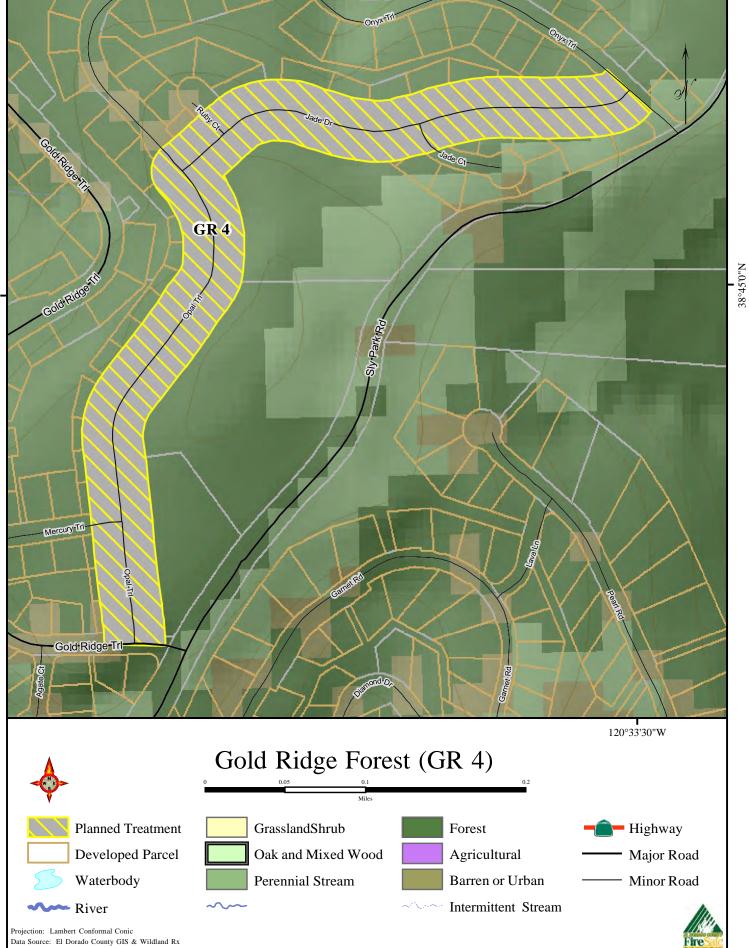
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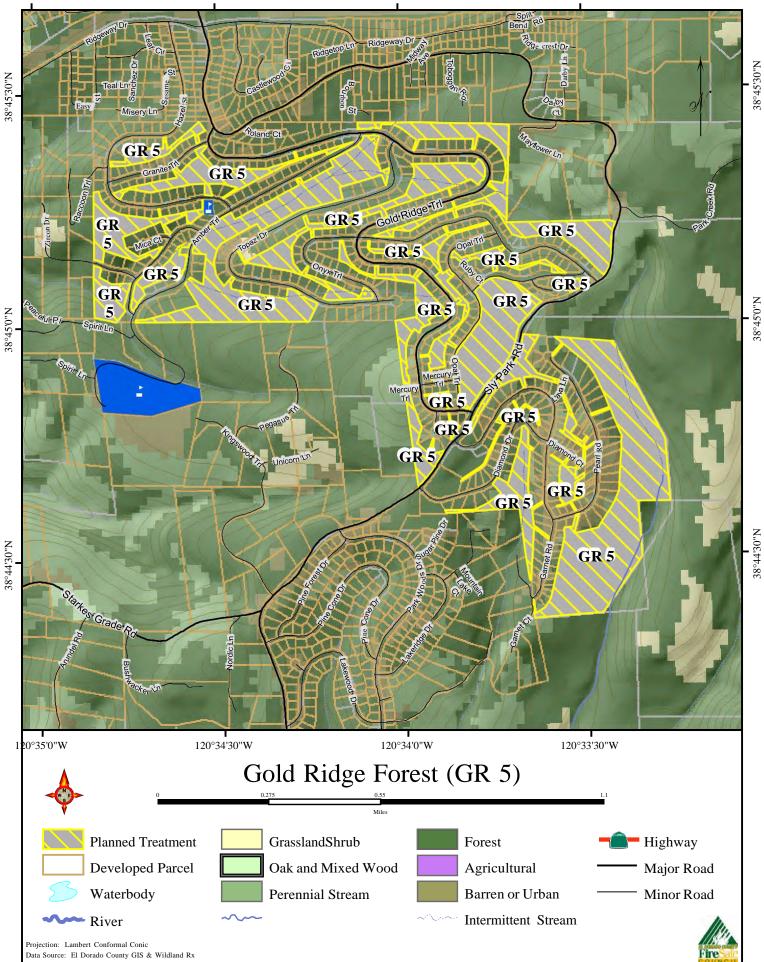
120°33'30"W

120°33'0"W



120°34'30"W





120°34'30"W

120°34'0"W

120°33'30"W

38°45'30"N

Gold Ridge Forest FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
	5	GR 1	Fuel Break		31	
	4	GR 2	Fuel Break		55	
	3	GR 3	Fuel Break		36	
	2	GR 4	Roadside Hazard reduction		15	
	1	GR 5	Common area Fuels reduction		224	

- 1. Item #5 Common Area Fuels reduction We may have a grant for this for 2022
- 2. Item #4 Roadside Clearing
- 3. Item #3 Fuel break to the West (Weber Creek area)

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Lakehills Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update November 2021



Lakehills Fire Safe Council

Introduction and Community Membership

The Lakehills Fire Safe Council (LHFSC) is located north of Highway 50 in the lower Sierra Nevada foothills, in western El Dorado County. The communities are about a 25-minute drive east of Sacramento.

This neighborhood sits in a lower elevation oak woodland. The vegetation of grass, scrub oak, gray pines and miscellaneous brush species is the dominant fuel type today. The vegetation types in and around the area are a combination of Grass Savanna, Blue Oak-Grass and Interior Live oak with grass and brush. There is a significant amount of California gray pine scattered throughout.

Lakehills is adjacent to the Folsom Lake State Recreation Area. Because Lakehills is located up a steep slope from Folsom Lake, the community's risk from a wildfire started by illegal campfires from recreational water users belowis the greatest concern. The slopes vary from gentle, 5-10% to steep, +40%. Since 2012, the Lakehills Fire Safe Council has worked with Bureau of Reclamation and California State Parks to mitigate the heavy fuels on public lands adjacent to the Lakehills Estates subdivision. Within the Folsom Lake State RecreationArea, the Folsom Lake Shaded Fuel Break prescription outlines 7 Phases between New York Creek inlet on the south fork of the American River and Brown's Ravine on Folsom Lake. The prescription is to remove under story vegetation and ladder fuel, and limb up trees on these public lands when contiguous to private property residences.There have been many projects creating and maintaining the Shaded Fuel Break on public lands.

Community History:

The Lakehills Estates development was created in the late 1950s/early 1960s. The community is in El Dorado Hills, resting on the top of a peninsula of the immediately adjacent Folsom Lake State RecreationArea (FLSRA) and extending out above Folsom Lake. The original community consists of four separate units designated as Units One through Four. Unit One was established as the Lake Hills Corporation, a California Corporation.

In following years, the area continued to expand and was joined by neighboring developments, more residences and increasing the general population. Development is now contiguous along the upper contour of the land above Folsom Lake, from Southpointe (bordering New York Creek on the northeast)to Lakeridge Oaks (nestled against Mormon Island Auxiliary Dam and Browns Ravine Marina on the southwest). The eight-mile shoreline of the FLSRA is a common border to all member communities.

Member communities of the Lakehills Fire Safe Council (LHFSC):

- Lakehills Estates
- Southpointe

Lakeridge Oaks



Southpointe

The Southpointe community began construction in 1990. Initially planned for 92 lots, there are now 85 lots with 76 custom, single-family homes. Southpointe was designed to capture the beauty and natural setting of the area with views of

Folsom Lake to the West, the American River to the north and the mountains to the East.



Lakeridge Oaks

The Planned Development Final Subdivision Public Report for this sub-division was first filed in October 1979. The community has 48 total lots, with 45 residences, currently. The Lakeridge Oaks community also includes seven (7.01) acres of undeveloped

common land within the community.



Lakehills Estates

Within the Lakehills community, grants have been utilized to remove fuels on vacant lots. Partnering with PG&E, 15 lots, totaling 7 acres, were cleared of heavy fuel loads. As of 8/31/2020, over \$623,000 has been invested, and 179 acres

treated or retreated.

Assessment Findings

The following summary comes from a review of a representative neighborhood by an independent Registered Professional Forester (RPF) in March of 2019. The summary focuses on defensible space and the condition of vegetation around homes, primarily.

The heavy landscaping around homes presents a probable scenario where embers from near or distant fires could find significant available fuel beds around homes if not on them. Reducing combustible landscaping is a clear concern, and where irrigation is relied upon for landscaping plants, an off-grid systems to maintain high moisture levels are essential due to the high likelihood that a wildfire would be accompanied by power outage conditions.

Out of an overall assessment, about 8% of the homes are in either marginal-poor or poor groupings for defensible space conditions. These categories are defined as such:

Marginal-Poor - vegetation is dense and/or there are trees hanging over the house and deck. Tree limbs should be pruned so there is at least 10' of vertical clearance from the roof and chimney. Ladder fuels under trees and decks need to be eliminated. Leaf litter and accumulation is a common issue and should be removed from under decks and along structures. Yard clutter can turn into a heat source from blowing embers and pose a large risk to nearby structures. Boats, old cars, and trailers should be stored under a hard, noncombustible cover or at least 30' away from homes.

Poor - dense vegetation adjacent to or near the residence. Tree limbs overhanging the roof and leaf litter on the roof. Tree limbs should be pruned so there is at least 10' of vertical clearance from the roof and chimney. Ladder fuels need to be eliminated from under trees, shrubs, and around decks. Access and egress may be compromised by heavy vegetation along the driveway or hanging over the driveway and should be thinned and be vertically and horizontally discontinuous.

While a low percentage of homes had significant issues, that is not to say that the majority does not have room to improve their defensible space. It was found that 58% of the homes could improve their defensible space in the 100 ft. zone around their homes. The majority of the community could improve the amount and structure of the vegetation surrounding homes and would benefit from coordination to ensure defensible space of one home is addressed in situations where a neighboring property may be part of a structure's defensible perimeter.

Outreach about defensible space and ember impact is a primary concern. The LHFSC should continue education and outreach to promote the highest possible standards for the community and make the information available through multiple mediums such as social media, pamphlets, signage, and in person forums when applicable.

Accomplishments

Since the inception of the Lakehills/Southpointe Firewise program, a significant number of trees have been removed with the aid of grant monies and by homeowners. Unstable trees have fallen during storms and have been removed. PG&E has removed trees that threaten their infrastructure. El Dorado County DOT has removed fallen trees from the roadways. A Fire Safe Council project removed dangerous trees. Due to the age of this community, vegetation has become over-grown and is an on-going challenge.

The Lakehills Fire Safe Council provided the El Dorado Hills Fire Protection District (EDHFPD) a list of those residences most at risk (as rated by an independent registered professional forester). We requested a follow up review by the EDHFPD to assess the compliance of the specific residences with respect to Public Resource Code (PRC) 4291. If the

FPD assessment comes to the same conclusion as the RPF, the EDHFPD will notify the homeowner of their non-compliance, and details on mitigation measures.

Volunteer assessments of PRC 4291 were carried out in 2018, 2019, and 2020 have identified specific areas where individual homeowners can improve their safety based on the code. In these assessments, 96% of the homes have non-combustible roofs in suitable condition. About 4% of structures have poor or marginal asphalt roofing or combustible wood roofing. The number of at-risk homes is lowering, and with it risk to the community, as older homes get improved roofing and retrofitting for fire protection.

Lakehills FSC Projects:

Private Lands (FSC is Sponsor within LHFSC Boundary)

- 1. LHI Dead, Dying, Diseased & Dangerous Trees Partly accomplished in 2016 under PG&E grant.
- LH2-New York Creek Fuel Reduction Project Revised project completed March 2019, 25.38 acres
- 3. LH3 Fuel Reduction & Safety Project, Vacant Parcels 15 parcels / 7 acres treated 2016 under PG&E grant.
- 4. LH4-Lakeridge Oaks Fuel Reduction Partial 2017, 100' defensible space only.
- 5. LH5 -Lakehills Roadside Clearance Accomplished 2012 by EDC DOT, treated again 2020 as part of roadway resurfacing project.
- 6. LH6 Lakehills Homeowner Assistance Project has not been initiated as of 5/2021, but significant improvement in private residences / parcels has been achieved via owner education, self-help and strengthening and enforcement of EDH vacant lot ordinance by EDHFPD.
- LH7 <u>-Public Lands</u> Shaded Fuel Break (SFB Maintenance United States Bureau of Reclamation (USBR) or Folsom Lake State Recreation Area (FLSRA) Sponsor) (By FLSFB Phase) See Map
 - 7.1) FLSFB1 SFB Maintenance Current as of March 2020
 - 7.2) FLSFB2 SFB Maintenance Priority areas current as of January 2020
 - 7.3) FLSFB3 SFB Maintenance Priority areas current as of January 2020
 - 7.4) FLSFB4 SFB Maintenance Priority areas current as of January 2020
 - 7.5) FLSFB5 SFB Maintenance Priority areas current as of March 2020. Special Note: There exists behind the Rolling Hills development a set-back between the residential and federal fences. This area was treated in 2015-2017 under USBR / CCC contracting. This is federal land as federal boundary fence is in wrong location as verified by EDC GIS department to LHFSC.
 - 7.6) FLSFB6 SFB Maintenance Not treated as of March 2020.
 - 7.7) FLSFB7 SFB Maintenance Not treated as of March 2020.

- LH8 / EDH1 El Dorado Hills Road Connection, Improvement, Hazard Fuel Reduction (EDHFD Sponsor) (RC = Road Connection, RI= Road Improvement, HFR = Hazard Fuel Reduction)
 - 1. EDHRCl Arroyo Vista connection to Salmon Valley Lane
 - 2. EDHRC2 Falcon Crest Lane connection of loop to Salmon Falls Road
 - 3. EDHRC3 Pheasant Lane connection to Screech Owl
 - 4. EDHRC4 Settlers Trail connecting to Victoria Way
 - 5. EDHRII -Rocky Springs Road to W. Green Springs Road
 - 6. EDHRI2 -Kipps Lane
 - 7. EDHRI3 -Thunder Lane
 - 8. EDHRI4 Cothrin Ranch Road #95, map 7J25
 - 9. EDHRI5 Wild Turkey Drive
 - 10. EDHRI6 Falcon Crest Lane
 - 11. EDHRI7 Settlers Trail
 - 12. EDHHFR1 Kipps Lane
 - 13. EDHHFR2- Old Bass Lake Road #1001 14)
 - 14. EDHHFR3 Falcon Crest Lane
 - 15. EDHHFR4 -Thunder Lane
 - 16. EDHHFR5 Cothrin Ranch Road #95
 - 17. EDHHFR6 Wild Turkey Drive
 - 18. EDHHFR7 Hidden Bridge Road

**These road improvements are not inside the Lakehills FSC Boundaries but are important to the El Dorado Hill Fire Department. They are also a concern to El Dorado County Fire Safe Council and LHFSC as they could participate in planning due to their role as stakeholders in the improvement and maintenance of the travel routes.

Definitions:

(*RC*) Road Connection: Connection of two or more roadways to provide improved and appropriate emergency ingress/egress and circulation

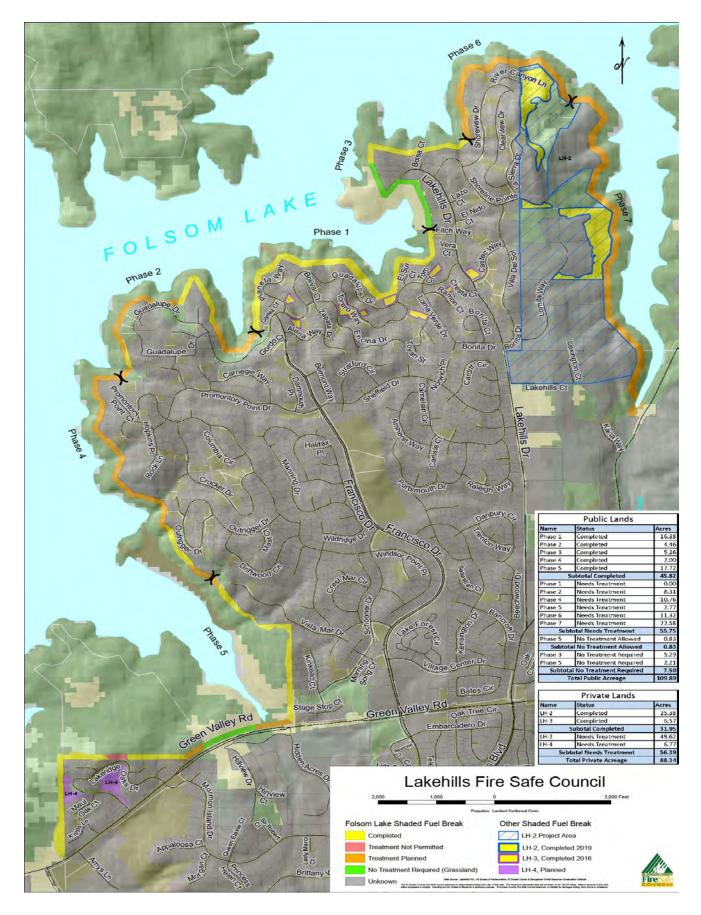
(*RI*) Road Improvement: Roadway Paving, Grading, Widening, Turn Outs, Connection, etc. (*HFR*) Hazard Fuel Reduction: Vegetative Clearances around roadways or structure, utilities, etc.

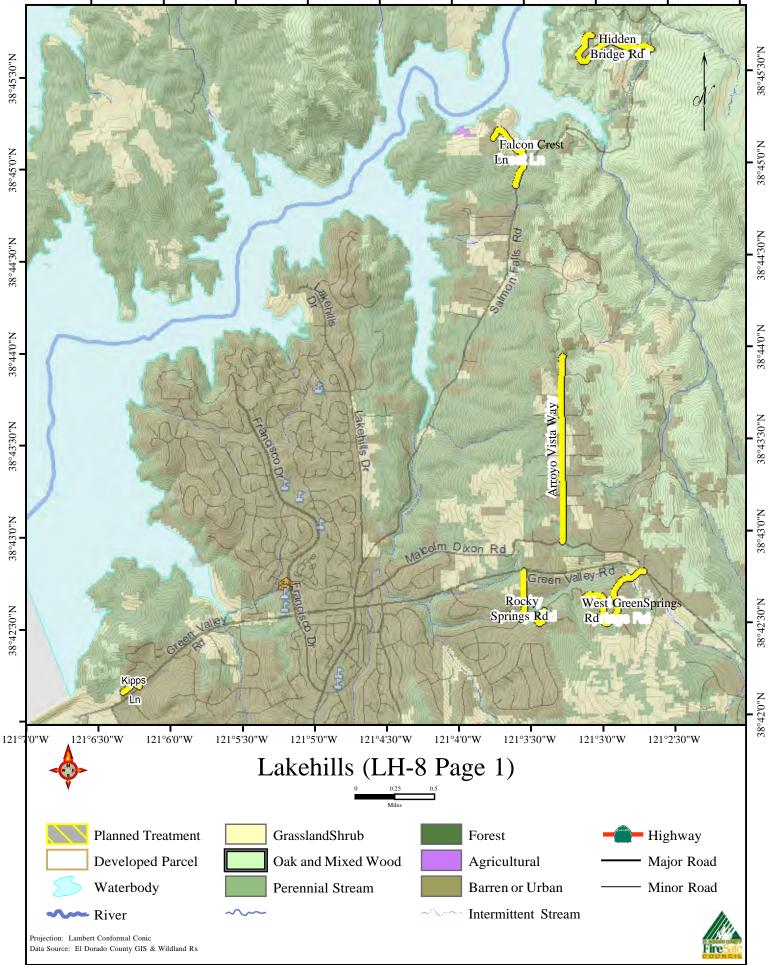
Action Items:

Identify common goal areas with ED County DOT and CALFIRE.

9. LH9 – FLSRA SFB Prescription Expansion. To expand the current SFB treated and planned treatment areas to create an expanded SFB fuel reduction zone.

LH10 – Education & Outreach. Expand historical fire safety outreach via door to door and meetings to include social / electronic, signage and other means to reach a broader audience





121°6'30"W

121°5'30"W

121°5'0"W

121°4'30"W

121°4'0"W

121°3'30"W

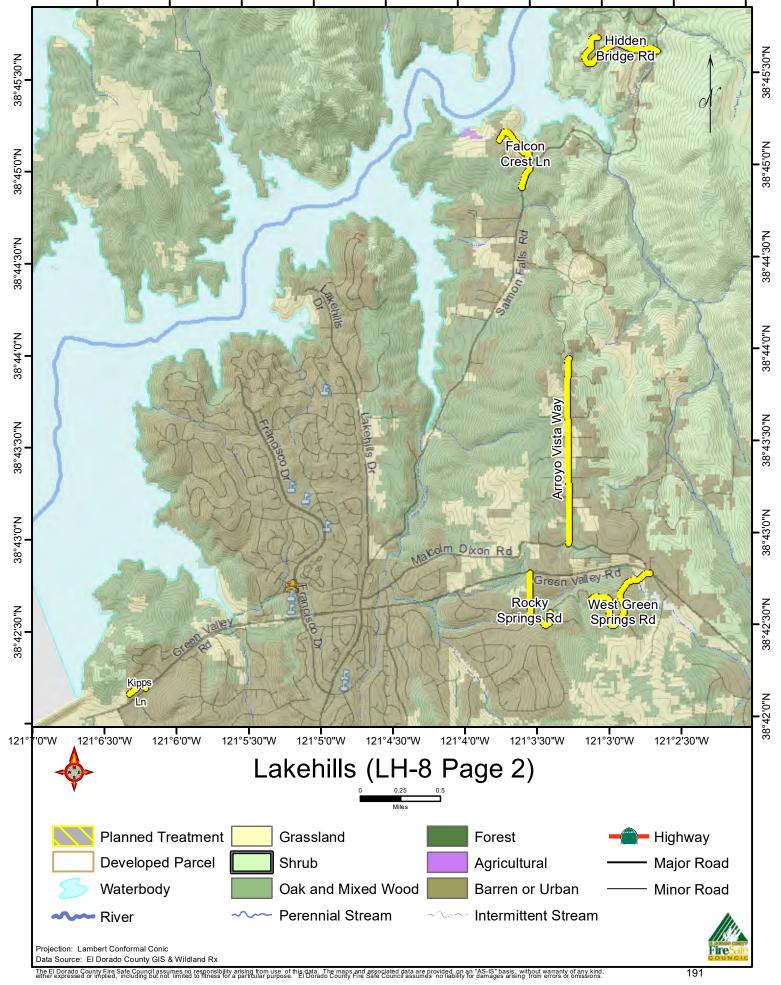
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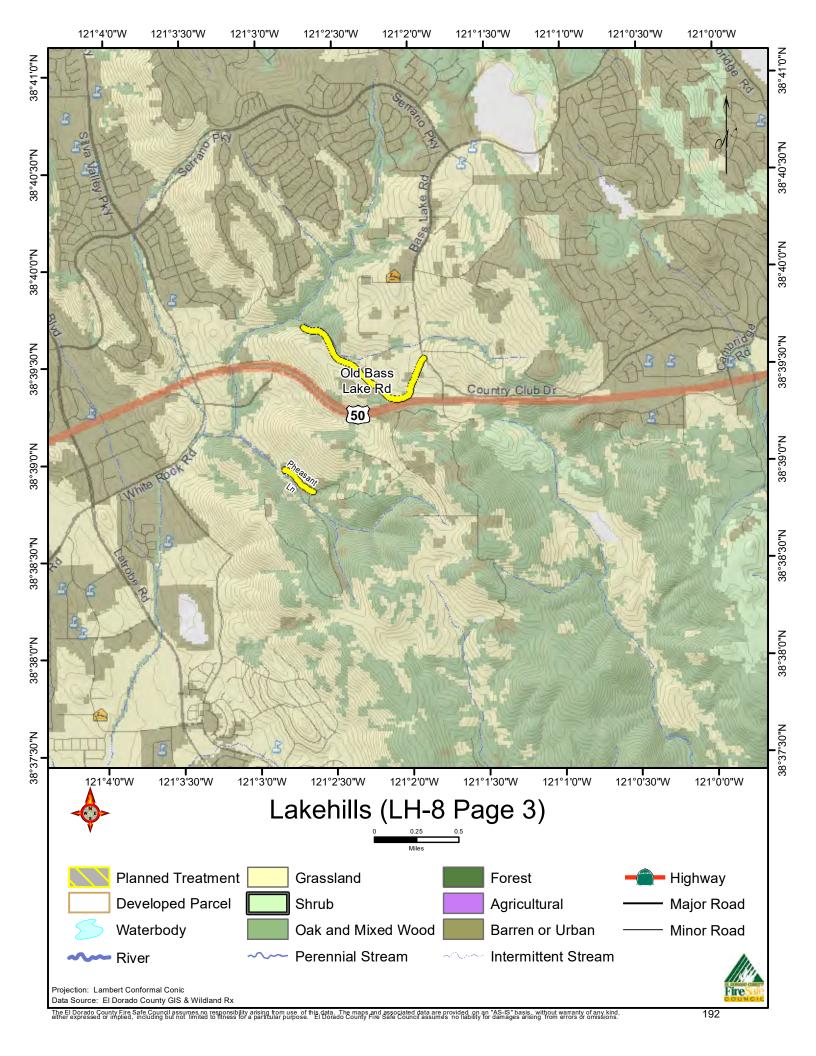
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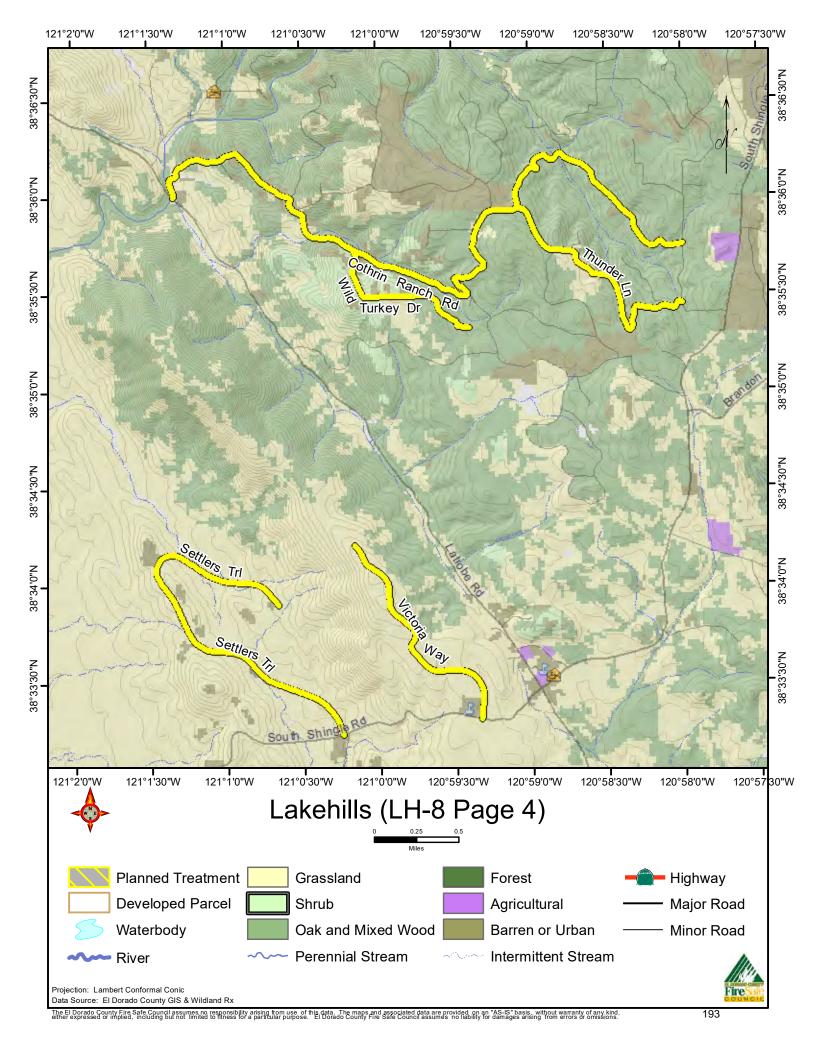
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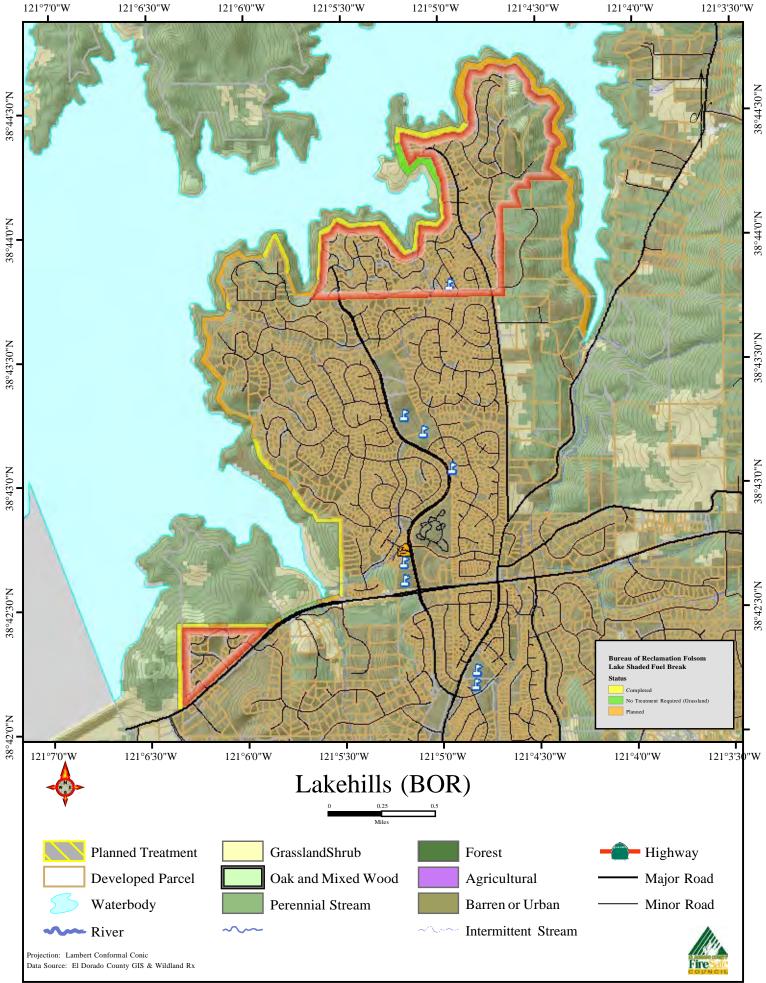
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121°2'30"W









Lakehills FSC Community Projects

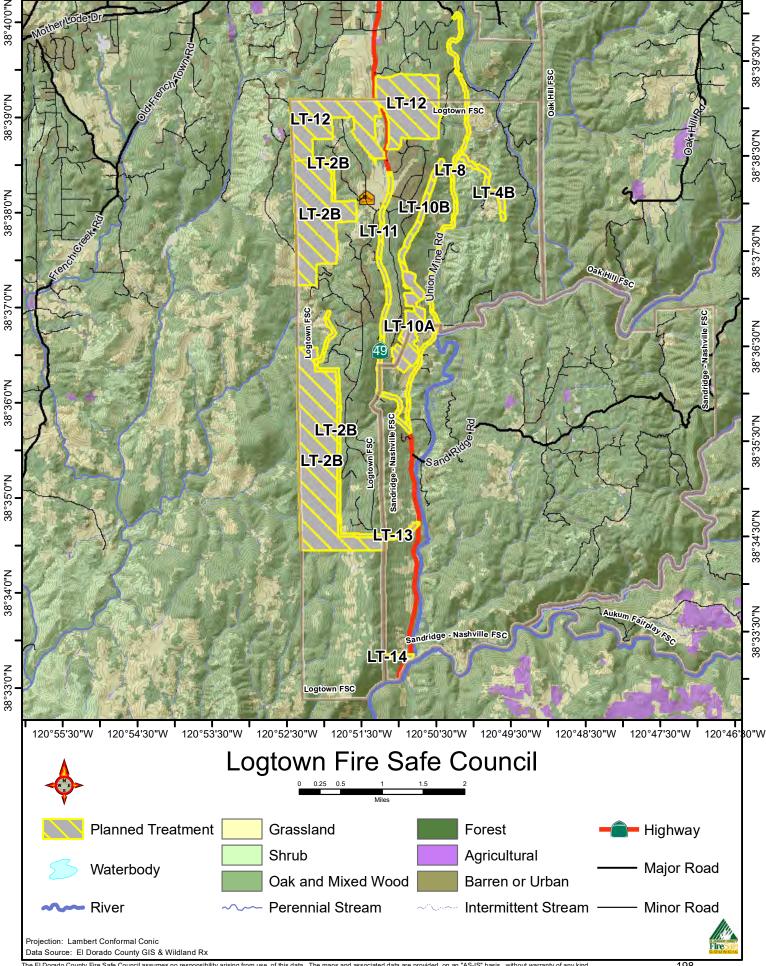
PROJECT NAME	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	Status	Next Action
Hazard Tree Removal	LH-1	Tree Removal	Trim / Remove			Partial Treatment Completed	Produce new tree count & treatment
New York Creek	LH-2	Vegetation Management	SFB Prescription	38		Completed	Maintenance
Vacant Parcel FuelReduction	LH-3	Vegetation Management	SFB Prescription	15		Completed	Maintenance
Lakeridge Oaks Fuel Reduction	LH-4	Vegetation Management	SFB Prescription	7		Partially treated	Treat remaining portion
Roadside Clearance	LH-5	Vegetation Management	Fuel Reduction	6		Completed	Maintenance
Homeowne rAssistance	LH-6	Vegetation Management	Fuel Reduction	50			Re-evaluate actions & count. Possible goals; fuel reduction, tree removal, non- continuity attainment, hydrant maintenance
FLSRA SFB	LH-7	Vegetation Management	SFB Prescription	131	9.5	Partially Treated	Maintenance andComplete
Greater EDH Emergency Road Improvement	LH-8	Road Improvement & FuelReduction	Road connection, improvement and / or fuel reduction				Detail specifications ofwork with EDHFD
FLSRA SFB Prescriptio n Expansion	LH-9	Expand permitted treatment area	SFB Prescription	131	9.5	CEQA Update Complete(EDC RCD 2020)	Complete NEPA andprescription update

Education	LH-10	Various outreach	Sign messaging,		Planning	Subjects: Code Red,
&Outreach		activitiesto meet	door to door,			DS, Hardening
		specific goals	electronic /			Homes
			social			

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Logtown Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update November 2021



120°55'30"W

120°54'30"W

120°53'30"W

120°52'30"W

120°51'30"W

120°50'30"W

120°49'30"W

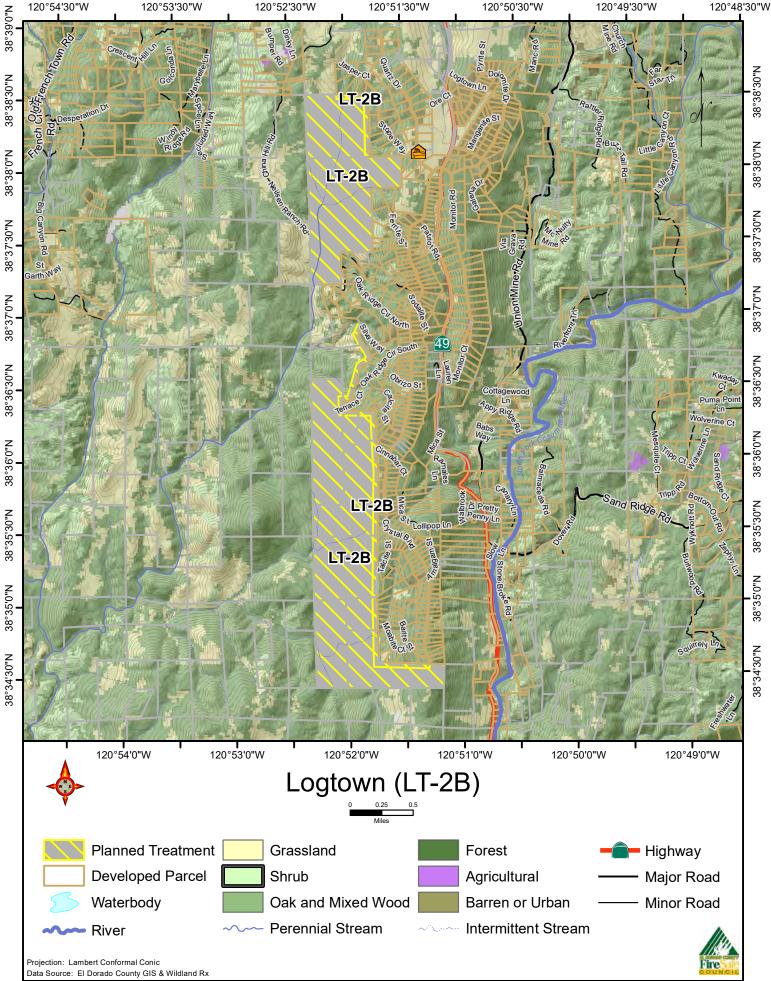
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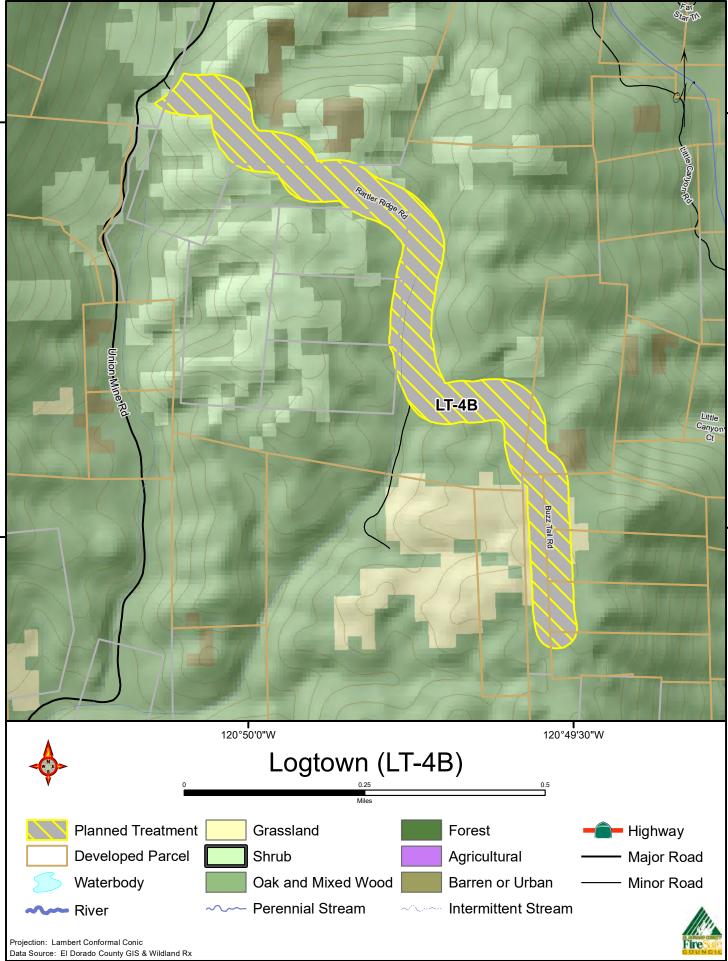
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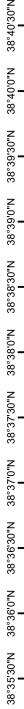
38°38'0"N

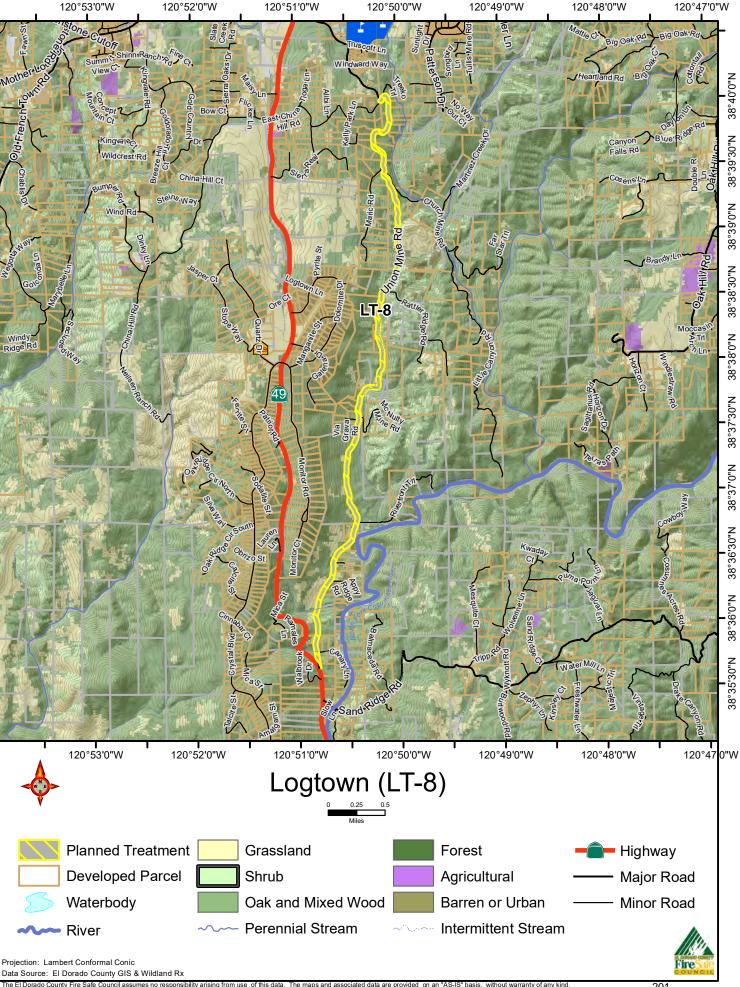
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120°50'0"W

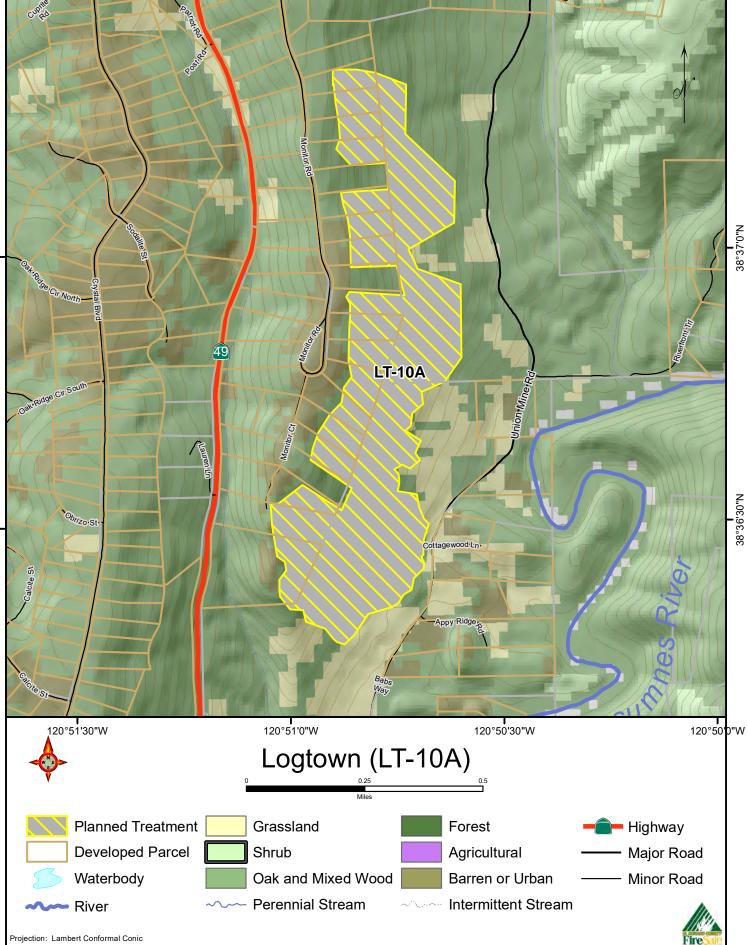
120°49'30"W





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201



120°51'0"W

120°50'30"W

120°50'0"W

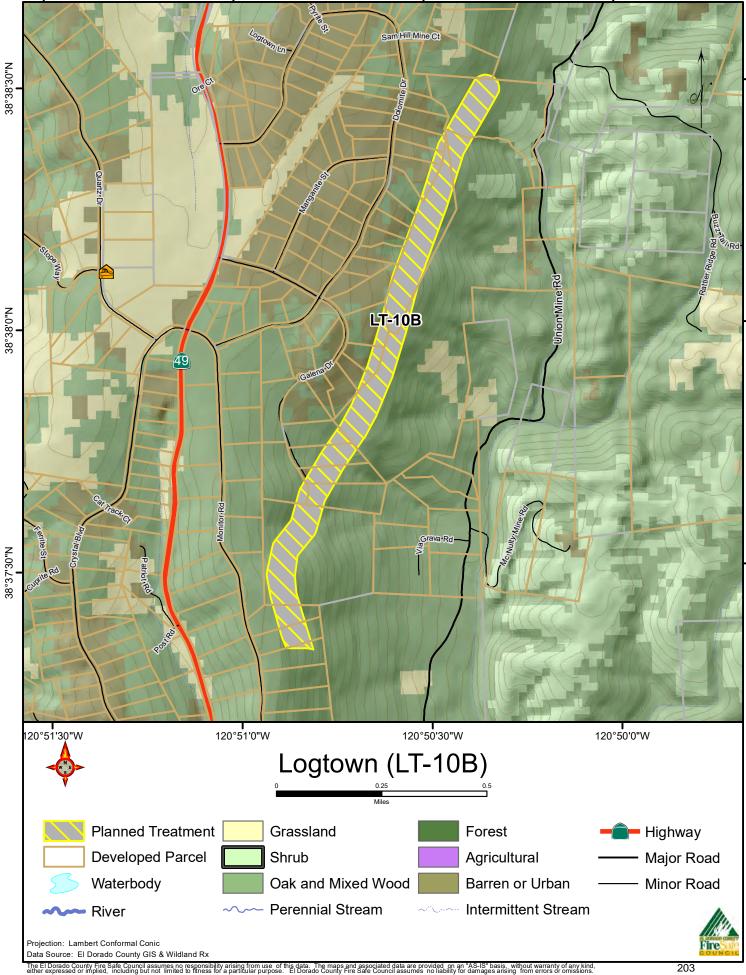
Data Source: El Dorado County GIS & Wildland Rx

120°51'30"W

38°37'0"N

38°36'30"N

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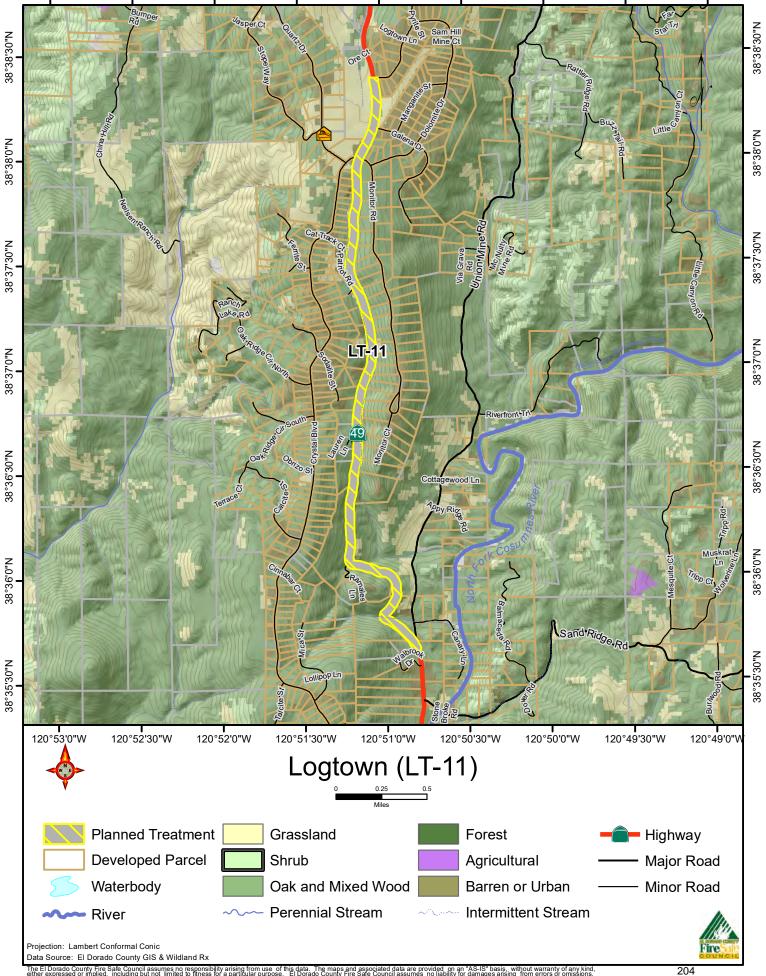


203

120°51'0"W

120°50'30"W

120°50'0"W



120°53'0"W

120°52'0"W

120°52'30"W

120°51'30"W

120°51'0"W

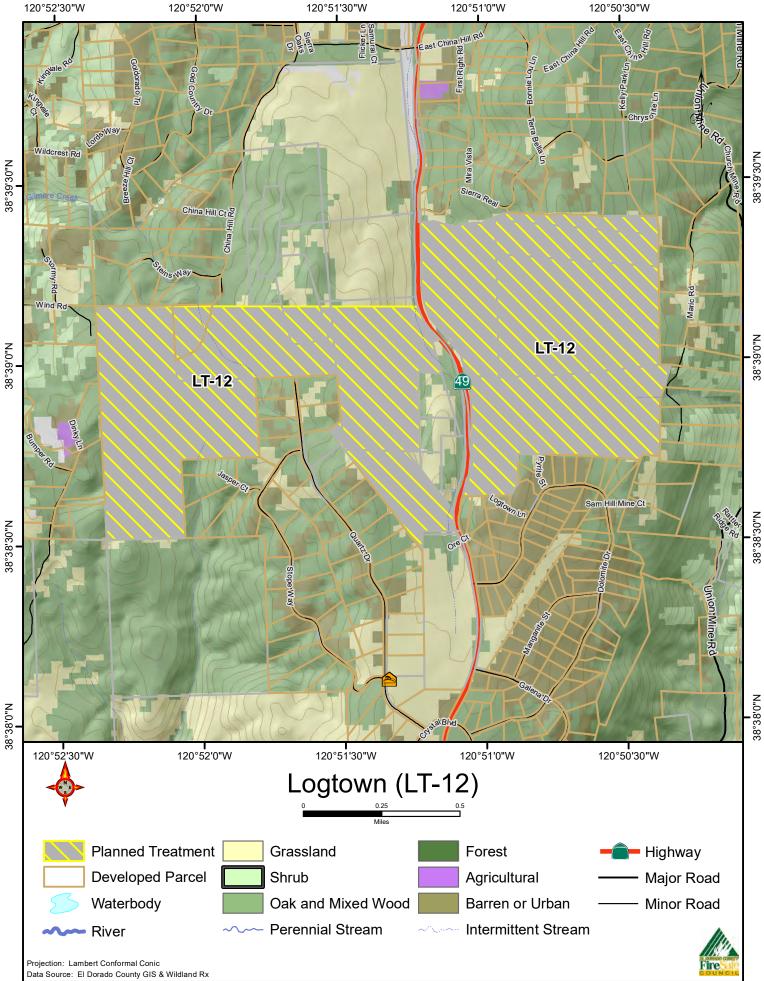
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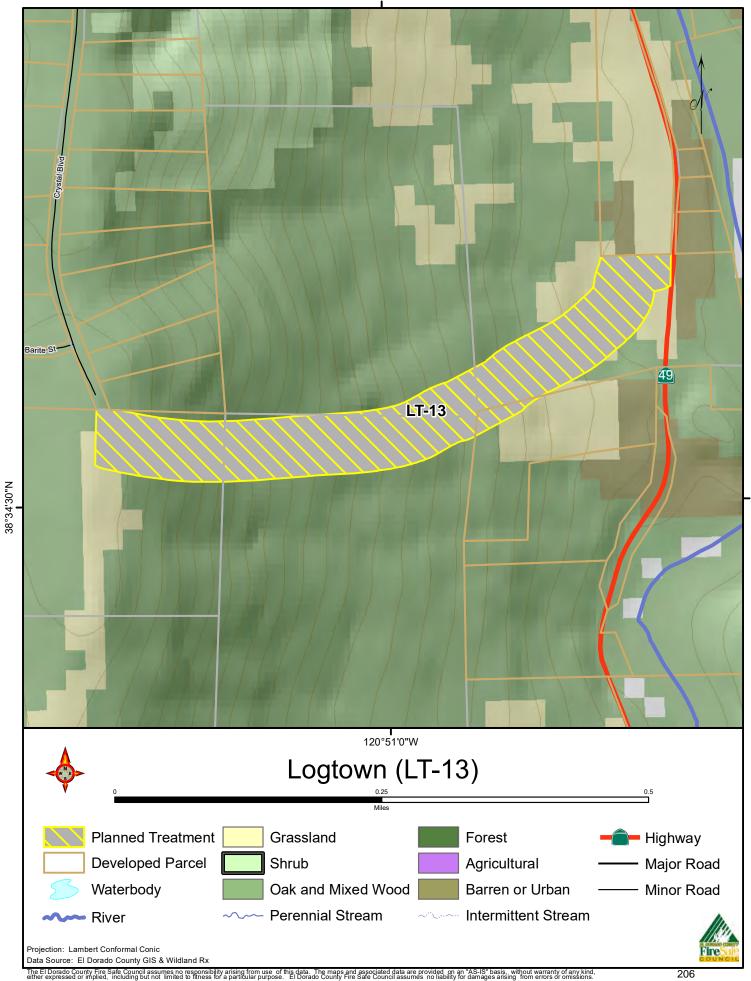
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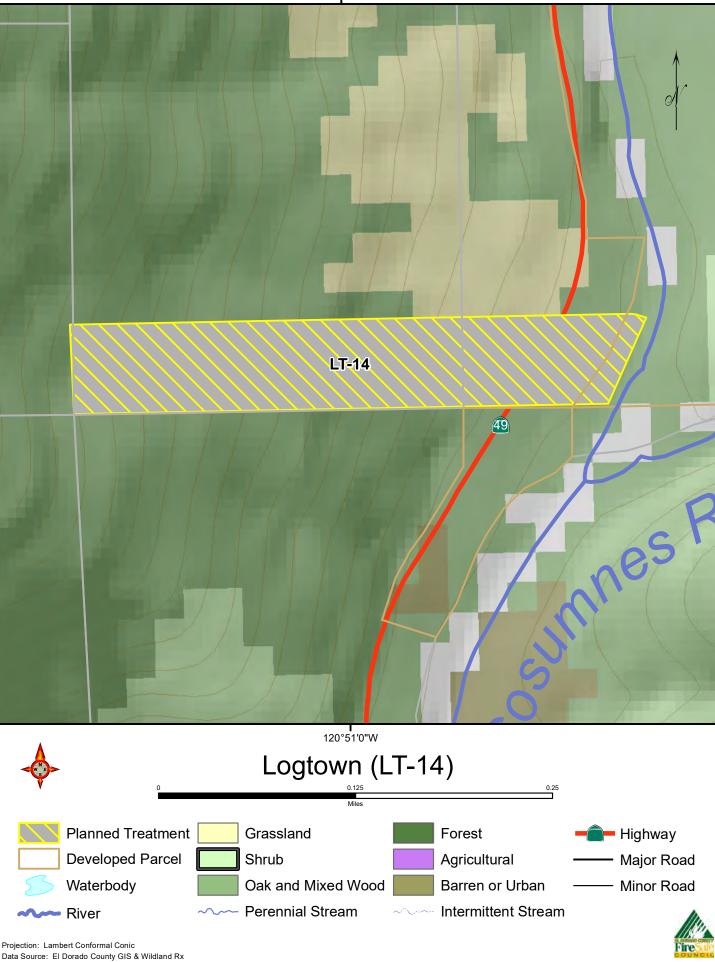
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120°49'0"W



The EI Dorado Courty Fire Safe Council assumes no responsibility arising from use of this data. The maps and associated data are provided on an "AS-IS" basis, without warranty of any kind, either expressed or mpiled, including but not limited to litness for a particular purpose. EI Dorado Council assumes no liability for damages arising from errors or orisisted as a set of the set of a particular purpose. EI Dorado Council y fire Safe Council assumes no liability of damages arising from errors or orisisted as a set of the set of a particular purpose. EI Dorado Council assumes no liability for damages arising from errors or orisisted as a set of the set of a particular purpose. EI Dorado Council y fire Safe Council assumes no liability of damages arising from errors or orisisted as a set of the set of a particular purpose. EI Dorado Council y fire Safe Council assumes no liability for damages arising from errors or orisisted as a set of the set of a particular purpose. EI Dorado County Fire Safe Council assumes no liability of damages arising from errors or or orisisted as a set of the set of a particular purpose. EI Dorado County Fire Safe Council assumes no liability for damages arising from errors or or orisisted as a set of the set of a particular purpose. EI Dorado County Fire Safe Council assumes no liability for damages arising from errors or or orisisted as a set of the set of a particular purpose. EI Dorado County Fire Safe Council assumes no liability for damages arising from errors or or orisisted as a set of the set of a particular purpose. EI Dorado County Fire Safe Council assumes no liability for damages arising from errors or or or orisisted as a set of the set of a particular purpose are set of the set





120°51'0"W

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Logtown FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
Union Mine Road	5	Lt 8	Roadside Hazard reduction	Mastication /Hazard Tree		
South East Monitor	8	LT 10 A	Fuel Break along steep and rockyterrain	Complete dHand Work/Masticatio n	133	\$454,280 (\$2933/acre)
North Dolomite EastSide	3	LT 10 B	Fuel Break steep and rockyterrain	Hand work/ Chipping		
SR 49	1	LT 11	Roadside Hazard reduction along Hwy 49 Evacuation route	Mastication/ Hazard Tree		
West side NeilsonRanch	6	Lt 2B	Fuel Break Maintenance	Grazing	7000	Ongoing ranching and timber harvest
Buzztail & Rattler Ridge	2	LT 4	Fuel Break	Mastication/ Hand Work		
North and Northeastside of community	7	LT- xx	Grazed ranchlands Bidstrup/Brooks Ranch	Grazing	3000	Ongoing Cattle ranching
South end of CrystalEast to Nashville & SR49	4	LT-XZ	Steep terrain connecting to siteof Sandridge fire	Hand work		

Grizzly Flats Fire Safe Council



Photo: Hoskins Hotel, Main Street, Grizzly Flat, CA, Dedicated 1886

Update to the West Slope El Dorado County CWPP

November 2021

Grizzly Flats Fire Safe Council Sphere of Recognition Description

The Grizzly Flats Fire Safe Council (GFFSC) Sphere of Recognition (SofR) encompasses approximately 39 square miles (25,000 acres). The GFFSC SofR consists of 11 residential subdivisions with 1,600 parcels with sizes ranging from 1/4 to 1 acre in area. Ten (10) of these subdivisions make up the unincorporated Grizzly Flats community. In all, there are an estimated 1,600 parcels of land and an estimated 800 habitable developed residential homes on these 1,600 parcels. The 1,600 parcels are estimated to cover 6,200 acres of land. It is estimated a third (1/3) or more of this acreage are large unimproved parcels with heavily fueled with hazardous vegetation. To the north and west of the Grizzly Flats community are multiple additional parcels of private residential land. Adjoining the subdivided parcels at the community's core area are larger forested properties varying from 5 to 100 acres. The Eldorado National Forest (ENF), Placerville Ranger District, abuts 90% of the community boundary. The SofR elevations range from 2600 feet to 4,400 feet above sea level. The ENF which includes the Grizzly Flats Community Service District's Eagle Ditch with its headwaters and watersheds on the ENF North Canyon and Big Canyon. This ditch is the only water conveyance system to the community water treatment plant.

Within the SofR is found the Leoni Meadows Camp Seventh Day Adventist Conference Center is a 960 acre privately owned retreat camp; with 50 inhabited structures and 35 full time residents; seasonally there are approximately 125 staff members and 500 weekly visitors.

The Sierra Pacific Industries (SPI) owns two parcels totaling approximately 945 acres within the SofR north of String Canyon Road and Sciaroni Road. Sierra Pacific Industries sustain its forest by employing modern management practices.

Topography and Weather Influences

The Grizzly Flats community was established in the early 1850's as a gold rush town that

evolved into a community around the timber industry in much of the 20th Century. During the early Gold Rush era, when hydraulic mining was permitted, parts of the landscape was changed by high pressure water volumes washing soil away down to bed rock leaving deep gullies, "blow outs", throughout the area.

The topography within the community is relatively gentle, but String Canyon Creek is approximately in the middle. The SofR is bounded by on the north by the North Fork and Steely Fork of the Cosumnes River and the south and westerly boundary by the Middle Fork of the Cosumnes River which are in steep canyons with heavy fuel loading. The vegetation (fuels) is a diverse landscape mosaic primarily a second growth stand of mixed conifers with understory forming an excessive amount of ladder fuel. The Middle Fork of the Cosumnes River canyon can exert a strong effect on fire behavior. Because the canyon is aligned with the prevailing southwest winds, they are funneled through the canyon with unimpeded speeds of 10 to 15 mph.

The North Fork of the Cosumnes River lies on the Northern boundary of the SofR which is also a steep canyon. The canyon can exert a strong effect on fire behavior. This canyon is aligned with the prevailing summer North winds.

Objectives:

Reduce hazardous fuels through reducing risk to SofR residences and first responders.

Protection of water purveying watershed; and

Conduct vegetation prescriptions to reduce the rate of spread, duration and intensity, and fuel ignition of crowns.

Goals:

The cohesive strategy has two goals needed to increase protection from wildfire:

- Reduce landscape hazardous fuel load within the SofR boundary and egress routes; and
- Reduce risk of fire ignitions pockets of high fuel load within the SofR residential areas.

Wildfire Preparedness Landscape-Scale Program: Large cohesive strategy is for managing hazardous fuels and preventing wildfire spread into and through the GFFSC SofR. The projects will reduce the risk of home ignitions from wildfire, by creating a fuel break along strategic boundary of the community and to the SofR interior, which will limit wildfire spread and is intended to prevent a large disastrous fire in the community of Grizzly Flats and SofR and neighboring areas.

The Grizzly Flats community (10 subdivisions) was developed in a patchwork quilt random fashion over time and in an area where hazardous vegetation fuels existed. Because of this residential development in the SofR area with sufficient vegetation continuity, a wildland fire would readily burn though development when initial wildfire started in wildland areas. Embers in front of a main wildfire at times can initiate spot fires in a community. There is not a clear continuous demarcation within the SofR with respect to interior wildland's thick mix conifer forest and/or shrub covered slopes on the US Forest Service Eldorado National Forest, Bureau of Land Management Middle Fork Cosumnes River watershed, and North Fork Cosumnes River watershed, and Sierra Pacific Industry managed forest land.

Wildfire Prevention Landscape Design Criteria: Vegetation in priority project areas should support no greater than 4-foot flame lengths over 75 percent of the land area during 95th percentile fire weather.

Strategically Placed Landscape Area Treatments: Maps depict priority areas of strategically placed area treatments within the GFFSC SofR. Strategically placed landscape area treatments are prioritized to meet fuels objectives and goals. Prescribed treatments will eliminate the vertical and horizontal continuity of vegetative fuels for the purpose of reducing the rate of fire spread, duration and intensity, fuel ignitability, and ignition of tree crowns. The maps present polygons depicting project areas in priority listings. Each project is the highest priority for the houses protected. There is no scientific basis for calling one project a higher priority.

The five acre or smaller parcels defensible space buffer is the responsibility of the landowner. The defensible space buffer has two elements. First, to create the defensible space required around structures to improve the chances of surviving a fire. Second, is to provide a safe area for firefighters responding to wildland fires on a property and in a neighborhood. To meet the five acre or smaller parcels defensible zone requirements, fuel modification is accomplished through manipulation of natural vegetation (trees, shrubs, vines, annual weeds) by weed eating, thinning, pruning, ladder fuel limbing, shrub concentration reduced by creating a mosaic of removed remaining plants, and treatment of slash helps reduce fuel load and reduces the fire's intensity.

To enhance mitigation efforts in the event of a wildland fire, a shaded fuel break (reduction in forest trees, and understory trees and shrubs) is generally constructed to separate populous areas from large stands of native vegetation or thinning thick stands of trees within a populated area. By removing ladder fuels from the defensible space and along access points and fuel breaks, the risk of a fire progressing into a fast-moving crown fire are reduced. Removal of fuel along the fuel breaks and access points will help reduce the risk for firefighters and other first responders and enable a resident's safer egress. More open tree canopies and reduced ladder fuels will make firefighting, including aerial retardant application, more effective and safer. There will be reduced risk of residential structural fires spreading into the surrounding forest. The Project treatment works in both directions.

The SofR project areas were identified using the methodology described in a document provided by RPF John Pickett of Live Oak Wildfire Solutions. His methodology takes advantage of "logical" fuel reduction opportunities across ownerships.

Table Grizzly Flat FSC Community Projects list priority areas was chosen starting from the northeastern part of the Grizzly Flats community to south side where project areas have higher risk and then proceeding clockwise around the community and interior of the SofR, and then to the interior unimproved parcels greater than five acres in the community. The south side of the ridge is drier and aligned with summer and fall prevailing winds. The southwesterly side of the SofR (Middle Fork Cosumnes River watershed ridge) is a higher priority.

The Grizzly Flats-45 (GF-45) project area is an eleven-mile-long fuel break between the Grizzly Flats and Somerset Post Offices (four corners area which provide three routes out of the area). The 11-mile fuel break along will provide safer access to and from Grizzly Flats and SofR residents in the event of a wildfire. There are 1,375 habitable structures in the Project Area and

the immediate area of the project. The proposed project will establish a fuel break, 300-foot wide.

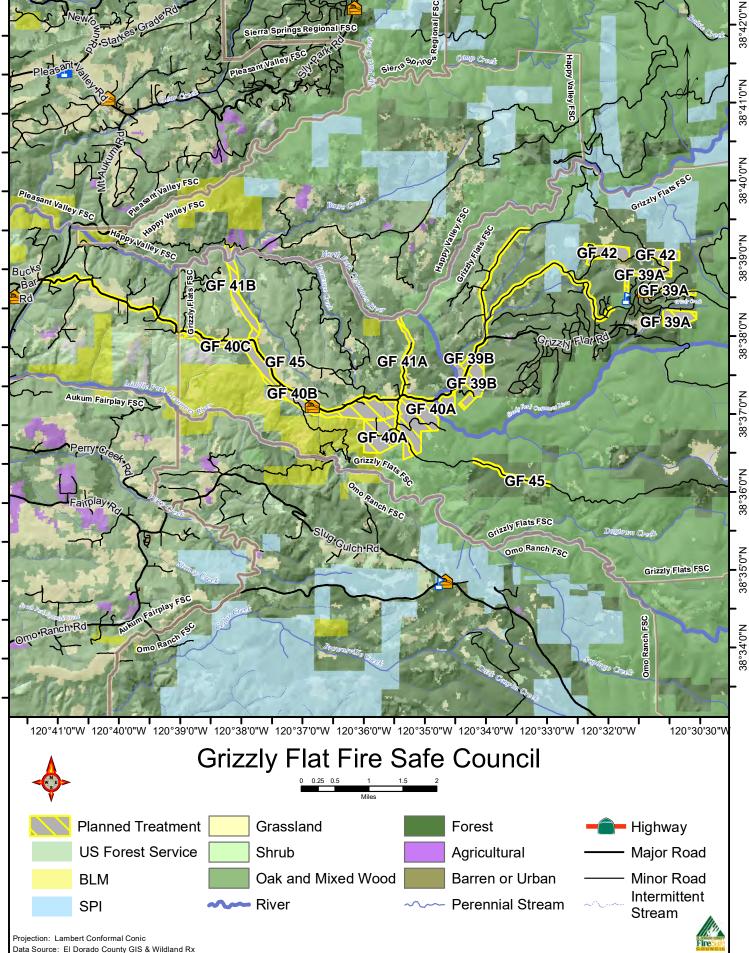
The 300-foot wide shaded fuel break will consist of 150-foot of treatment (measurements taken from the centerline of the road) on both sides of the county road, on private property. This project area would be a fuel break reduction in mix conifer forest trees, oak and gray pine woodland, and shrubs. The proposed project will also provide a safe and effective, strategically located, fuel break for firefighters to address a wildfire on the landscape, thus benefiting surrounding forestlands, structures, and community.

Part of this project area may be partially completed through other wildfire preparedness landscape-scale projects. The remainder untreated areas could be divided into smaller areas which would accommodate grant monies available.

The Grizzly Flats-38 (GF-38) project is a Community Green Waste Deposal Options Technologies proposal that would address requirements for deposing of pine needles, leaves, vines, small twigs/trimmings, forest litter, weeds/grass clippings and tree root balls which can not be chipped or mulched and placed back on to a property. The proposal would analyze green waste deposal options with respect to advantages and oppositions and identify permitting issues associated with green waste deposal technologies.

The GFFSC fuel reduction treatment areas grant numbering sequence will continue from GF-38. The proposed treatment areas will list GF number than map number – i.e., GF-39A. The priority listed on Table Grizzly Flat FSC Community Projects.

Maps presented include Grizzly Flats Fire Safe Council overall proposed treatment areas and GF-39A & B, GF-40A-C, GF-41 A & B, GF-42 and GF-45 depicted specific areas for treatment.



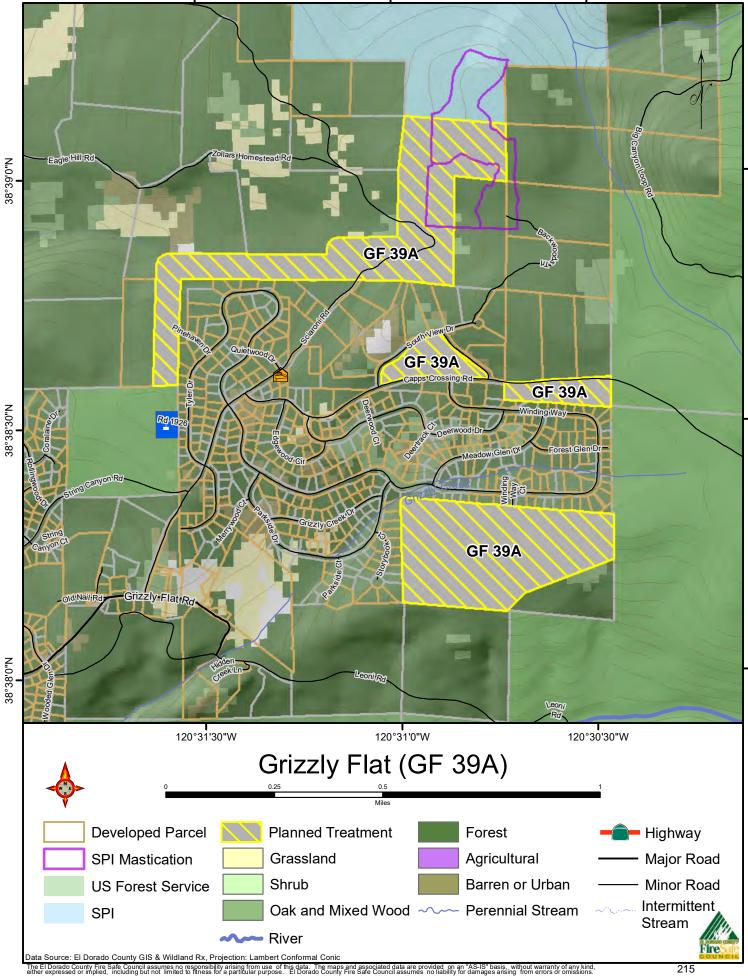
The El Dorado County Fire Safe Council assumes no responsibility arising from use of this data. The maps and associated data are provided on an "AS-IS" basis, without warranty of any kind either expressed or implied, including but not limited to fitness for a particular purpose. El Dorado County Fire Safe Council assumes no liability for damages arising from errors or omissions.

120°41'0"W 120°40'0"W 120°39'0"W 120°38'0"W 120°37'0"W 120°36'0"W 120°35'0"W 120°34'0"W 120°33'0"W 120°32'0"W 120°31'0"W 120°31'0"W 120°30'0"W

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214



120°31'0"W

120°30'30"W

38°38'30"N

120°31'30"W

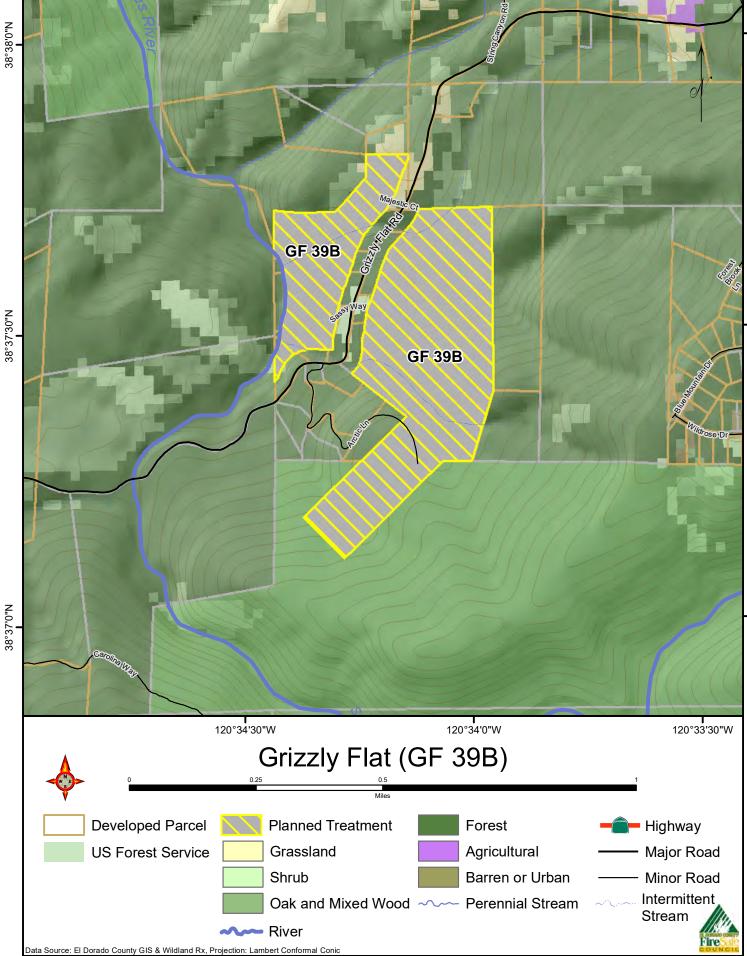
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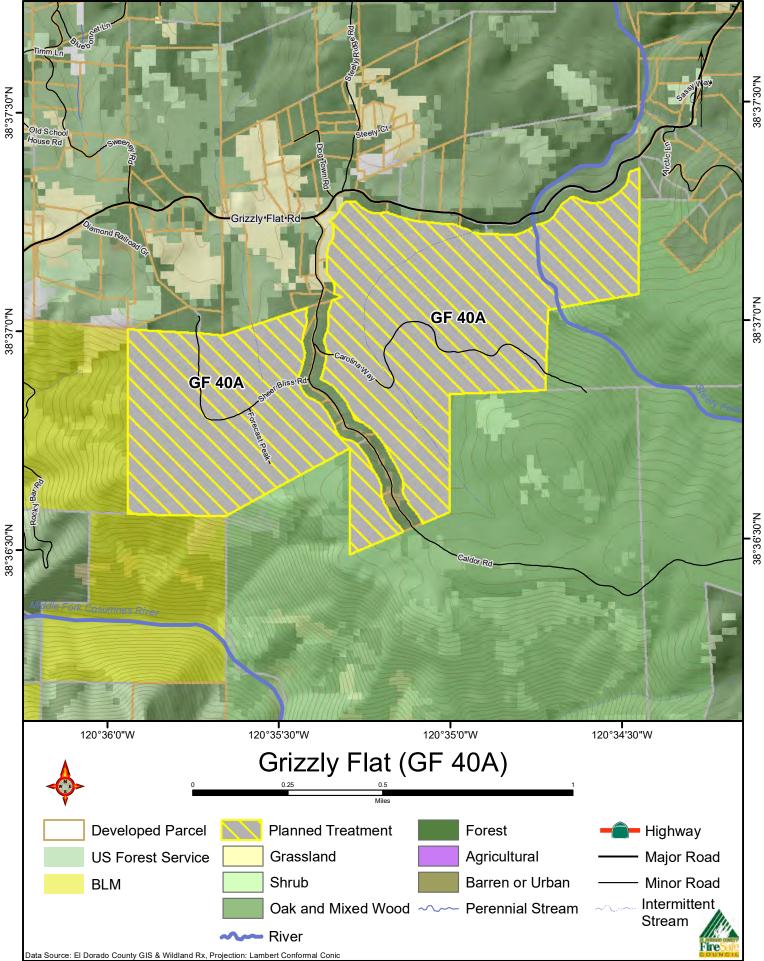
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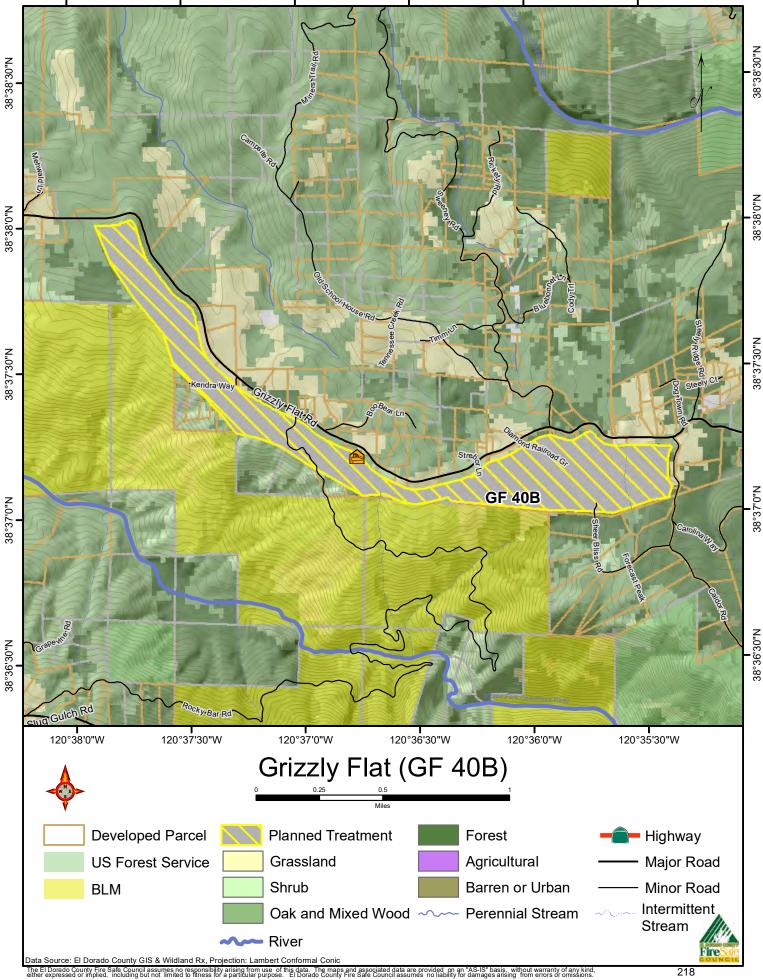
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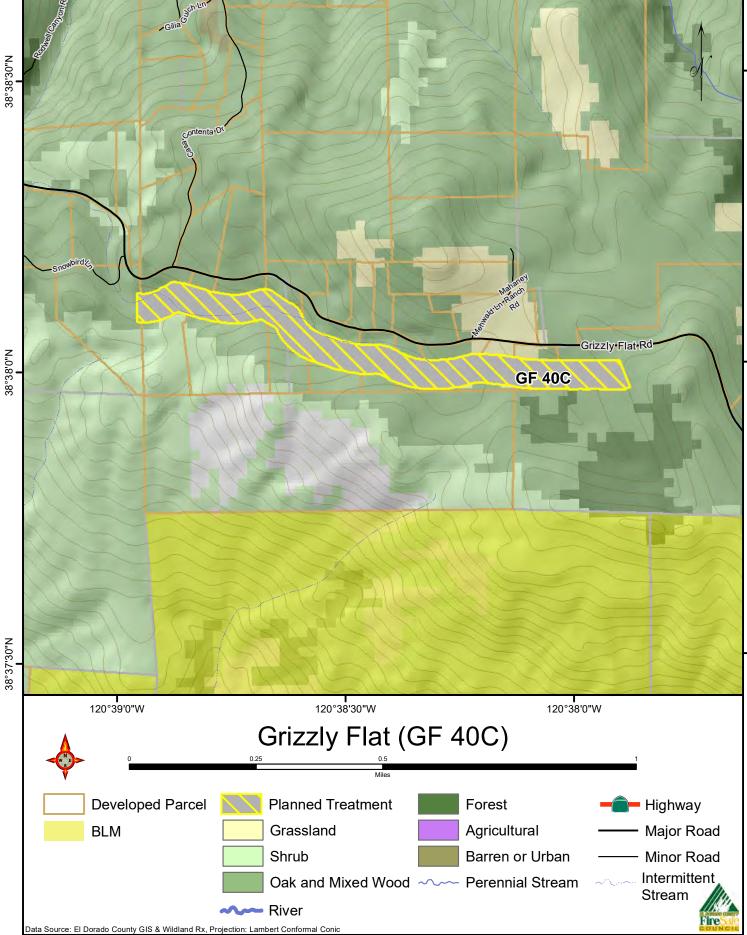
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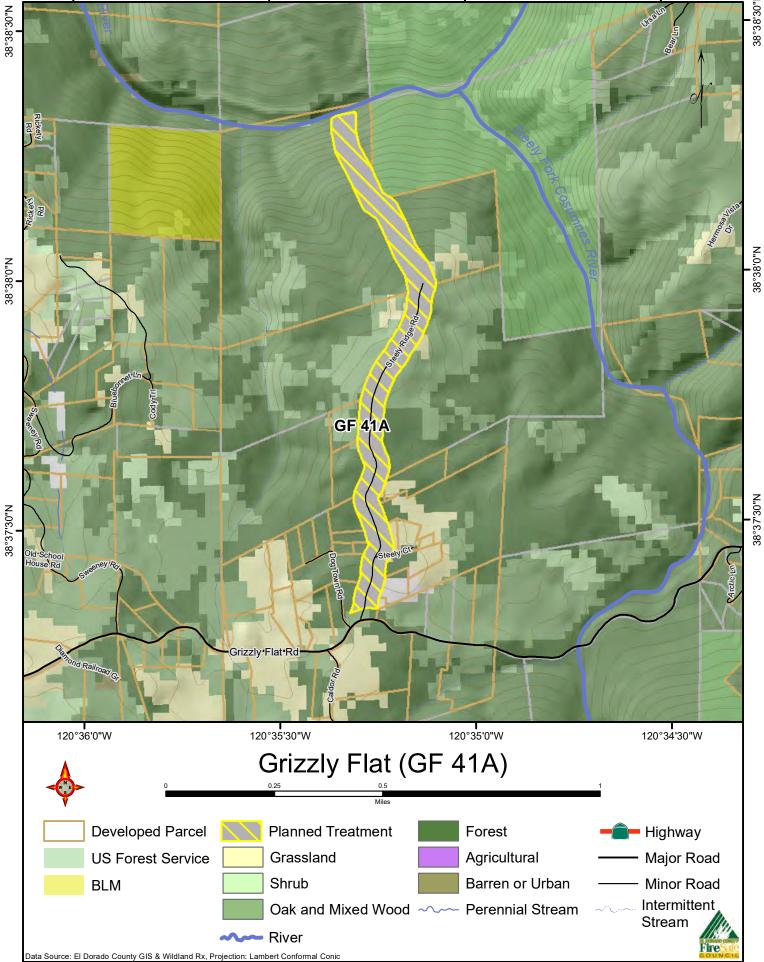
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219



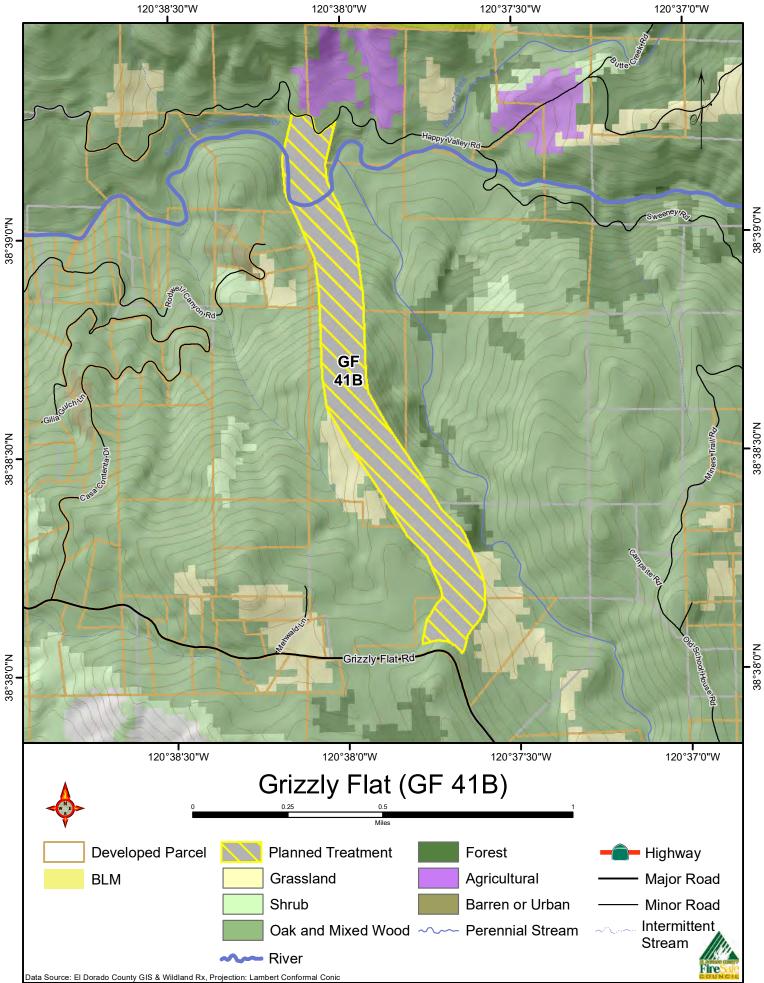
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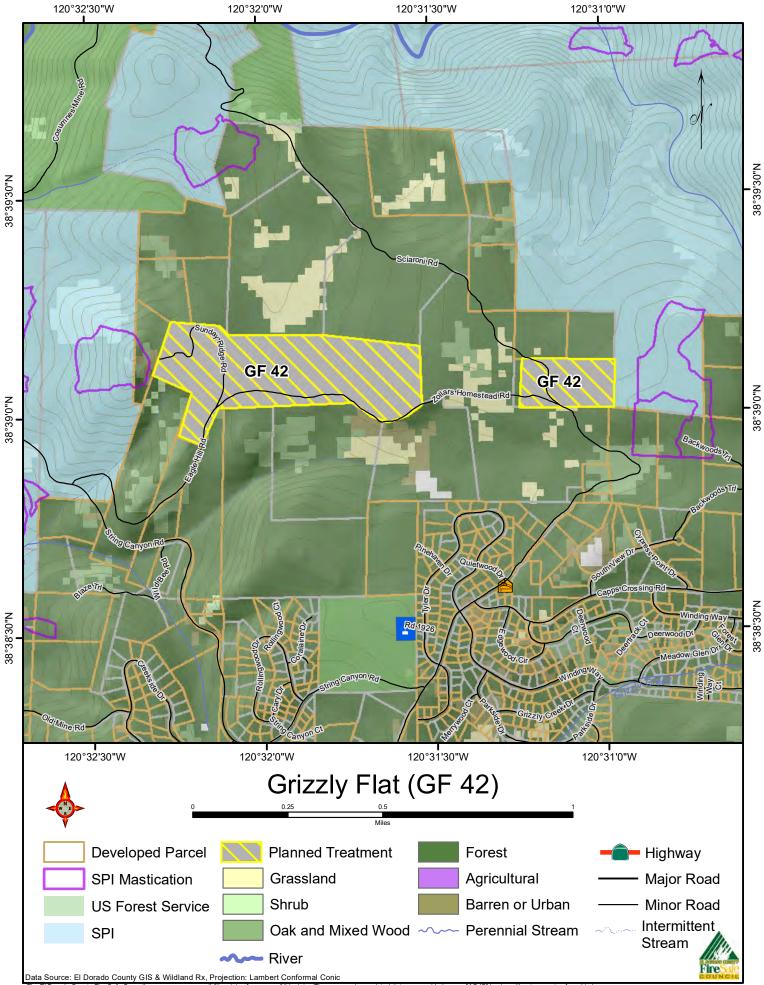
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38°38'30"N

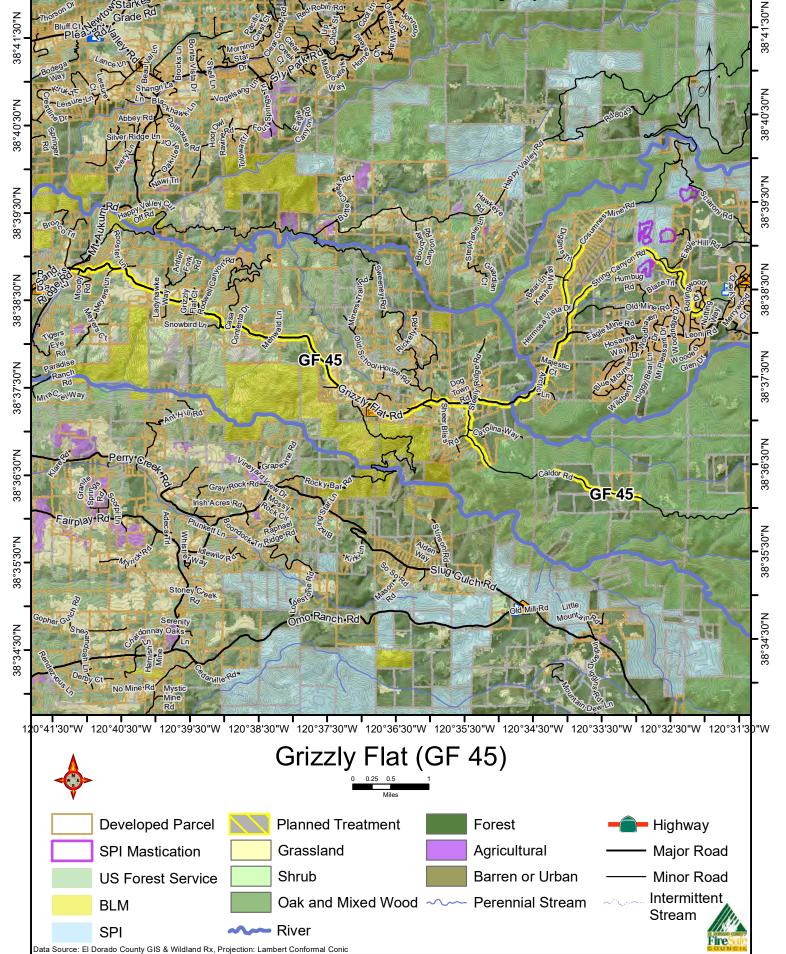


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Grizzly Flat FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT	PROJECT DESCRIPTION	TREATMENT	ACRES/	ESTIMATED
		NUMBER		ΤΥΡΕ	MILES	COST
	1	GF 33	Community Green Waste removal			
	1	GF-39A	Fuel Reduction		154.9	
	1	GF 39B	Fuel Reduction		115.7	
	2	GF-40A	Fuel Reduction		438.0	
	2	GF-40 B	Fuel Break		264.8	
		GF-40C	Fuel Reduction		37.0	
	3	GF-41A	Fuel Break		45.3	
		GF-41B	Fuel Break		108.8	
	4	GF 42	Fuel Break Maintenance		106.5	
Grizzly Flat PO to Somerset PO	5	GF-45	Road side Hazard Reduction		417.0	

Grizzly Flats FSC 2017 CWPP Projects

COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Grizzly Flats	1a	GF-32	Hazard Tree Removal	Hazard Tree			\$200,000
Grizzly Flats	1	GF-13	Near Eagle Mine Road	Fuel Reduction	91		\$182,000
Grizzly Flats	2	GF-28	Tyler Fuel Break	Fuel Reduction	44		\$88,000
Grizzly Flats	3	GF-26	GFCSC Reservoir Protection	Fuel Reduction	9		\$18,000
Grizzly Flats	4	GF-33	GFCSD Water Tank Protection	Fuel Reduction	2		\$4,000
Grizzly Flats	5	GF-17	Caldor Road	l Fuel Reduction			\$426,000
Grizzly Flats	6	GF-18	Henry's Diggings	Fuel Reduction	75		\$150,000
Grizzly Flats	7	GF-20	Cosumnes Mine Road Area Fuel Reduction		70		\$140,000
Grizzly Flats	8	GF-23	Woodpecker Acres Reservoir	ker Acres Reservoir Infrastructure			\$30,000
Grizzly Flats	9	GF-14	Vacant Lot Hazard Reduction	Fuel Reduction	100		\$200,000
Grizzly Flats	10	GF-16	Huggy Bear Fuel Reduction	Fuel Reduction	20		\$40,000
Grizzly Flats	11	GF-24	Steely Ridge Fuel Reduction	Fuel Reduction	30		\$60,000
Grizzly Flats	12	GF-30	Log Cleanup – SE of Community	Fuel Reduction	80		\$160,000
Grizzly Flats	13	GF-29	Gilbert Fuel Break	Fuel Reduction	25		\$50,000

Grizzly Flat FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT	PROJECT DESCRIPTION	TREATMENT	ACRES/	ESTIMATED
		NUMBER		TYPE	MILES	COST
	1	GF 33	Community Green Waste			
			removal			
	1	GF-39A	Fuel Reduction			
	1	GF 39B	Fuel Reduction			
		GF 39 C	Fuel Break			
	2	GF-40A	Fuel Reduction			
	2	GF-40 B	Fuel Break			
		GF-40C	Fuel Reduction			
	3	GF-41A	Fuel Break			
		GF-41B	Fuel Break			
	4	GF 42	Fuel Break Maintenance			
Grizzly Flat PO to	5	GF-45	Road side Hazard Reduction			
Somerset PO						

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Mosquito Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update

November 2021

INTRODUCTION

The Mosquito Fire Safe Council was formed in 2015 in the wake of the King Fire in September2014 which threatened our community and resulted in a 10 day evacuation for our Mosquitoand Swansboro residents. Mosquito Fire Safe Council is an all-volunteer, community led organization and is an associate council of El Dorado County Fire Safe Council.

Our primary goal is to prevent wildfires and reduce their potential impacts on the community residents, and the preservation of life. The Associate Councils of El Dorado County Fire Safe Councils work together to educate the homeowners and residents about wildfire preparedness and how to plan for and prevent wildfires. Mosquito Fire Safe Council conducts numerous outreach events and implements projects such as cooperative fuel-reduction projects in neighborhoods and collaborating with other agencies to complete vegetation fuel reduction management projects. The Mission of the Mosquito Fire Safe Council is to protect the people of the Mosquito Fire Protection District and their property from the effects of catastrophic wildfire through education, cooperation, innovation and action.

- These efforts are designed to protect our residents and community, recognize evacuation plansand reduce property damage by:
- Serving as a forum for the implementation of the measures outlined in the Community Wildfire Protection Plan (CWPP)
- Sharing fire safety information
- Assessing fire risk
- Promoting community life safety, fire-safe planning and coordination
- Supporting and working together with law enforcement and fire agencies and neighboring fire safe councils.

SPECIFIC GOALS OF MOSQUITO FIRE SAFE COUNCIL

- To inform and educate residents of Mosquito Fire Protection District including the Swansboro Country Property Owners Association about the threat of fire, methods and resources available to mitigate the fire danger to their property and community.
- Update and maintain the Community Wildfire Protection Plan.
- Acquiring and maintaining a Mosquito Fire Safe Council Firewise Community designation.
- Proactively applying for and securing grants to supplement the existing \$540,00.00 Defensible Space and Fuel Reduction grant now being completed and new grants to complete projects including additional fuel reduction, education, and other fire prevention and preparedness activities.
- To participate in the development and implementation of evacuation and preparednessplans for the Mosquito Fire Protection Community.

THREE YEAR PLAN 2020 - 2022

Year 1 (2020)

Education Program:

Update the MFSC webpage.

Install MFSC signs and post fire safe requirements and fuel reduction projects and opportunities on our local community bulletin board.

Create new and updated wildfire prevention educational brochures, handouts and displays to use during meetings and public venues.

Develop a newsletter to mail within the Mosquito Fire Protection District.

Plan and conduct education meetings and activities each year. Events may include Fire Preparedness Community Day Event, coordinating educational booths with other Fire Safe Councils, CalFire and local Fire Departments to promote and include subjects such as: Evacuations, fire resistant landscaping, building and fire code updates, hardening your home, Ready -Set-Go and defensible space.

Develop and initiate fundraising activities to offset costs and provide additional local services.

Utilizing methods used for communication to residents: articles in the Swansboro Country Property Owners Association (SCPOA) newsletter and webpage, bulletin boardnotifications, signs, brochures, posters and meeting information signs and banners.

**Due to Covid-19, we have had to limit in person contact and use alternative methods such as zoom and go to meetings.

Administration:

Apply for and establish the Mosquito Fire Protection District/Swansboro community as a Firewise USA Community.

Using a professional service through a grant that was awarded, update our Community Wildfire Protection Plan (CWPP)

Continue regularly scheduled Mosquito Fire Safe Council (MFSC) meetings.

Seek additional grant opportunities to support MFSC activities and projects.

Submit annual reports to NFPA Firewise Program for the purpose of maintainingFirewise designation.

Begin a program to recruit area captains as part of our evacuation and notification plan.

**Due to Covid-19, we have had to limit in person contact and use alternative methodssuch as zoom and go to meetings. **

Fuel Reduction Effort:

Complete our \$540,000.00 Defensible Space, Fuel Reduction Grant, requiring an in kind match of \$190,000.00; (currently our in kind match has been met and exceeded). Grant #TMG123448 - Dept. of Forestry thru California Fire Safe Council, awarded February 2019 thru December 2020.

Continue our established program of having residents/property owners completetracking forms and turning them in showing projects done, time and cost.

Continue the program utilizing volunteers to complete home defensive space assessments for the residents of Mosquito Fire Prevention District/Swansborocommunity.

Plan and implement at least one annual volunteer workday to perform vegetation management projects and dumpster yard waste programs.

Work with the Mosquito Fire Protection District Fire Chief on evacuation routes, plans, staging and shelter in place plans.

Continue our partnership with Swansboro Country Property Owners Association (SCPOA) utilizing their free commercial chipper program and the free chipping programthru El Dorado County Fire Safe Council.

Year 2 (2021)

Education Program:

Research and develop a plan to purchase and install a siren system or an alternative system.

Continue to monitor and upgrade the webpage as needed.

Utilize other social media resources, including Facebook and Next Door for educational outreach and notifications.

Prepare updated wildfire prevention educational brochures, handouts, and displays for use during community meetings, events and public venues.

Plan and conduct public education meetings activities each year. Events should include a fire prevention day and fire preparedness day community educational event with guests such as US Forest Service, CalFire, Animal Services for large animal evacuation, Air-Med, Red Cross, etc.

Expand meetings to include guest speakers.

Continue and expand fundraising efforts to offset costs.

Continue to coordinate with Swansboro Country Property Owners Association and Mosquito Fire Protection District Fire Chief to follow up on maintenance of evacuation routes.

Develop a wider community engagement program.

Due to Covid-19, we may have to limit in person contact using alternative methods

Administration:

Continue regularly scheduled Mosquito Fire Safe Council meetings and committeemeetings.

Seek grant opportunities to support Mosquito Fire Safe Council activities and projects.

Submit annual reports to the NFPA Firewise Program for the purpose of maintaining our Firewise designation.

Complete the CWPP (Community Wildfire Protection Plan) started in 2020.

Due to Covid-19, we may have to limit in person contact using alternative methods Fuel Reduction Effort s:

Continue our community reporting/tracking of defensible space projects by residents to include time and expense of projects completed on their property.

Continue to utilize our volunteers to complete home defensive space assessments for our community members/residents of Mosquito Fire Protection

District/ Sw ansboro.

Plan and implement at least one volunteer workday to perform vegetationmanagement projects.

Plan and Develop a Seniors and Veterans defensible space assistance volunteer day.

Identify opportunities for community scale vegetation management /fuel breakprojects to continue the treatment completed by our grant.

Year 3 {2022)

Education Program:

Expand promotion of Firewise program to adjacent communities.

Update and maintain the MFSC webpage and our information on the El Dorado CountyFire Safe Council webpage as an associate council.

Continue to utilize social media venues for educational outreach

Continue to look for additional venues for community outreach such as articles in the Swansboro Country Property Owners Association newsletter and the Mosquito Fire Protection District webpage and meetings with reports and updates.

Plan and conduct public education meetings and activities each year including coordinating with Mosquito Fire Protection District, Mosquito Firefighters Associationand other local organizations to continue our educational and safety events.

Update all brochures, handouts and displays to include updated and relevantinformation.

Continue to reach out to guest speakers and community leaders for our meetings.

Expand and develop new fundraising activities to offset costs and provide additional local services.

Administration:

Continue regularly scheduled MFSC meetings with guest speakers and council updates and projects.

Submit annual reports to the NFPA Firewise Program for the purpose of maintaining our Firewise designation.

Continue community engagement outreach.

Fuel Reduction Effort:

Plan and implement at least one annual volunteer workday to perform vegetation management projects.

Identify opportunities for community vegetation management/fuel break projects and dumpster yard waste programs.

Continue our partnership with Swansboro Country Property Owners Association and El Dorado County Fire Safe Council utilizing their free commercial chipping programs for the Mosquito Fire Protection District/Swansboro community.

Follow up of properties to the fuel reduction projects on continued maintenance.

ACCOMPLISHMENTS:

2014 - Organized and held a King Fire Firefighter Appreciation Celebration raising over\$11,500.00 for tools and wildland PPE for our firefighters.

2015 - Formed Mosquito Fire Safe Council (MFSC) and Mosquito Station 75 Firefighters Association (MS75)

2015 - Mosquito Fire Safe Council (MFSC) accepted as an Associate Council to the ElDorado County Fire Safe Council.

2016 - MFSC board member seated as a Director representing MFSC on the El DoradoCounty Fire Safe Council.

2015 - 2019 MFSC held multiple meetings, community Fire Preparedness Picnics (earning 2 NFPA \$500.00 grants towards the picnics), community fundraisers, community fire education, prevention and evacuation events, and chipping days.

2016-2017 Mosquito Fire Safe Council created/developed the "Bark Beetle Dead Tree Removal Program" in partnership with the Swansboro Country Property Owners Association (SCPOA). SCPOA paid for the professional forester and required permits for the project. MFSC coordinated and managed the project, overseeing the successful cutting down and removal of over 120 logging truckloads of dead trees out of the community.

2016- 2017 Created the Mosquito Community Wildfire Protection Plan (CWPP) with El Dorado County Fire Safe Council.

2017 - MFSC applied for and received their first grant from NFPA for \$500.00 towards our first National Fire Preparedness Day (Free) community picnic and educational event.Over 140 residents in attendance, firefighter activity and education involvement, County Emergency Preparedness and Response, County Animal Control for animal evacuation

education, evacuation "GO BAG" give away, volunteer registration and a free community BBQ with our special guests, Smokey Bear and the US Forest Service.

2018 -Applied for and again received an NFPA grant for \$500.00 towards our nowAnnual Fire Preparedness Community Picnic. Received an additional \$500.00 from Swansboro Property Owners Association towards our community Fire PreparednessPicnic and educational event. County offices as well as US Forest Service and local Firefighters again participated.

2018 - Developed webpage: www.mosquitofsc.org for information and outreach.

2018 - Applied for and was awarded a \$542,000.00 Defensible Space and Fuel Reduction, 2 year grant with a matching \$190,000.00 in kind match. This project has been coordinated and overseen by MFSC with El Dorado County FSC agreeing to be ourFiscal Sponsor.

2018 - 2020. Implementation of the grant which successfully treated over 200 acres within the Mosquito FSC/ Fire Protection District . With community/resident participation we not only met our \$190,000.00 in kind match but exceeded it, receiving over \$500,000.00 in kind including \$80,000.00 over 2 years in cash from Swansboro Property Owners Association. The community stepped up and treated their property for defensible space while tracking their time and work creating approximately an additional 90 acres of defensible space. This project is scheduled to conclude on 12/31/2020, but our residents are committed to continue their projects and tracking.

2019- 2 Project signs, metal 4' x 6', acknowledging the project, MFSC and participating entities have been erected at both entrances of the Mosquito Fire Protection District , purchased by MFSC.

2019 - Continued outreach and education programs with speakers, including our 3rdannual Fire Preparedness Day (free) Community picnic, outreach and educational program with over 180 residents in attendance.

2019 - MFSC requested and successfully implemented the free Chipping program sponsored by Swansboro country Property Owners Association. This program has currently serviced (free of charge) over 200 residents since its inception.

2019 - MFSC Hosted a Community Veterans Day Celebration and BBQ honoring our local Veterans and families. Veterans were offered literature with resources available through our

county fire safe council for free assistance with defensible space projects through their Senior, Veterans and Low Income program.

2019- MFSC purchased approximately \$400.00 worth of visual educational displays.

2020- Due to Covid-19 and the restriction s, guidelines and mandates, in person contacthas been limited. We were unable to have our annual National Fire Preparedness day community picnic and educational event, but are looking forward to our 2021picnic.

2020- MFSC coordinated a volunteer work day to remove fallen trees from a heavysnow.

2020 - Applied for 3 additional grants.

2020- Working with El Dorado County Fire Safe Council to have our 2017 CWPP Professionally developed and updated. Coordinating with Barry Callenberger, Open Canopy, Inc.; Paul Lackovic and Stephen Graydon, of Deer Creek Resources; and Jeff Dowling, Professional Forester on the 2017 CWPP update plan to be completed in May2021.

SPHERE OF RECOGNITION (SOR) OF THE MFSC AND ATTRIBUTES OF THE AREA

The Mosquito Fire Safe Council SOR boundary is drawn following the boundaries established as the Mosquito Fire Protection District. This is the smallest fire district in El Dorado County encompassing approximately thirteen square miles. Being a particularly isolated rural community, located 10 miles north and east of the City of Placerville. Mosquito is boarded on the north and east by the El Dorado National Forest and the southern boundary roughly follows the South Fork of the American River extending westward to BLM Lands. There are 921 parcels in the SOR, 695 of which are approximately 2 acre single family residential lots within the Swansboro Country Property Owners Association and the remaining 226 parcels of rural residential plots range from 5 acres to 80 acres. All parcels fall into the "moderate" to "high", or "very high" WUI hazardrank as defined by the Cal Fire hazard severity zone mapping system

DEMOGRAPHICS OF THE SPHERE OF RECOGNITION (SOR)

The 2010 census does not provide specific data for the Mosquito Fire Protection District boundaries. However, the data provided for the 95667-9081 zip code is a close approximation. The SOR demographics show a median population age of 52.3 with an average household income of \$57,468. The current population is approximately 1,500 residents with close to 2.2 persons per household, understanding that some dwellings are unoccupied or used as vacation homes. The average home value is estimated at

\$485,000. Therefore, with some 600+ dwellings in the SOR, the constructed value of homes alone is over a quarter of a billion dollars. Homes in the area were built in the 1970's - 2018. (www.unit edstat eszipcodes.org95667/) . This impacts the resiliency of the SOR. In 2008, the California building fire codes were modified to require the use of fire-resistant materials in areas as risk of wildfire; therefore, all homes constructed after2008 comply with those requirements. Additionally, many homes in the Mosquito FPD SOR that were constructed prior to 2008 have undergone updates and as a result, comply with many aspects of current code requirements. Furthermore, all new homes constructed in the Mosquito FPD SOR after January 1, 2011, contain residential sprinklers. The 2008 and 2011requirements, as well as current proposed amendments and additions to the California building and fire codes, afford us the opportunity to educate homeowners about materials available to harden structures from wildfire impacts such as ember intrusion and flame impingement.

LAND USE IN THE SOR

The predominant land use within the Mosquito FPD community is single family residential with lot sizes ranging from 2.0 acres per unit in the 695 parcel Swansboro Country POA (SCPOA) to the 5-80 acre parcels in the surrounding SOR. The residences of the SCPOA are concentrated in the Central to North and East of the SOR, bumping up to the El Dorado National Forest.

There are recently created shaded and ladder fuel breaks on the north side of Swansboro Road to the north and along both sides of Rock Creek Road to the west, along with Swansboro Airport which bisects the SOR east to west. These fuel breaks could be all important lines of defense in the event of a wild fire outside or inside the planning area.

Topography

Mosquito Fire Protection District is located in the foothills of the Northern Sierra Nevada Mountains of California at the 2000–3500-foot elevation. The various vegetation fuel types, along with the steep terrain and fuel loading adjacent to and within MFSC/MFPD SOR, has resulted in CalFire Fire Hazard Severity Zone ratings of Moderate to Very High throughout the SOR. The heavy fuel loading adjacent to ingress/egress roads and homes in some areas, along with the steep terrain and drier summer weather within MFSC/MFPD SOR, include all the elements for a catastrophic wildfire. We have the single centrally located Mosquito Fire Protection District combination volunteer station providing a 15 minute response in our area. However, we feel it necessary to take action to prevent a disastrous fire from developing in our community.

Topography dramatically influences fire behavior. With other variables held constant, fire spreads faster up slope than on flat ground or down slope. Fires may also burn more intensely as they move up slope when fire temperatures and winds preheat and dehydrate the fuel models, thus promoting a faster ignition. Steeper slopes have higher rates of spread and fire intensities than gradual slopes or flat areas. Canyon/draws mayalso channel fire spread. Because of these factors, homes and other infrastructure occurring on ridge tops, especially those adjacent to canyons/draws, may require greater amounts of defensible space than structures with other topographic positions (flat ground or in downslope locations). Fire suppression is challenging in topographically complex landscapes. Fires are rarely successfully suppressed at mid- slope positions. Because the rate of spread can be reduced on ridges, these are often used as strategic fire control points where fuel breaks can be established for fire suppression. Slope aspect, the compass directions the slope faces, also influences fire behavior. Solar radiation is higher on south-and west-facing slope than on north-or east-facing slopes. Solar radiation preheats live and dead fuels and reduces fuel moisture, increasing ease of ignition and the rate of spread.

Climate:

The climate of the Sierra Foothills is Mediterranean, with cool, wet winters with some snowfall, and with warm, hot/dry summers with little rainfall. The months of June - October produce a dry season, which are ideal conditions for wildfires. Annual plants die and perennial plants lose moisture and become highly flammable. Fire burning toward the end of the dry season is intense, resist suppression efforts, and threatenlives, property, and resources. Drought conditions intensify the wildfire danger.

Recommendations for Action:

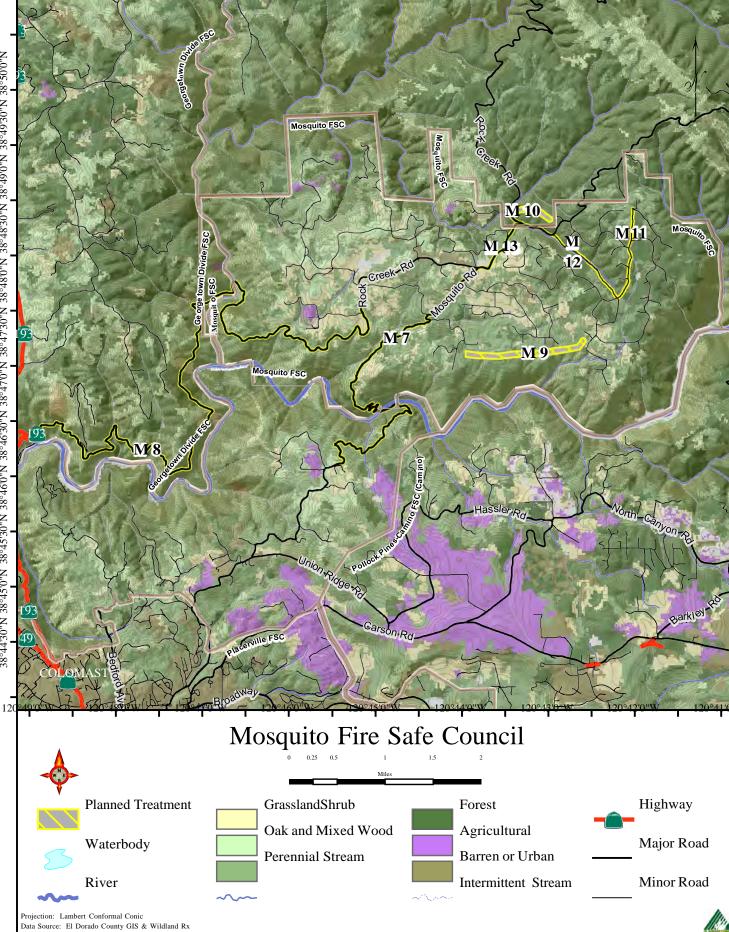
Following the risk assessment and review by the Risk Assessment Committee and the results by the evaluation participants, the following action items were identified to help reduce wildfire risk within the Mosquito/Swansboro community Sphere of Recognition (SOR:)

- Apply for and establish the community as a Firewise USA Community.
- Continue scheduled Mosquito Fire Safe Council meetings.
- Prepare and develop MFSC wildfire prevention educational brochures, literature and handouts to use and distribute at meetings, events and public venues.
- Plan and conduct public educational meetings and activities each year. Events may
 include National Fire Preparedness Day Community Picnic, fire prevention safety
 day in coordination with the Mosquito Station 75 Firefighters Association, US Forest
 Service, CalFire and adjoining Fire Safe Councils including El Dorado County FSC.
 Topics will include subjects such as: Defensible Space, Evacuation Readiness, Ember
 Danger, Home Hardening, Ready-Set-Go, Fire Resistant Landscaping, Go Bags and
 Guest Speakers.
- Work with Mosquito Fire Protection District, Mosquito Station 75 Firefighters Association, Swansboro Country Property Owners Association, CalFire, and El Dorado County Sheriff's office to initiate a standardized address marking effort.
- Develop mailings to residents and property owners within the Mosquito Fire ProtectionDistrict and Swansboro Country Property Owners Association.
- Develop a Mosquito Fire Safe Council newsletter and new resident welcome packet. Additionally, utilize space in the SCPOA newsletter distributed to 695 property owners for announcements. Update and maintain the Mosquito Fire Safe Council website and utilize other social media resources, including Facebook and Next door for educational outreach, updates and announcements.
- Continue the program of utilizing volunteers to complete home defensible space assessments for the residents of Mosquito and Swansboro.
- Develop and initiate fundraising activities to offset costs and provide additional local service s.
- Plan and implement at least one volunteer workday annually to perform vegetation management projects. Identify opportunities for community-scale fuel reduction/fuel break projects.
- Submit annual reports to the NFPA Firewise program for the purpose of maintaining Firewise designation once received.
- Seek grant opportunities to support MFSC activities and community projects.

- Continue to work with allied organization s including the El Dorado County Fire Safe Council, Swansboro Country Property Owners Association, Mosquito Station 75
- Firefighters Association, El Dorado County Board of Supervisors and our District 4 Supervisor, Lori Parlin, to augment and implement activities, education and safety measures for the Mosquito Fire Protection District.
- To perpetuate the Chipping Program through SCPOA indefinitely and incorporate a community dumpster program.

The entire Firewise Assessment for Mosquito FSC can be found on the website

http://www.mosquitofsc.org/



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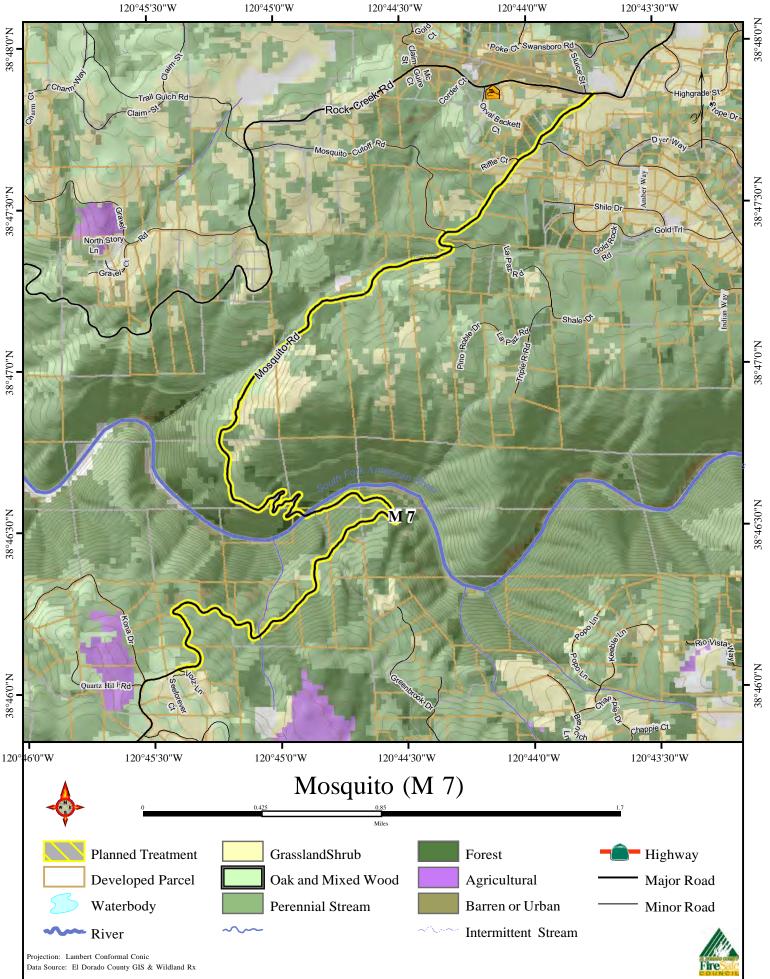
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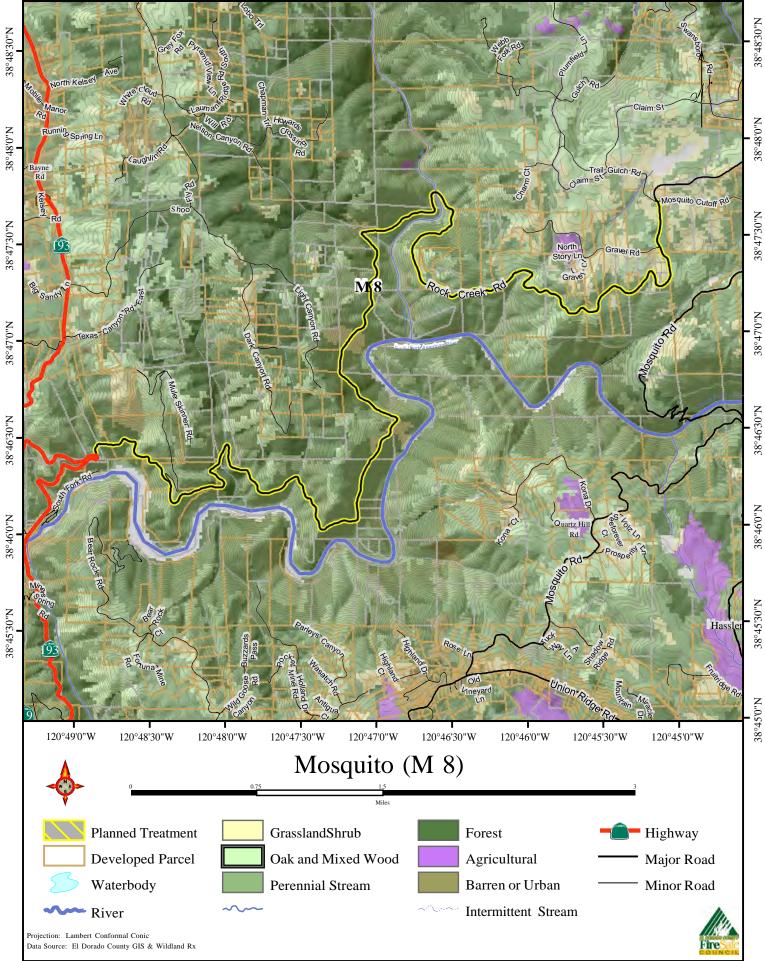


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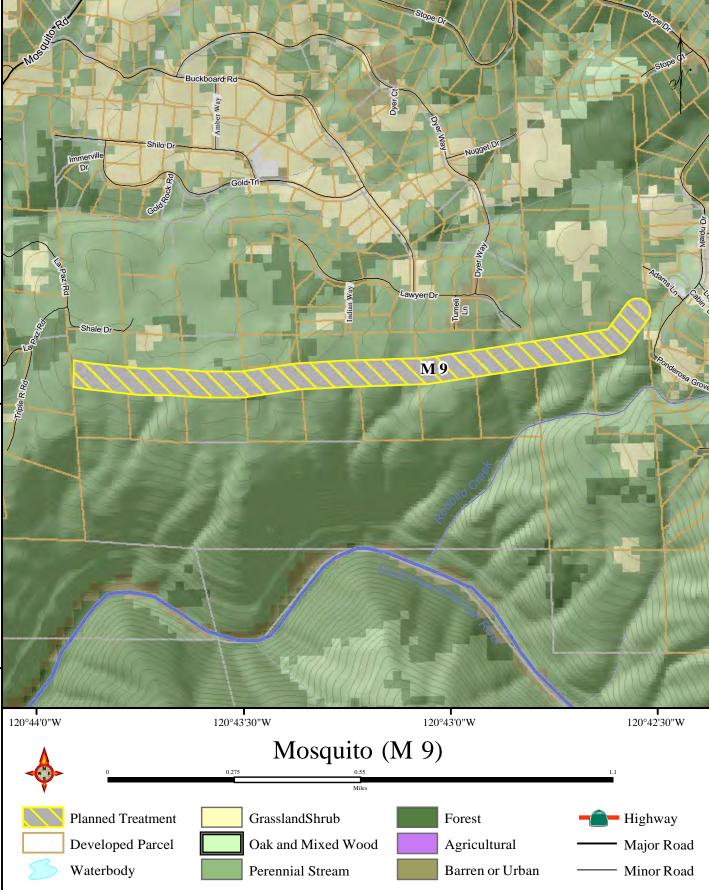
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38°47'0"N

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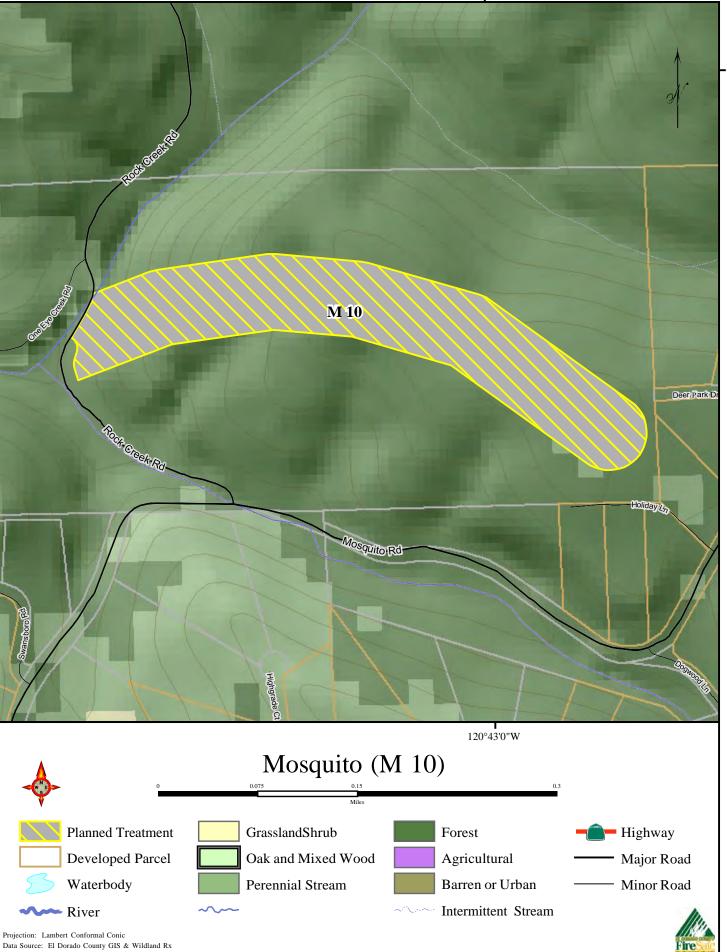
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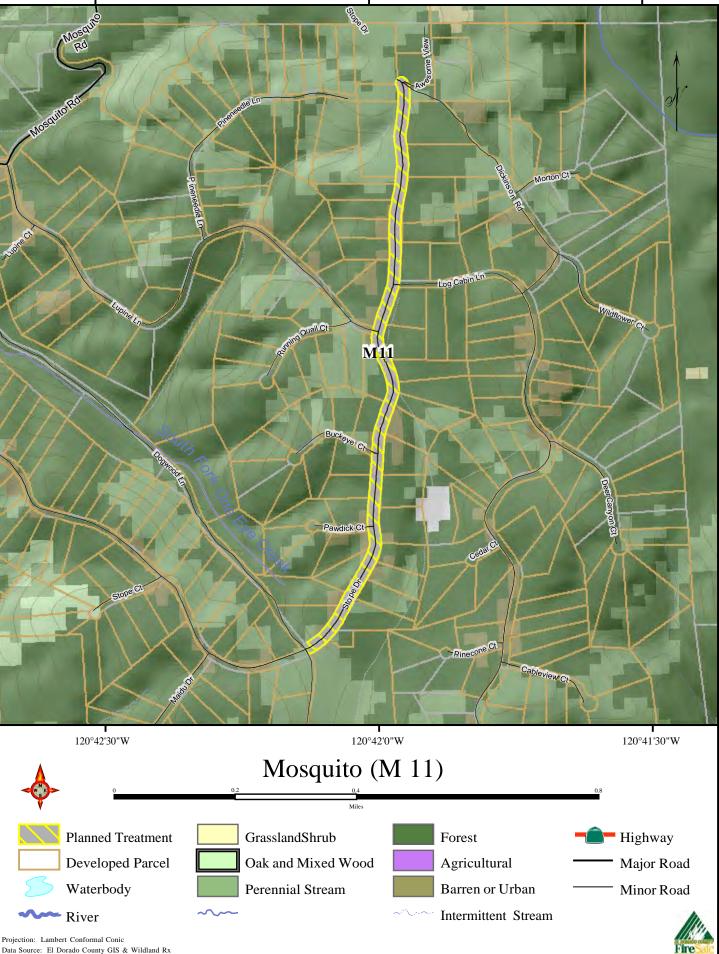
Intermittent Stream River Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx

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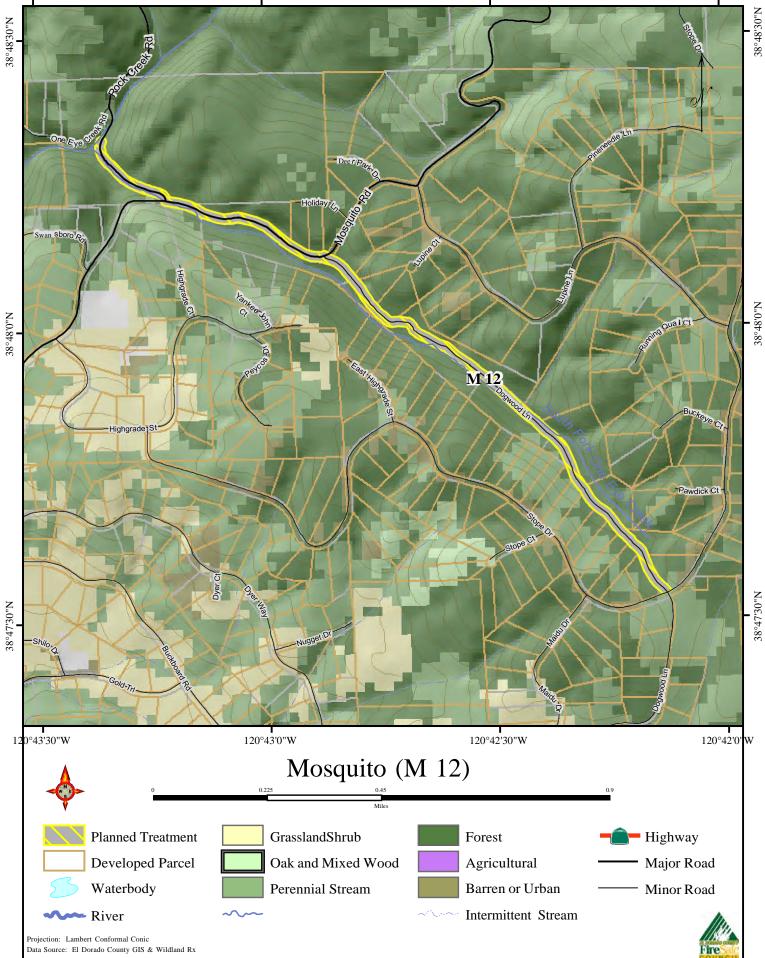
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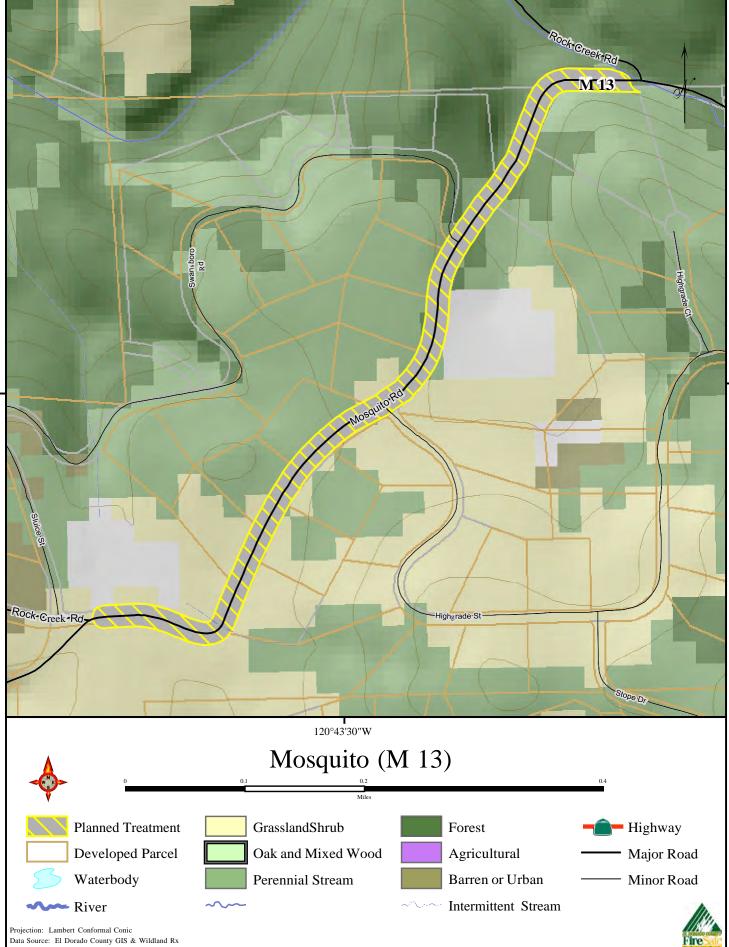


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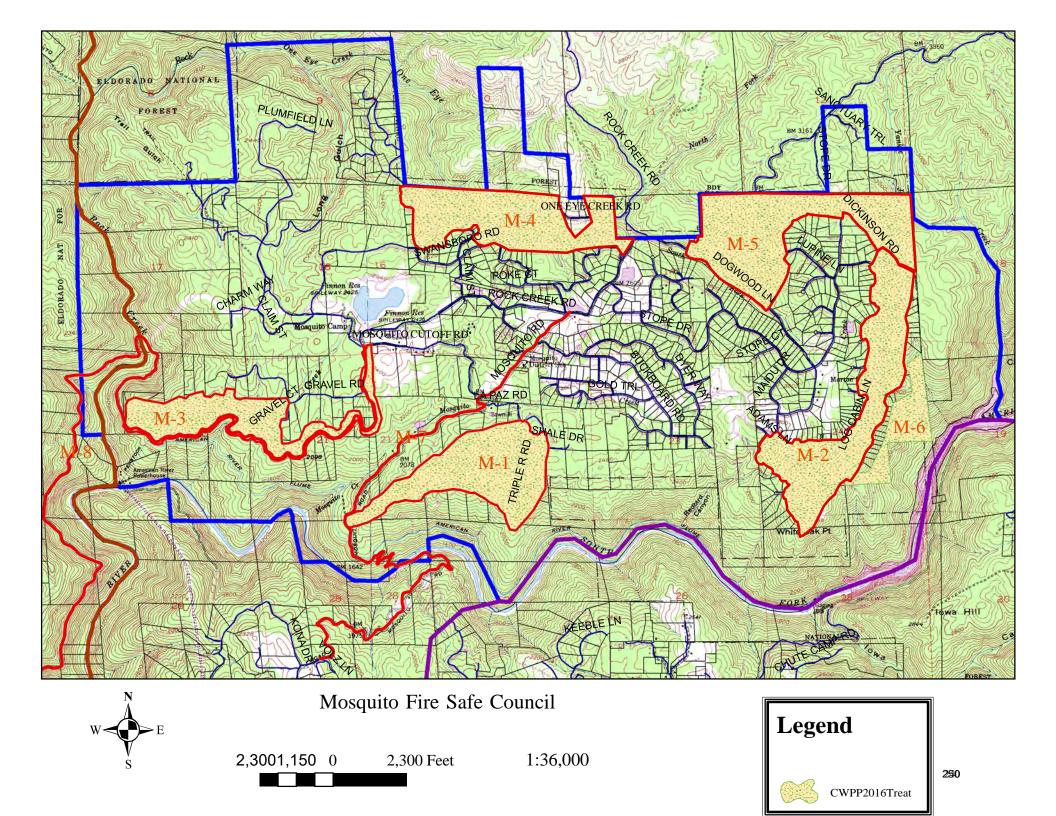
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38°48'0"N



Mosquito FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST	Status
South Fork		M-1			221	442 K	
Log Cabin		M-2			278	556 K	
Rock Creek		M-3			188	376 К	Under constructio n
Swansboro		M-4			233	466 К	Under constructio n
Mosquito		M- 5			293	586 К	
Slab Creek		M-6			73	146 К	
Mosquito Rd		M-7	Roadside Hazard Reduction		52		
Rock Creek Rd		M-8	Roadside Hazard Reduction		98		
		M-9	Fuel Break		49		
		M-10	Fuel Break		16		
Stope Drive		M-11	Roadside Hazard Reduction		12		
Dogwood Lane		M-12	Roadside Hazard Reduction		18		
Upper Mosquit oRoad		M-13	Roadside Hazard Reduction		9		
							25'

Oak Hill Area Fire Safe Council

Section to the Eldorado County CWPP update

January 28, 2021



The following community risk assessment is intended as a resource to be included in the Oak Hill Area Fire Safe Council (OHAFSC) Community Wildfire Protection Plan (CWPP) and to provide the foundational information needed to identify projects to reduce the risk of wildfires within the area. The OHAFSC is an all volunteer organization that was formed in January 2019. The OHAFSC is a satellite group of the El Dorado County Fire Safe Council (EDCFSC).

The OHAFSC covers a rural area in the Sierra Nevada foothills of central California, in the south-central portion of El Dorado County. Our location, about 4 miles south of the town of Placerville and about 2.5 miles east of the town of Diamond Springs, along with the large number of residences makes us part of the Wildland Urban Interface. The OHAFSC includes all of the parcels accessed from the following major roads and the smaller local roads that feed into these primary roads:

Oak Hill Road, Hanks Exchange Road, Zandonella Road, and Placent Valley Road, between Big Cut I

Pleasant Valley Road, between Big Cut Road and Cedar Ravine Road The OHAFSC is bordered on the west by the Logtown, Patterson Ranch and Diamond Springs FSCs. The Pleasant Valley FSC lies to the northeast of the OHAFSC.

Elevations within the OHAFSC range between about 1,200 and 2,600 feet above sea level. The terrain is generally gently rolling, except within the steeper canyons of the North Fork Cosumnes River, along the southern border of the OHAFSC, and along the lower portions of Squaw Hollow Creek and Martinez Creek, west of Oak Hill Road and near the western border of the OHAFSC.

There are no natural lakes within the OHAFSC, however there are a number of small, man-made ponds that have served in the past for filling of helicopter buckets for fighting fires.

Vegetation is predominantly oak woodland and mixed conifer/hardwood forest, consisting of open to dense stands of black oak, blue oak and canyon live oak with ponderosa pine, sugar pine, Douglas-fir, and incense-cedar along with manzanita, madrone, ceanothus, annual grasses and forbs. In places, the forest/woodland canopy is relatively dense, with crowns touching, creating an upper layer of continuous fuel. These tree rich areas are broken up by large areas of grassland, vineyards and orchards. Homes are generally interspersed in this vegetative mosaic. Average annual precipitation is approximately 30 inches, which falls mainly from November to April. Most of the precipitation falls as rain, although some snow occurs most years which normally melts within a few days after falling. Summers are warm and dry with low humidity, lowering fuel moisture throughout the season. Late summer and autumn can bring occasional dry winds. A high pressure area building behind a passing weather front can set up days and nights of incessant strong wind blowing from the northeast. Relative humidity can be as low as 5% with little to no nighttime recovery. This is the most extreme fire weather condition that occurs, as it is for most of the rest of El Dorado County.

The OHAFSC covers approximately 10,438 acres and includes over 1,000 parcels. Parcels and residential lots within the area of the OHAFSC range from trailer spaces within a mobile home park to parcels 100 acres or more in size. Approximately 18% of the parcels are currently undeveloped. There are also 10 commercial lots, a cemetery, 14 parcels classified for

agricultural or timber production uses, and several large parcels of federal land (managed by the Bureau of Land Management [BLM]) within the OHAFSC area. About 15 percent of the landowners within the OHAFSC live outside the boundaries of the FSC. The value of the residential and commercial improvements within the OHAFSC, based on the appraised value recorded in the County Assessor's Office is over \$165,000,000.

The highest concentration of homes is in close proximity to Pleasant Valley Road and the short roads that feed directly into Pleasant Valley Road.

There are about 1,990 people that live within the OHAFSC, based on the 2010 Federal Census data (ESRI, 2010). 81 percent of these people are 18 years or older and 19 percent are 65 years old or older. There are approximately 800 households within the OHAFSC, 79 percent of which are owner occupied and 21 percent being renter occupied. 23 percent of the households have only one person living in them, whereas 77% of the households have 2 or more people living in them. The average household size, based on the 2010 Census data is 2.5 people.

Of the homes within the OHAFSC, only about 20 were built since 2008 (about 2% of the homes), and so the vast majority do not meet current construction standards for fire resilience. Some of the homes were built as early as the mid- to late-1800's. However, about 92% of the homes were built since 1950. Many of these older homes have been remodeled or upgraded at various times and so some do incorporate some fire resilient improvements.

Within the OHAFSC the road infrastructure consists of a mix of County maintained narrow paved roads along with a broad range of privately maintained narrow paved and gravel/dirt roads. Nearly all of these roads are dead end roads, including the two largest roads, Oak Hill and Hanks Exchange. The primary ingress and egress from the OHAFSC is via Pleasant Valley Road west to Diamond Springs or east to Placerville (via Cedar Ravine Road), Pleasant Valley (via Pleasant Valley Road) or Somerset (via Bucks Bar Road).

Pleasant Valley Road provides direct access to 28% of the residences within the OHAFSC, whereby homes are directly along Pleasant Valley Road or on collector roads that feed directly onto Pleasant Valley Road. However, each of the three major arterial roads lead directly into Pleasant Valley Road. Of the three major arterial roads, Oak Hill Road provides access to 43% of the residences within the OHAFSC, Hanks Exchange provides access to 17% of the residences and Zandonella provides access to 11% of the residences.

The following three photographs show different County and private roads that are in need of roadside clearance and in some cases, of widening to allow unobstructed emergency egress as



well as emergency vehicle ingress.

View of Oak Hill Road (a County maintained road) near the intersection of Pleasant Valley Road and Oak Hill Road



Example of a privately maintained, poorly graded gravel road that feeds into Oak Hill



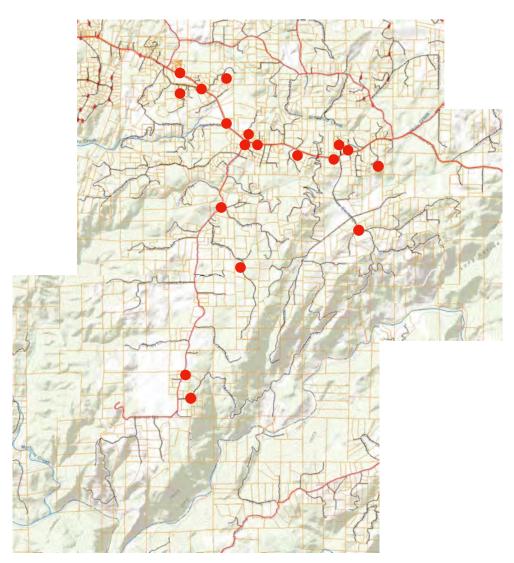
Road (Twitchell Road)

View of Big Oak Road, a narrow road that accesses many homes and is in need of roadside clearance and widening locally. The first mile of this road is County maintained and is fed by several other privately maintained gravel and partially paved roads.

El Dorado Irrigation District (EID) water lines serve portions of the OHAFSC, though most residents are on

wells. There are 18 EID fire hydrants interspersed along Pleasant Valley Road, Oak Hill Road and a few of the private feeder roads (Map 2). Power and communications lines are generally above ground throughout the area. Pacific Gas and Electric (PG&E) generally maintains the

power line corridors, including limbing and pruning trees adjacent to or overhanging the power



lines.

Map 2, showing the location of fire hydrants within the OHAFSC

The El Dorado County Fire Protection District is the primary fire response provider for the OHAFSC. The one fire station located along Pleasant Valley Road within the OHAFSC is not currently staffed, although the space is available for staging for emergencies and for training purposes.

In addition to El Dorado County Fire Protection District, CAL FIRE has the wildland fire responsibility for all of the non-federal wildland areas in the council area. This area is designated in the Public Resource Code as State Responsibility Area (SRA). Therefore, CAL FIRE is authorized to bring resources and funding to cover fire suppression costs and also has the authority for fire prevention activities, including inspecting and enforcing defensible space.

As mentioned above, the federal lands within the OHAFSC are managed by the BLM. As such, the BLM or the Forest Service under agreement with BLM, has the responsibility for fire protection on the federal lands

Land use within the OHAFSC is primarily rural residential, although there is agriculture, grazing and some timber production. There are a few commercial facilities along Pleasant Valley Road, including restaurants and produce stands. With telecommuting and other opportunities for "working at home" there has become a greater amount of commercial activity occurring at homes throughout the area.

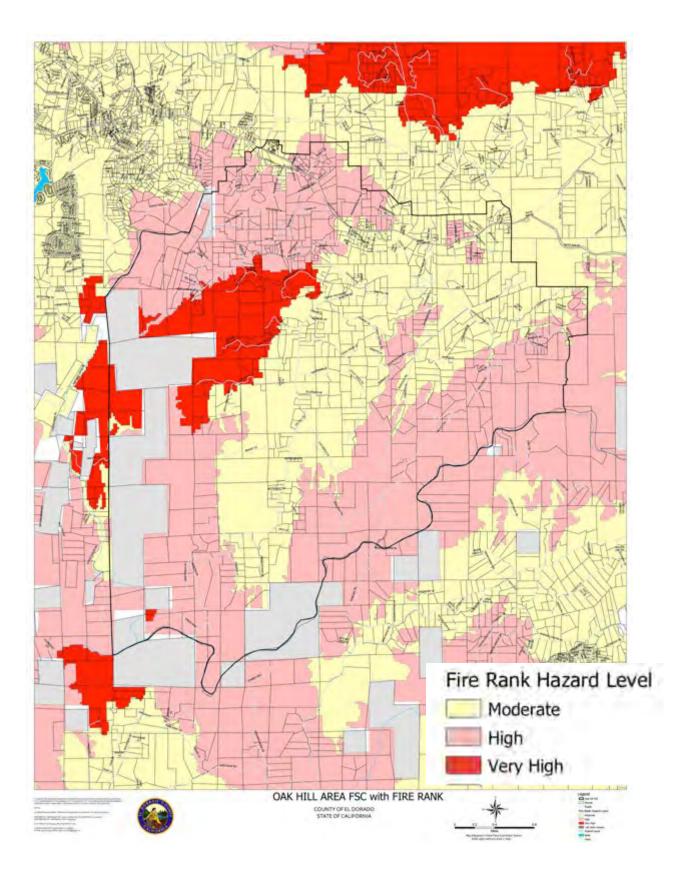
Fire Hazard and Fire History

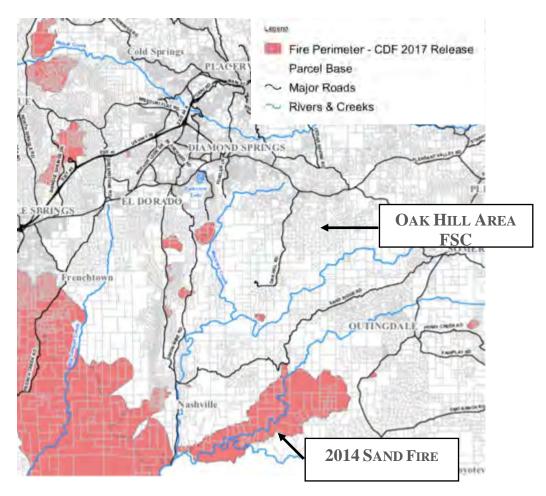
As can be seen in Map 3, much of the OHAFSC area is considered by CalFire to be in Moderate to High Fire Hazard Severity zones, except for the area south of Big Oak Road and west of Oak Hill Road, within the drainages of Martinez Creek and Squaw Hollow Creek, which is considered to be within a Very High Fire Hazard Severity zone (CalFire Fire Hazard Severity Zone Map, 2007). Between 2005 and 2009, approximately 20 fires occurred within the area covered by the OHAFSC (Maps 4 and 5). The various causes for these fires ranged from debris burning, equipment use, smoking, at least one case of arson, and power line sparking, although a number of the fires were undetermined as to cause. The largest of these fires occurred in the North Fork Cosumnes River drainage at the southern end of Oak Hill Road in 2008.

A study of early historic fires within the OHAFSC area was conducted in the 1990s and found that between about 1850 and 1952, fires occurred on the order of every 2 to 18 years (Stephens, 1997). The most recent fire identified in that study occurred in 1947. The cause of the fires identified in this study could not be determined, although they appear to be associated with ranching, which was one of the primary uses of the land at that time. Prior to 1850, the area was used by Native Americans and they most likely employed fire as well. The study determined that lightening fires are uncommon in these lower elevation oak woodlands and mixed oak/conifer forests.

The 4,240 acre Sand Fire in 2014 did not reach the OHAFSC area, but did burn to within about 3 miles south of its southern border (Map 6). This major wildfire event burned for more than 9 days, destroying 20 homes and 49 outbuildings. The cause of this fire was from a car parking in dry vegetation (CalFire 2014). As described in the next section, the conditions within the area of the OHAFSC are similar to those in the area of the Sand Fire.

Map 3 showing the Oak Hill Area Fire Safe Council with the CalFire Fire Rank Hazard Levels.





Map 6: Fire History Map of the Oak Hill Area Fire Safe Council and surrounding area

Assessment Process and Findings

The assessment of wildfire risk was completed using a modification of the Firewise USA Community Wildfire Risk Assessment approach outlined in the National Fire Protection Association website. This included assessing the condition of vegetation and other potential ignition sources within three zones; Zone 1 including the home and out 5 feet, Zone 2 from 5 to 30 feet from the home, and Zone 3 from 30 to 100 feet from the home. Volunteers form the OHAFSC assisted in conducting informal "windshield" assessments of a sampling of homes and structures visible from roads within the OHAFSC, observing and recording the conditions of homes, roads and other site conditions.

Zone 1 - Including the home and to 5 feet away

At least 75% of the homes have composition or metal roofs, although a small number of the composition roofs are in fairly poor condition. Overall, residents have attempted to keep their roofs clear of heavy accumulations of leaves and needles, although about 10-20% of homes had excessive leaf litter accumulations. Homes are commonly wood-sided, with about 5% being stucco. Many homes have wooden decks attached to one or more sides of their homes. Most homes lack a non-combustible zone within 0-5 feet of the home.

Zone 2 - 5 to 30 feet from the home

Most homes have only limited formal landscaping. Rather, many homes utilize existing natural vegetation or have landscaping that incorporates some or all of the native vegetation. As such, few homes have lawns, although most homes have some hardscaping, such as walkways, driveways, etc. Generally, a little less than 50% of the homes have removed ladder fuels, created separation between vegetation or otherwise created defensible space within this zone.

Zone 3 - 30 to 100 feet from the home

Within this zone, less than 50% of the homes have adequately interrupted fire spread through removal of heavy accumulations of ground fuel, creating space between tree canopies, etc. However, many of the homes that have created defensible space in Zone 2 have also created defensible space in Zone 3. Most of the homes within the OHAFSC are situated on relatively flat to gently rolling topography, although there are steeper areas beyond 100 feet from structures in a few areas.

Important Considerations

Based on the observations during area visits, along with comments from residents within the OHAFSC, volunteers identified a number of key concerns and issues that they feel need to be considered in attempting to reduce fire risks and make our community more fire resilient. However, the three most common issues that relate to creating a fire resilient community are:

• The need for creation and maintenance of defensible space around residences,

Residents have become more aware of the need to create and maintain defensible spaces around homes, although there are still a significant number of residents that do not know about the requirements and how to meet them. Additionally, in our rural area it can be a major effort for many people to meet the defensible space requirements and can be extremely expensive. Based on observations, about 25 to 50% of the homes in the OHAFSC have created a "defensible space" around their homes. However, less than 10% had created a combustible-free zone within 5 feet of their house. El Dorado County's recently adopted (May, 2019) Vegetation Management Ordinance will hopefully increase compliance with the State defensible space requirements. However funding will be needed to assist many residents to create effective defensible space.

• Hardening of homes that do not meet current fire resistant standards to improve fire resilience,

During the drive-throughs in the OHAFSC, no homes were observed to have wood or shake roofs. Roofing materials were predominantly asphalt (composition) shingles, with a few metal or tile roofs. However, about 98% of the homes in the OHAFSC were built before current fire-resilient building code requirements came in effect and so most homes in our area do not have upgrades such as properly screened attic and crawl-space vents, non combustible siding, soffits eaves, sprinklers, etc. It was not possible to determine the percentage of homes that had fiber-cement siding; however, based on the dates of construction, it appears that only a small percentage likely have this type of non combustible siding. Fewer than 5% were observed to have stucco or other non combustible siding. Educating homeowners about the benefits of hardening their homes

against fire and working with local retailers to assure that appropriate materials are available would go a long way towards helping residents to improve their home's chance of avoiding ignition.

• Improvement of emergency ingress and egress through roadside clearance.

Emergency egress has been voiced as a major concern during many of the recent public meetings held by the OHAFSC, and has been a common issue raised in recent surveys of residents, particularly because nearly all of the roads within our area are dead-end roads Surveys of the major arterial and collector roads with the greatest number of residences showed that all or portions of Pleasant Valley, Oak Hill, Zandonella, Hanks Exchange and Big Oak Roads are in need of road widening and roadside clearance. In addition, most of the other local and collector roads off of the major County roads are private roads and many are in need of vegetation clearance and road grading in order to improve access for fire trucks and other emergency vehicles. Roadside and home signing were also identified as major weaknesses in many areas.

Other Observations and Recommendations

In addition to the three issues described above, other observations and recommendations have been identified by the OHAFSC Planning Committee and are summarized in the table below:

CATEGORY	PROJECT TYPES
Highest Priority Categories	
Road Hazard Reduction	 Clearance along Pleasant Valley Rd (OH4- highest priority), but also Oak Hill Rd (OH6), Big Oak Rd (OH5)and Hanks Exchange Rd(OH8) Clearance along Zandonella Rd and Ringold Rd Clearance along all "neighborhood" feeder roads Road widening and construction of strategic turnouts along bothmajor roads and feeder roads Facilitate neighborhood meetings, to Identify and encourage "road connections" to provide alternative ways out Coordinate with BLM and nearby landowners concerningalteernative egress opportunities
Defensible Space	 Ongoing Education (community meetings, website, newsletters) Mailings to new residents Continue Free volunteer DS assessments for residents Support/Continue Free Chipping Programs Create a "tool lending library" for pole saws, high qualityclippers, etc. Create community or neighborhood "Dump It" Day Help those in need (volunteers, grants for contract work)

CATEGORY	PROJECT TYPES
Home Hardening	 Ongoing Education (Community meetings, website, newsletters) Work with other FSCs to put on a County-wide home hardeningworkshop Mailings to new residents Develop public display (retrofits, materials, suppliers, sprinklers, etc.) Facilitate neighborhood meetings to bring home hardeninginformation to more residents Encourage local suppliers/stores to carry needed materials Buy materials like screening, gutter guards, vents etc. in bulk/sellat cost, or slightly more for fund raising Help neighbors in need (low interest loans, grants, advocate forcounty tax break, etc.)
Evacuation	 Ongoing Education (website, community meetings, newsletters) Mailings to existing residents, and later, new ones Identify potential Shelter-In-Place, Staging area options, and coordinate with OES and fire district Coordinate with Search and Rescue and OES re. large animalevacuation Identify measures to assist mobility impaired residents Identify helicopter landing locations and share with OES. Provideinfo to homeowners who wish to add such pads. Coordinate with OES and DOT re. traffic management needs and solutions (such as green lights along "downstream" roads)
Emergency Communication	 Ongoing Education (know about importance of Twitter, reliablenews source, Code Red, radios) Develop displays Organize a phone/radio tree, and determine how to transmitreliable news via both Identify areas without cell service Inspect or assist in maintaining defensible space around celltowers Continue assessing communication availability within the FSC.including reach of repeaters
Next Highest Priority	
Categories	

CATEGORY	PROJECT TYPES
Fire Hydrants/Water Tanks	 Inventory water sources (hydrants, tanks, pools, ponds, etc.) and location of water mains in our area Coordinate with EID and Fire District concerning areas to most effectively add hdyrants, how best to make alternative water sources available, fixing google map errors, etc. Inspect public fire hydrants and potential water sources annually Ongoing education (website, newsletters, community meetings)concerning tank installation, how to obtain fire hydrants, maintaining tanks, etc. Create public display on tank fittings etc. needed for fire fighting Encourage identification signs at homes with water sources Training public on the use of private hydrants and water sources
Fuel Break Construction	 OH 7 (Martinez Cr. thru Big Oak Rd) -highest priority OH 1 (west of Oak Hill Rd) OH 2 (Cosumnes River to Hanks Exchange/Bucks Bar) OH 3 (East from Oak Hill Rd to Hanks Exchange)
Mobile Home/ High DensityResidences	 Facilitate neighborhood meetings in these areas, educatingabout evacuation, go bags, special risks etc. Ongoing Education (add info to website newsletters, communitymeetings Identify and address mobility issues
Powerline / Hazard Trees	 Identify liaison to coordinate with PG&E regarding powerlineclearance issues, weather stations, etc. Facilitate or provide high tech powerline solutions in our area, such as new shut-off switches being developed. Work with responsible entities to install a weather station in theMartinez Cr. area (likely fire pathway)
Large Property Lands (generally +10 acres, but some progamsmay apply to +5 acres)	 Ongoing Education regarding grazing and prescribed fire toimprove community-wide Defensible Space and reduce hazardous fuels Mail out info about EQIP program, relevant workshops, etc. tolarge property owners specifically.

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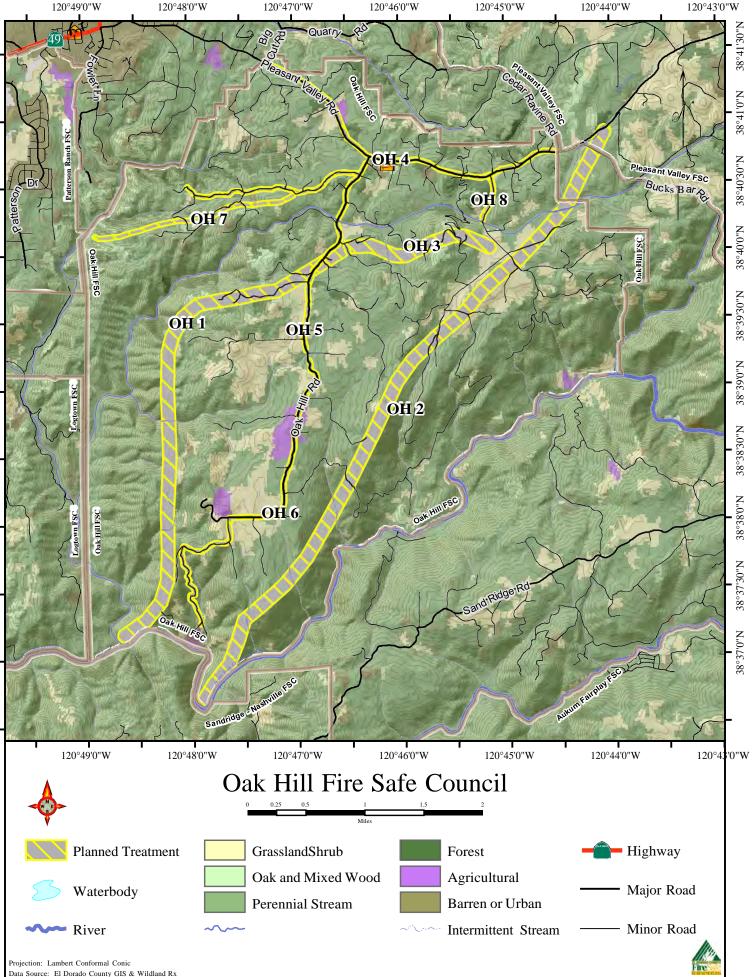
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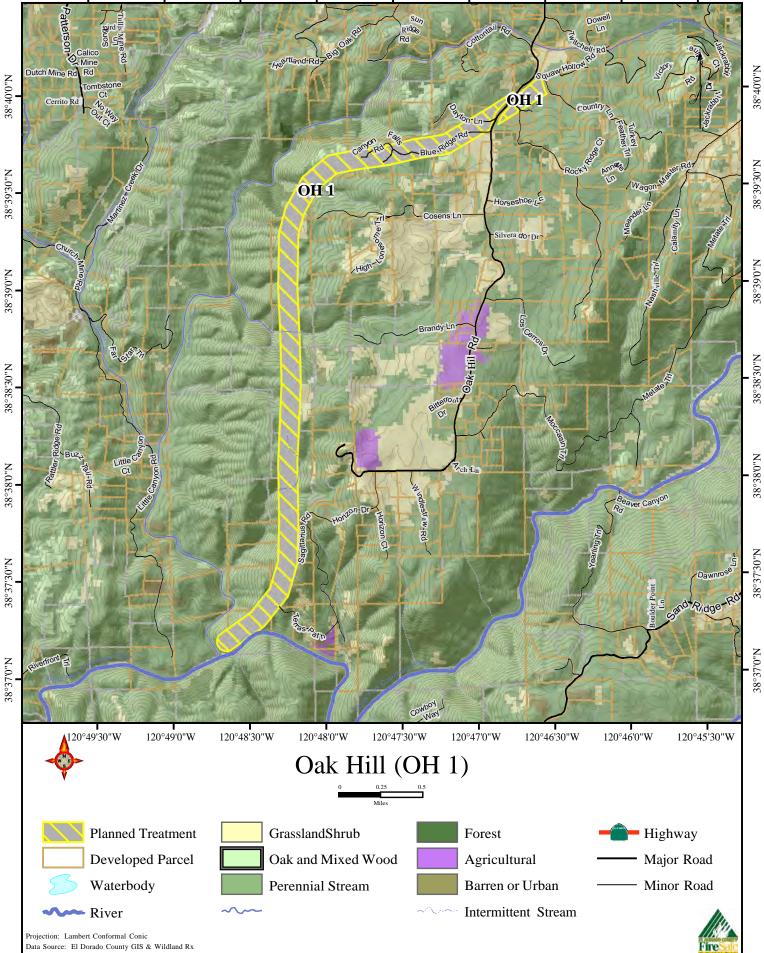
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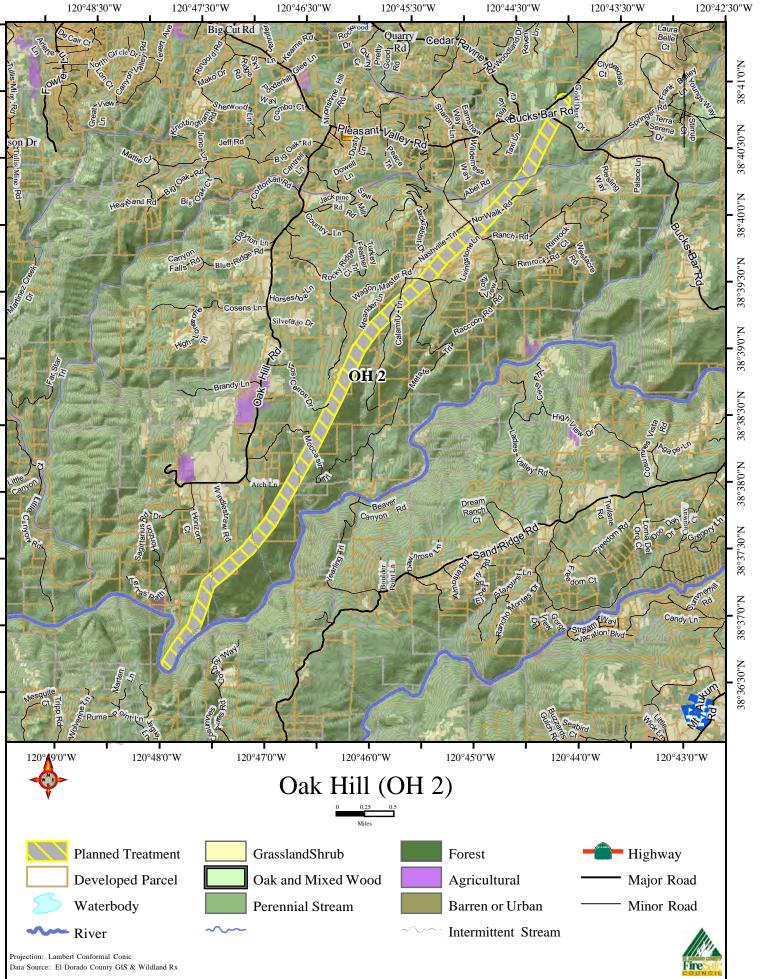
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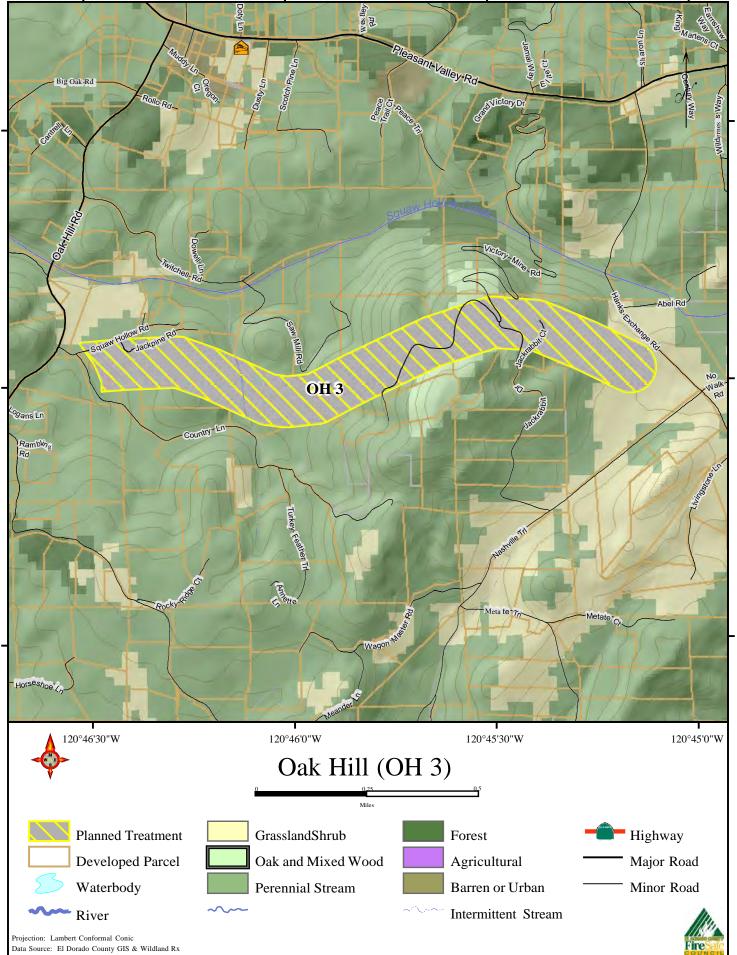
120°45'30"W



38°41'0"N 38°40'30"N 38°40'0"N 38°39'30"N 38°39'0"N 38°38'30"N 38°38'0"N 38°37'30"N 38°37'0"N 38°36'30"N

38°41'30"N

268



38°40'30"N

38°40'0"N

38°39'30"N

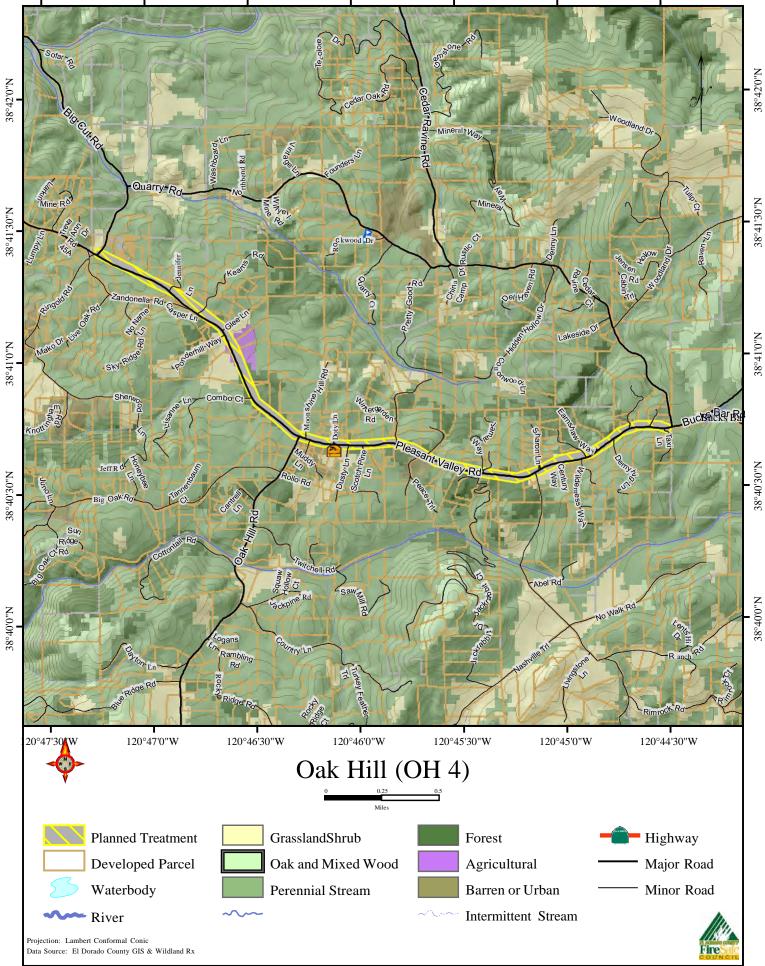
269

120°46'30"W

120°46'0"W

120°45'30"W

120°45'0"W



120°46'30"W

120°47'0"W

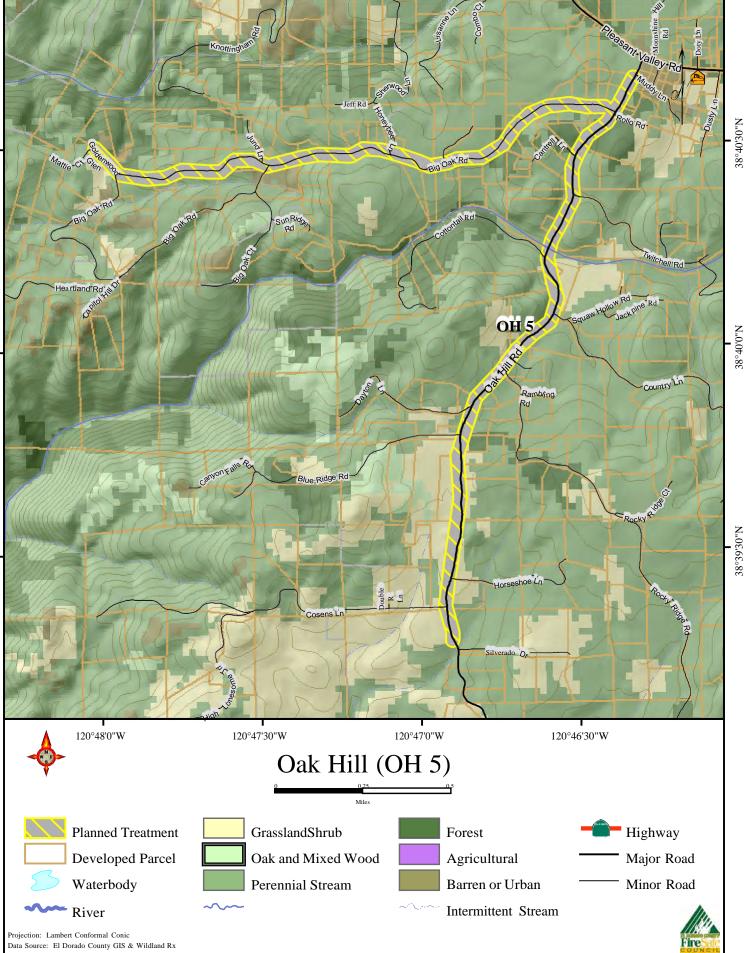
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120°45'30"W

120°44'30"W

120°45'0"W



120°47'0"W

120°46'30"W

120°48'0"W

38°40'30"N

38°40'0"N

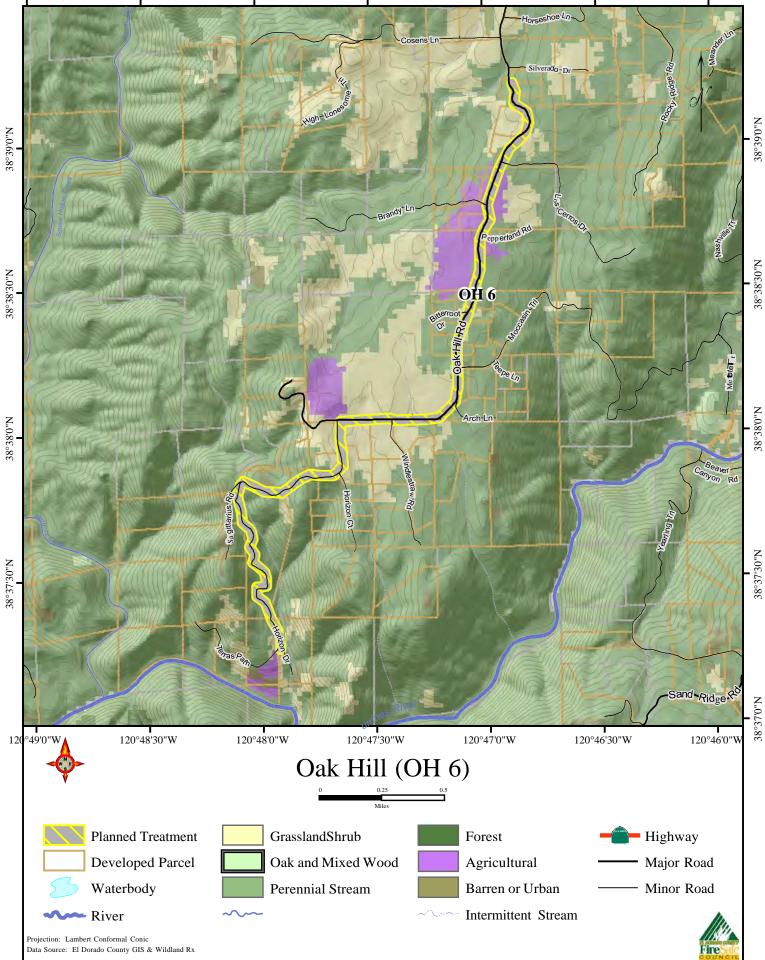
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271

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38°39'30"N



272

120°49'0"W

120°48'30"W

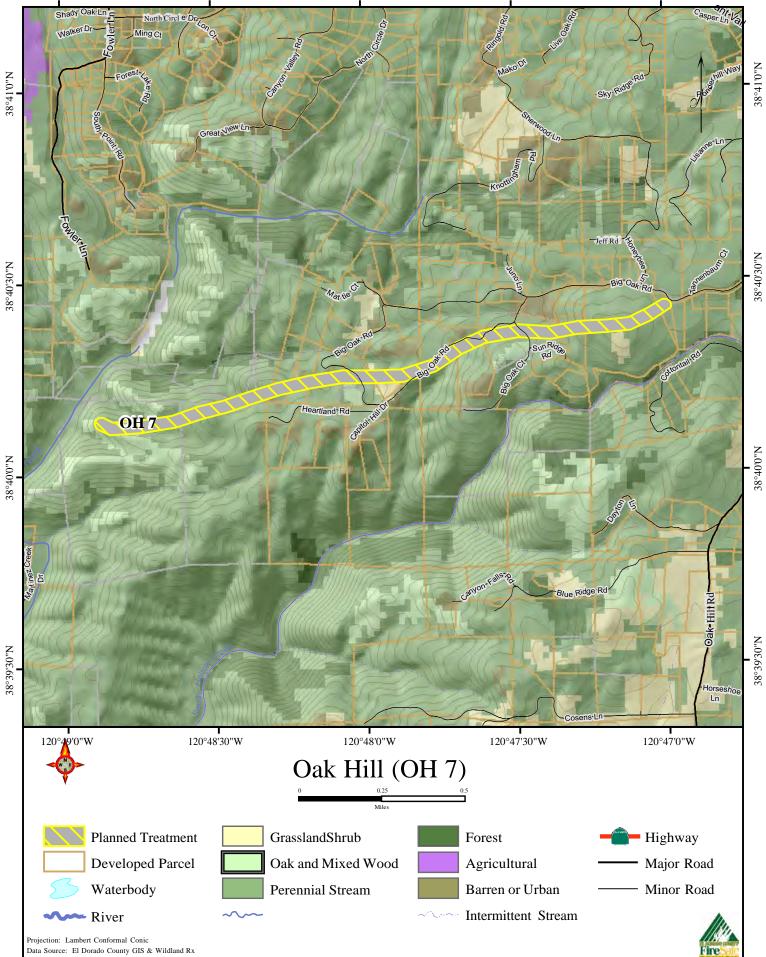
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120°47'30"W

120°47'0"W

120°46'30"W

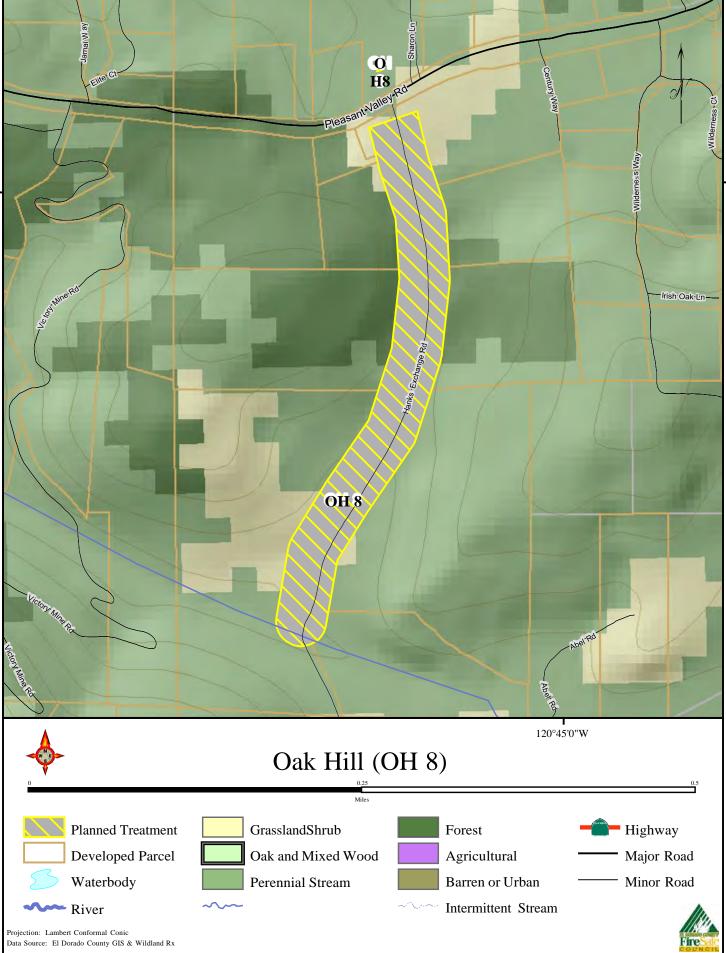
120°46'0"W



120°48'0"W

120°47'30"W

120°47'0"W



38°40'30"N

38°40'30"N

120°45'0"W

Oak Hill Fire Safe Council Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACREs	ESTIMATED COST
Oak Hill 1	6	OH 1	Fuel Break Construction		316	
Oak Hill 2	7	OH 2	Fuel Break Construction		443	
Oak Hill 3	8	OH 3	Fuel Break Construction		95	
Oak Hill 4	1	OH 4	Roadside Hazard reduction		71	
Oak Hill 5	2	OH 5	Roadside Hazard reduction		82	
Oak Hill 6	4	OH 6	Roadside Hazard reduction		79	
Oak Hill 7	5	OH 7	Fuel Break Construction		43	
Oak Hill 8	3	OH 8	Roadside Hazard reduction		10	

300 feet wide fuel Breaks

100 feet wide Roadside Hazard reduction

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACREs	ESTIMATED COST
Oak Hill 1	6	OH 1	Fuel Break Construction		316	
Oak Hill 2	7	OH 2	Fuel Break Construction		443	
Oak Hill 3	8	OH 3	Fuel Break Construction		95	
Oak Hill 4	1	OH 4	Roadside Hazard reduction		71	
Oak Hill 5	2	OH 5	Roadside Hazard reduction		82	
Oak Hill 6	4	OH 6	Roadside Hazard reduction		79	
Oak Hill 7	5	OH 7	Fuel Break Construction		43	
Oak Hill 8	3	OH 8	Roadside Hazard reduction		10	

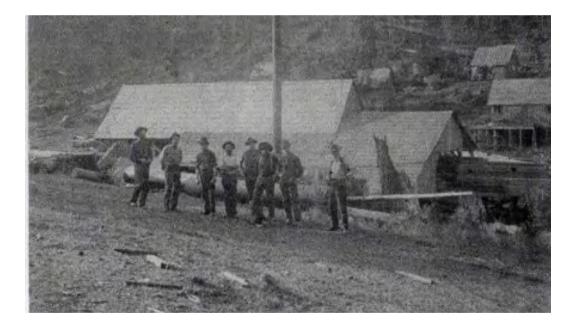
300 feet wide fuel Breaks

100 feet wide Roadside Hazard reduction

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Omo Ranch Fire Safe Council

November 2021



COMMUNITY DESCRIPTION:

Omo Ranch, an unincorporated community, is located in Southern El Dorado County, 25 miles southeast of Placerville, and just to the east of Mt. Aukum and Fair Play, sitting at an elevation of 3,612 feet. The community of Omo Ranch is located in a Wildland Urban Interface (WUI) region.

Omo Ranch is the name of this once fairly large logging, agricultural and mining community. Indian Diggings, which sits within the Omo Ranch region, was the location of the first post office in 1853. Indian Diggings was once considered a potential County Seat. The community of Omo Ranch came about in the 1880s, mostly as a result of the growing need for lumber and the availability of water power at this site, which is adjacent to Perry Creek. Mining was also an important part of the economy. In 1898 it was reported that there were four mines and stamp mills operating near Omo Ranch: the Crystal, Independence, Polk and Parker, and Stillwagon. Early mining records also show that the Oak Mine was active in 1894, the Omo in 1896 and the Potosi in 1908. The reports of the California Mining Bureau list the two last mines, the Omo and Potosi, to be operating as late as 1938.

In addition to logging and mining, farming and ranching were also important in the Omo Ranch area. Grain, hay, various fruits and vegetables and cattle were raised, supplying both the local and Sacramento Valley markets.

Omo Ranch was commissioned with a Post Office in 1888. It wasn't as isolated as many other rural communities, since for many years a stage line operated between Omo Ranch and Placerville on a three-times-a-week schedule. In 1904 the first store was built and later a gas station was added. In 1930, the Omo Lumber Company was formed and a new sawmill was built. The mill was successful and within a few years the mill was expanded to include more cabins, a bunkhouse, a cookhouse/office and a company store. The mill was purchased in 1939, forming the Wetzel-Oviatt Lumber Company. Although the mill would burn in both 1939 and 1944, each time it was rapidly rebuilt to meet the continual demand for lumber. The boom years following World War II were good for the Wetzel-Oviatt Lumber Company and for a quarter of a century the mill employed around 200 men on two eight-hour shifts, producing an average of 40 million board feet of lumber yearly.

With this large a population in the Omo Ranch area, there was a need for a school, so when the Indian Diggings School, which was located midway between Omo Ranch and Indian Diggings, burned in 1944, it was rebuilt at a new location in Omo Ranch. In 1957 the school burned again and was rebuilt. In 1958, when a majority of the school districts in southern El Dorado County were unified into the new Pioneer School District, the voters in the Indian Diggings District voted against unification and today it remains as a separate district within the school system.

With the coming of the 1970s and the introduction of more stringent environmental regulations, it was not economically feasible to make the modifications and, on April 26, 1973, the mill was closed. With the mill closing, the post office soon followed and was closed in 1974. Omo Ranch, although obviously smaller than it was when the sawmill was operating, continues to be a pleasant, rural residential community, in a very historical part of El Dorado County.

In an effort to educate the community and develop a collective focused effort to prevent or minimize catastrophic wildland fire, the all-volunteer Omo Ranch Fire Safe Council (ORFSC) was organized in 2018 as an associate council under the direction of the El Dorado County Fire Safe Council. ORFSC works in a cooperative effort with neighboring Fire Safe Councils, such as Grizzly Flats, Mt. Aukum/Fair Play and Sandridge. In 2021, Omo Ranch was recognized as a National Fire Protection Association (NFPA) Firewise USA Community. An ORFSC Community Wildfire Risk Assessment was completed in December 2020 as a requirement of NFPA Firewise recognition.

The ORFSC area is bounded to the North along the Middle Fork of the Cosumnes River and the Grizzly Flats Fire Safe Council. The West boundary abuts the Aukum/Fair Play Fire Safe Council to the SW corner. The South boundary is a random line running 10.7 miles East. Finally, the East boundary runs Northwesterly to the intersection of Omo Ranch Road and Forest Service Land in the S 1/2 of the SW 1/4S.18, T.8N., R.14E., M.D.M.; then Westerly along Omo Ranch Road for about 2 miles, then Northwest to the SE corner S.10, S8, T.8N., R.13E., then North along the Section lines to the Middle Fork of the Cosumnes River. The ORFSC is approximately 41 square miles (26,203 Acres). Within the ORFSC there are 547 parcels ranging from 2 to 600 acres. Approximately 15,086, or 58% of ORFSC acreage, is timberland held by private timber companies, mainly Sierra Pacific Industries, and Federal Lands managed by the U.S. Forest Service or Bureau of Land Management.

With just under 700 habitable structures, the ORFSC area includes single family homes, vineyards, wineries, cattle grazing, tree farms, mining, recreation and timberlands. There are two primary transportation routes, Omo Ranch Road and Slug Gulch Road which are paved County two lane roads. Most areas are accessed by secondary dirt and gravel roads.

Emergency Services:

The Pioneer Fire Protection District (PFPD) provides all hazards, rescue, fire (structural/vegetation) and EMS service to the community of Omo Ranch as well as to 296 square miles to south El Dorado County; this includes 87,000 acres of the El Dorado National Forest. In addition, PFPD provides wildfire protection and education for the community. The El Dorado National Forest provides wildfire protection to the National Forest and BLM lands and Cal Fire provides protection for the State Responsibility Areas (SRA); in which all of Omo Ranch Fire Safe District is SRA "high danger".

The community falls under the local governmental administration of the County of El Dorado, and it is within Supervisor District 2. PFPD Station 37, is an on-call volunteer station, located in Omo Ranch. PFPD Station 38, a fully staffed station located in Mt. Aukum is approximately 15-20 minutes of travel time. PFPD Station 34, is an on-call volunteer station that provides additional support and is located 15-20 minutes travel time. The El Dorado County Fire District (a full staffed station with a JPA ambulance) closest station is located in Pleasant Valley approximately 40 to 45 minutes away. The closest fully staffed CALFIRE stations are River Pines and Camino. The U.S. Forest Service has a station in Grizzly Flats and in Dew Drop (That are staffed during the day, not at night) from May to November. Law enforcement is provided by the El Dorado County Sheriff's Department and USF. The Pioneer Fire Protection District, U.S. Forest Service and CALFIRE all mutual aid agreements to provide wildfire protection.

The Omo Ranch Fire Safe Council

Introduction

The Omo Ranch Fire Safe Council (ORFSC) was created by local citizens in October 2018 to address concerns regarding the threat of wildfire to the community. The ORFSC is located in southern El Dorado County, it is an all-volunteer organization, and is considered a satellite component of the El Dorado County Fire Safe Council (EDCFSC). Fire safe councils are community-led organizations, formed to reduce the potential impacts of wildfire on communities, and to prevent fires from occurring in or near the wildland environment. These councils work to mitigate the impacts of wildfire by educating the community on best practices, and by organizing projects that benefit the community through prevention activities. Education for homeowners and residents can include general wildfire preparedness information, evacuation planning, and information about resources and ongoing defensible space issues. Fire councils also help design and implement projects like cooperative fuel reduction around neighborhoods, and collaborate with other agencies to create and implement landscape-level vegetation management projects.

The mission of the ORFSC is to is to equip residents and landowners of the Omo Ranch Community with the essential knowledge and tools for establishing defensible space, promoting public safety, and protecting life and property in the event of a catastrophic wildfire. The ORFSC also facilitates collaboration within the community to implement fire safe practices and maintain a Firewise environment.

The Goals of the ORFSC are as follows:

- Provide education and information to establish and maintain a fire safe community
- Pursue mitigation efforts to reduce the negative effects of wildfire on life and property
- Coordinate a Community Wildfire Protection Plan in collaboration with appropriate stakeholders
- Develop and implement an evacuation and preparedness plan for our area

The ORFSC Community Wildfire Prevention Plan (CWPP) is based on a risk assessment completed by ORFSC members. The risk assessment was conducted during the fall of 2020 by surveying 20% of the dwellings within the SOR. A roadside evaluation was conducted without accessing private property unless invited to do so. Evaluators noted construction materials of houses and any attachments, such as decks, landscaping practices on properties, and the condition of vegetation on or near structures. All evaluations were conducted in a manner that respected the privacy of individual property owners.

This risk assessment focused on home and landscape conditions in areas with significant population of residences. Conditions at wineries, businesses or the school were not evaluated. These facilities must also prepare for wildfire, but such preparations are beyond the scope of the ORFSC at this time. Future updates to this Assessment may include a review of these facilities.

Sphere of Recognition (SOR)

Description

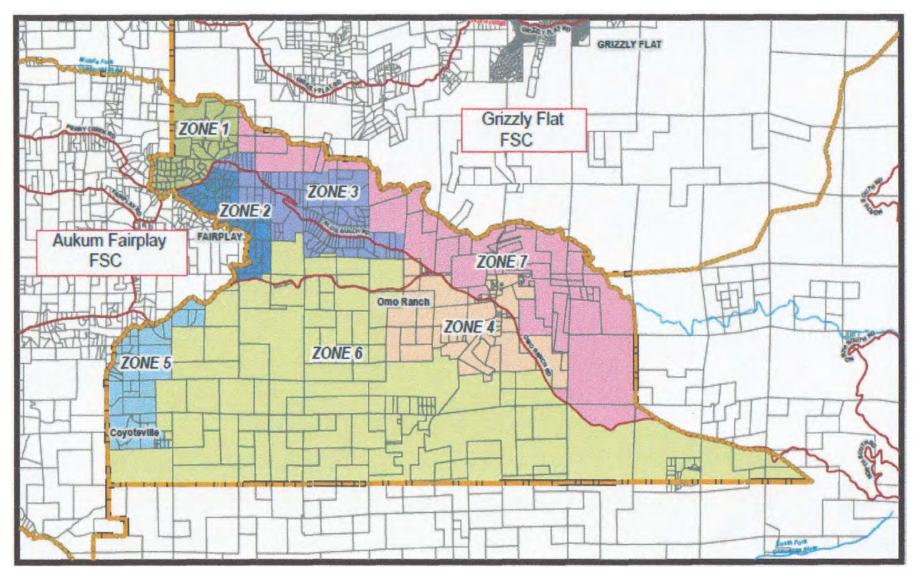
The ORFSC, is bounded to the North along the Middle Fork of the Cosumnes River and the Grizzly Flat Fire Safe Council. The West boundary abuts the Aukum Fairplay Fire Safe Council, extending to the SW corner of Section 16 T.8N., R.12E (Mount Diablo Meridian; MDM). The South boundary is a tangent running 10.7 miles to the East, connecting to a northwesterly line to the intersection of Omo Ranch Road and Forest Service Land in the S ½ of the SW ¼ S.18, T.8N., R.14E. (MDM). The northern boundary is formed by a westerly line along Omo Ranch Road for about 2 miles, then northwest to the SE Corner S.10, S.8, T.8N., R.13E., and North along the Section lines to the Middle Fork of the Cosumnes River. The ORFSC is approximately 41 Square miles (26,203 Acres), and contains 547 Parcels ranging from two to 600 acres in size.

The ORFSC has created Zones to segment distinct areas within the Fire Safe Council's (FSC) SOR. The decision to call these areas Zones is based on the prevalence of commercial timber lands in the area, as contrasted with residential areas within the SOR. A total of 15,086 acres, or 58% of the land base, containing 105 parcels are zoned as timberland. Within Zone 6, 60% of the land is held by private timber companies, mainly Sierra Pacific Industries. Additionally, 38% of the SOR is managed by either the U.S. Forest Service (USFS) or Bureau of Land Management (BLM), with a large portion concentrated in Zone 7.

Zones 1-5 are more akin to neighborhoods, based upon current residential populations. These areas have shared road access and geographic proximity, and are efficiently categorized as zones for planning purposes. Within these five zones there are 196 parcels developed as single-family residences, and comprising only 8% of the FSC acreage. There are many undeveloped parcels within these zones, including 119 parcels considered Vacant Residential (2-20), which make up 5% of the acreage, and 74 parcels with 33% of the acreage that are 20 acres or more, and contain no residential units.



Omo Ranch Fire Safe Council - ZONE Map El Dorado County, California



Demographics of the SOR

The 2020 census data is not available currently. Data provided for Zip Code 95684 (www.unitedstateszipcodes.org/95684) is used an approximation. The median age of the population is 51 years, with a household income of \$53,148. With 196 improved properties within the ORFSC, having an average occupancy of 2, the current population is approximately 392. The average home value is \$247,00, and the constructed value of homes is approximately \$97 million. Homes in the area were primarily built in the 1970's and 1980's, and have limited fire protective building materials and designs. This impacts the wildfire resiliency of the SOR, and the strategy of the ORFSC to reduce losses in the case of a wildfire. In 2008 the California building fire codes were modified to require the use of fire-resistant materials in areas at risk of wildfires. There has been limited new residential building in the ORFSC since the 1980's and therefore most of the current housing in the ORFSC does not meet the updated standards. This presents an opportunity to educate homeowners about materials and activities to harden structures against ember intrusions and similar mitigations. Grant funding for home hardening would offer a way to off-set the cost burden to residents while improving community resilience in the SOR.

Land uses in the SOR

As the demographics of the housing identifies, much of the ORFSC is not developed. County statistics (below) detail ownership types, parcels, acreage, and zoned purposes. The ORFSC includes many land uses that are not easily captured by zoning, however. The area is host to many vineyards, wineries, cattle lands, treefarms, mining claims, recreation areas, and private and federal timber lands. Working with the diverse needs of the SOR will include many different perspectives, and should work to leverage the strengths and potential resources that each bring to bear on the SOR.

Transportation routes in the SOR are limited to two primary roads that are paved, and two-lane: Omo Ranch Road and Slug Gulch Road. The two main routes are owned and maintained by the county, and the majority of other areas in the SOR are accessed by single lane paved, dirt, and gravel roads. Ingress and egress routes, and the condition of the vegetation along these routes, is a significant factor of both firefighter safety and the ability of residents to use evacuation routes in an emergency.

Land Use in the ORFSC

Parcels 547

Acres 26,203

Residential lands

Developed Residential

Code	Acres	Parcels	Description
11	27	22	IMPROVED SINGLE FAMILY RESIDENTIAL TO 2.5 AC.
22	800	113	IMPROVED RURAL RES (2.51-20.0 AC, 1 SFR)
23	893	20	RURAL LAND OVER 20.0 AC WITH AT LEAST 1 SF
28	368	41	MOBILEHOME - 2.5 AC & LARGER PARCEL
Total	2,088	196	

Vacant Residential

21	1,255	119	VACANT RURAL RES LAND (2.51-20.0 AC, 1 SFR)
24	7,393	74	RURAL LAND OVER 20.0 AC. WITH NO RES UNIT
Total	8,648	223	

Timberlands

Private Timberland

Federal Lands

99	6,071	22	U.S. Forest Service & Bureau of Land Management
Total	15,08 6	105	

*Categorized totals do not equal overall totals due to parcels with multiple codes and insignificant numbers of parcels with miscellaneous codes

**Source: El Dorado County Assessor's office, retrieved June 2020

Natural features in and around the SOR

Topography

The topography consists of rolling hills, long ridges, and intermittent steep canyons with active creeks at their base. The lowest elevations lie along of the western boundary of the ORFSC. The lows range from 1,800' on the Middle Fork of the Consumes (which is also the northern boundary) and 2240' on SW Corner of the ORFSC on Scott Creek Drainage near Coyoteville. The highest point of 4,400' sits to the southeast, at the corner along Omo Ranch Road near Barney Ridge at 4,400'. There are many creek drainages between the ridges including Dark Canyon, On It, Brownsville, Cedar, Sopiago, and Perry. Historic use has also shaped the topography with many ditches, canals, mills, and mine developments. Remnants of this infrastructure can be found throughout federal and private lands.

Climate and Vegetation

El Dorado County has a Mediterranean climate featuring hot, dry summers and cool, moist winters, with snow common above the 3,000' level. The June to October dry season produces dangerous conditions for wildfires. Annual plants die off and perennial plants lose moisture and become highly flammable, standing fuel. Strong northern wind patterns during the summer and fall contribute further to drying fuels, and can commonly reach speeds of 25 mph and higher. Fires burning toward the end of the dry season are intense, resist suppression efforts, and threaten lives, property, and resources. Increasing drought conditions intensify these characteristics, and extensive preparations should be made where fuels and weather are expected to align with these rural communities.

The ORFSC is in the Sierra Nevada foothills, comprised of scrubland, woodland, and lowermontane forest ecological zones. The primary vegetation types in the ORFSC are as follow:

Foothill scrubland vegetation - Made up of Grey Pine, interior liveoak woodlands, mixed hardwood, and chaparral brush species.

Lower Montane Forest - The most prevalent vegetation type, consists of California Black Oak, Ponderosaand Sugar Pine, White and Douglas Fir, and Incense Cedar. These Mixed conifer stands are interspersed with meadows and chaparral.

Vegetative cover in the ORFSC is a mosaic of grassland, mixed oak and scrubland, vineyards and second growth mixed conifer stands. Much of the area has understory brush and shrub species that provide fuel to propel a wildfire into the canopy.

Fire Risk in the ORFSC SOR

Non-Federal Lands within the ORFSC are designated State Responsibility areas (SRA) and comprise 76% of the land base. Wildland fire protection is provided by the California Department of Forestry and Fire Protection (CAL FIRE). Federal Lands in the SOR are protected from wildfire and managed for timber and fuels by the US Forest Service, El Dorado National Forest. Within the ORFSC, Fire Hazard Severity ratings range from mostly moderate in Zones 1 and 2, to mixed moderate and high in Zone 5, and finally mostly Very High in Zones 3,4,6 and 7.

Although not specifically listed as a Community at Risk for wildfire in the Federal Register, the area displays a majority of the characteristics that put a community at risk. The ORFSC is best described as a Wild Land Urban Intermix area, and lacks a hard boundary with the wild lands that are around and within the community.

The intermix community exists where structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of, and within the developed area. The development density in the intermix ranges from structures that are very close together, to having only one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of an intermix community emphasizes a population density of between 28-250 people per square mile; the 95648 Zip Code has a population density of 23.6 persons per square mile, and includes large gaps between communities.

Risk Assessment and Methodology

The Firewise USA Community Wildfire Risk Assessment approach describes a methodwherein concerned citizens can assess specific attributes of a small community in order to categorize and organize wildfire mitigation efforts. Evaluators inspect construction of structures including roofing, sidings, eaves, vents, and windows. They also evaluate the condition and presence of vegetation and other fuel at three distances, or zones from structures. The Zones are measured out from the structures and are measured at O to 5' (One); 5 to 30'(Two); and 30 to 100' (Three). For this Risk Assessment, the Firewise approach was modified for the following reasons:

The properties within the SOR tend to be large (5-40+ acres) with many dispersed homes and few businesses. Rather than evaluating all homes and structures, a 20% sampling in each of the Zones were selected that would be easily viewed, and where the property was of some significance.

The evaluation teams did not have permission to enter most properties for an evaluation of specific structural conditions, and the assessment generally consisted of features that could be seen from a public Right-of-Way.

- Evaluated Features:
- Roofing
- Siding
- Gutters
- Decks
- Landscaping or hardscaping around structures
- Vegetation, both live and dead
- Slope

Evaluations - Timing and Participants

The ORFSC established two survey teams to conduct the assessments and complete the evaluation. A request for volunteer participation in the assessment was included in the November outreach mailer; only one response from the mailer was returned. The majority of evaluations were conducted in October thru December 2020, by the following survey teams:

Patrick Lynch and Ralph Lyman

Pam Borman and Pat Baireuther

During the Risk Assessment other features relevant to improving fire safety were noted for future planning. The information will be used as the ORFSC expands the scope of Firesafe activities. These additional features include:

Water sources- Existing storage tanks, Hydrant hookups to tanks, pools, and ponds

Access roads

Evacuation routes

Potential Fire safety zones

Existence of Fire department approved reflective address signs

The Risk Assessment results are summarized in the following Table, with statistics of the findings.

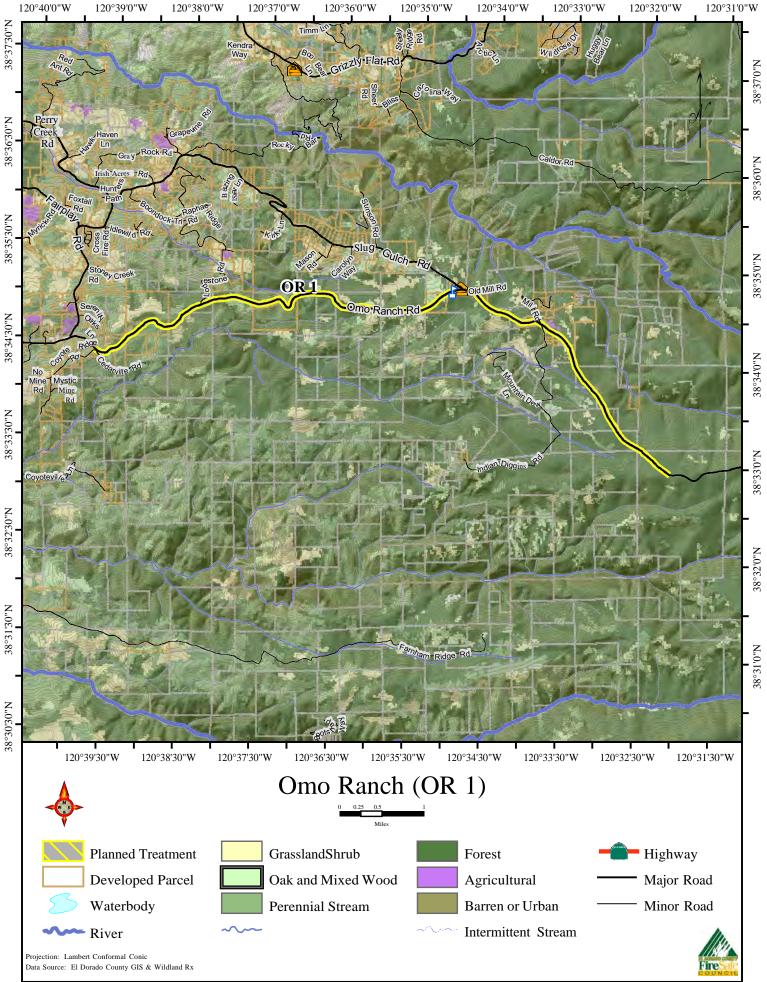
ORFSC Community Wildfire Risk Assessment Summary

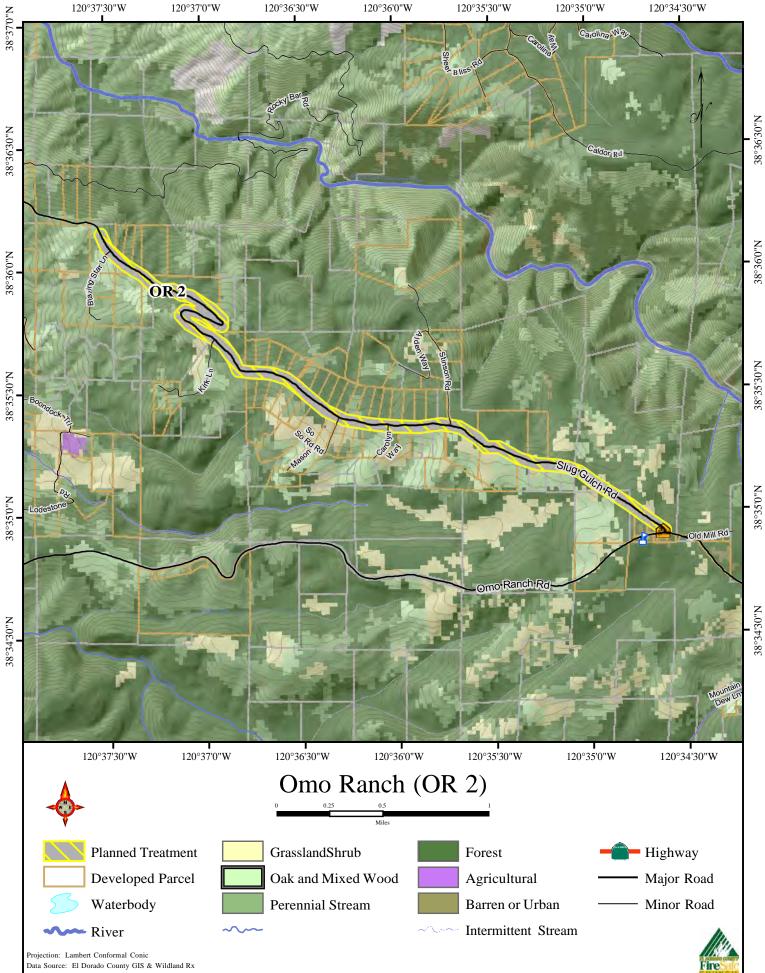
TOTAL SURVEYS 41

Address Visible at Street <u>98%</u>

INSPECTION ZONE 1	(Structure to 5 ft)		
Roofing	Class A	<u>97%</u>	6
	Non-Class A	<u>39</u>	6
Siding	Wood	<u>859</u>	6
	Masonry/Stucco	<u>149</u>	<u>6</u>
	Unknown	<u>19</u>	6
Gutters	Covered	<u>09</u>	<u>6</u>
	Open	<u>659</u>	<u>6</u>
	None	<u>359</u>	6
Deck		<u>789</u>	6
Vegetation	Live (trees, shrubs)	<u>639</u>	<u>6</u>
	Dead	<u>59</u>	<u>6</u>
	Hardscaping(nonflammable)	<u>639</u>	6
	Tree limbs overhanging structure	<u>379</u>	6
	Debris accumulation on roof	<u>109</u>	6
INSPECTION ZONE 2	(5 to 30 ft from structure)		
	patios (fuel breaks)	<u>639</u>	%
Vegetation	Maintained lawns, plantings	<u>379</u>	6
	Unmaintained	<u>159</u>	6
	grasses		
	Ladder fuels present	<u>419</u>	<u>%</u>
INSPECTION ZONE 2	(30 TO 100 FT FROM STRUCTURE)		
Vegetation	Heavy accumulation of live	<u>499</u>	<u>6</u>
	Dead material	<u>209</u>	6
	12 feet between tree canopies	<u>419</u>	<u>6</u>
Slope	FLAT <u>46%</u> MODERATE <u>54%</u>	STEEP <u>0%</u>	



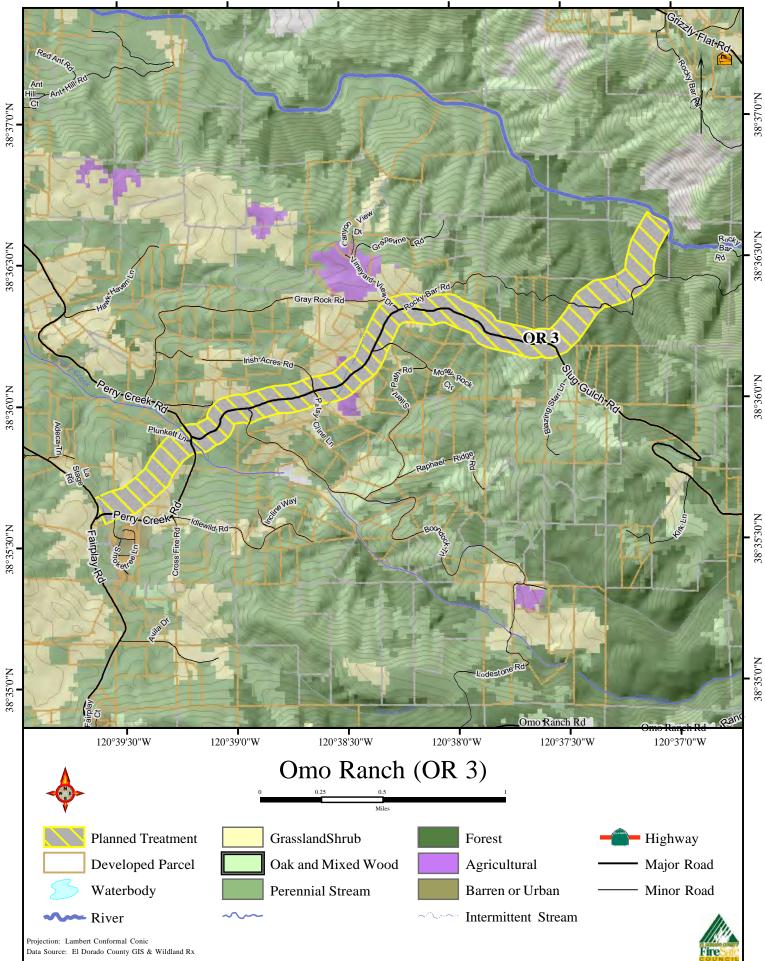




38°36'30"N

38°36'0"N

38°35'0"N



120°39'30"W

120°39'0"W

120°38'30"W

120°38'0"W

120°37'30"W

120°37'0''W

Omo Ranch FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
Omo Ranch 1Roadside	1	OR 1	Roadside Hazard reduction 200feet wide along Omo Ranch Rd		305	
Omo Ranch 2	2	OR 2	Roadside Hazard Reduction 200 feet wide along Slug Gulch Road		130	
Omo Ranch 3	3	OR 3	Part of Fuel Break 300 Feet Wide		214	

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Patterson Ranch Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update

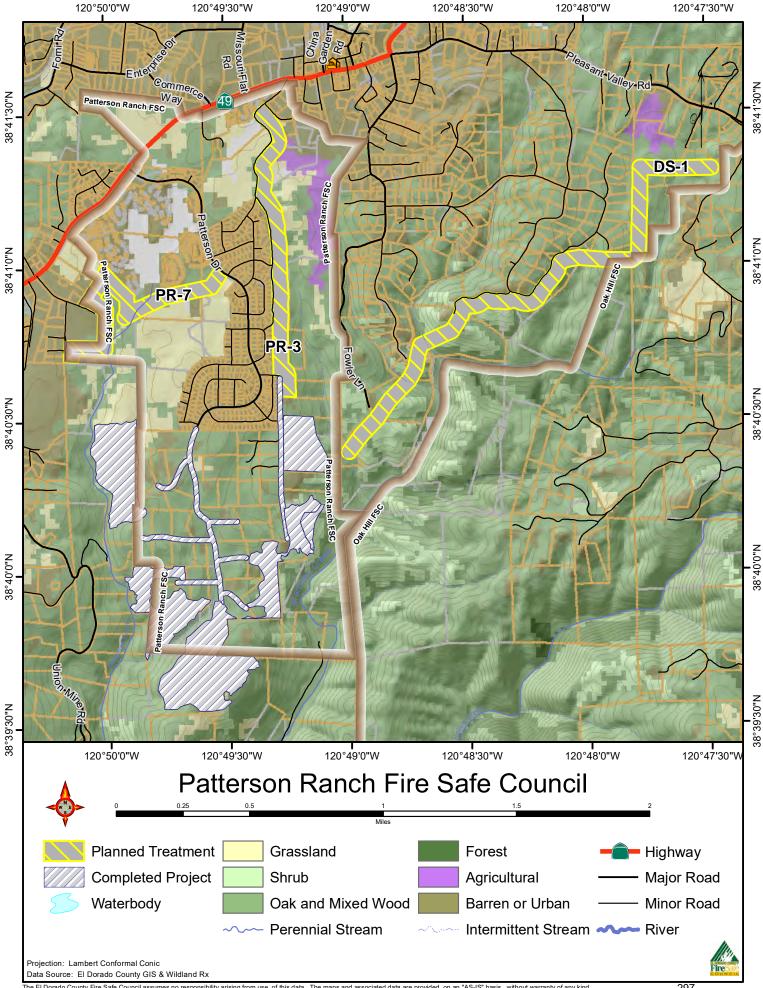
January 2022

Patterson Ranch FSC Community Projects Update CWPP

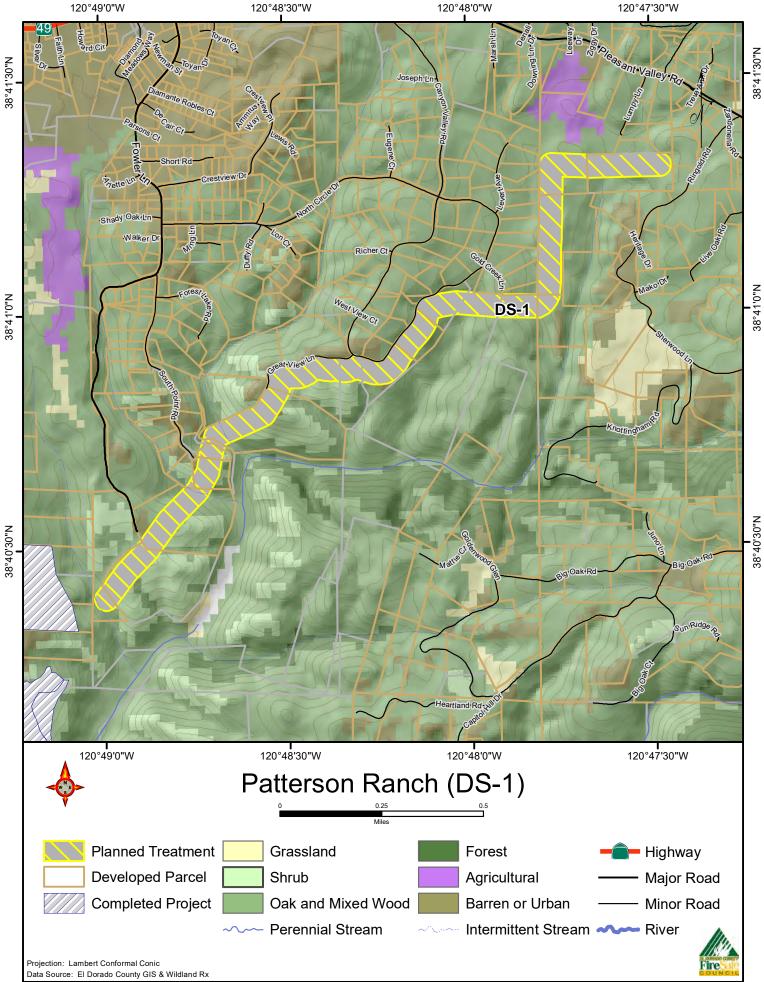
PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
		PR 7	Fuel break on north side ofPatterson Ranct	Fuel Break		

Patterson Ranch 2017 CWPP Projects

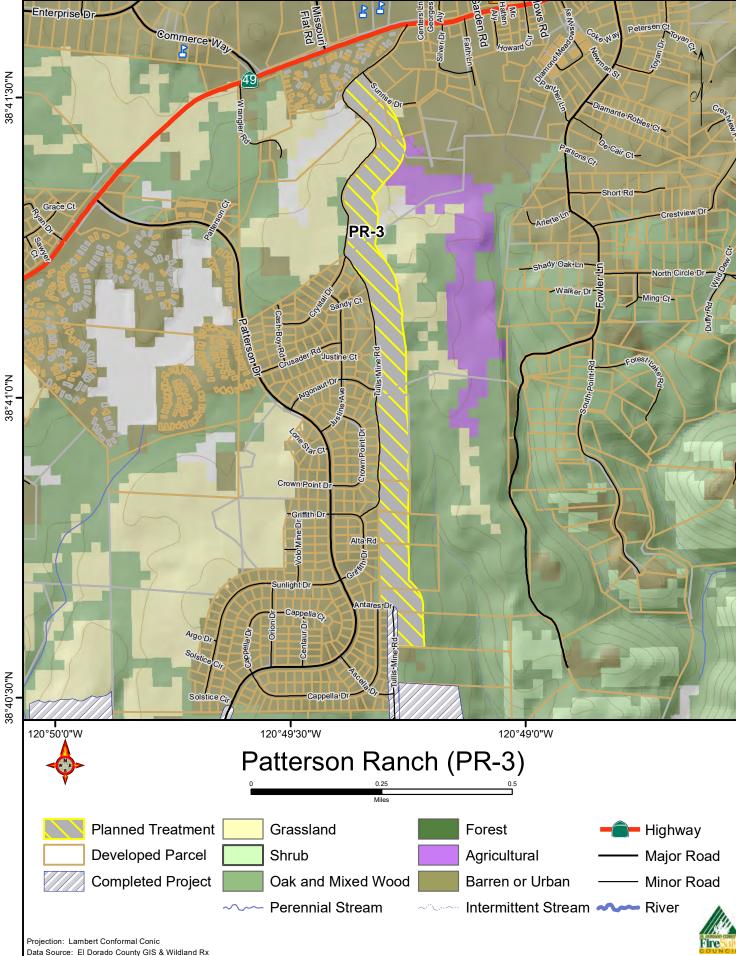
COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Patterson Ranch		PR-1	Martinez Creek	Fuel Reduction	33		Complete??
Patterson Ranch		PR-2	West Patterson	Fuel Reduction	62		Complete??
Patterson Ranch	3	PR-3	East Patterson	Fuel Reduction	58		Realigned
Patterson Ranch	4	PR-4	Patterson Ranch East	Fuel Reduction	31		
Patterson Ranch	5	PR-5	Patterson Drive	Road Hazard	20	4.0	
Patterson Ranch	6	PR-6	Tullis Mine Road	Road Hazard	10	2.0	
Patterson Ranch			Total Patterson Ranch		214	6.0	



The El Dorado County Fire Safe Council assumes no responsibility arising from use of this data. The maps and associated data are provided on an "AS-IS" basis, without warranty of any kind, aither expressed or implied, including but not limited to fitness for a particular purpose. El Dorado County Fire Safe Council assumes no liability for damages arising from errors or omissions.



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120°49'0"W

38°41'30"N

38°41'0"N

38°40'30"N

Patterson ne Star PR-7 Crown Point D P Griffith Dr -Woodstock Ln Shaw Mine Rd -Snoopy Ctnder Mine-D1 Irgo Di D/stice tterson D 120°50'0"W 120°49'30"W Patterson Ranch (PR-7) 0.25 Miles **Planned Treatment** Highway Grassland Forest **Developed Parcel** Agricultural Major Road Shrub Oak and Mixed Wood Barren or Urban Minor Road **Perennial Stream** Intermittent Stream River

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Projection: Lambert Conformal Conic

Data Source: El Dorado County GIS & Wildland Rx

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El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Placerville Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update

November 2021



Introduction

The Placerville Fire Safe Council (PFSC) was formed by local citizens in January 2019 to address concerns regarding wildfire threat to the community. The PFSC is an all-volunteer organization that is a satellite group of the El Dorado County Fire Safe Council (EDCFSC).

The council works to educate homeowners and residents about wildfire preparedness and how to plan for and prevent wildfires. Fire safe councils conduct numerous outreach events and implement projects such as cooperative fuel-reduction projects in neighborhoods and collaborate with other agencies to complete landscape-level vegetation management projects.

The mission of PFSC is to mitigate the loss of life, property, and natural resources in the Placerville area from the damages of wildfire.

The Four Co-Equal Goals of The PFSC Are:

- To develop and implement a Community Wildfire Protection Plan, based on a Community Risk Assessment and in coordination with residents, businesses, organizations, associations, and local, state and federal agencies
- > To inform and educate residents of the Placerville area about the threat of fire, and about the methods and resources available to mitigate fire danger to their property and community
- > To promote, fund, and implement fire safety programs and projects for the Placerville area
- To participate in the development and implementation of evacuation and preparedness plans for the Placerville area

The Community has developed a Risk Assessment based on the program developed by the National Fire Protection Association (NFPA) called Firewise Communities/USA (<u>www.firewise.org</u>). This program provides a collaborative and effective approach to manage wildfire risk while preserving the natural environment.

The results of the Risk Assessment also provide a basis to develop an action plan, to be incorporated into a Community Wildfire Protection Plan and to prioritize projects within the boundary of the PFSC, which is known as the Sphere of Recognition (SOR). These projects include fuels reduction and essential outreach and educational programs for the public on how to strategically prepare homes and structures to reduce the risk of wildfire damage.

This Risk Assessment was conducted by PFSC members in Spring of 2019 by surveying samples of typical neighborhoods within the SOR. The evaluation was done by walking or driving on public roads and streets. Evaluators noted construction materials of houses and any attachments, such as decks, landscaping practices on properties, and the condition of vegetation on or near structures. All evaluations were conducted in a manner that respected the privacy of individual property owners. More details of the Risk Assessment can be found in the Document created by the Placerville Fire Safe Council. This is a summary of the important parts of the document.

Placerville is listed in the Federal Register as a community at risk, and is best characterized by the Very High Severity Zone by Cal FIRE (FRAP).

General Attributes and the Sphere of Recognition (SOR)

Sphere of Recognition (SOR) Boundary

The SOR boundary was developed with advice from the EDFSC and the El Dorado County Fire Protection District and is approximately 3,752 acres. The SOR includes the City of Placerville and extends somewhat outside of the city limits to include adjacent areas of unincorporated El Dorado County. This SOR includes area that is not currently within the SOR of another satellite fire safe council, and has a logical association to the City of Placerville due to transportation or topography. Other areas adjacent to the city limits, such as ridge tops, were included in the SOR when it was determined they were strategic for wildfire management.

The SOR is roughly 7.6 miles, from east to west, and 3.4 miles, from north to south. The elevation of the SOR ranges from about 2,600 feet on Texas Hill at the El Dorado County Airport to around 1,400 feet at Weber Creek at the western end of the boundary.

The southern boundary of the SOR follows the ridge that separates the Weber Creek watershed from the Hangtown Creek watershed, and includes Texas Hill and Sacramento Hill. The eastern boundary abuts the Camino-Pollock Pines FSC boundary and follows Jacquier Road. The northern boundary roughly follows the Placerville city limits and runs just under the ridgeline above Big Canyon Creek. The boundary then traverses a relatively flat area north of Diana Street. The western border follows the small hilltops above Weber Creek.

The SOR area is urbanized and has well-developed infrastructure of water and sewer service, roadways, fire hydrants, with overhead and some subterranean power and telecommunication lines. A majority of the roads are asphalt and most are maintained by the City of Placerville or El Dorado County, but many private roads are maintained by residents or private associations.

Demographics of the SOR

Based on information available from the US Census Bureau, the Placerville area has a population of approximately 11,000 people with a median household income of \$51,250. According to statistics provided by the City of Placerville, there are 4,667 total housing units in the City, 68% of which are single-family dwellings, 29% are multi-family units, and 3.5% are mobile homes. Approximately 52.3% are owner-occupied and 47.4% are renter-occupied units.

The age distribution of Placerville residents is also worth noting. According to the American Community Survey (ACS, 2019), 18.9% of the population is under 19 years of age, 49.9% is between 20 and 59 years of age, and 31.1% is over the age of 60. The same source estimates that 51.9% of households include

one person 60 years or older. These demographic characteristics should inform communication mediums and messages, and for planning the evacuation of retired and limited mobility residents.

Land Uses in the SOR

The SOR is dominated by the City of Placerville, which is the seat of El Dorado County. The city was incorporated in 1854 and has a range of land use types in the city boundary, and within the City's Sphere of Influence. Key land use designations include: Residential (low-density and high density), commercial, industrial, public facilities, parks and open space, and vacant or undeveloped parcels (2).

In addition to these typical land uses found in most cities, Placerville has four designated Historic Districts within the city boundaries. The Historic Districts include specific streets and their surrounding areas: Spring street and Coloma street, Sacramento Street and Chamberlain Street, Cedar Ravine Road, and Bedford Avenue and Clay Street (3). These districts are primarily residential in nature but some contain converted homes that are used for professional or business purposes.

Given its range of land uses and long history, the area of the defined SOR contains buildings and homes of many different vintages and construction types and has a broad range of building densities, from as low as homes on five-acre minimum lots, to very high-density residential developments with up to 24dwelling units per acre.

Two-thirds of the housing stock are single-family homes over 30 years old, and many houses are more than 50 years old (1). The materials and design of these older houses impacts the wildfire resiliency of the SOR. In 2008 the California building fire codes were modified to require the use of fire-resistant building materials in areas at risk of wildfire (2). There has been limited new residential construction in the Placerville area in the last thirty years, and therefore most of the current housing stock in the SOR does not meet these updated standards. This gap between the existing design and materials of most homes in the SOR and the enhanced fire protection provided by updated materials and design presents an opportunity to educate homeowners about how to harden structures. More details are provided for residential areas below.

Residential Areas in the SOR

The residential areas in the SOR were developed over a long period of time and under progressively improving building codes. Nonetheless, of the vast majority of the roof surfaces seen, 95%, have a fire-resistant surface such as an asphalt shingles. Wood shake roofs, which were popular roofing materials in the past in forested communities, have been replaced with more fire-resilient materials. This is good for the community's fire resiliency because roofing can be an expensive retrofit for the homeowner, and would be a burden for homeowners. However, only the roof surface was observed for this survey. Details such as the coverings on gutters, eaves and soffits, or gaps between the roof material and the roof deck could not be seen easily, and the same can be said regarding screens on foundation vents. Inspecting and addressing details should be a priority for every structure in the SOR, and should be included with FireWise activities as volunteer or paid investments.

Although less than half of the structures in these residential areas could experience increased wildfire risk from overhanging tree branches, this is a risk that must be more critically evaluated by professionals or individual property owners, and may require coordination with neighboring property owners. Where overhanging trees pose a risk due to organic deposits on and around the home, careful consideration should be taken to highlight maintenance regimes and best practices for reducing ember-caused ignitions. Research shows that embers from nearby wildfires can find available fuel beds in high-density housing areas, and homes in suburban type developments are at also at risk (Keely and Sypard, 2019).

Historic Districts

The City of Placerville incorporates three of the four Historic Districts: Spring Street and Coloma Street, Cedar Ravine Road, and Bedford Avenue and Clay Street. Given that structures in these districts nonetheless vary in age and construction materials, and because the Risk Assessment is a survey of general conditions, the sampling of the structures in the districts was not restricted to potentially historical buildings only. A total of 131 structures in three districts were evaluated for the Risk Assessment.

Recommendations for Historic Districts

The historic districts represent the areas of the City that generally have more dense residential development, and they been developed for the longest period of time. The homes and buildings benefit from the shade and aesthetic benefits of the mature trees in these areas. Overhanging tree branches, combined with a heavy accumulation of vegetation in the 30-100 foot zone, should be specifically addressed in these districts to reduce risk of wildfire damage. As with many parcels within the City limits, reducing the wildfire risks of overhanging tree branches and removing accumulated vegetation will require the cooperation of adjacent property owners when the risks fall outside of the property line of individual parcels, but this is particularly so in the historic districts, given the generally smaller parcels. Additionally, these generally older structures are more likely to have construction vulnerabilities, such as open soffits or inadequate vent screens, that need to be inspected and addressed.

Property Owner's Responsibilities for Vegetation Management: Legal Framework

In our society, property rights and duties go together, because how a person maintains or uses their property can adversely affect other landowners' rights. It violates the law of public nuisance if a landowner's conduct unreasonably harms the rights of a substantial number of others in the community. In California, courts view dangerous fire conditions on private property as a potential public nuisance.

Under California law, a public nuisance can expose the landowner to criminal charges or a lawsuit for money damages. Also, any authorized public agency or official can act on their own to abate the conditions that are causing the nuisance and charge their abatement costs back to the property owner.

In short, the law of public nuisance creates both duties and strong incentives for property owners to proactively address all dangerous fire conditions on their property. Recent adoption of ordinances within the SOR include the identification of conditions under which a property or sections of a property could be deemed a nuisance. Specific laws address this concern within incorporated and unincorporated sections of the SOR.

A well-known example is California Public Resources Code (PRC) section 4291. PRC section 4291 requires the owners of certain lands to maintain "defensible space" for fire suppression within a 100-foot perimeter (or to the property line) around any building or structure. The statute and accompanying regulations give guidance on how to achieve the defensible space standard. If an owner fails to comply, fire authorities can perform the work themselves and charge the costs against the owner or place a lien on the property to recover costs.

However, PRC section 4291 applies only to certain improved properties within the State Responsibility Area, or SRA. The SRA excludes all property located within a city's limits, which means virtually all of the PFSC's SOR escapes coverage under Section 4291 except for some edges of the SOR boundary.

The City of Placerville has adopted Ordinance No 1698 the Placerville Hazardous Vegetation and Combustible Materials Abatement Ordinance which gives the City enforcement authority very similar to El Dorado County's vegetation ordinance. These ordinances include similar fire prevention activities to PRC 4291, but are enforceable by county and city officials, respectively.

Recommendations for Action

For high fire hazard areas, such as the Placerville SOR, California state law requires property owners to maintain proper defensible space and the City of Placerville intends to implement a specific ordinance codifying the standards of defensible space. A recent study published by the Oakland California Firesafe Council showed that strict enforcement of nuisance vegetation ordinances is essential for defensible space programs (ref). Meeting these standards for defensible space is a crucial step that homeowners can take to protect property and lives in the event of a wildfire.

The same study referenced above also noted the importance of outreach and education for defensible space programs. The role of the PSFC is to help the community achieve wildfire resiliency on a voluntary

basis, thereby minimizing the need for code enforcement, abatement actions, and the use of property liens by the City or County.

Educational Opportunities

Two important areas of education for property owners and the public about defensible space:

- 1. Vegetation Management
- 2. Home Hardening

Vegetation Management on private parcels

The development of ordinances specific to vegetation management attest to the heightened awareness of the devastating effects of wildfires in California. Many owners in the SOR have been proactive and have reduced the quantity the flammable vegetation on to their property. Unfortunately, the level of this activity has not been consistent throughout the area, or even within individual neighborhoods.

Complying with the standards established for defensible space is constrained in the urban setting of the SOR, defensible space, 30 to 100 feet from the primary structure, often extends into an adjoining property. This challenge presents an opportunity for the PSFC to promote neighborhood-level cooperation to effectively manage vegetation to achieve the recognized standards for defensible space for neighborhoods.

As noted in the Summary of Results, above, the dense canopy of large or mature trees is a concern throughout the community, particularly within 100 feet of a structure. While it may be that landscape-level vegetation management of many acres may not be possible in the SOR, the top priorities should be large-scale strategically located projects that require the approval of only a few individual property owners and may benefit from multi-agency cooperation and funding.

Home Hardening

"Home hardening" means safeguarding a home against wildfire by using construction materials that are more resistant to ignition from a wildfire. Hardening a home greatly improves the chances that it can survive a fire under expected conditions. A hardened home is particularly resistant to ignition caused by embers or firebrands which can travel long distances from a seemingly distant fire. Consistent with other activities of a Firewise Community, home evaluations and risk analyses should take into account the design and materials of structures within the SOR.

There are many ways to make a structure wildfire-hardened, including:

- Fire-resistant roof
- Covered eaves (soffits), screened vents and gutters
- Non-combustible siding, or siding that prevents embers from entering

- Hard-scaping around structures and out-buildings using noncombustible ground covering
- Dual pane windows, or tempered glass windows
- More information on home hardening is available at: www.readyforwildfire.org

New building codes for fire resiliency of structures were promulgated in 2008. Homes built after the adoption of these codes are therefore more resistant to impacts of wildfire. A study conducted by Headwaters Economics showed that incorporating wildfire-resistance measures does not significantly increase a new home's construction costs. (Ref: Headwaters)

While new structures can affordably meet the current standards for fire resiliency, within the SOR, the majority of homes in the SOR are 30 years old or older, and require retrofitting for proper home hardening. This presents a tremendous opportunity for the PSFC to educate homeowners about available materials used to harden structures from wildfire impacts such as ember intrusion. It also presents a clear need for the PFSC to identify and secure funding sources to assist homeowners in bearing the costs of retrofitting old or historic buildings.

Outreach Materials

There has been a great increase in wildfire awareness in the community in the wake of recent catastrophic wildfire events. The PSFC can capitalize on this change in attitudes by developing brochures and posters tailored to our area that describe how citizens can apply the standards developed by the NFPA, CalFire, and local ordinances for home hardening and vegetation clearance. Attention should be paid to the SOR audience demographics, and how to engage new residents to the area.

Depending on site-specific conditions, vegetation management and home hardening retrofits may be expensive or require professional expertise. Creating defensible space is essential for the individual and the community and must not be checked by economic barriers. At this time, assistance is available to homeowners through the Property Assessed Clean Energy Program (PACE) of the California Statewide Communities Development Authority (CSCDA). The PACE allows residential (and commercial) property owners to finance wildfire resiliency improvements which are then repaid through an assessment lien on the property tax bill. Other assistance for defensible space improvements may be implemented in California in the near future.

Communication Plan

A robust and effective communication plan is essential for the success of the PSFC. The Facebook page established by the group has been generating interest for the group in the community. In the near term, the PSFC plans to increase its profile by:

Posting meeting notices to other internet sites such as NextDoor and to sites managed by other local groups

Writing a periodic newsletter to keep the community informed of our activities or other news regarding wildfire awareness

Notifying the local press of planned outreach events or release of pertinent materials

Other means of communication will be taken into consideration by the PSFC as interest grows in the community. One possibility is to work cooperatively with the City of Placerville to develop materials to accompany the water and sewer bills the City sends bi-monthly to its customers.

Costs and Funding

In order to effectively leverage volunteer work, the PFSC will need to establish a grant writing committee to compete for funding that is available from several sources, including state and federal grants. Listed below are some constraints to managing vegetation and home hardening within the SOR, some of which can be overcome with appropriate funding.

There are several landscape constraints to implementing vegetation treatments:

- Steep slopes and riparian areas
- Difficult or limited access
- Large or mature trees may need to be thinned
- Large amounts of woody debris may need to be removed and transported
- Pests and drought may increase the number of hazard trees near homes and along ingress / egress routes

These constraints may pose a challenge for parcel owners to complete the work themselves, necessitating the hiring of professional crews who can work steep slopes safely and remove large amounts of debris. The removal of large trees, or removal of many trees, will likely require the services of professional arborists with expertise beyond that of the average homeowner.

In addition to these landscape constraints, it is important to bear in mind that a significant portion of the City's, and thus SOR's households are headed by seniors, 65 years of age or older. These persons may be dependent on fixed incomes or have a disability or other constraint to maintaining their home.

These listed constraints underscore the fact that some property owners may require assistance, physical and or financial, to create defensible space around their homes. Therefore it is essential that funding be identified and secured both for large-scale projects and to assist property owners.

Additional Analysis

Three types of vegetation management plans for the SOR will require in-depth analysis for development and implementation: large undeveloped parcels, management on adjoining or contiguous parcels, and management along streets and roads. This additional analysis will benefit from the scheduled update to the El Dorado County Fire Safe Council Community Wildfire Protection Plan (CWPP) which will include the PFSC SOR, and from more detailed GIS analysis of vegetation and structures in the SOR.

Large undeveloped parcels

There are several, multi-acre, undeveloped parcels within the boundary of the SOR. These were not evaluated as part of this Risk Assessment primarily because this type of evaluation falls out of the scope of the NFPA template. Many of these parcels are not maintained and contain large amounts of flammable vegetation. Some of these parcels are under the control of absentee owners, either individuals or in some cases real estate partnerships. These parcels pose a well-recognized risk to the community. A top priority for the safety of the community is to engage the owners so that an appropriate vegetation management plan is developed and implemented.

Vegetation management on adjoining or contiguous parcels

The SOR contains many areas with continuous tree canopy and heavy accumulation of surface and ladder fuels. Few of the properties evaluated for the Risk Assessment had the recommended 12-foot separation between tree canopies. In the near term, it will likely be difficult to achieve this standard within this SOR, a densely populated area where the potential ignition zones often cross property lines. This stands in contrast to rural areas where parcels can be several acres in size and under the control of a single property owner. Large-scale vegetation management and fuel reduction projects in the SOR will require more detailed GIS analysis to adequately describe the scope of work and to identify and engage the key property owners.

In the event a wildfire threatens the SOR from outside of the SOR, there are several strategic ridge tops surrounding the SOR where fuel treatments and defensible space home hardening will increase the probability of successful suppression tactics that could minimize loss of life and property. These strategic ridges include Texas and Sacramento Hills along southern boundary of the SOR and ridges surrounding Big Canyon and Poverty Hill along the northern boundary. Were a fire to start within the SOR, internal ridges and perimeter ridges would also be important for fire suppression and containment. Implementing vegetation management and increasing defensible space compliance along key ridges should be prioritized in the SOR.

Vegetation along streets and roads

The roads in the SOR are a primarily city maintained, although there are some privately owned roads and some rights-of-way that are maintained by the County of El Dorado or the State of California (Highways 49 and 50). The assessment team highly recommends the community achieve the standards for emergency equipment access which is 10 feet of horizontal vegetation management along the shoulder with 15 foot vertical clearance. The pending City ordinance incorporates the horizontal standard, but no vertical standard. Additionally, these vertical and horizontal standards should apply to private driveways. It is imperative to ensure that key evacuation routes are adequate and safe for evacuees during a wildfire emergency.

Area-Specific GIS analysis: Density of Vegetation and Structures

Creating a detailed geospatial analysis of areas with heavy accumulation of vegetation near densely populated areas may be of great assistance in setting priorities for vegetation management and outreach to

property owners. Using spatial data to create clear associations of risk and values would also help articulate the potential harms for grant proposals as well. Current zoning maps of the City delineate areas of higher and lower residential density, and where commercial development is allowed, but this level of spatial information does not clearly establish under what landscape configurations put a community at higher risk.

Emergency Preparedness and Community Concerns

The public is rightfully concerned about how the community will react to a wildfire. In the wake of the tragedy of the Camp Fire in Paradise 2018, and other small communities impacted by the North Complex 2020, numerous questions have arisen regarding how notifications of a wildfire event will be handled, where the evacuation routes will be, or how best to shelter in place if necessary.

The PSFC has engaged the local Office of Emergency Services (OES), but more work is required in this area.

As we learn more about how the OES needs the community to respond, there are steps that individuals can take, and should be included in outreach materials and media opportunities. The most important first step is for citizens to acknowledge that wildfire risk is a likely occurrence for much of California and its residents. Asserting the high probability that fires will occur is a key first step in communicating to existing and new residents in the SOR, and establishing an impetus to act. As detailed above, both landscape and home hardening actions are necessary to reduce loss of life and property. And, while hardening a home to ember intrusion, and reducing fuels and vegetation will abate risk, it is imperative that individuals and families plan the steps they will take to promptly respond to a wildfire evacuation order.

Public Resources

The PFSC recommends preparing an emergency evacuation kit and creating a communication plan in the event of a wildfire. Excellent checklists and templates are available for use including the CalFire brochure, "Ready, Set, Go! Your Personal Wildfire Action Plan" and at the CalFire website, <u>www.readyforwildfire.org/Wildfire-Action-Plan/</u>.

The PFSC also recommends that families register their cell phones for emergency notifications with the El Dorado County Emergency Services (OES) Code Red Alert System and the City of Placerville emergency alerts via Nixel at:

- Code Red <u>www.ready.edso.org</u>
- Nixel (City of Placerville) <u>www.local.nixel.com/placerville-police-department</u>.

In order to keep the public informed of emergencies, the Placerville Police Department has established two social media accounts:

- On Twitter: @Placervillepd
- Facebook: <u>www.facebook.com/PlacervillePolice/</u>

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GENERAL INFORMATION

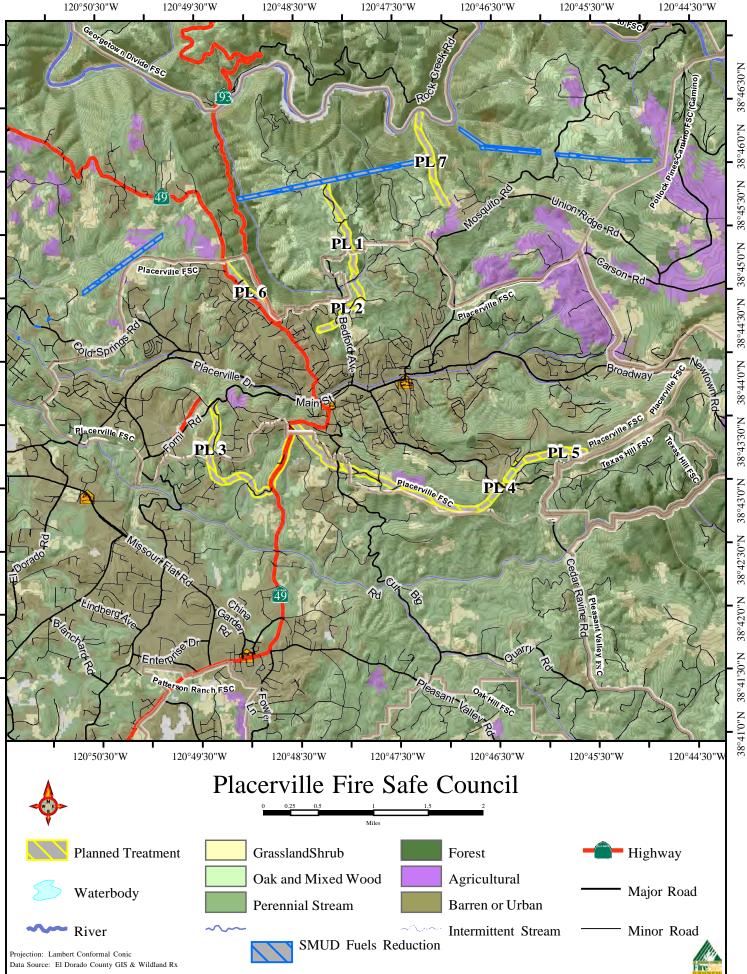
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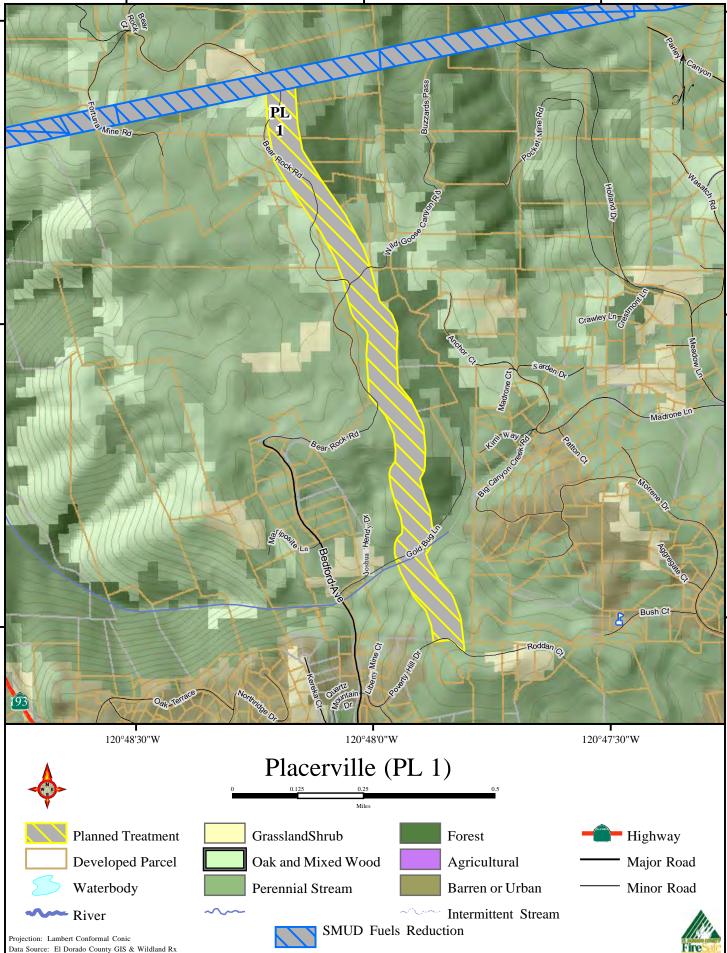
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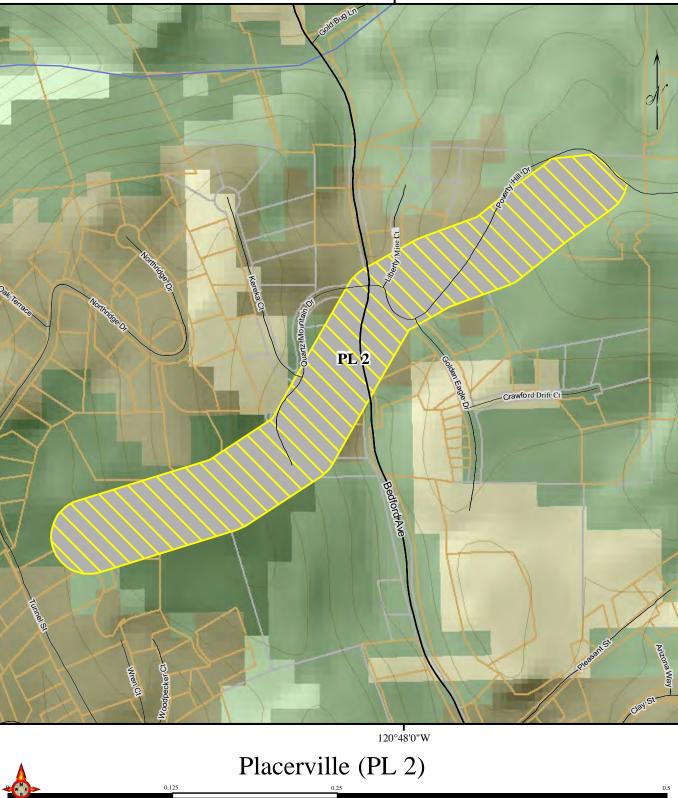
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38°45'0"N

38°44'30"N



Miles

SMUD Fuels Reduction

GrasslandShrub

Perennial Stream

Oak and Mixed Wood

Planned Treatment

Developed Parcel

Waterbody

River

Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx Forest

Agricultural

Barren or Urban

Intermittent Stream

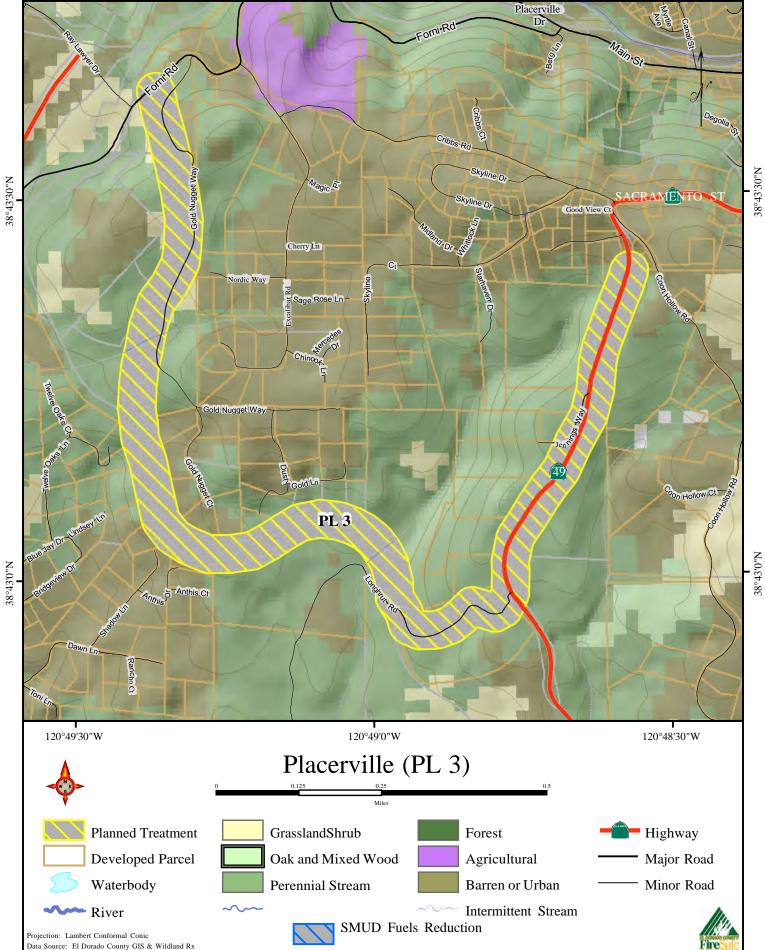
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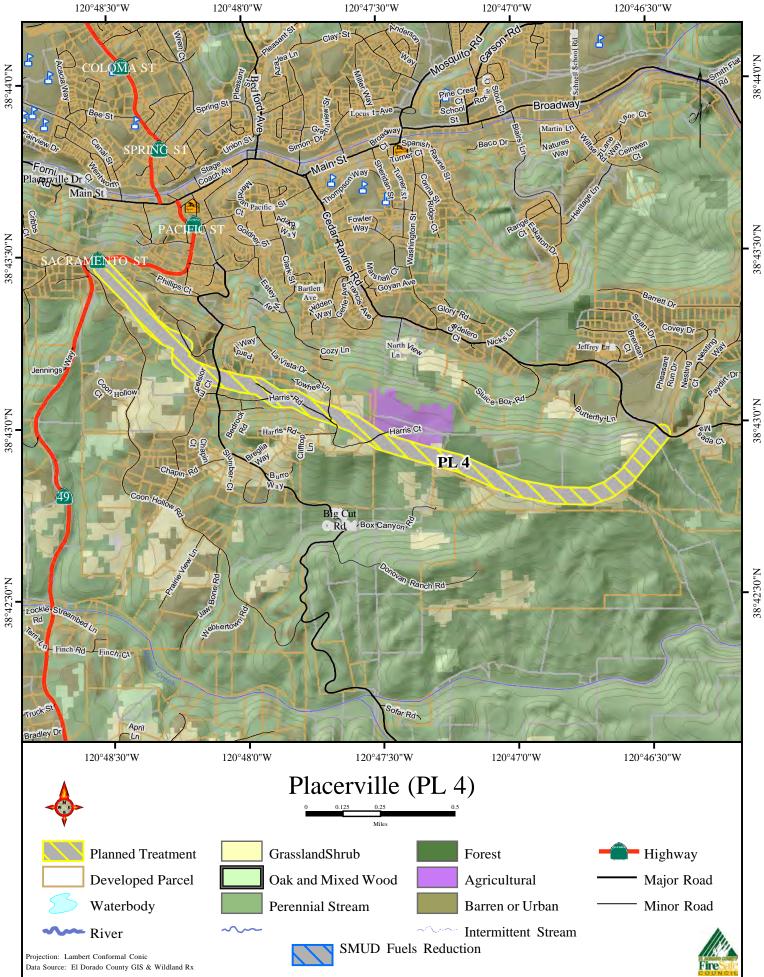
Major Road

Minor Road

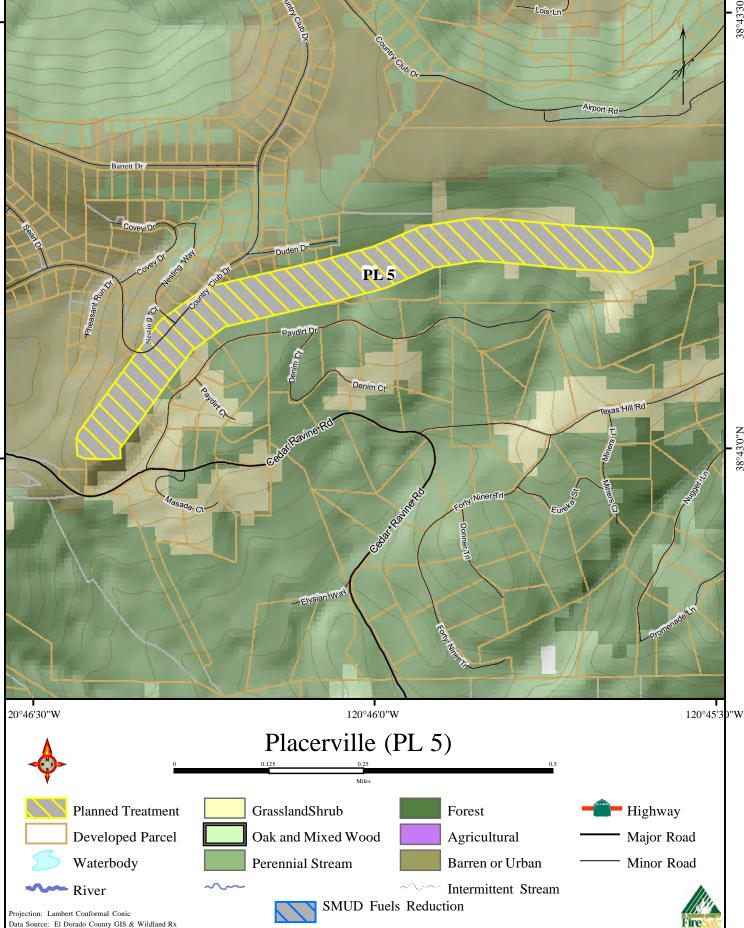
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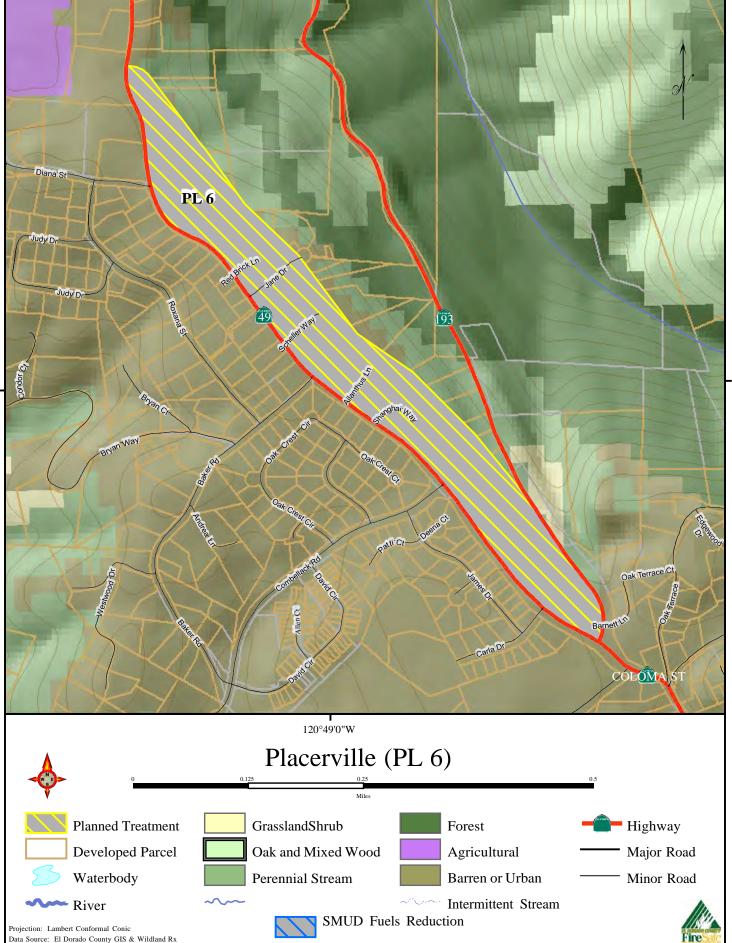
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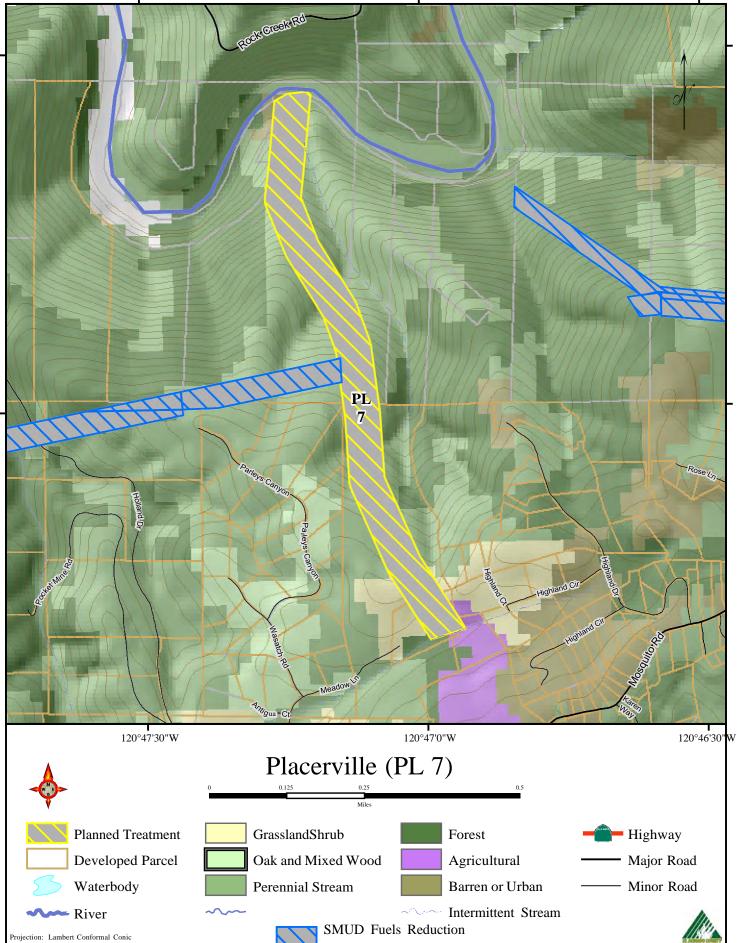
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38°44'30"N



38°45'30"N

Data Source: El Dorado County GIS & Wildland Rx

120°46'30"W

38°46'0"N

38°45'30"N

Placerville Fire Safe Council Community Projects

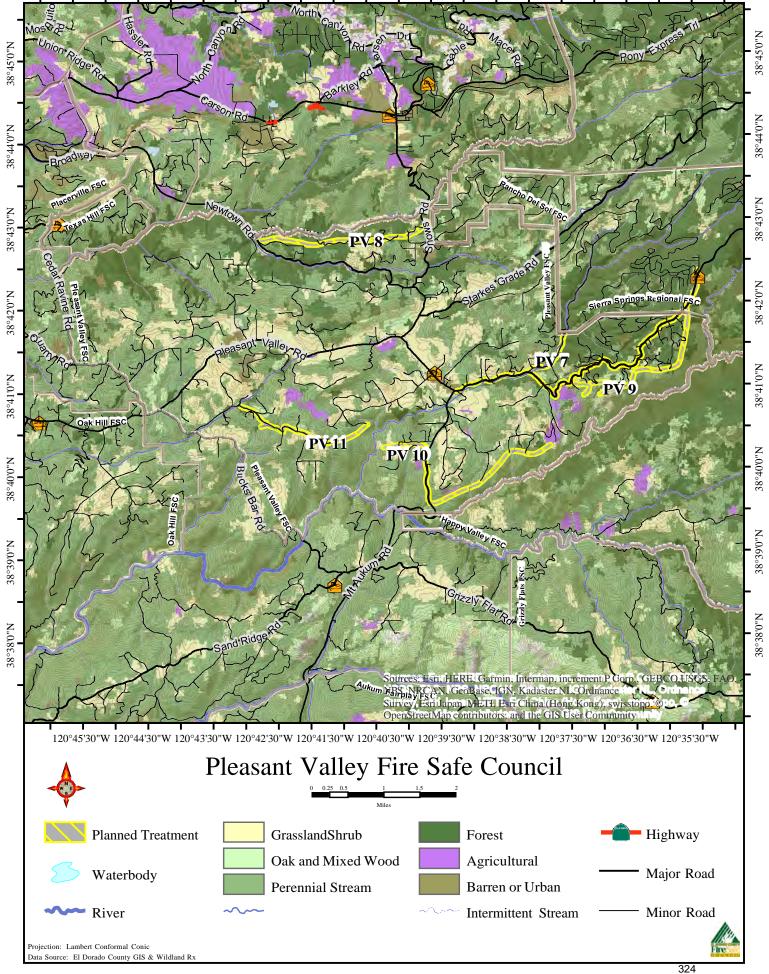
PRIORITY	PROJECT NUMBER	LOCATION	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
1	PL 3	South-SW PFSC boundary, Gold Nugget Way, along El Dorado Trail to H49	Fuel Break		70	
1	PL 4	South-central PFSC boundary, from H49, Coon Hollow area to Cedar Ravine Rd	Fuel Break		82	
1	PL 5	South-SE PFSC area from Cedar Ravine Rd, above Lions Park and residential near Country Club Drive to Texas Hill FSC boundary	Fuel Break		30	
2	PL 1	North-central PFSC boundary, Poverty Hill Dr, across Gold Bug Park to Bear Rock Road Area	Fuel Break/Road clearing		42	
2	PL 2	North- central area within boundary, Tunnel St, Quartz Mtn., Poverty Hill Dr	Fuel Break		19	
2	PL 6	North-West area within PFSC boundary, residential properties between H49 and H193	Fuel Break/Residential Clearing		31	
2	PL 7	North-Central Between Parley's Canyon and Highland Court	Fuel Break		34	

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Pleasant Valley Fire Safe Council

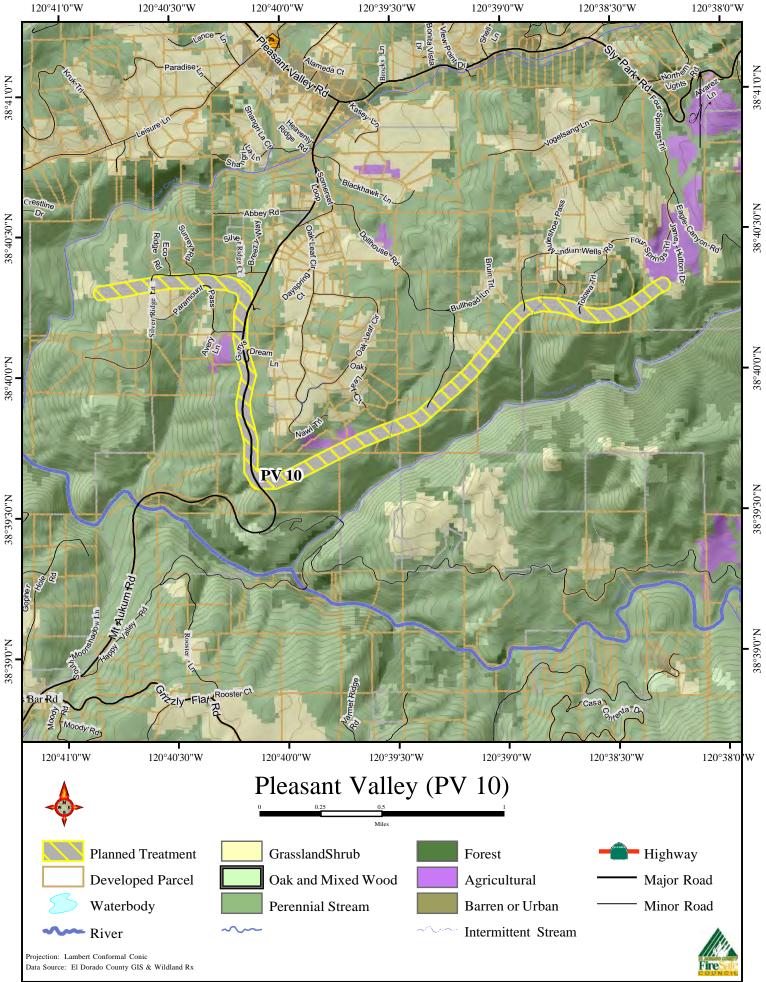
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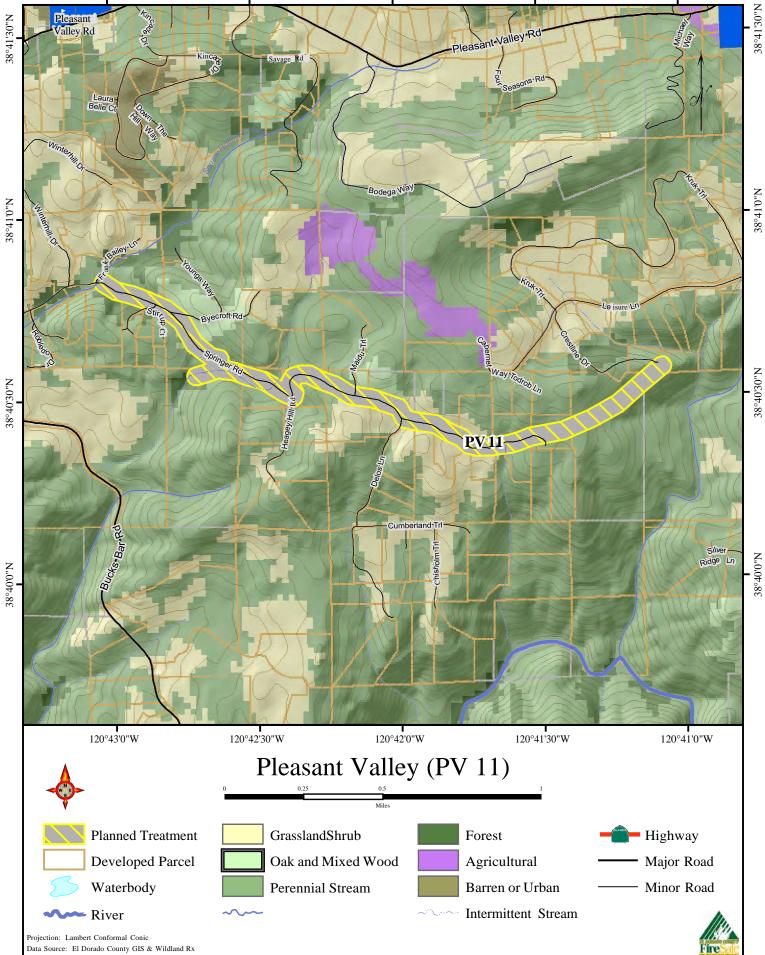
November 2021



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120°35'30"W





120°42'0"W

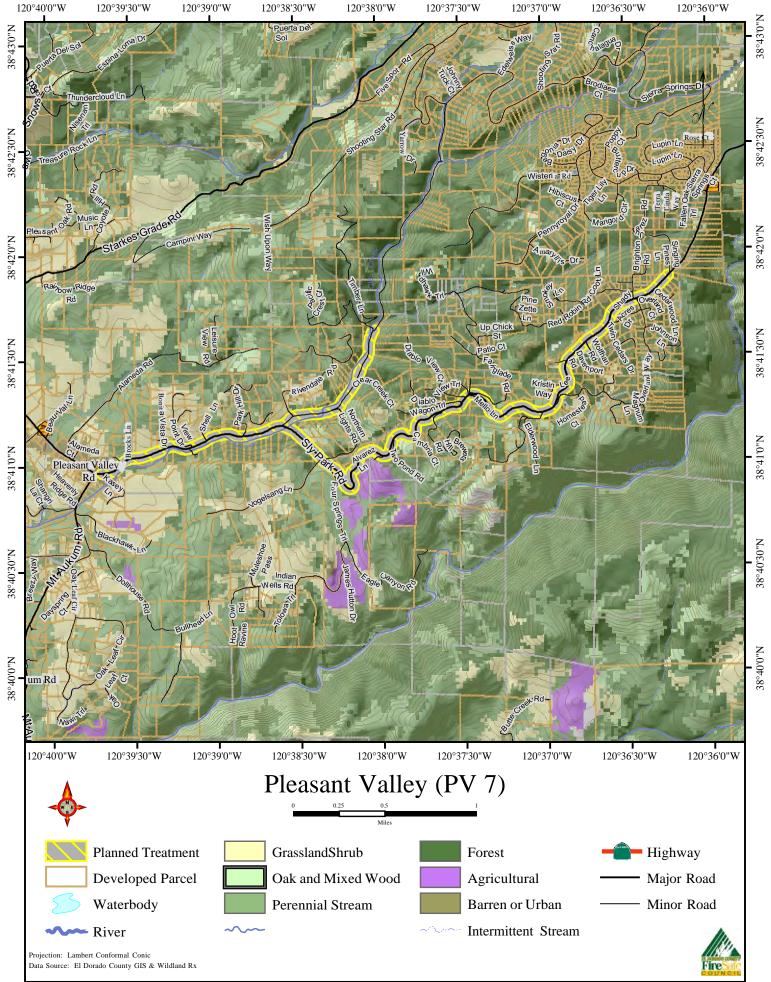
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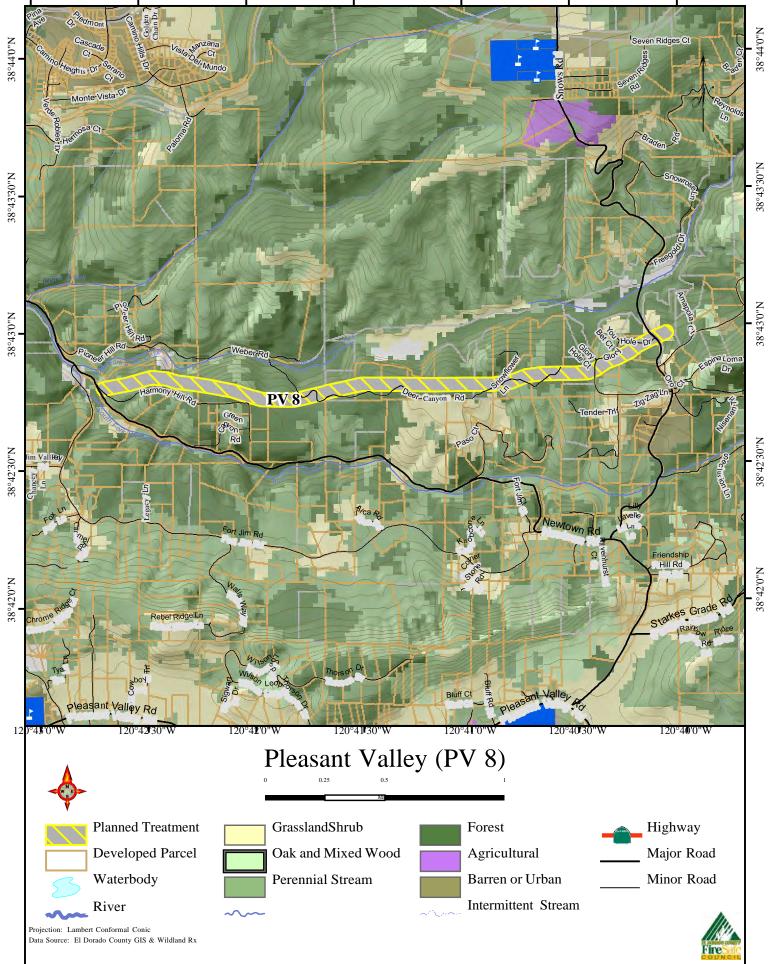
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326

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120°41'30"W





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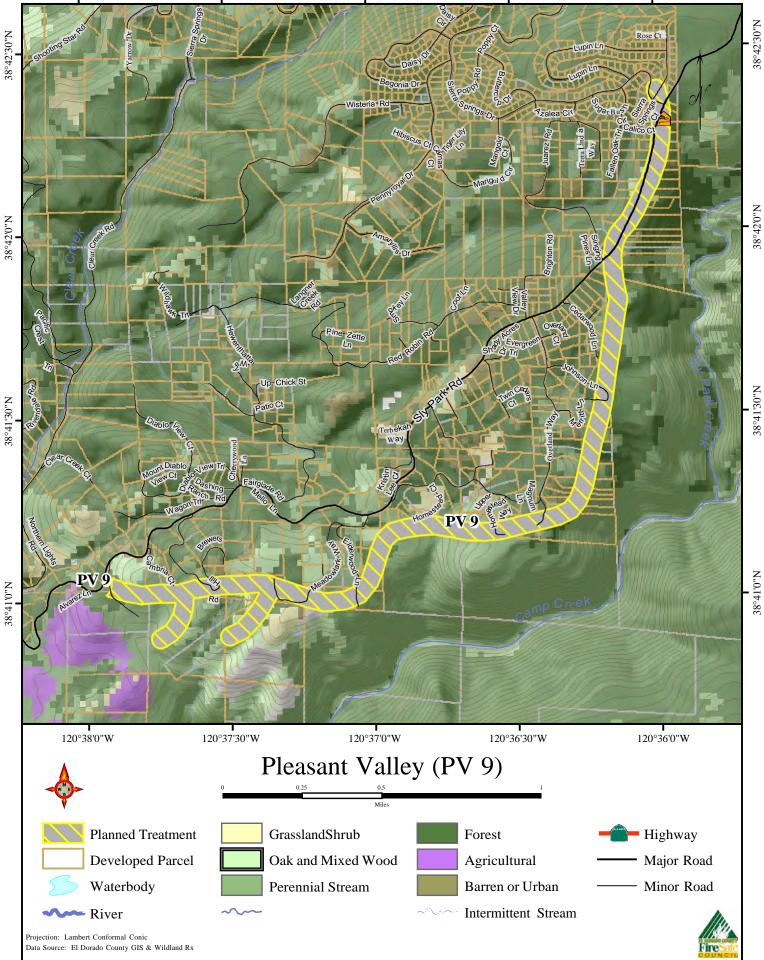
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120°40'30"W

120°40'0"W



120°37'0"W

120°36'30"W

120°38'0"W

120°37'30"W

329

120°36'0"W

Pleasant Valley Community Projects

PROJECT NAME	PRIORITY	PROJECT	PROJECT DESCRIPTION	TREATMENT	ACRES/	ESTIMATED
		NUMBER		ТҮРЕ	MILES	COST
Pleasant Valley 7	1	PV 7	Roadside Hazard Reduction	Hand Cut and Chip		
Pleasant Valley 8	3	PV 8	Fuel Break			
Pleasant Valley 9	2	PV 9	Fuel Break			
Pleasant Valley 10	3	PV 10	Fuel Break			
Pleasant Valley 11	4	PV 11	Fuel Break			

Community Projects from 2017 CWPP

COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Pleasant Valley		PV-HT	Hazard Tree Removal	Hazard Tree			\$200,000
Pleasant Valley		PV-2	Thorson Fuel Reduction	Fuel Reduction	102		\$204,000
Pleasant Valley		PV-3	Pleasant Valley North Fuel	Fuel Reduction	99		\$200,000
Pleasant Valley		PV-4	Jim Valley Fuel Reduction	Fuel Reduction	63		\$126,000
Pleasant Valley		PV-5	Fairglad Road Reduction	Road Hazard	10	2.0	\$20,000
Pleasant Valley		PV-6	South Weber Road Connect	Infrastructure	1	0.3	\$100,000
Pleasant Valley			Total Pleasant Valley		371	2.0	\$850,000

El Dorado County

COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Section for

POLLOCK PINES FIRE SAFE COUNCIL ACTIVITIES



Prepared for Inclusion in the:

EL DORADO COUNTY FIRE SAFE COUNCIL

Community Wildfire Protection Plan Update

Prepared for:

POLLOCK PINES FIRE SAFE COUNCIL

November 2021

Pollock Pines is a census-designated place (CDP) in El Dorado County California. It is an unincorporated community. It is also part of the Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area. Pollock Pines lies at elevations between 3500 and 4200 ft. on the western slope of the Sierra Nevada Mountains. The population was 7,156 at the 2020 census, up from 6,871 at the 2010 census. There were 3,391 housing units reported in the 2010 census.

<u>Designations</u>: Pollock Pines is designated as a Wildland Urban Interface zone and is identified in the Federal Register as a "Community at Risk" from wildfire. It is entirely designated within the "red" *very high severity* zone. Has a higher-than-average number of seniors living on limited, fixed incomes; it is designated by the State as a "Low Income Community".

<u>History</u>: One of the original Pony Express stations (Twelve Mile House) was in Pollock Pines. The original location has transitioned into the "Sportsman's Hall" restaurant. The "Hall" was originally opened in 1852 by John and James Blair, who had emigrated from Scotland, still operates today. Pollock Pines was primarily a lumber community (the town is named for H.R. Pollock, who operated a lumber mill in the area in the early 1900s). The first post office opened in 1936. The name celebrates the Pollock family, who were early settlers.

<u>Economics</u>: From its founding, timber (and the supporting businesses) was the primary industry in Pollock Pines through the 1950's. The businesses included providing the timber operations with needed supplies and moving the timber to market and mills. The wagon trails developed for the movement of timber later became a major route for commerce (neighborhoods were developed around these narrow, winding trails). During the silver rush of the Comstock Lode in western Nevada, Pollock Pines was a major stopping and transfer point for supplies moving east along what is now Pony Express Trail. This route later became the Lincoln Highway, then US Highway 50. It was slightly realigned in the 1960's and made 4 lanes, but still follows the basic original route.

During the 1950's, a new "industry" came to Pollock Pines—hydroelectricity. The Sacramento Metropolitan Utility District (SMUD) started to develop the Upper American River Project on the South Fork of the American River. Three major lakes were created within the Eldorado National Forest. The infrastructure needed for this project brought thousands of construction workers to the Pollock Pines area, with the associated building boom of housing, schools, and support businesses. Nine mobile home parks housed the families of seasonal workers who worked in Union Valley on dam projects. These mobile homes parks were developed on the north side of Hwy 50. Today they provide low income housing and are within designated low income zone.

The area took a major economic hit in the early 1990's with the decline of the availability of timber from the US Forest Service. Since that time, the population has changed and aged, with young families being replaced with an older, active retired group. The economic activity has shifted from the timber industry to retirees, tourism, recreation, and service based economy. As shown above, the population has started to increase again, mainly due the influx of Baby Boomers coming from large metropolitan areas on the coast.

<u>Geography:</u> The area encompassing Pollock Pines is in a heavily timbered mountain region situated along the ridge top on the south side of the South Fork of the American River. It is approximately 15 miles east of Placerville and 60 miles east of Sacramento on Highway 50. It includes the area from the American River on the North to Jenkinson Lake and the Mormon Emigrant Trail on the South. There are scattered tracts of the Eldorado National Forest (ENF) within Pollock Pines. However, the ENF surrounds the Pollock Pines area on the North, East, and Southeast. Pollock Pines receives annual snowfall between 6 inches and 6 feet. The town sits on the westward side of the Sierra Nevada and receives several inches of precipitation each year. According to the United States Census Bureau, the CDP has a total area of 8.0 square miles (21 km2), over 99% of it land.

Pollock Pines sits on a ridge that has major river canyons on both its North and South side. These are west-east aligned canyons and match the prevailing winds that happen most afternoons during the summer and fall. The canyon to the North (South Fork of the American River) has demonstrated as late as 2014 its ability to generate large and threatening fires. 2014 saw the 97,000 acre **King Fire** start on the South rim of the canyon, drop into the bottom of the canyon, and then spread East, until it spotted across the canyon to the North where it began a hard run North. It also lateralled South destroying 12 single family residences before crossing over HWY 50. The residents along the northern end of Pollock Pines were evacuated for multiple days. It was only due to a lucky wind shift that the fire did not spread significantly on the South side of the canyon.

On the South side of Pollock Pines town sits Weber Creek. It has been the fucus landscape for fuels reduction for the Pollock Pines – Camino Fire Safe Council. This canyon has been the location of at least 3 major fires since the 1960s. These fires have been stopped on the ridge line that has Highway 50 running across the top. However, due to increased tree mortality and growth in this area, fire has the potential to cause major structure loss in the future. Further to the South is the Cosumnes River drainage. This was the site of the 2014 **Sand Fire** (4200+ acres and 20+ residences lost). The fire had the potential for 25,000+ acres, with over 1500 homes in the potential path. The 2021, **Caldor Fire** scorched 221,775 acres, ignited in the steep woody foothills two miles East of Omo Ranch, bordering of El Dorado and Amador counties. On the third day it made a historic North-Northeast run, burning 53,000 acres while heading towards Pollock Pines. This forced the unprecedented evacuation of over 22,000 people. Before it was contained, the Caldor Fire destroyed 782 homes,18 businesses, the most economic destruction occurred in the town of Grizzly Flats which was completely burned over (only 230 homes remain, lost a school, post office, and fire station).

<u>Infrastructure</u>: The hub of the *El Dorado Irrigation District (EID)* water delivery system is in Pollock Pines. EID maintains critical water supply, treatment, and power infrastructure within proposed project locations. EID manages three reservoirs, two treatment plants, pump stations, and 22 miles of open flumes, canals, and tunnels that bring water originating from the high country, through the Eldorado National Forest, to their facilities in Pollock Pines. These reservoirs produce or stores a large part of the water supply for El Dorado County, including the Pollock Pines community.

Jenkinson Lake (locally called Sly Park Lake) is a major component of EID's entire system. It is their largest reservoir and surrounded by EID's recreational facilities. This Lake is the key water

supply for 130,000 people on the western slope of El Dorado County. It supplies water year round to the treatment plant on Sly Park Road, which serves every customer from Fresh Pond to El Dorado Hills.

Forebay Pond Reservoir is on the north side of Hwy 50 and operates primarily in the spring and fall, its serves N. Pollock Pines to down to El Dorado Hills. A 40 CFS capacity canal called the Main Ditch continues three miles west to the EID water treatment plant on Gilmore Road. The facilities at the plant itself include floating treated reservoir covers. In addition, a 15k acre/ feed penstock transports water from the pond to the bottom of the American River Canyon, which is the power feed for the EID energy plant.

Weber Reservoir is towards the West on the South side of Hwy 50. It has no treatment plant; therefore, provides agriculture grade water within the county. Water is pumped up from Folsom Lake to supply this reservoir.

While most of the service area is gravity fed, many areas require booster pumps to provide adequate water pressure. Power lines run through the area to supply the power for booster pumps for the water system. Disruption of the water supply would have an immediate impact on the ability of fire agencies to provide structure protection to the homes in the Pollock area.

A large multi-agency radio facility (Union Hill) is located on the East side of Pollock Pines. Agencies affected at this site include the emergency communications for Cal Fire, El Dorado County Fire Department, El Dorado Co. Sherriff Dept., CHP, Cal Trans, County DOT, and several cellular carriers. This facility provides the critical communications needed by the above agencies to support wildfire suppression and evacuation activities.

The Caldor Fire burned with some intensity throughout the watershed. The Burn Area Emergency Response (BAER) specialists recently completed their data analysis and produced a Soil Burn Severity (SBS) map. Approximately 47% of the 218,952 acres are either <u>Unburnt/Very Low</u> and/or <u>Low</u> SBS, while 40% sustained a <u>Moderate</u> SBS, and about 13% <u>High</u> SBS. The watersheds and associated tributaries of Hazel Creek and Sly Park Creek are the primary water sources for Jenkinson Lake. These creeks were within the Moderate and High SBS zones. Moderate SBS indicated nearly all soil cover of vegetative litter and fine fuels was consumed or converted to ash. High SBS is the result of high intensity fire behavior or longer burning time at the soil surface. Nealy all the soil cover of forest litter and fuels has been burned off, leaving bare soil prone to the impacts of precipitation, and resulting water runoff. For complex fires, assessments are done as an inter-agency effort which includes a California State Watershed Emergency Response Team (WERT).

Over 3000 habitable structures within the greater area of Pollock Pines could be affected by wildland fire within the immediate vicinity. The main transportation corridor is Sly Park Road that accesses 2,574 single family residences; five Homeowner Association (HOA) would use this road to evacuate, 627 structures are in Gold Ridge Forest, 325 in Sly Park Hills, 230 in Lakewood Sierra, 435 in Sierra Springs, and 135 in the Rancho Del Sol subdivisions. The other main travel route is through the town business district along Pony Express Trail. This is where the fire station, post office, bowling alley, community center, elementary school, restaurants, grocery and pharmacy structures, gas stations and area small business are located. The

middle school is accessible through Gold Ridge Forest. Pollock Pines and Camino town centers are directly across Weber Creek drainage on the North side of Weber Canyon.

Many of today's road systems were originally trailed in during the gold rush era for mining in the deep canyons or commerce routes built for stagecoaches and wagons. Neighborhoods that built up along these narrow old road systems do not adequately support Pollock Pines growing population. Maintenance is often structured through a variety of neighborhood road committees. Road committees often fail because they are dependent on all homeowners to financially participate to be effective. The lack of adequate road clearance in many areas prevent safe emergency response and evacuation egress.

Hazardous fuels management projects must be deployed across the landscape if they are to change wildfire intensity and spread, and thereby protect watershed values. Clearance around structures (as required by PRC 4291) and home hardening materials are highly effective in saving structures from a wildfire. That same fire burning through untreated vegetation can lead to increased ember production and severe watershed damage. Landscape level treatments, such as shaded fuel breaks, complement structure clearance treatments by slowing the rate of spread and lowering intensity; therefore, protect against resource damage.

There are slightly over 2400 private residences in Pollock Pines. This does not include multi-family dwellings, mobile home parks, or any commercial structures. There are three school facilities within Pollock Pines; Pinewood Elementary, Sierra Ridge Middle School with the Pollock Pines School District administrative offices, and the Emigrant Trail Educational Center used to support the Middle School and home of the Boys and Girls Clubs.

<u>Vegetation:</u> The Pollock Pines area vegetation is associated with Lower Montane Forest. Vegetation types include California Black Oak, Ponderosa Pine, White Fir, Incense Cedar, and Douglas-Fir, with mixed conifer and mixed evergreen interspersed with chaparral, and meadows. The following are potential treatments to reduce hazardous fuel beds: 1. Mechanical (biomass) thin. 2. Hand thin. 3. Hand/machine pile, and 4. Mechanical mastication.

Conifer stands have created dense understories with fire suppression challenges for urban development. Trees left after fuels treatment, "Leave trees" to have single leaders and thrifty crowns with at least 1/3 live crown ratio. Intolerant to shade species (such as Ponderosa Pine) have a higher preference as leave trees because their seed will be less likely to germinate in the understory. Conifer leave trees in descending order: Sugar Pine, Ponderosa Pine, Douglas-Fir, White Fir & Incense Cedar.

Hardwood stands with a high percentage of oaks can provide excellent food and cover for wildlife. Most Dogwoods and Maples can remain and be limbed up to six feet. Retain live trees with cavities for squirrels, raccoons, and other cavity dwellers. Oaks that have lower limbs with multiple vertical leaders should be limbed to six feet. Dead and down material should be left in place. Hardwood leave tree species in descending order: Dogwood, Big Leaf Maple, Blue Oak, Black Oak, Madrone, Live Oak.

Snags prove excellent wildlife habitat in their natural state. Leave or create dead standing trees

(snags) to provide insects and nesting cavities for birds. Snags should not be taller than 30 feet in height and not capable of reaching a home or road. Snags that have fallen become decayed, leave for diversity.

Within Upper Montane Chaparral, spring annuals are peculiar to our area "lava caps". Lava caps are Miocene epoch volcanic mudflows that support unique plant communities of annual herbs, perennial shrubs, and grass dominated openings. These support small, low growing herb species, which are adapted to high soil temps, full sunlight, and droughty conditions. Seeps are common in upper swales and slow gradually during the late spring and summer. The sequence of flowering is from March to August. Possible special plant species to see are Yellow Bur Navarrete, Pleasant Valley Mariposa Lily and Indian Manzanita. Two species are 'sensitive' and endemic to the El Dorado National Forest. These areas should be avoided and excluded from treatment.

<u>Insect and Disease Treatment area:</u> Insect and disease designations are primarily based on the risk of substantial tree mortality over the next 15 years, as determined by stand density and other factors. Tree mortality is expected to become extensive in the coming years. The Caldor Fire will attract beetles to weakened conifers, any reduced precipitation will increase the rate of tree mortality. Actions to increase resilience to insects and disease are needed to prevent the widespread mortality that is also occurring in other forests.

<u>Tree Mortality:</u> Widespread tree mortality has occurred throughout the eastern slopes of the Sierra Nevada Mountain range of El Dorado County. The region experienced a severe drought in 2012–2015. Tree die off is being seen again in 2021. The Ponderosa Pine, a large tree that lives at higher elevations, suffered the most, as it is the only host for the Western Pine Beetle. In addition, changing climate conditions can impact insects, fungi, and other biological agents of tree mortality. The effects of climate change will increase the rate of dead and dying trees threatening public safety, homes, and infrastructure. Falling limbs and trees, increases short-term and long-term fire danger, reduces carbon absorbed and stored, and reduced wildlife habitat.

<u>Maintenance:</u> Once fuels have been modified within an area (such as Sierra Middle School, PP-1, Randolph Canyon PP-2, Weber Creek SP-1), maintenance activities should be planned and implemented to keep the effectiveness of the original treatment. If no maintenance occurs, the effectiveness of the original treatment will diminish every year. Potentially yielding no net treatment effect within 5 years. The most cost effective technique is the use of California registered herbicides. Spraying soon after treatment may allow trees to take control to shade out brush. This technique has negligible soil effects but may not be appropriate for riparian zones, watercourses, and areas with listed plants.

<u>Fuel Reduction Objectives and Projects:</u> As mentioned above, the two greatest wildfire threats to Pollock Pines comes from the Southfork of the American River Canyon and any fire originating south of the Weber Creek drainage. South of Pollock Pines, the North-East/west steep canyon alignment combines with the typical prevailing Southeast prevailing wind directions. Ignitions (south of Hwy 50) within Weber Creek drainage or further South in the Canyon Creek drainage along Starks Grade Road have the potential to rapidly spread Northeast into the heavily populated neighborhoods of Pollock Pines and Camino. Equally, an

ignition originating out of the American River Canyon (north of Hwy 50) anywhere East during a foehn wind event would rapidly spread Southwest into Pollock Pines. Fire behavior modeling, using the actual conditions of the 2004 Fred's Fire (near the community of Kyburz further east in the American River Canyon) showed a complete over run of the Pollock Pines area in about 3 hours after ignition. The Community Wildfire Protection Plan (CWPP) fuels reduction projects specifically work towards.

- Support the protection of a designated fire safe zone located at the Pollock Pines Sierra Ridge Middle School and District Office Complex
- Collaborate to extend projects adjacent with existing treatments along the Cohesive Strategy "Fire Adapted 50" projects; *Sly Park – Phase 1 & Camino-Pollock Pines Fuel Break – Phase 2*
- Creation and maintenance of fuel breaks in strategic locations on both the North and South sides of Pollock Pines, which provide a line of defense for the surrounding subdivisions
- Extend and maintenance of the strategic fuel break in South sides of Pollock Pines, which provides a line of defense for the surrounding subdivisions
- Modification of vegetation adjacent to roads to provide safer ingress and egress of evacuating residents and responding emergency personnel
- Incorporate residential roads into shaded fuel breaks for greater effectiveness
- Reduce fuel loading around critical firefighter infrastructure; water drafting and staging areas
- Support and educate residents about Fire Adapted Communities, to strengthen defensible space, evacuation, access, home hardening and community protection

A typical desired treatment condition is to reduce vegetation both vertically and horizontally. Limb conifers to 10-12 feet height; leave a minimum of 1/3rd of the crown. Space trees horizontally by removing trees up to a maximum of 12" DBH to between 15 -20 feet apart. Remove all the brush within 20' of trees. Oak and hardwood tree foliage pruned off the ground to a minimum of 6 feet.

<u>South Fork American River (SOFAR) Cohesive Strategy</u>: The SOFAR is a landscape-scale all lands approach to fuel reduction on public and private lands. The objective is to return the landscape to a more natural, fire resilient condition and to reduce community wildfire risk. Fire Management Strategy for the South Fork American River Watershed has three goals:

- Resilient Landscapes
- Fire Adapted Communities
- Safe and Effective Wildfire Response

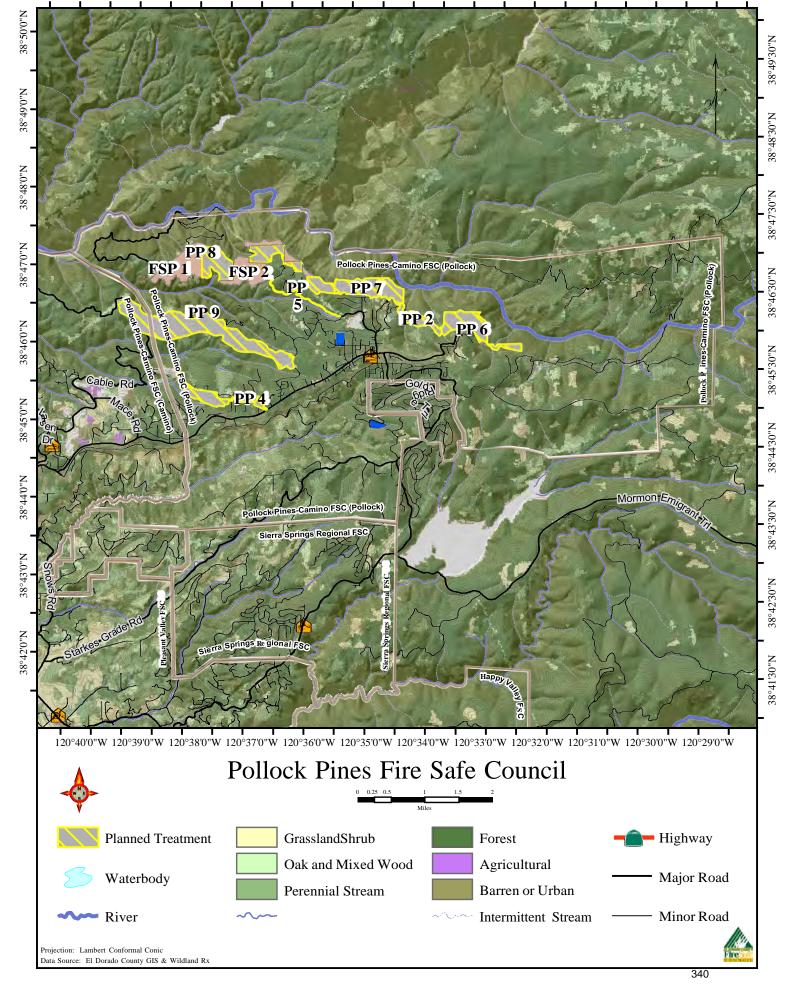
In 2014, the Eldorado National Forest was one of two forests in California selected to begin implementation of the National Cohesive Wildland Fire Management Strategy. This watershed was chosen because of the many values at risk threatened by complex fire issues associated with drought, climate change, fuel loading, insects, and disease. Collaborative action is required to protect communities, infrastructure, public and private timber, water, power, recreation, protected species. Fire frequently within this watershed was recognized as a high priority resource needing protection. There have been six major wildfires in the SOFAR watershed in the last 40 years – Pilliken Fire (1973), Wrights Fire (1981), Cleveland Fire (1992), Fred's fire (2004), the King Fire (2014) and Caldor Fire (2021).

The cohesive strategy area has three SOFAR Fucus Areas within the project boundaries, which includes, the upper 75% of the South Fork of the American River Watershed, 50% of the King Fire burned area, and 49 miles of the Highway 50 corridor. The western boundary of the project area is defined by Highway 193 and Highway 49. These fucus areas include Chili Bar to Georgetown, Camino – Pollock Pines, and Headwaters. The Pollock Pines – Camino Fire Safe Council is a member of the collaborative SOFAR working group.

The US Forest Service and CAL FIRE have developed a plan called Fire Adapted 50, which will focus on the Fire Adapted Communities component of the cohesive strategy. Fire Adapted 50 includes three phases of projects that strengthened and expand existing fuel breaks in the most heavily developed part of the watershed along the Highway 50 corridor:

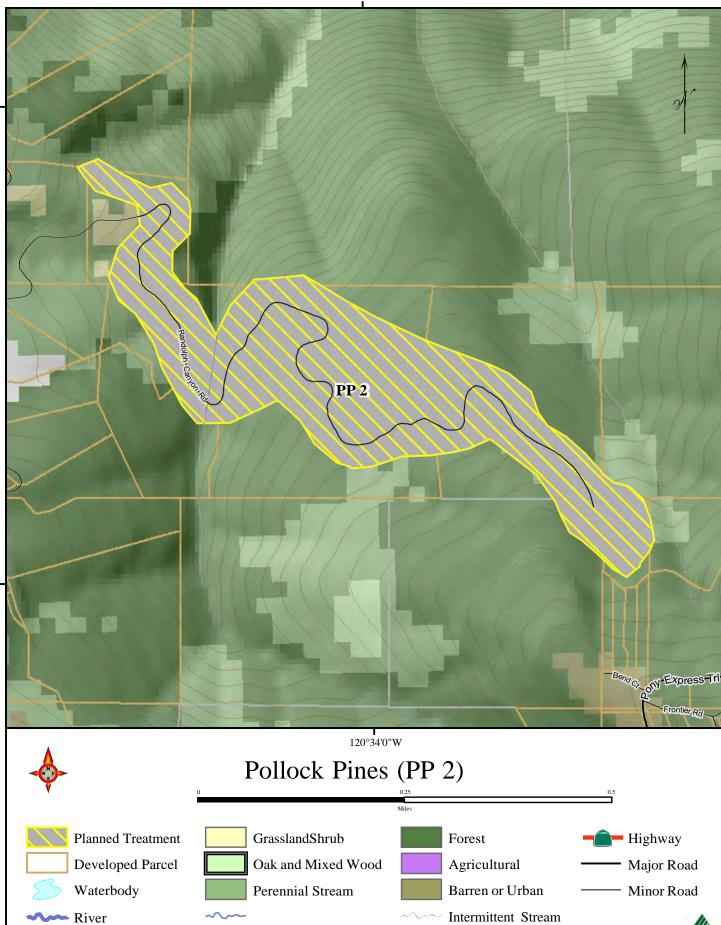
- *Sly Park- Phase 1* (to date 3900 acres treated, complete March 2022) Expands 30 years of vegetation management projects near Jenkinson Lake This project was nearly completed when the Caldor fire ignited. Fuels treatments from Mormon Emigrant Trail North to Hwy 50 dramatically changed the fires behavior. This pre-work allowed fire crews to run dozer lines up to residential properties then conduct backfires operations from those fire lines. No homes were damaged along Sly Park Road corridor.
- Camino- Pollock Pines Fuel Break Phase 2 (4300 acres completed so far) Fire lines used during the King Fire to protect the communities of Camino and Pollock Pines are receiving fuels reduction to construct one cohesive fuels treatment. Work is in progress from Slab Creek Dam in Camino to Pony Express Trail along the rim of the South Fork American River canyon; 11 miles long and at least 600 feet wide.
- *Highway 50 Fuel Break Phase 3* Fuel is being hand removed within a 300-foot buffer on the north side of Hwy 50, stretching 37.5 miles from Pollock Pines to Echo Summit

More information can be found in the El Dorado County Fire Safe Council CWPP website: <u>http://www.edcfiresafe.org/cwpp</u> and El Dorado County Resource Conservation District website: <u>https://www.eldoradorcd.org/fire-adapted-50</u>



120°40′0″W 120°39′0″W 120°38′0″W 120°37′0″W 120°36′0″W 120°35′0″W 120°34′0″W 120°33′0″W 120°32′0″W 120°31′0″W 120°30′0″W



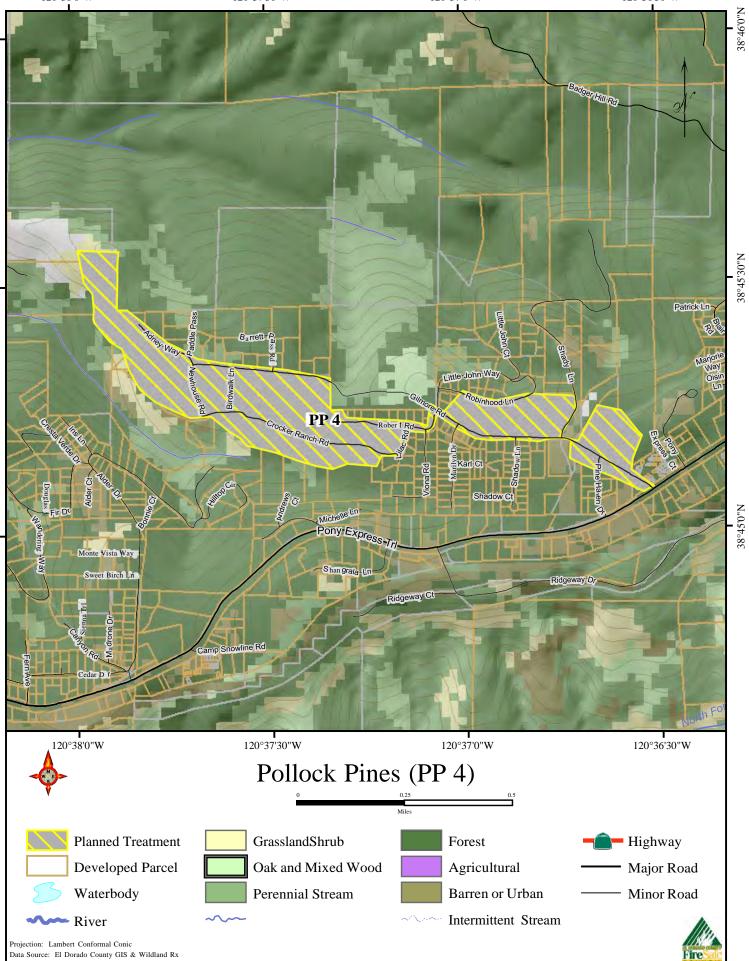


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Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx 38°46'0"N

341

38°46'30"N



38°45'30"N

38°46'0"N

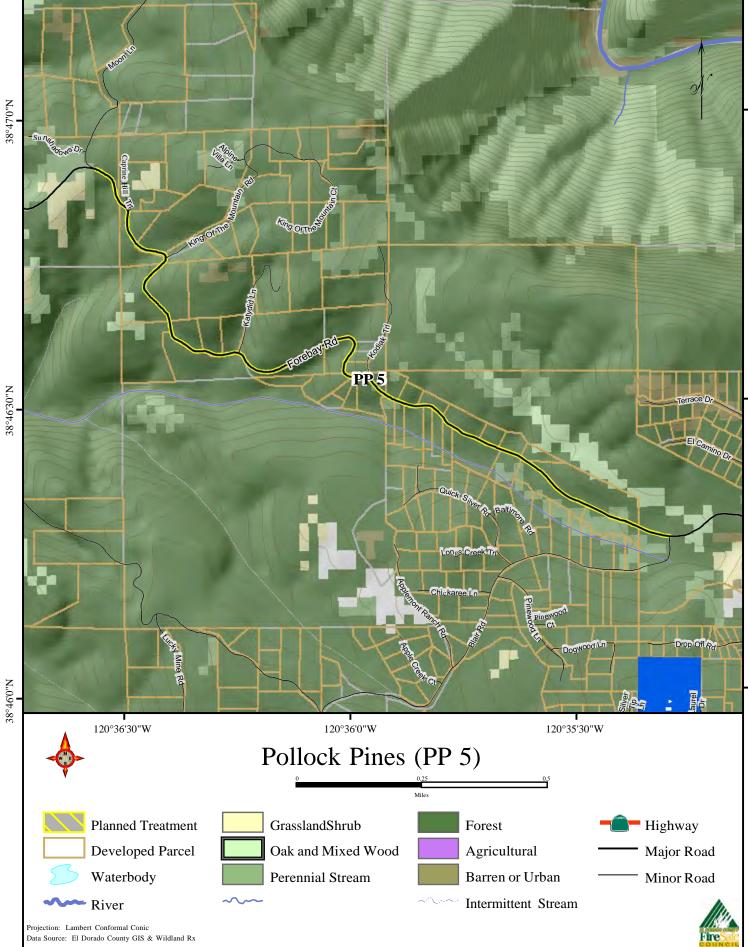
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120°37'0"W

120°36'30"W

38°46'0"N



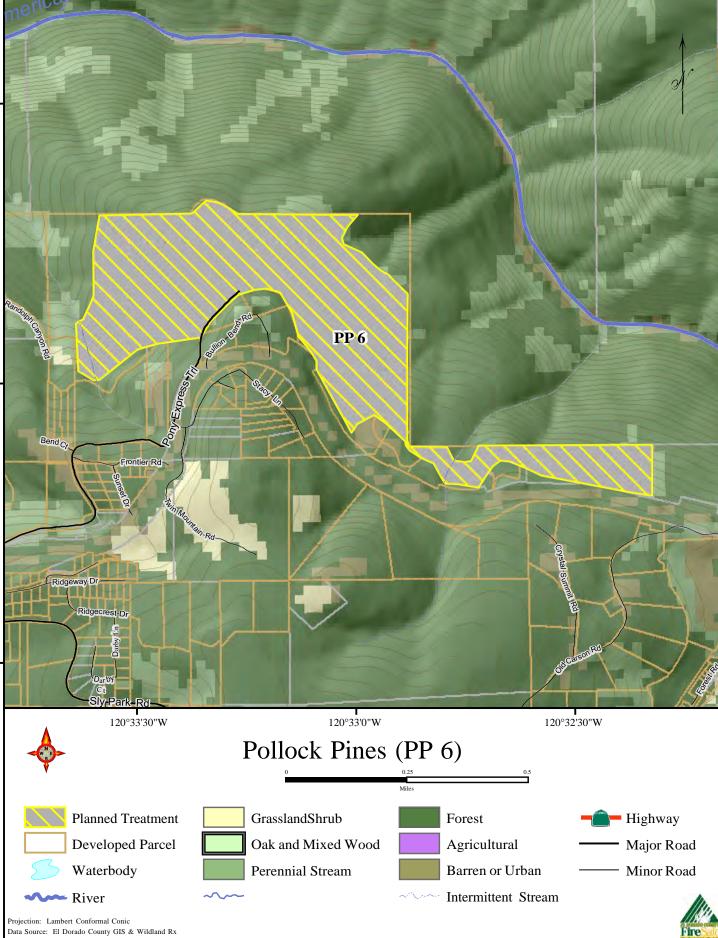
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38°46'30"N

38°46'0"N

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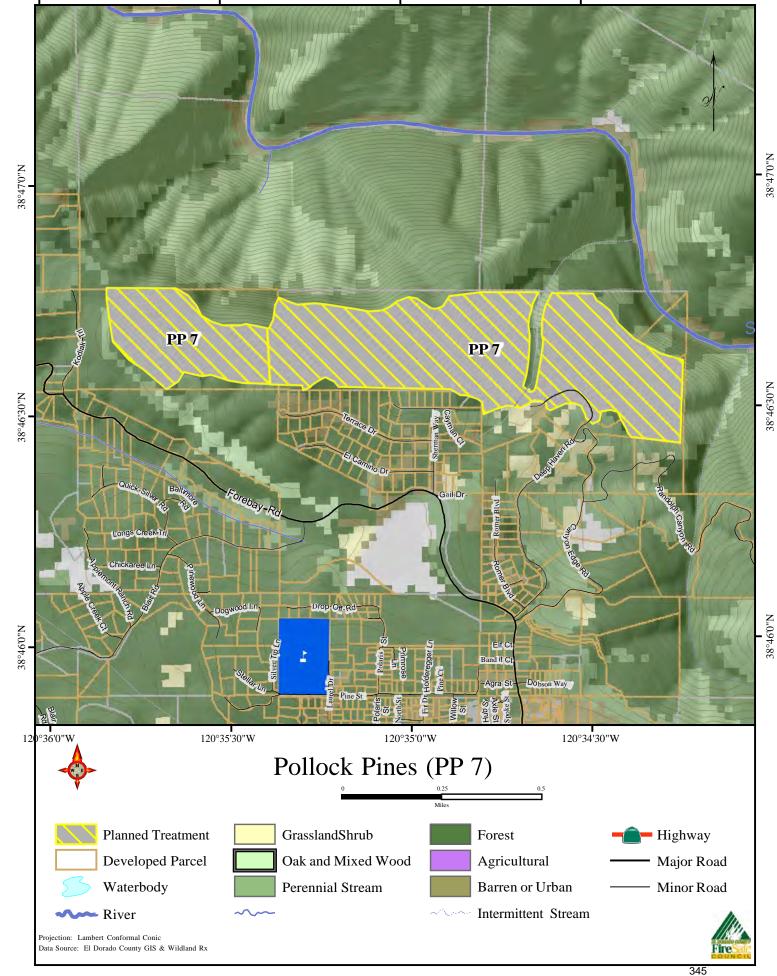
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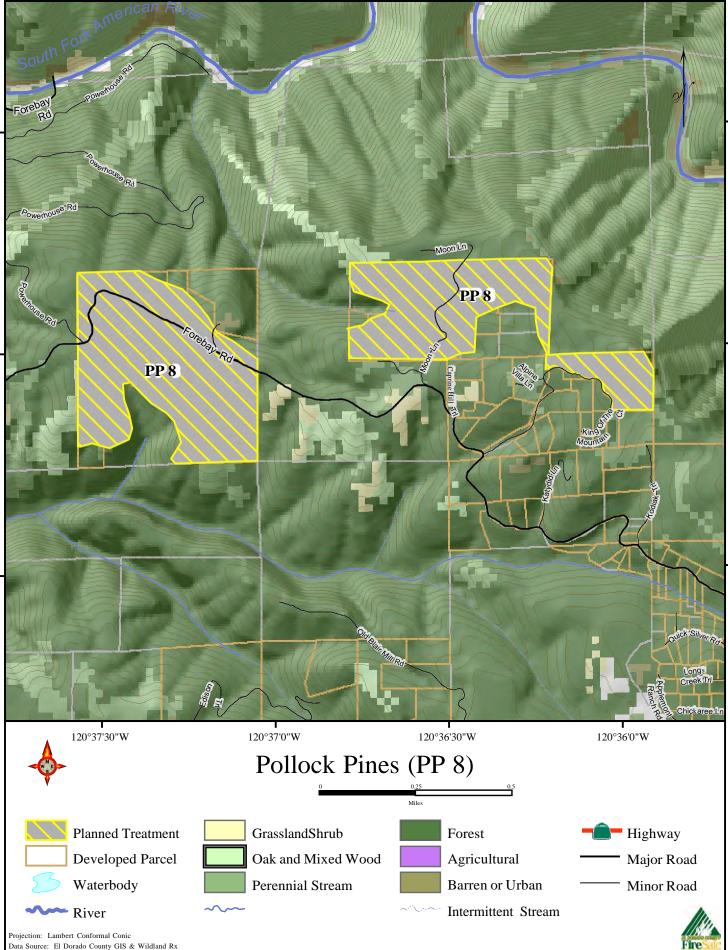
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38°46'0"N

38°45'30"N





120°36'30"W

120°37'0"W

120°37'30"W

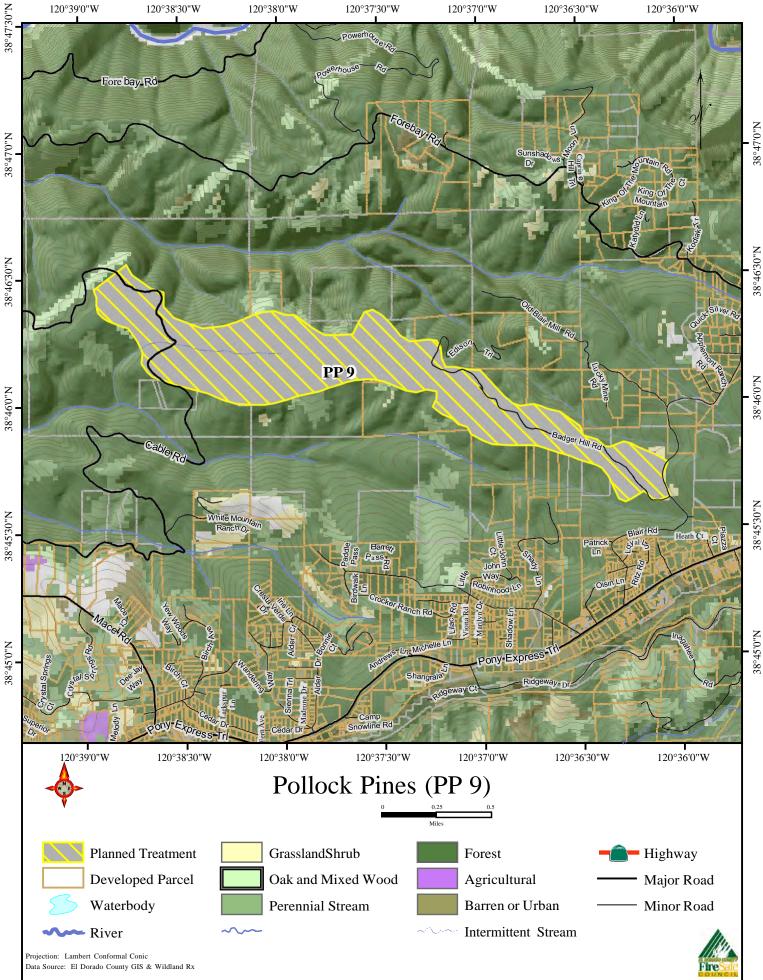
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38°47'30"N

38°47'0"N

38°46'30"N



347

38°47'0"N

38°46'30"N

38°46'0"N

38°45'30"N

POLLOCK PINES FSC 2017 PROJECT LIST

COMMUNITY	PRIORITY?	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST	Status
Pollock Pines	1	PP-1	Weber Creek Fuel Reduction	Fuel Break	170		\$237,870	Needs maintenance
Pollock Pines	1b	PP-HT	Hazard Tree Removal	Hazard Trees			\$200,000	N/A
Pollock Pines	3	PP-2	Randolph Canyon	Fuel Break	58		\$116,000	
Pollock Pines	2	SP-1	Weber Creek Fuel Reduction	Fuel Break	64		\$128,000	Completed
Pollock Pines	4	SP-1b	Weber Creek Fuel Reduction	Fuel Break	131		\$262,000	Awarded
Pollock Pines	5	SP-4	Gilmore Road	Fuel Break	35		\$70,000	
Pollock Pines	6	SP-1c	Weber Creek Fuel Reduction	Fuel Break	125		\$250,000	Awarded
Pollock Pines	7	HW -50	HW 50 Fuel Break	Road Hazard	82	3.1	\$164,000	
Pollock Pines	8	PP-3a	Blair Road Shaded Fuel Break	Fuel Break	139	1.0	\$278,000	
Pollock Pines	9	PP-3b	Blair Road Shaded Fuel Break	Fuel Break	74	0.7	\$148,000	

POLLOCK PINES 2020 UPDATE PROJECTS

COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Pollock Pines		PP 4	Fuel Break		104		Not in CWPP
Pollock Pines		PP 5	Roadside Hazard reduction Forebay Road	Hand Treatment	5		Not in CWPP
Pollock Pines		PP 6	Fuel Break		134		
Pollock Pines		PP 7	Fuel Break		194		
Pollock Pines		PP 8	Fuel Break		192		
Pollock Pines		PP 9	Fuel Break		433		
Pollock Pines		FSP 1			159		
Pollock Pines		FSP 2			157		
Pollock Pines							
Pollock Pines							
Pollock Pines							

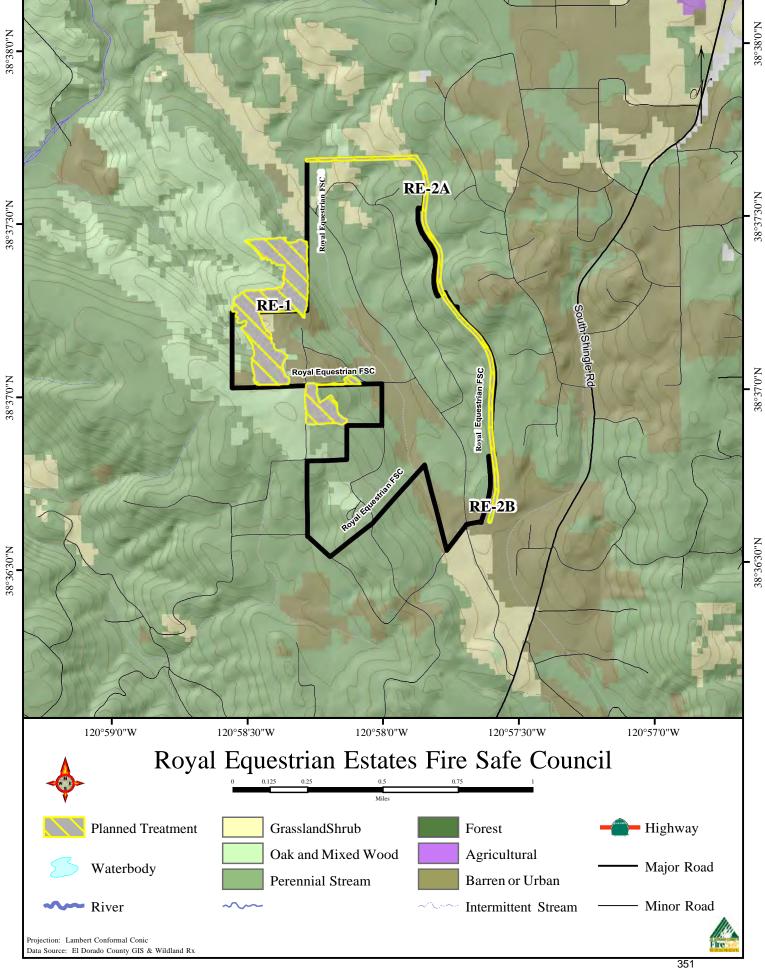
Royal Equestrian Estates Fire Safe Council The update to the West Slope El Dorado County CWPP



Prepared for:

ROYAL EQUESTERIAN ESTATES FIRE SAFE COUNCIL

September 2021



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120°57'30"W

120°59'0"W

120°58'30"W

120°57'0"W

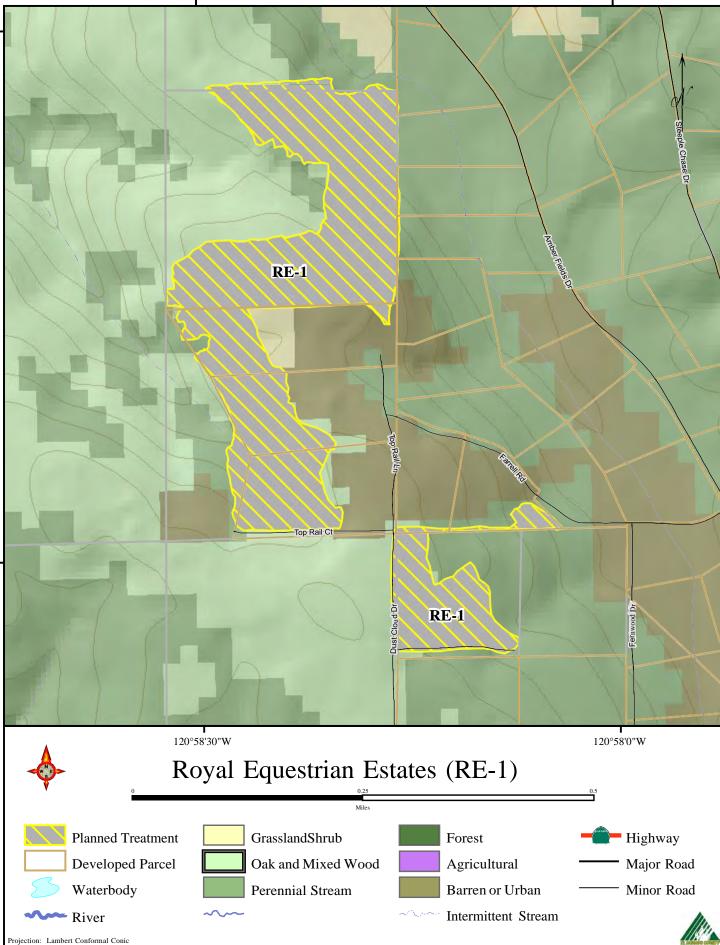


38°37'0"N

Data Source: El Dorado County GIS & Wildland Rx

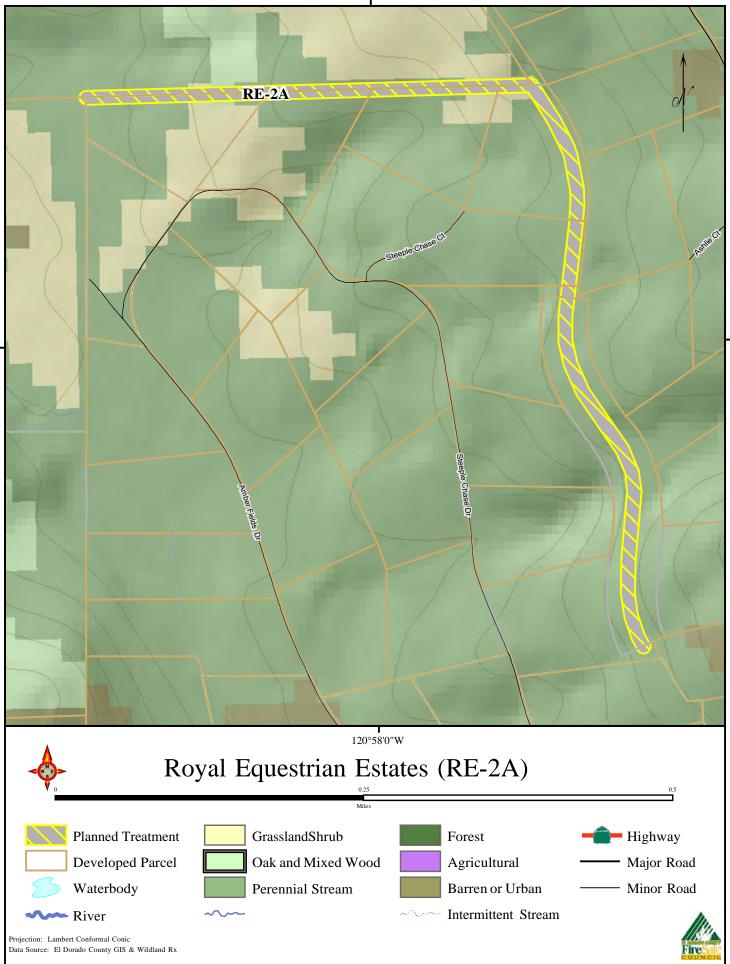


38°37'0"N



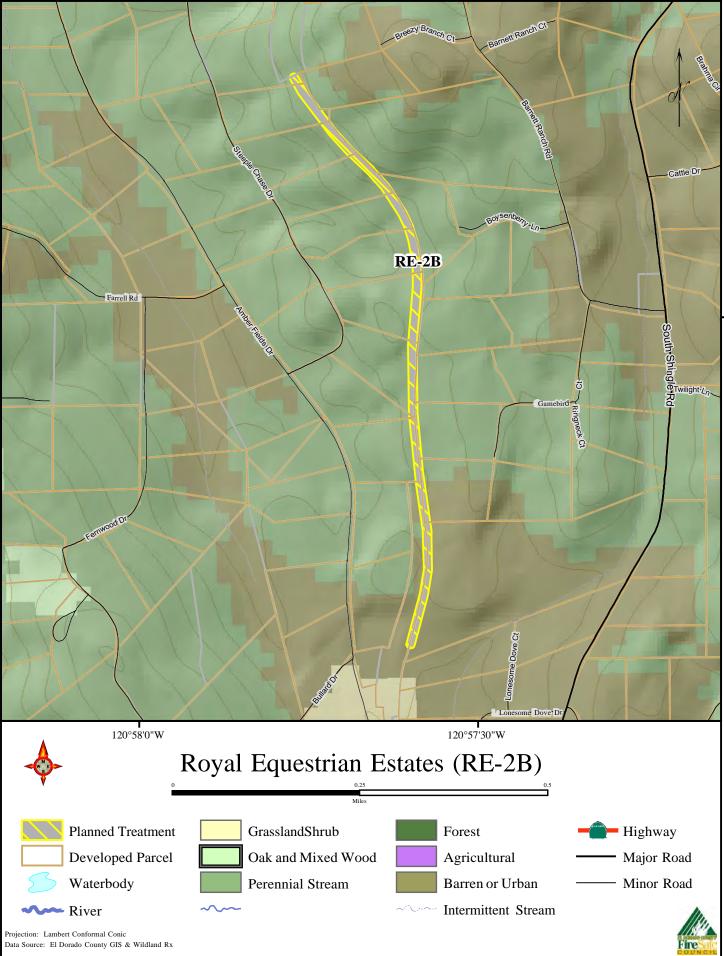
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38°37'30"N

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38°37'0"N

Royal Equestrian Estates FSC Community Projects

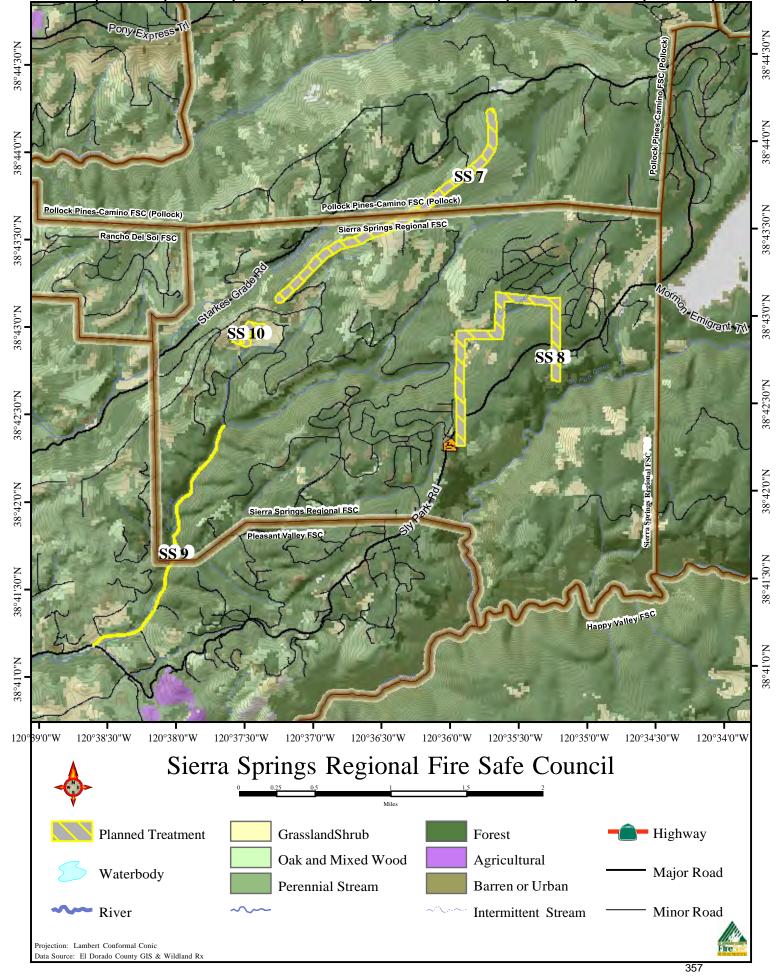
PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
	R	REE 1	Maintenance of created fuelbreak	Herbicide applicatio n		
		REE 2A	Fuel Break	Hand Clear and chip		
		REE 2B				

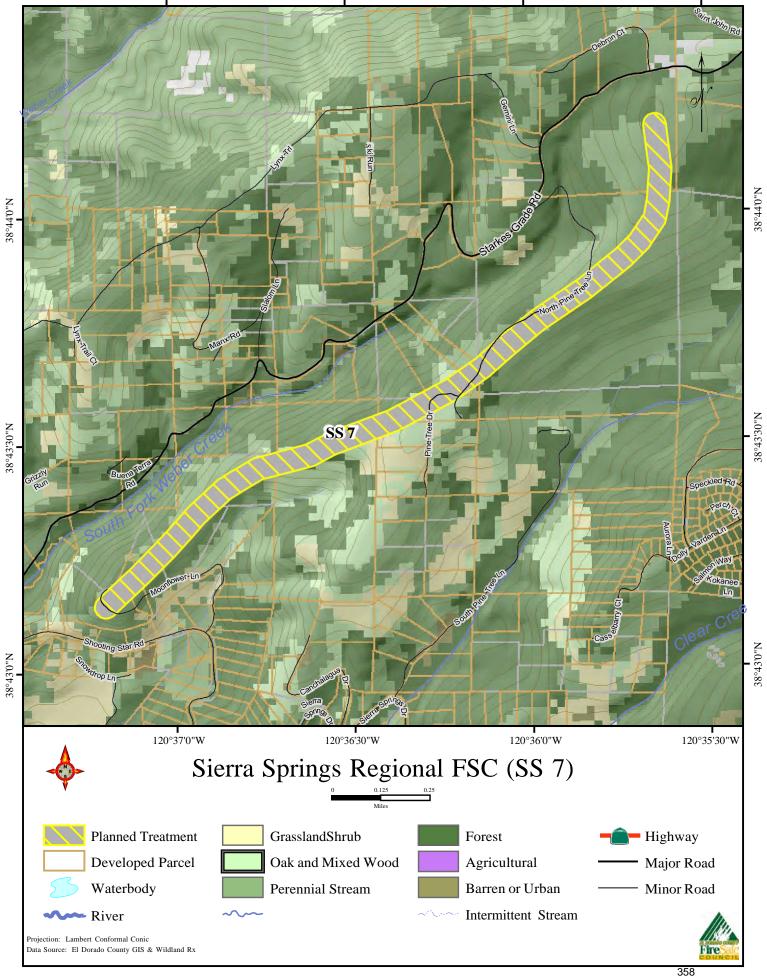
El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Sierra Springs Regional Fire Safe Council

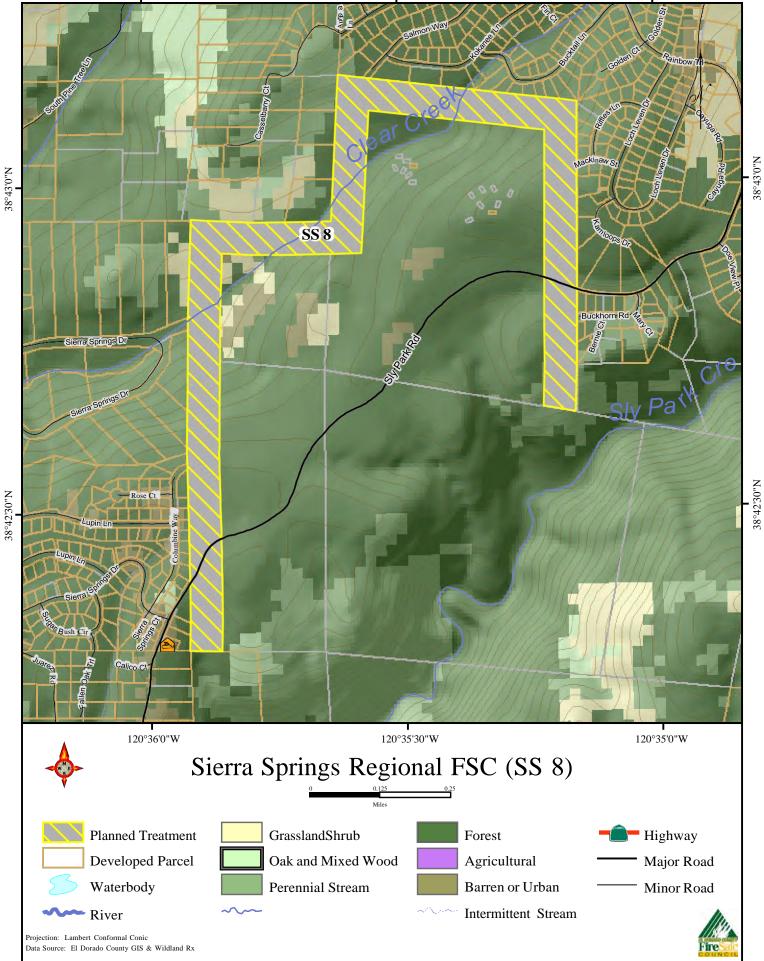
Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update November 2021







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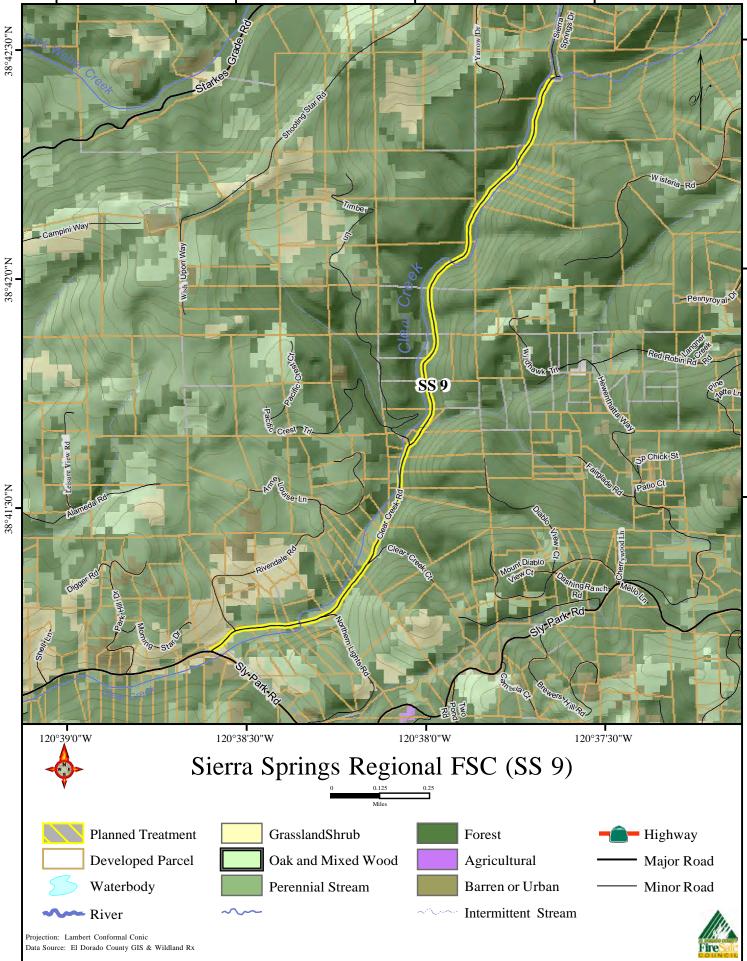


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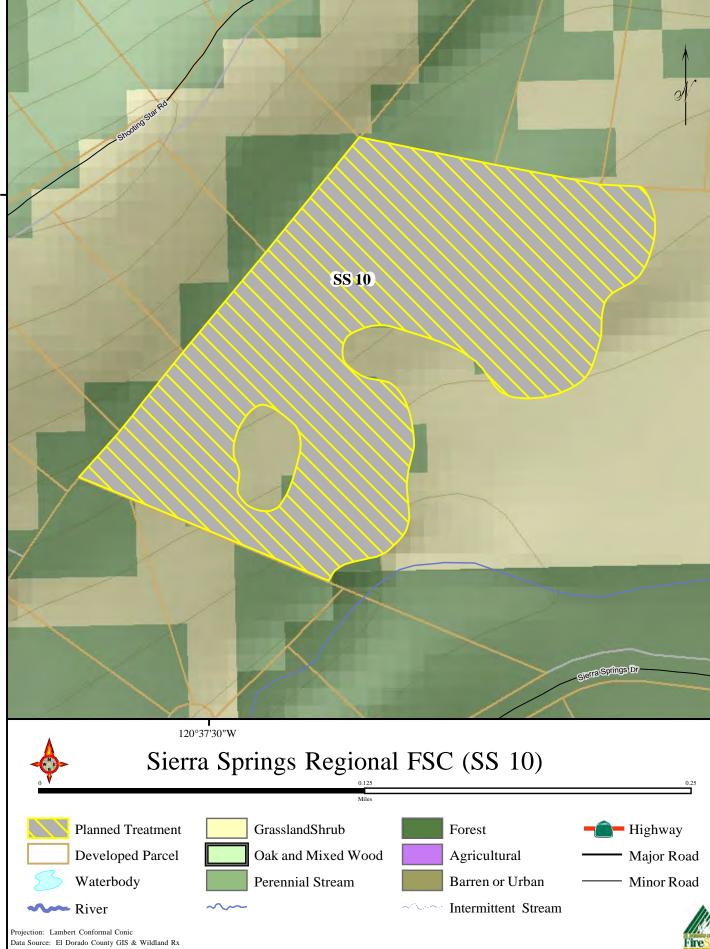
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120°37'30"W



120 07 00

38°43'0"N

38°43'0"N

361

2017 CWPP Sierra Springs FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
Sierra Springs	Completed	SS-1	Roadside Clearance			
Sierra Springs	Fundin	SS-2	Camp Creek Fuel Break			
	g awarde d					
Sierra Springs	8	SS-3	Wisteria Fuel Break			
Sierra Springs	Completed	SS_4	Roadside Hazard Reduction ClearCreek Road			
Sierra Springs	6	SS-5	Sly Park Creek Shaded Fuel Break			
Pollock Pines	Heather	SP 5	Sly Park Roadside Hazardreduction			
Sierra Springs	2	SS-6	Starks Grade Roadside Hazard reduction			
Pollock Pines	Heather	SP-6	Starks Grade Roadside HR			

Sierra Springs FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	ESTIMATED COST
	5	SS 9	Roadside Hazard Reduction Clear Creek (to Sierra Springs Dr.)		7.5	
	3	SS 10	Hazard Reduction around Staging Area		11	
	7	SS 7	Fuel Break Starkes Grade (from Moonflower up)		73	
	4	SS 8	Fuel Break on Forest Service Property		77	
	1	SS 11	Sly Park Rd. Roadside Hazard Reduction (Mormon Emigrant to E16)		?	

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for Texas Hill Fire Safe Council

Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update June 2021



Texas Hill Estates Fire Safe Council

Introduction

The Texas Hill Estates Fire Safe Council (THEFSC) was formed by local citizens in May of 2019 to address concerns regarding life safety and wildfire threat to the community. The THEFSC is an all-volunteer organization that is a satellite group of the El Dorado County Fire Safe Council (EDCFSC).

Fire Safe Councils are community based organizations formed to prevent wildfires and reduce potential impacts on residents and values within the community, and to preserve life and property. This council works to educate homeowners and residents about wildfire preparedness and prevention, and proper response in an emergency situation. As a Fire Safe Council, the THEFSC works to conduct outreach events and implement projects such as cooperative fuel reduction projects in neighborhoods, and cooperating with agencies or other organizations to complete vegetation reduction management projects and activities.

The mission of the Texas Hill Estates Fire Safe Council is to increase wildfire preparedness and prevention efforts. These efforts are designed to protect residents within the community, recognize evacuation options and plans, and reduce property damage through the following:

- Serving as a forum for the implementation of the measures outlined in the CommunityWildland Protection Plan
- Sharing fire-safety information
- Assessing community fire risk
- Promoting community safety, fire-safe planning, and coordination
- Supporting police and fire agencies and local fire safe councils

The goals of the THEFSC are:

- To inform and educate residents of Texas Hill Estates about the threat of wildfire, methods of prevention, and available resources to mitigate fire danger to residents' property and the community
- Developing and maintaining the EDCFSC Community Wildfire Protection Plan(CWPP)
- Acquiring and maintaining the Firewise[®] Community designation
- Proactively applying for and securing grants to complete projects, including fuels reduction, education, and other fire prevention and preparedness activities
- Participating in the development and implementation of evacuation and preparedness planning for the Texas Hill Estates community

A Risk Assessment is scheduled to take place in the Spring of 2020, during the current update to the El Dorado County CWPP. The evaluation will be done by THEFSC volunteers by walking

or driving on residential streets. Evaluators will note construction materials of houses and attachments (decks, awnings, etc.), landscaping practices near and around homes, and the condition of vegetation near structures. All evaluations will be conducted in a manner that respects the privacy of individual property owners. The Risk Assessment primarily will contain information about conditions specific to our community.

The assessment will provide information relevant to the THEFSC action plan, and details that can be incorporated into a Community Wildfire Protection Plan (CWPP). Further, the risk assessment will provide initial steps for project priorities within the boundary of the THEFSC, and area known as the Sphere of Recognition (SOR). Anticipated projects will include fuels reduction, community outreach, and educational programs for the Texas Hill Estates community. Topics will address how to strategically prepare homes and structures to reduce the risk of wildfire damage and ember vulnerability.

THEFSC - Sphere of Recognition (SOR)

SOR Description

The THEFSC SOR boundary is drawn with the advice from the EDFSC, and borders the Placerville FSC to their south, and sits on the north east border of the Pleasant Valley FSC. The map below shows the border of the SOR, bounded on the north by the Placerville Airport, on the south by Weber Creek, on the east by the Big Barn subdivision, and on the west by Cedar Ravine Road. Texas Hill Estates encompasses approximately 1265 acres and includes single-family residential developments, rural residential areas, and timberland. All parcels fall into the "Moderate", "High", or "Very High" Fire Hazard Severity Zones, as defined by Cal Fire's Fire and Resource Assessment Program (FRAP).

Demographics and Housing in the SOR

The 2010 census does not provide specific data for the THEFSC boundaries. However, thedata provided for the 95667-zip code is used as a close approximation. The SOR demographics show a median population age of 52.3, with an average household income of \$57,468. The current population is approximately 222 residents with close to 2.2 persons per household. The average home value is estimated at \$489,000. Using the average home estimate of \$489, 000 and counting the 101 dwellings in the SOR, the constructed value of homes, apart from other values, is over \$49 million. Homes in the area were built beginning in the 1980's to 2018(www.unitedstateszipcodes.org/95667/). This impacts the resiliency of the SOR because housing design and fire-resistant materials have changed since that time. In 2008, the California building fire codes were modified to require the use of fire-resistant materials in areas at risk of wildfire. All homes constructed after 2008 necessarily comply with those requirements, and all homes built after January 1, 2011, contain residential sprinklers. While many

homes in the SOR constructed prior to 2008 have undergone fire resistant retrofitting, a number ofolder homes will require improvements to be in compliance with advanced fire protection codes.

The 2008 and 2011 requirements, as well as current proposed amendments and additions to the California building and fire codes, afford us the opportunity to educate homeowners on materials available to harden their structures against wildfire impacts such as ember intrusion and flame impingement

Land Uses in the SOR

The predominant land use within the Texas Hill community is single family residential with lot sizes ranging from 2.5 to 20 acres per unit. They are more concentrated in the southwestern part of the planning area and within the Texas Hill Estates development. There is an existing fuel break located on the ridge between the SOR and the Placerville airport. This fuel break could be an important line of defense in the event of a fire starting in or adjacent to the planning area.

Landscape Features and Wildfire Hazard Designation

Topography

Texas Hills Estates sits in the western foothills of the northern Sierra Nevada mountain range in California, at 2000 to 2500-foot elevation, with a predominantly southern aspect. The fuel type of the area, along with the steep terrain and dense vegetation inside and adjacent to the SOR, has resulted in Fire Hazard Severity Zone ratings of Moderate to Very High throughout the SOR (FRAP, 2010). Continuous, dense fuels with a dominant southern aspect combined with the heavy rural traffic of Cedar Ravine create high potential for a severe wildfire. This wildfire risk potential is mitigated slightly by the 15-minute response time of the El Dorado County Fire Protection District. Nearby response aside, additional prevention and preparedness actions by the THEFSC are essential to mitigating impacts from wildfire at the individual home and community level.

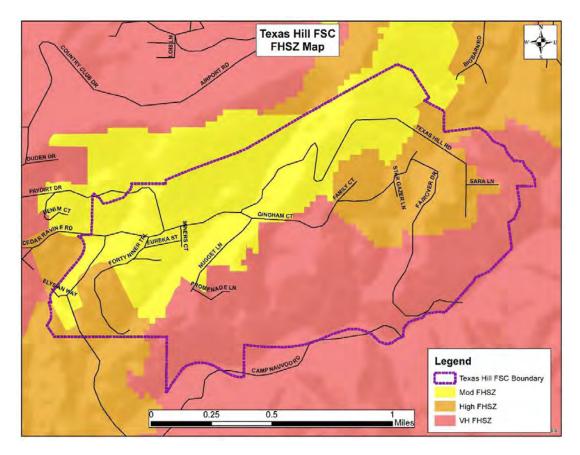
Topography dramatically influences fire behavior. The SOR is in moderately bisected terrain, with multiple large draws and topographic features. Because of these factors, homes and other infrastructure situated above or adjacent to canyons, draws, or steep slopes may require greater amounts defensible space compared to structures on other topographic positions (ie. flat ground, leeside, or removed from edges of a ridge). The effects of topography, including aspect, slope, unique features (canyons, saddles, etc.), and local environmental factors that could result in a complex Wildland Urban Interface (WUI) are all present in the THEFSC, and warrants more advanced clearance and prevention planning.

Considerations for mitigating fires originating outside or adjacent to the THEFSC would reduce the potential of a complex WUI fire in the THEFSC.

Fire Hazard Severity

CalFire has created maps of Fire Hazard Severity Zones (FHSZ) in Local Responsibility Areas (LRA) and State Responsibility Areas (SRA) throughout the state.CalFire originally mapped the fire severity zones in 1996, updated them in 2008, and intends to update the maps using new data so that the maps accurately reflect the current conditions in both the LRA & SRA. The CalFire website includes a disclaimer regarding the limitations of the data used in creating the fire hazard severity zone maps.

Nevertheless, these maps are a valuable tool to convey the potential threat of wildfire in a given area, and the increased importance of creating defensible space and wildfire resiliency for High/Very High-risk communities. CalFire fire hazard severity zone maps indicate the fire hazard severity level for the THE SOR, as well as adjacent neighboring fire safe communities (City of Placerville – north &west, and Pleasant Valley to the south). These fire safe communities' make up almost half of the area adjoining THE SOR is shown below:



Vegetation Removal Plan

The Vegetation Removal Plan, and the description of fuel vegetation types stated in the Community Wildfire Risk Assessment, suggest that the community would benefit from three approaches to vegetation removal: 1) Reduced fuel profile along roadways, 2) Fuel Density Reduction Areas of undeveloped land, and 3) Compliance with county and state defensible space regulations.

Roads

Vegetation management and removal in the vicinity of roadways and driveways is critical to safe access and egress during a wildfire event. Narrow roads with unmaintained vegetation within the SOR create entrapment conditions, and considerable challenges for responding fire apparatus and personnel. Vegetation thinning and removal along roadsides and will improve the safety and efficiency of emergency travel, minimize likelihood of roadside ignitions, and create defensible conditions for fire suppression.

Density Reduction Areas

Some areas within and adjacent to the SOR are more densely populated by vegetation, and require more than typical resources to improve them to a desired condition. To further assist with planned vegetation removal, the THEFSC will provide community chipper days annually as part of the Educational Outreach and Action Plan goals. Community chipper days have been shown to promote community involvement and dispose of large quantities of hazardous vegetation. A "no-cost" program is available, which is grant funded by the El Dorado County Fire Safe Council, to provide chipping services for neighborhoods and individual homeowners. In addition, the El Dorado County Fire Safe Council provides a grant funded "no- cost" Senior & Veterans Assistance Defensible Space Affordable Program. Other methods for removing fuels throughout the landscape of the SOR will be identified and integrated as appropriate to the goals and objectives of the THEFSC.

Defensible Space Compliance

Individual homeowners are ultimately responsible for the protection of their homes from wildfire. In a severe wildfire event, the fire service cannot protect all homes at risk. Therefore, preparations taken well before a wildfire starts is of paramount importance to reducing loss of life and property at the individual and community scale. In recognition of this fact, El Dorado County has recently adopted a new Vegetation Management ordinance effective June 1, 2020 that further enforces California's PRC – 4291, referred to as "Defensible Space". The purpose of the ordinance is to provide for the removal of hazardous vegetation and combustible materials near structures in the unincorporated areas of the county. Compliance with both the county's recent ordinance and existing state law would reduce the impacts of fire and promote the safety and welfare of the community in the event

of a wildfire. The vegetation management ordinance sets out the rules for annual requirements for the abatement of the growth and/or accumulation of weeds, grasses, shrubs, dormant brush, hardwood slash, tree limbs, hazardous vegetation and combustible materials on all improved parcels and designated unimproved parcels within the County. In addition, the county ordinance articulates obligations of neighboring property owners to clear space on their property if an adjoining structure or building is within 100 feet of the property line.

The El Dorado County ordinance is available at:

https://www.edcgov.us/Government/CAO/VegetationManagement/Documents/Ordinance%20 5101%20formatted.pdf

California State PRC – 4291 is available at:

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=4291.&lawCo de=PRC

Educational Outreach Plan

There are four areas of importance when communicating with residents in the THEFSC. Property owners need to be informed consistently and often about their defensible space obligations, and the following community prevention activities.

- Vegetation management
- Home hardening
- Evacuation planning

Vegetation Management

Wildfires are influenced by three factors – land features and orientation (topography), environmental conditions (weather), and the vegetation (fuel). Of the three, it is only possible to modify the characteristics of the vegetation or fuel. This can be done through various treatments that reduce the amount or distribution of fuel available for consumption, or removing the available fuel bed where ignitions could take place. With a given topographic, environmental, and fuel alignment, it is not likely that any human action can alter the course of extreme fire behavior, but it is highly likely that preventative measures can nullify embers from a nearby fire from starting new fires on and around homes. Further, reducing ladder fuels is also an effective way at limiting the vertical growth of fire around homes and travel corridors.

Components described above in the Vegetation Management Plan (Roads, Density Reduction Areas, and Defensible Space Compliance) will be articulated as part of the Education and Outreach Plan. This forum for discussing methods and measures that residents can take – even

in the form of support for SOR projects – are of huge importance and can be developed through effective community outreach and communication within the SOR.

Home Hardening

"Home hardening" means safeguarding a home against wildfire by using construction materials that are more resistant to ignition from embers or firebrands from a wildfire occurring long distances from the home. Hardening a home to fire greatly improves the chances that it can survive a fire, and it works in conjunction with defensible space. Hardening improvements can include retrofitting for fire-resistant roofs, covered eaves or soffits, appropriately screened foundation and attic vents, and gutter maintenance and screens. Non- combustible siding and building design should prevents embers from entering or gathering against the structure. Dual pane windows are more resistant to breakage from heat, and would be one of many other examples for how homeowners can make their home hardened against a wildfire.

New building codes for fire resiliency for structures were promulgated in 2008. Homes built after the adoption of these codes are more resistant to impacts from wildfire. A study conducted by Headwaters Economics showed that incorporating wildfire-resistance measures does not significantly increase a new home's construction costs, but does significantly reduce the change a structure can survive wildfire nearby. While new structures can affordably meet the current standards for fire resiliency, most homes in the SOR are 20 years old or more, and require retrofitting for proper home hardening. This presents a tremendous opportunity for the THEFSC to educate homeowners about materials available to harden structures from wildfire impacts such as ember intrusion, and a need for the THEFSC to identify and secure funding sources to assist homeowners in bearing the costs of retrofitting.

Evacuation Planning

The THEFSC emphasizes the need to create an emergency evacuation kit, to develop evacuation tips or processes, and to create an evacuation plan in the event of a wildfire. Evacuation planning should include accountability processes, routes, communications, and safe meeting locations. These plans can differ depending on family demographics, limited mobility occupants, livestock, pets, and other factors.

An evacuation plan includes at a minimum:

- A designated emergency meeting location outside the fire or hazard area
- Multiple, and multi-directional escape routes out of your home and community
- Pre-determined actions for pets and large animals such as horses and other livestock
- A Family Communication Plan that designates a single point of contact for the household; a stressed communications infrastructure will limit standard cellphone and landline services, evacuees must consider alternate means of establishing contact

Recommendations

- Apply for, establish, and maintain a Firewise, USA Community designation
 - Submit annual reports to the NFPA Firewise Program
- Continue, and document regularly scheduled THEFSC meetings
- Plan and conduct public educational meetings and activities each year. Events may
 include a fireprevention safety day in coordination with the El Dorado County Fire
 Department, CalFire and adjoining fire safe councils. Topics should include those
 addressed in Education and Outreach
- Update and maintain the THEFSC Website and utilize social media resources, including Facebookand Next door for education, outreach, and community involvement
- Continue the program of utilizing volunteers to complete home defensive space assessments forresidents of Texas Hill Estates
- Plan, implement, and document at least one volunteer workday, annually to perform vegetationmanagement projects and support Firewise reporting
- Identify and continue opportunities for community-scale vegetation management/fuel breakprojects (e.g. community chipping, dumpster program)
- Seek grant opportunities to support THEFSC activities such as Vegetation Management or Education and Outreach, or other activities defined as priorities for the THEFSC
- Develop and initiate fundraising activities to leverage grant funds and provide additional localservices
- Work with Texas Hill Estates Road Zone Committee on evacuation route maintenance projects
- Utilize multiple communication mediums to engage residents, including but not limited to:
 - Newsletters and mailers
 - o Bulletin boards and posters
 - Visual signs and graphics
 - o Brochures
 - o Community meetings and presentations

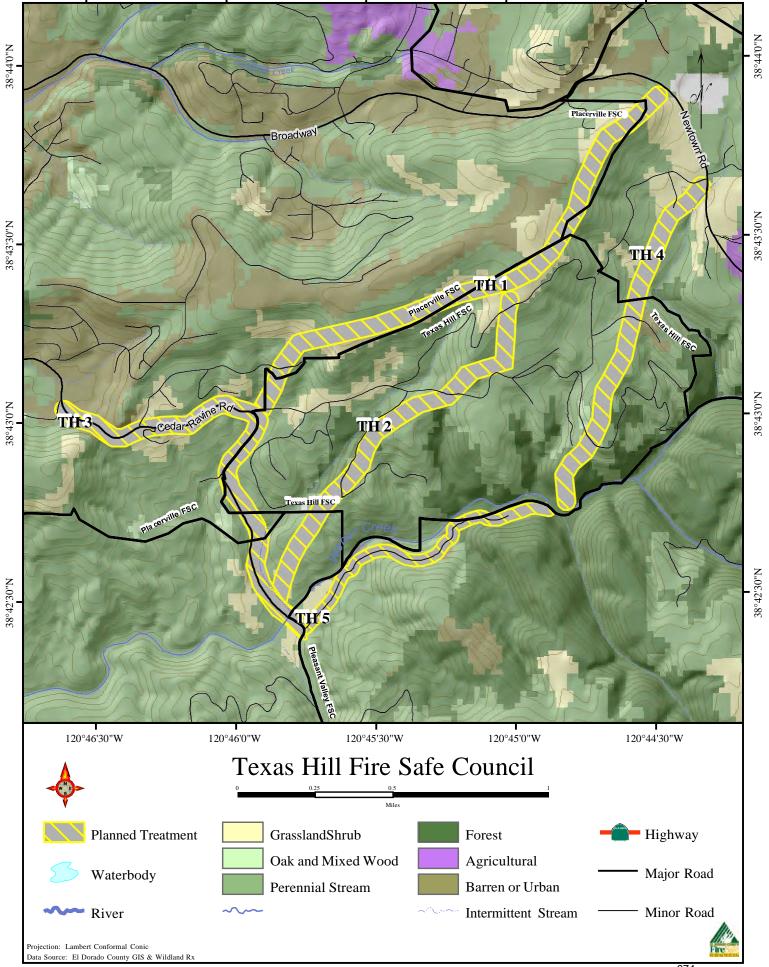
References

- 1. California Building Codes. Chapter 7A Materials and Construction Methods for Exterior
- 2. Wildfire Exposure.
- 3. CalFire: https://frap.fire.ca.gov/frap-projects/wildfire-hazard-real-estate-disclosure
- 4. CalFire website: http://www.readyforwildfire.org/Wildfire-Action-Plan/
- 5. El Dorado County Health & Human Services:

https://www.edcgov.us/publichealthprep

<u>aredness</u>

- Demographics cited: US Census Bureau: <u>https://www.census.gov/quickfacts/fact/table/placervillecitycalifornia/PST</u>
 <u>045218</u>
- Building a Wildfire-Resistant Home: Codes and Costs. Headwaters Economics 2018:<u>https://headwaterseconomics.org/</u>
- 8. United States Zip Codes: <u>www.unitedstateszipcodes.org/95667/</u>



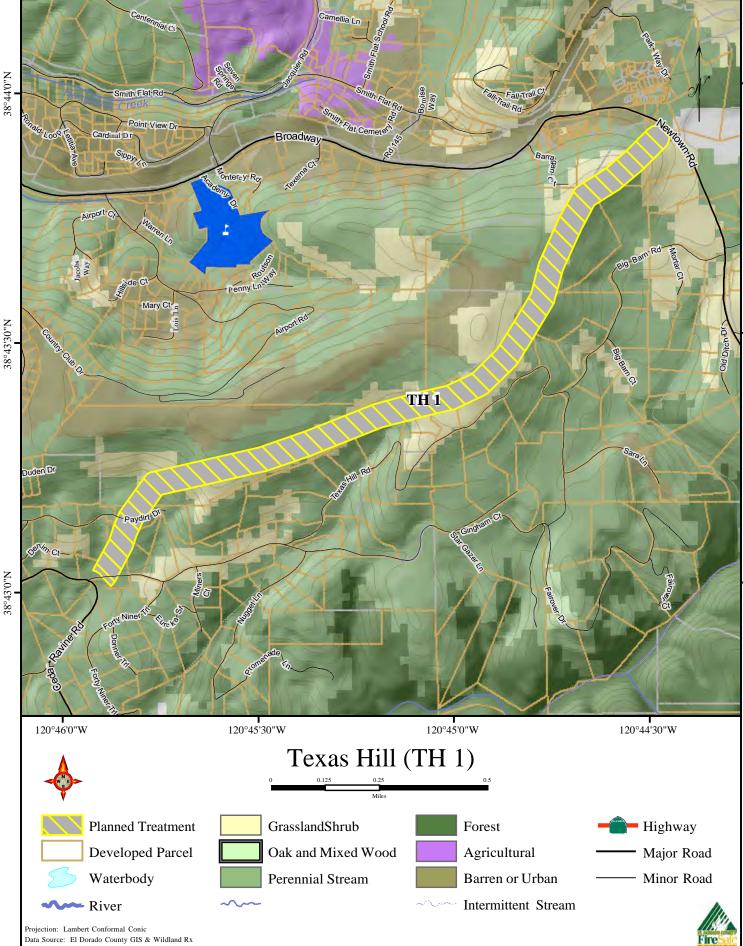
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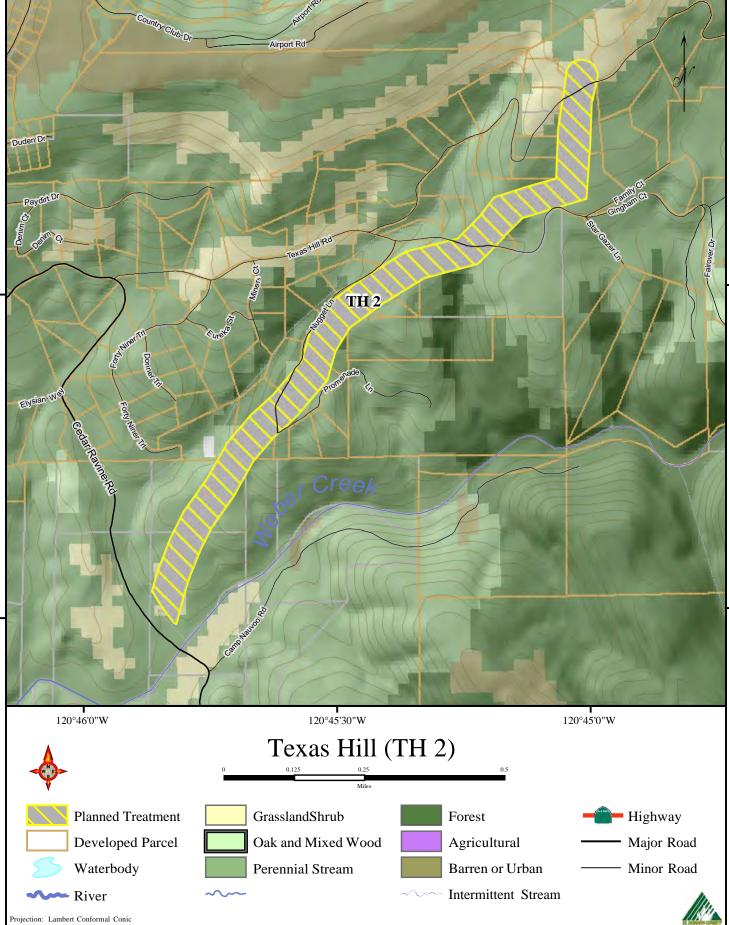
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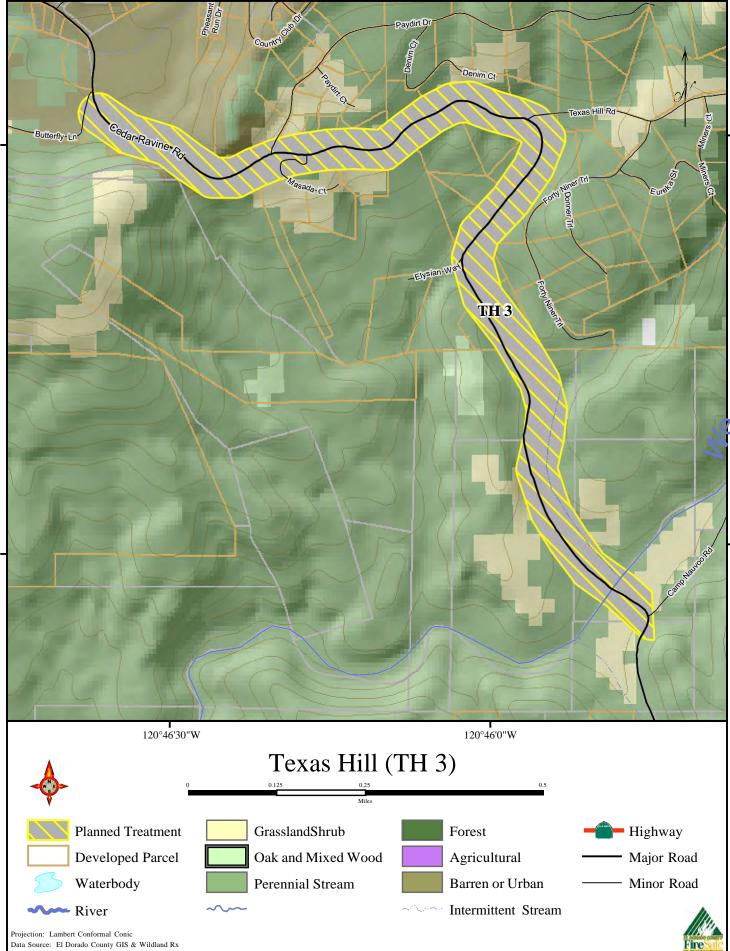
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120°46'0"W



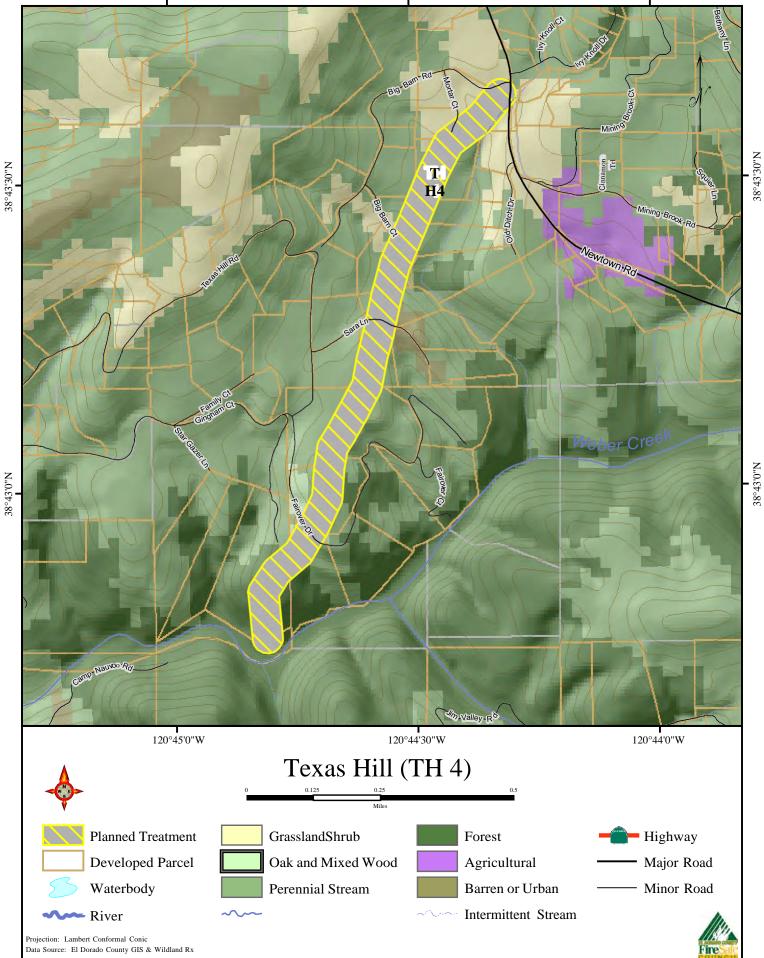
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38°42'30"N

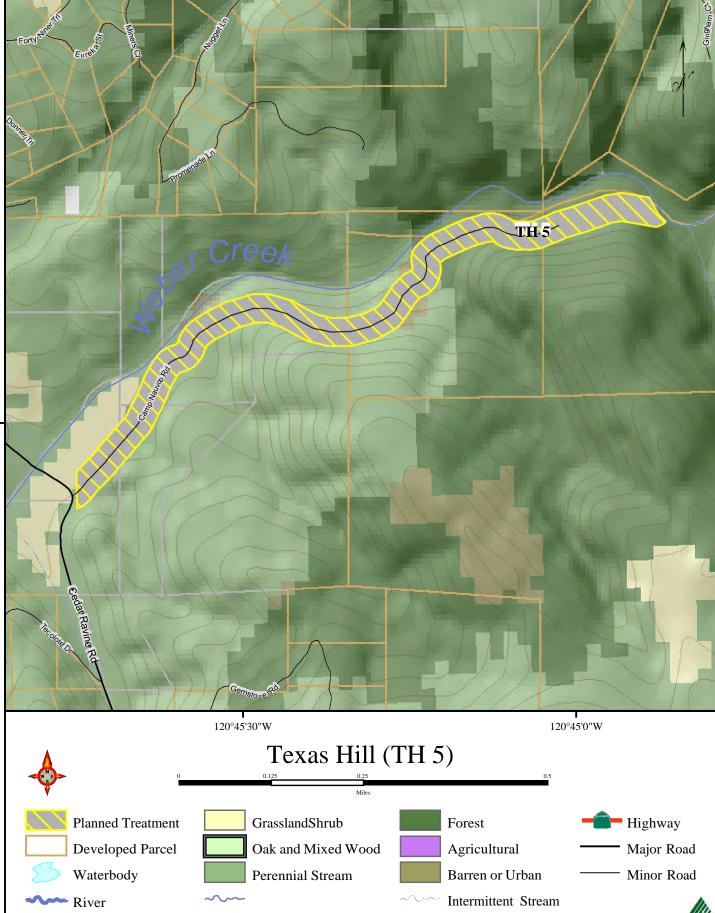


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120°44'30"W

120°44'0"W

378



Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx

38°43'0"N

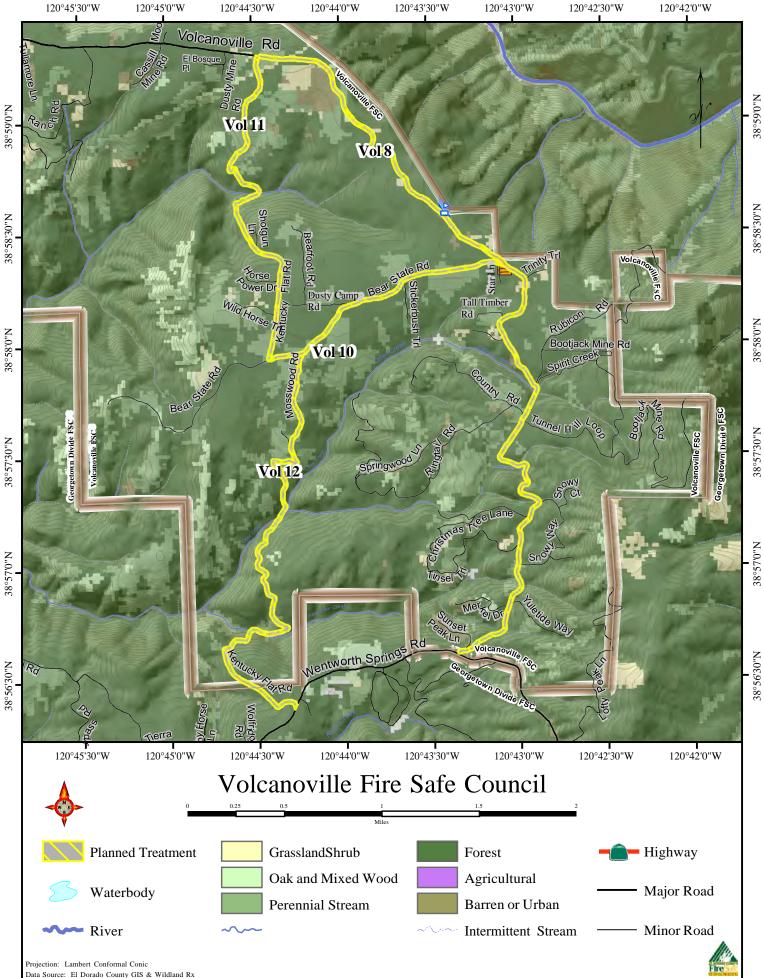
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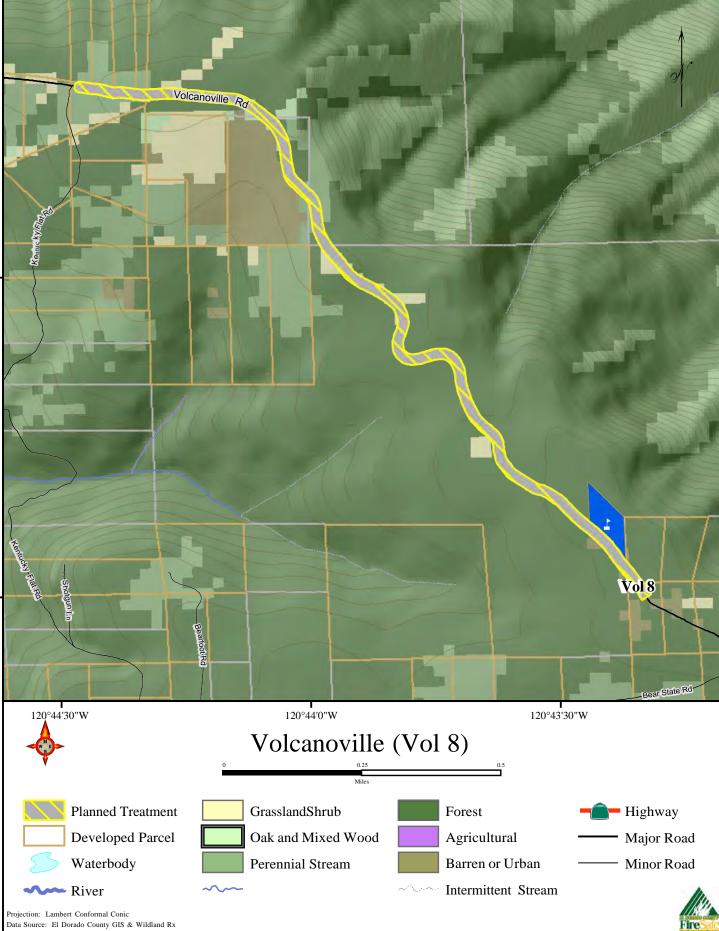
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Texas Hill FSC Community Projects

PROJECT NAME	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES/ MILES	ESTIMATED COST
	1	TH-1	Fuel Break			
	2	TH-2	Fuel Break			
		TH-3	Roadside Hazard Reduction			
		TH-4	Fuel Break			
		TH-5	Roadside HR			

El Dorado County COMMUNITY WILDFIRE PROTECTION PLAN UPDATE Community Tab for Volcanoville Fire Safe Council Prepared for Inclusion in the: EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update November 2021

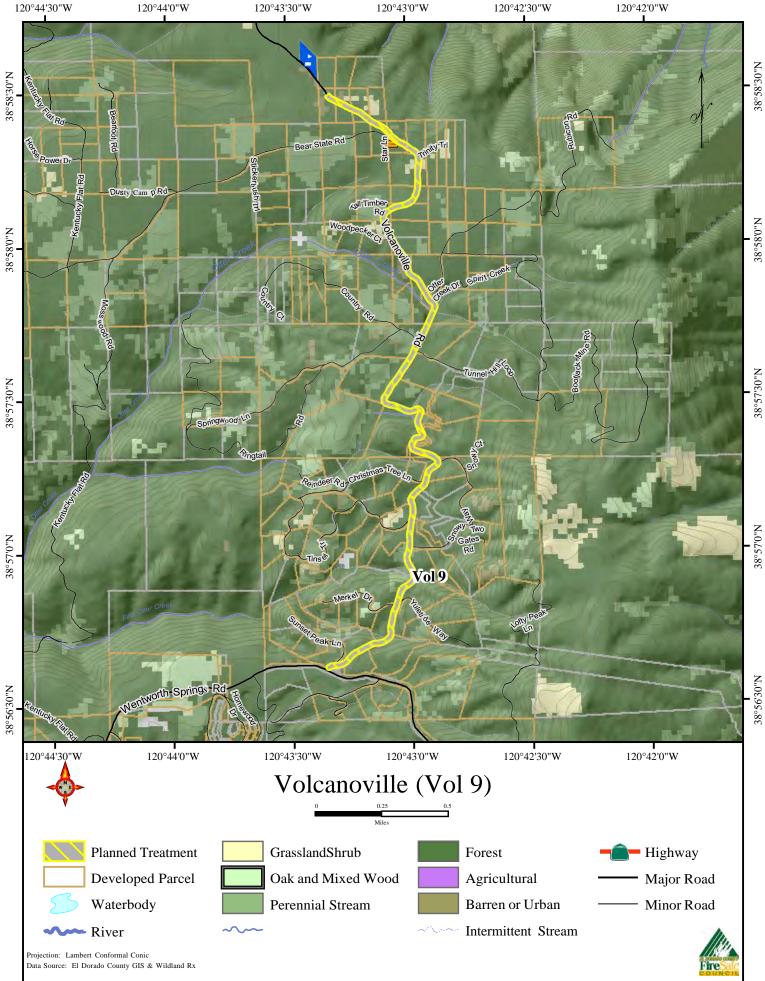


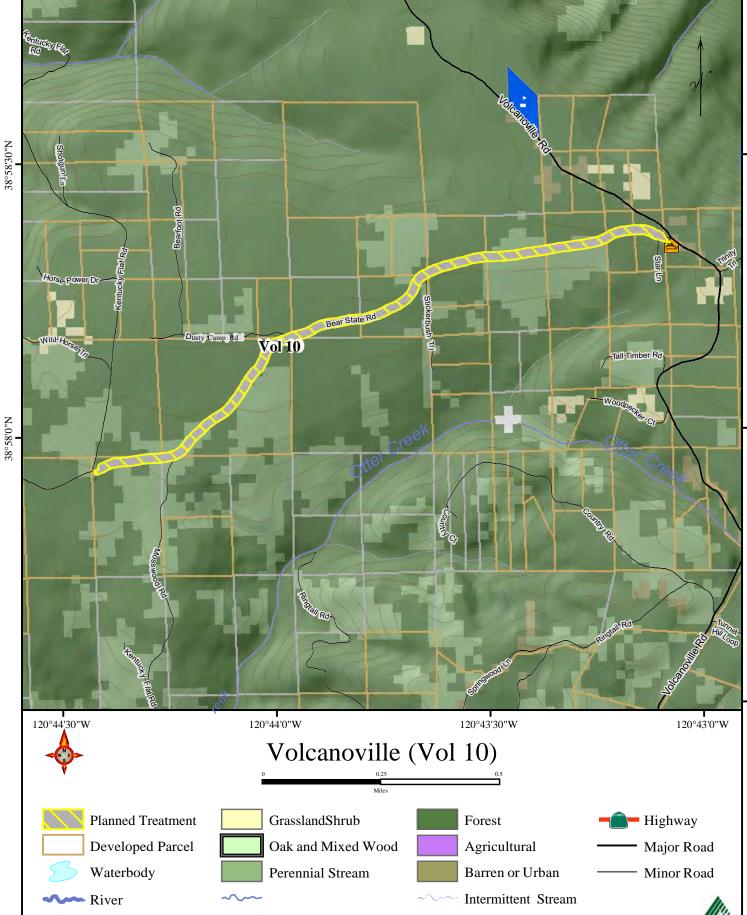


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38°58'30"N





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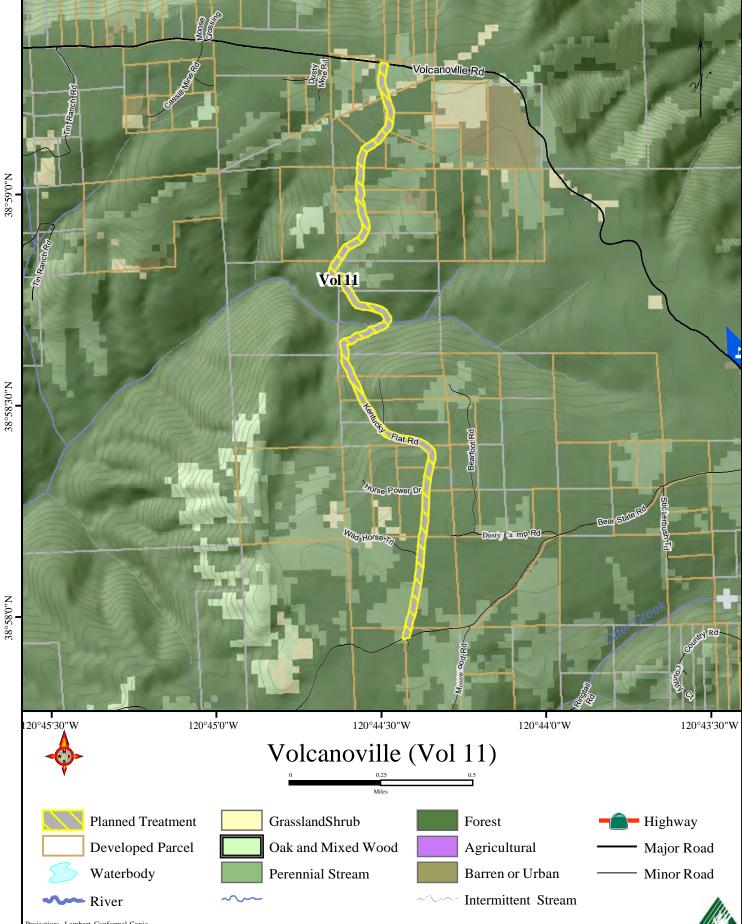
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38°57'30"N

120°43'0"W



Projection: Lambert Conformal Conic Data Source: El Dorado County GIS & Wildland Rx 38°59'0"N

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120°45'0"W

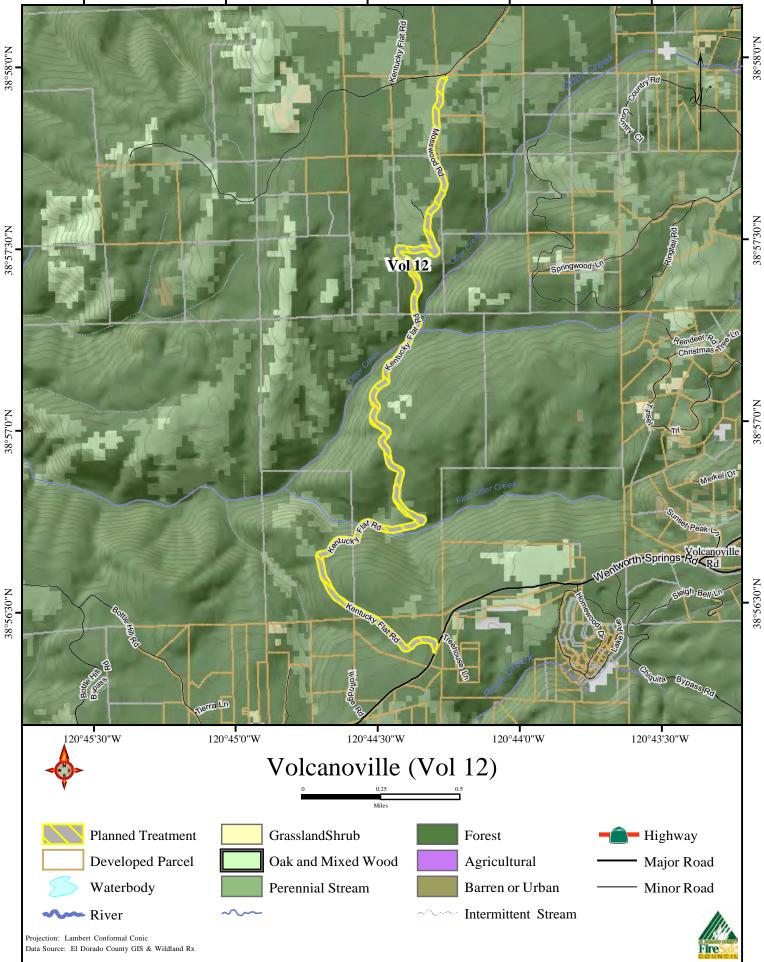
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120°45'30"W

38°59'0"N

38°58'30"N



387

120°45'30"W

120°45'0"W

120°44'30"W

V

120°44'0"W

120°43'30"W

COMMUNITY	PRIORITY	PROJECT NUMBER	PROJECT DESCRIPTION	TREATMENT TYPE	ACRES	MILES	ESTIMATED COST
Volcanoville	1	Vol-1	Volcanoville road	Road Hazard	83	3.5	\$124,500
Volcanoville	8	Vol-2	Tunnel Hill	Fuel Break	45		\$67,500
Volcanoville	2	Vol-3	Bear State	Road Hazard	34	1.4	\$51,000
Volcanoville	5	Vol-4	Northwest Fuel Reduction	Fuel Break	26		\$39,000
Volcanoville	6	Vol-5	Kentucky Flat	Road Hazard	26	1.1	\$39,000
Volcanoville	7	Vol-6	West Side Fuel Reduction	Fuel Break	20		\$30,000
Volcanoville	9	Vol-7	North East Fuel Reduction	Fuel Break	30		\$45,000
Volcanoville	10	Vol-8	Volcanoville road	Road Hazard	88	3.7	\$132,000
Volcanoville	11	Vol-9	Volcanoville road	Road Hazard	47	1.9	\$70,500
Volcanoville	12	Vol-10	Bear State	Road Hazard	17	0.7	\$25,500
Volcanoville	13	Vol-12	Kentucky Mine North	Road Hazard	22	0.9	\$33,000
Volcanoville	14	Vol-13	Kentucky Mine South	Road Hazard	32	1.3	\$48,000
Volcanoville			Total Volcanoville		470	13.2	\$705,000

2017 CWPP Volcanoville FSC Community Projects

2020 Updated Volcanoville CWPP Projects

PRIORITY	PROJECT	PROJECT DESCRIPTION	TREATMENT	ACRES	ESTIMATED
	NUMBER		ТҮРЕ		COST
	Vol 8	Roadside Hazard Reduction	100 feet wide	19	
	Vol 9	Roadside Hazard Reduction	100 feet wide	36	
	Vol 10	Roadside Hazard Reduction	100 feet wide	17	
	Vol 11	Roadside Hazard Reduction	100 feet wide	24	
	Vol 12	Roadside Hazard Reduction	100 feet wide	33	

COLOMA LOTUS FIRE SAFE COUNCIL

UPDATE TO THE EL DORADO COUNTY CWPP

DECEMBER 2021



Coloma Lotus Fire Safe Council – 2021 CWPP Update

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B. CL CWPP Road List for Vegetation Clearing

- C. Coloma / Lotus Fire Hydrant Initiative
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Coloma Lotus Fire Safe Council – 2021 CWPP Update

1.0 INTRODUCTION

The Coloma Lotus Fire Safe Council (CLFSC) is updating its 2017 Community Wildfire Prevention Plan (CWPP) at the guidance and direction of the El Dorado County Fire Safe Council (EDCFSC). The CLFSC is centered upon the American River and Highway 49 in northwestern El Dorado County. The area is defined by the American River, which travels from steep canyons of the Sierra Nevada to the east into the CLFSC area, where the river flows into the large valley. Our Sierra foothill area is also a hub of multiple travel corridors to Placerville, Georgetown, Rescue, and Auburn.

The Coloma Lotus portion of the 2021 EDCFSC CWPP has been written by CLFSC community volunteers and planned for review and adoption by attendees at a public CLFSC meeting in late 2021. The purpose of this CL area CWPP is three-fold:

- To reflect the needs of our local area;
- To support community efforts to meet CWPP goals; and
- To provide a ready list of area-specific projects.

The CLFSC area is an irregular-shaped area that encompasses approximately 20 square miles (13,000 Acres). The boundaries extend to the top of local ridgelines in recognition that the Coloma-Lotus valley is in the lower elevation of this part of the county. Attachment A provides a set of CWPP maps that depict the CLFSC boundaries.

1.1 Coloma-Lotus Valley Historic and Geographic Setting

The very scenic Coloma-Lotus valley and its adjacent lands have historical roots in the Gold Rush of 1849. Cullumah (meaning "beautiful" by the native Nisenan and Foothill Miwok) lay quietly in a valley inhabited by native Americans when in 1847, James Marshall and a small band of Anglo-American workers hired by James Marshall and John Sutter settled in the valley to construct a sawmill along the heavily forested banks and hills of the South Fork American River. Then, on January 24th of 1848, James Marshall found a few gold flakes in the tailrace of the nearly completed and operational Sutter's Mill.

Once the word got out of the gold discovery, the population exploded into the tens of thousands, seemingly overnight from the influx of persons who arrived from throughout the world seeking their fortunes in the search for gold. As years passed and the gold rush subsided throughout the Mother Lode, the Coloma–Lotus community grew its agricultural products and some residual mining as its primary economic base. Today, the Coloma–Lotus valley relies heavily on tourism and agriculture to support whitewater rafting, hiking, biking, and equestrian use on and along the American River, as well as visits to local wineries, lodgings, and farms.

Today there are approximately 750 residences within the Coloma Lotus Fire Safe Council's (CLFSC) area; two small shopping centers; resorts; campgrounds; county, state, and federal parks, and lands; working cattle ranches; restaurants; stores; a gas station; two schools; one community and two historic churches, a community hall, and numerous other places of business. The El Dorado Irrigation District (EID) is the leading purveyor of water in addition to private wells. The EID water system stores, treats and distributes metered water. There is a limited fire hydrant system. El Dorado County Department of Transportation (DOT) maintains county public roads while Caltrans services the main artery that bisects the area: State Highway 49. Pacific Gas and Electric (PG&E) is the electric power utility servicing the area. Multiple companies provide telephone, internet, and other online services.

Coloma-Lotus residents live on land parcels ranging from ¼ to 640 acres and larger. There are an estimated 750 habitable structures with around 2,000 people living in the area year-round. Also within the CLFSC boundary are Bureau of Land Management (BLM Department of the Interior) lands consisting of about 1,000 acres. At the core of the Coloma-Lotus valley is the Marshall Gold Discovery State Historic Park that encompasses approximately 576 acres.

The most important natural asset in the CLFSC area is the South Fork of the American River, which has shaped the Coloma-Lotus valley. The loss of trees and other plants due to wildfires in the CLFSC area would cause multiple problems as loss of vegetation would reduce a vital part of the functioning ecosystem. Vegetation significantly reduces the amount and speed of stormwater runoff, that if unchecked, pollutes local streams and damages the watershed. Visual impacts from uncontrolled wildland fires would impact the scenic beauty for which the area is known.

1.2 Existing Wildland Urban Interface Conditions

The Coloma-Lotus valley's predominant feature is the South Fork of the American River. The South Fork American River's headwaters and upper watershed lies within the El Dorado National Forest and the Tahoe National Forest. There are no U.S. Forest Service (USFS) lands in the CLFSC area; however, steep canyons surround the Coloma-Lotus valley as well as the river canyon upstream and downstream of the valley with heavy fuel loading. Multiple drainages flow into the South Fork in this area. The main river corridor and these side canyons act as "chimneys" for airflow as the daytime temperatures increase. Airflow is up-canyon in the daytime and then reversed to down-canyon at night. When the overall weather systems may be calm, there may be significant breezes up or down these canyons due to this effect. The heavy fuel loading in the area consists of oak and pine forests as well as various brush types and grasses with an understory forming an excessive amount of ladder fuel.

The CLFSC area encompasses approximately 20 square miles (13,000 acres). The CLFSC boundaries extend to the top of local ridgelines in recognition that the Coloma-Lotus valley is in the lower elevation of this part of the county. Therefore, any fires that begin here will likely spread uphill and up-canyon into other populated communities such as Garden Valley, Georgetown, Greenwood, Pilot Hill, Arrowbee, Rescue, and Placerville.

Wildland Urban Interface (WUI) conditions exist throughout El Dorado County's western slope. The SRA Fire Hazard Severity Map shows an estimated 50% of the land within the CLFSC area as *Moderate*; about 30% as *High*; and approximately 20% as *Very High*. Many of the most densely populated and developed areas are within the *Very High* fire hazard category.

Another concern for fire in the Coloma-Lotus valley is its adverse effects on the South Fork of the American River. Runoff and erosion rates increase by two or more magnitudes for several years after a high severity fire, creating a greater risk of adverse effects on aquatic resources.

The Coloma-Lotus valley has been fortunate not to experience any major or mega-fires such as the Kings, Dixie, or Caldor fires. However, the following "Incident Fires" are sobering reminders that we live in a fire-prone WUI area:

- Lotus Road Fires (2016)
- Mt. Murphy Fires (multiple fires over last 20 years)
- Adventure Fire (2015)
- Camp Lotus Fire (2014)
- Other fires through 2021

1.3 Emergency Services

The El Dorado County Fire Protection District and CAL FIRE provide the community's structural fire-fighting resources and wildfire protection. Fire equipment is based at the Lotus Fire Department building; however, this station is only periodically staffed. The El Dorado County Fire District has multiple structure fire-fighting and ambulance stations located approximately 10-20 minutes away in Cool, Garden Valley, Rescue, and Placerville. The closest CAL FIRE stations are at Greenwood and Pilot Hill, about 15 minutes away by County road. The air support provided by CAL FIRE's Grass Valley airport location provides fast, critical help to fires extending beyond the main roads.

Wildfire in the Coloma-Lotus valley can close evacuation routes for surrounding communities and inbound response routes for fire suppression equipment and emergency response. Multiple one-lane roads and the one-lane Mount Murphy Road bridge are congestion locations during an emergency. The Coloma-Lotus area attracts numerous visitors, including those at campgrounds, B&Bs, and winery, and other lodging and event venues. These venues are crowded, especially during the summer months, with visitors unfamiliar with area roads and local emergency management programs. Visitors rely upon GPS directions that are not always correct or available in the CLFSC area.

1.4 Greatest Threats – Internal and External

The most significant threats to the CLFSC Sphere of Recognition are divided into two types – those that are internal and those that are external to the Coloma-Lotus area, as follows:

Internal wildfire-related threats include:

- Lack of staffed structural fire suppression equipment and the need for a full-time staffed community fire station within the Coloma-Lotus Valley. Even though this issue is not addressed directly in this document, it continues to be a major concern of local citizens.
- The bowl-shaped geography of the Coloma-Lotus valley because any fires starting on the valley floor will quickly travel uphill.
- Potential for wildfires in the Coloma-Lotus valley cutting off available evacuation routes and travel routes for inbound suppression equipment.
- Residents and visitors blocking evacuation routes and routes of travel for inbound suppression equipment. Multiple one-lane roads and the one-lane Mount Murphy Road bridge are likely congestion locations during an emergency.
- Numerous lodging and event venues are crowded, especially during the summer months, with visitors
 unfamiliar with area roads and emergency management programs. Visitors depend upon GPS directions that
 are often not available. The Coloma-Lotus area contains numerous commercial Recreational Vehicle (RV)
 campgrounds, campgrounds managed by river rafting outfitters, B&Bs, other lodgings, and wineries that
 serve as event venues.
- The Gold Discovery State Park historic structures, many built of wood, would be challenging to protect from fire.
- Failure of the residents to maintain adequate defensible space for their homes (Violations of the California Public Resources Code (PRC) 4291) and El Dorado County Ordinance 5101, Chapter 8.09)
- Failure of vacant landowners who do not remove hazardous vegetation. (Violation of the El Dorado County Nuisances Code Section 25845 Chapter 9.02)

External wildfire-related threats include:

- Variable daily wind directions, with up-canyon winds predominating during the day, and down-canyon winds during the evening.
- Strong winds and sometimes lightning are brought by storm fronts from the north and west, particularly during the late summer through spring months.
- Increasing tree mortality due to drought and bark beetle damage.
- Potential for a large, high-severity fire outside the Coloma-Lotus Valley to adversely impact the South Fork of the American River headwaters, main stem, and side-stream watersheds. Runoff and erosion rates increase by two or more magnitudes for several years after a high severity fire creating a greater risk of adverse effects to aquatic resources. After a severe wildfire, the potential effects within and downstream of the CLFSC Sphere of Recognition include:
 - increase in the suspended sediment and turbidity levels of streams during and immediately after rainfall events and periods of rapid snowmelt;
 - o deposition of fine-grained sediment in stream channels;
 - o deposition of ash in streams, which can increase nutrient levels for several years; and
 - o increases in runoff during rainfall events tend to cause stream channel erosion.

2.0 CLFSC CWPP MISSION AND GOALS

The CLFSC has one overarching CWPP mission of advancing community WUI preparedness and resilience. The goals listed below indicate how we intend to meet our mission by efficiently directing community fire safe activities and effectively using available resources. The listed goals are directly related to the CWPP projects discussed in Section 4.

- 1. **Strengthen Community Education and Outreach:** Strengthen community education and outreach related to fire safety, emergency preparedness, defensible space ordinances, and available vegetation management resources.
- 2. Increase Fire Safe Road Access: Complete listed CLFSC projects that support community evacuation and first responder ingress as a result of fuel reduction projects along roadways.
- 3. Increase Defensible Space and Shaded Fuel Breaks: Encourage public and private landowners to adhere to defensible space ordinances and leverage CLFSC road projects and other fire-safe activities to create wider swaths of defensible space using shaded fuel breaks.
- 4. **Promote Strategic Major Fuel Breaks:** Work toward creating large, integrated community-wide defensive spaces by implementing Strategic Fuel Breaks in areas to protect against the catastrophic spread of wildland fires into more densely residential areas of the Coloma Lotus Valley
- 5. **Support Increased Water Supply and Access:** Increase/improve fire-fighting water source infrastructure in areas not serviced by hydrants.
- 6. **Optimize coordination with other Groups:** Build relationships that would support conducting mutually beneficial fire-safe activities with area agencies, organizations, businesses, and individuals.

2.1 Strengthen Community Education and Outreach

A fundamental CLFSC goal is to strengthen community education and outreach related to fire safety, emergency preparedness, defensible space ordinances, and available vegetation management resources. Educating the community about the various ways to avoid starting fires, reducing the threat of wildfires, and decreasing negative impacts once a fire has begun is extremely important, productive, and effective. Sample activities to meet Council education and community outreach goals include the items listed below. Section 4.6 discusses related FSC projects.

- 1. Hold public information meetings, in person and online, to:
 - a. Provide public review of the CLFSC CWPP
 - b. State and explain defensible space regulations
 - c. Communicate county defensible space ordinances
 - d. Describe best practices of fire resilient communities
 - e. Present grant opportunities
- 2. Conduct public outreach via email, social media, and paper brochures about these and other issues:
 - a. State defensible space regulations
 - b. County defensible space ordinances
 - c. Best practices of fire resilient communities
 - d. Fire insurance information
 - e. Grant opportunities
- 3. Promote available programs through information sharing
 - a. EDCFSC Chipping Program
 - b. EDCFSC Senior / Vet Assistance Program

- c. Defensible space projects and practices
- d. Defensible space assessments: providing CLFSC members information to support their compliance with defensible space regulations and reducing fire risk on private residential and commercial properties
- 4. Encourage development of communication tools that support community preparedness, emergency response and evacuation
 - a. Code Red sign-ups
 - b. Community GMRS radio networks
 - c. Phone trees and other group messaging
 - d. Scanner use (including web-based scanner apps)

2.2 Increase Fire Safe Road Access

Clear travel routes are vital to allow evacuation of residents and visitors and inbound movement of suppression equipment and crews in the event of a wildfire in or near the Sphere of Recognition. Due to the area's relatively few main roads, it wind patterns, and the geography, some evacuation routes could quickly be clogged or cut off. Area roads and bridges are narrow, and many are located on slopes that can quickly be overrun by a wildfire or obstructed by evacuating vehicles and/or responding suppression equipment. It is critical that area roads serve as transportation corridors and also as fuel breaks where possible, to protect the community from the worst effects of wildfire.

The CAL FIRE Amador-El Dorado Ranger Unit (AEU) Ignition Management Plan (May 11, 2020) discusses how, in cooperation with El Dorado County and other local planning agencies, CAL FIRE has oversight responsibility, and reviews proposed land development permits for compliance with PRC 4290. In their study of land use permits, the number one factor CAL FIRE considered is **access**. The 2020 AEU Plan states:

"Access is a major fire prevention and protection need, whether wildland or structural. Failure to provide reasonable access for emergency equipment and evacuation exits for civilians can result in major loss of life, property, and natural resources. Fire apparatus sitting at an intersection, waiting for civilians to exit on a narrow road, cannot provide the necessary fire suppression action. Safe Access requires street and road networks that limit dead-end roads and provide reasonable widths, grades, turn-outs, and curves on all roads and driveways."

Per CLFSC goals and CAL FIRE priorities, the Council seeks to improve fire-safe access routes, as described in the Projects section below. Clear routes are key to evacuating residents and allowing CAL FIRE equipment to fight wildfires. It is our goal that all the roadways within the CLFSC area have safe buffers (e.g. shaded fuel breaks and reduced fuel loads) to help ensure the safety of our residents, visitor, and emergency crews.

- The first project (CL-1) developed by the recently formed CLFSC involved shaded fuel breaks along four main transportation arteries to help insure safe evacuation of residents as well as safe ingress of fire-fighting equipment and crews.
- Additional shaded fuel breaks along other roads that lie within the CLFSC boundary are being planned.

Section 4.3 of this CWPP presents road projects for the CLFSC area. Treatment Area Vegetation and Treatment Suggestions are provided in Attachment F of this document.

2.3 Increase Defensible Space and Shaded Fuel Breaks

Another CLFSC goal involves reducing hazardous fuel loads in other Coloma-Lotus areas, in addition to the roadways, by creating shaded fuel breaks along the perimeters of the public lands that lie within the CLFSC boundary. Working in coordination with willing public agencies and landowners, the Council hopes that much of the Coloma-Lotus area can be better treated and thereby reduce much of the fire danger and increase the safety of our residents, visitors, and emergency responders. Section 4.3 discusses related FSC projects.

A **shaded fuel break** is created by removing small trees and other vegetation less than 8-inches in diameter from the road right-of-way. Larger trees would be limbed up to 16 feet above ground level to allow better access by tall emergency vehicle equipment. This treatment does not entail removal of trees 8-inches or larger.

A 3 to 5-year maintenance cycle would be required and is envisioned as the best approach to maintain hazardous fuel levels to a minimum. This 3 to 5-year cycle is considered essential for reducing regrowth of ladder fuels and understory encroachment on evacuation routes. Regrowth will be greatest in and near drainages. Upon completion of roadside vegetation management clearance projects, property owner participation in fuel reduction maintenance will be strongly encouraged and supported at sites that involve privately owned land.

2.4 Promote Strategic Major Fuel Breaks

The 2021 CWPP update includes an increased focus on completing one or more strategic fuel breaks designed to slow the spread of an evolving fire early in its course to allow a rapid and effective fire attack. The three strategically located fuel breaks presented in this CWPP could combine with cleared roads to create a network of shaded fuel breaks protecting the Coloma-Lotus area. Even a fully established wildfire can be more easily managed by slowing the spread of the fire with fuel breaks, allowing planning and implementation time in the fire-fighting effort. Proposed strategic major fuel break projects are discussed in Section 4.4 of this CWPP. Attachment F provides Treatment Area Vegetation and Treatment Suggestions.

2.5 Support Increased Water Supply and Access

In the CLFSC area there is a serious lack of hardened water sources to fight potential fires. A relatively few Eldorado Irrigation District (EID) water hydrants are located near the Highway 49/Lotus Road junction however no service extends beyond that area. The Coloma/Lotus Hydrant Initiative, discussed in Attachment C of this document, proposes to increase and improve fire-fighting water source infrastructure in areas not serviced by hydrants.

2.6 Optimize Coordination with CLFSC Area Agencies and Organizations

The Coloma-Lotus area is steeped in history and has multiple parks and an extensive recreation community along the river. The CLFSC incorporates lands where multiple public and private stakeholders have interests and where agencies and organizations manage large areas close to the community assets and residents. The CLFSC is one part of a complex group of stakeholders cooperatively working on solutions to reduce the risk of wildfire impacts on the community and the significant natural and historical resources.

The CLFSC recognizes and appreciates the ongoing fire-safe efforts by Coloma-Lotus community agencies, organizations, and individuals and the ongoing support of CLFSC activities by the Gold Trail Grange and Coloma-Lotus Business Council (formerly the Coloma-Lotus Chamber of Commerce). We look forward to continued coordination and co-sponsoring of educational and fuel reduction activities and projects with them and other related groups listed below.

Bureau of Land Management

The Bureau of Land Management (BLM) Mother Lode Field Unit owns and manages approximately 17 parcels of land totaling about 1,000 acres along and near the South Fork of the American River. BLM manages a significant amount of land adjacent to and outside of the CLFSC boundary. BLM lands have trails, access to the river, and limited infrastructure to support recreation. Only non-motorized recreational activities such as hiking, mountain biking, horseback riding, and other similar passive activities are allowed upon these BLM sites. These lands are highly vegetated and pose an ongoing dilemma for their wildfire potential, illegal camping, the spread of exotic species, and prioritizing agency actions for community protection.

Of these parcels, the most popular include the interconnected day-use and river access sites within the Coloma Lotus FSC area described below.

- Dave Moore Nature Area: One of the main features of BLM's Dave Moore Nature Area is a loop trail about a mile long which goes from the parking lot trailhead to the South Fork American River and back again, passing through several habitat types and providing access for pedestrians, wheelchairs and baby strollers.
- Greenwood Creek: Developed by BLM in 2005 primarily to serve kayakers and rafters, this area connects via trails to Magnolia and Cronan Ranch trails. This area has 40 car-sized parking stalls; trailers and recreational campers are not allowed. Kayaks and rafts must be carried to the parking lot via a trail from the river that is approximately 1/3 mile in length.
- Magnolia Ranch: Magnolia Ranch has a large parking lot capable of handling horse trailers and an extensive trail network connected to the larger Cronan Ranch. It serves numerous area equestrians and other trail users. It is the only BLM parking area visible from Highway 49 and therefore attracts visitors who may not be familiar with less prominent public recreational facilities.

The Sierra Proposed Resource Management Plan and associated Record of Decision, adopted in February 2008 (https://eplanning.blm.gov/eplanning-ui/project/72554/570), guide the development and use of area BLM lands. Overall operation and maintenance of BLM's recreational properties include fire prevention-related activities, including vegetation control and fuels management using prescribed burns, control of noxious weeds, and grazing. BLM lands also provide emergency vehicle access to otherwise inaccessible portions of the South Fork of the American River.

Marshall Gold Discovery State Historic Park

The Marshall Gold Discovery State Historic Park (MGDSHP) is one of California's iconic and historic areas where gold was first discovered. The Park covers nearly the entire town of Coloma. It has numerous historic buildings and artifacts, with many Native American cultural sites and a host of trails that visitors frequently use throughout the summer months and residents traverse year-round. Park users access both sides of the river in the Park for gold panning, picnicking, and to float the river.

Created in 1942 and now grown to over 576 acres in size, the Park encompasses most of the historic town of Coloma, the Monroe Ridge to the south of the townsite, and Mount Murphy on the north side of the river. It has about 450

year-round residents in the surrounding area and approximately 250,000 annual visitors, many of them elementary school students, who visit daily and for larger special events.

MGDSHP has a number of vulnerable historic structures, many dating back to the gold rush era. These structures are primarily built of wood and are highly flammable during fire season. Historic buildings in the area include the James Marshall cabin, the Emanuel and St. John's churches, the Oddfellows Hall, the working blacksmith shop, the one-room Schoolhouse, and the Coloma Greys building. Wooden historic family homes include the Miller, Monroe, Papini, Price-Thomas-Noteware, Weller, and Williams homes. The Schulze-Howard House currently serves as the Argonaut Café, and the Kane House holds the American River Conservancy exhibits and offices. All of these structures are irreplaceable historic wooden buildings. There are also many scattered historic structures made primarily of beam, stone, and brick within the Park, and two historic cemeteries. In addition to these historically significant structures, the Park has structures for maintenance, offices, and similar functions.

The MGDSHP has demonstrated actions to reduce risk to the Park's resources, and threats of fire moving into and from the state-managed areas near the Coloma and Lotus communities. The Park is engaged in ongoing fuel reduction and forest health work on the Monroe Ridge and in developed areas throughout the Park. These efforts include vegetation management work throughout the MGDSHP. In addition, CWPP Section 4.4 describes projects that could be developed by the MGDSHP on park lands.

Other Coloma-Lotus Valley Lands and Organizations

The **Coloma-Lotus Business Council (CLBC**), formerly the Coloma Lotus Chamber of Commerce (CLCC), has generously donated initial and periodic funding that allows the CLFSC to organize formally. The funds have been used to set up and maintain a bank account and a post office box at the Coloma post office. The Council, through its website (<u>www.coloma.com</u>), annual printed Coloma-Lotus Guide, and ongoing communications with its members, provides an important communication channel for CLFSC activities.

Coloma's **Gold Trail Grange No. 452**, located on Highway 49, serves as a vibrant community center in the Coloma-Lotus valley. The Grange partners with various local community groups and non-profits such as the American River Conservancy, Coloma-Lotus Business Council, CLFSC, scout troop, local farmers, artisans/artists/musicians, and civic leaders to bring meaningful and exciting events and activities to the community. The Gold Trail Grange has graciously allowed all CLFSC meetings to occur in the grange building at no cost to the Council. The Grange, through its online presence, and ongoing communications with its members, provides an important communication channel for CLFSC activities.

The **American River Conservancy (ARC)** has been in operation since 1989, with the mission of preserving rivers and land for life. The non-profit community organization is based in the central Sierra Nevada foothills, and works to preserve natural and cultural resources, strives to build an enduring ethic of care for the land that underpins a sustainable future for humans to live in harmony with nature. The ARC has conducted extensive past and ongoing fire safety projects involving fuel reduction in the CLFSC area on their properties. ARC lands within the CLFSC area include portions of the Wakamatsu Colony Farm site located along Cold Springs Road and surrounding the Gold Trail School.

The El Dorado County Amateur Radio Club and associated Coloma Lotus Neighborhood Radio Watch: The Coloma Lotus Neighborhood Radio Watch is an all-volunteer group of concerned citizens dedicated to promoting community safety. Communities in Coloma, Lotus, Arrowbee, Luneman and Gold Hill, with support from the El Dorado County

Amateur Radio Club, have set up a local *Neighborhood Radio Watch* (NRW)program to help our neighbors stay safer during emergencies and disasters. Working with community leaders and first responders, NRW volunteers help area residents learn how to use simple, affordable radios to communicate when the power is off and phone and Internet service is disabled.

Coloma Lotus Advisory Committee (CLAC): The Coloma Lotus Advisory Committee (CLAC) advises the County on community- and river-related issues in the Coloma Lotus Valley. It consists of seven appointed volunteer committee members who work with interested community members on issues of concern including river management, fire and emergency services, economics, parks, and infrastructure, and more.

The South Fork Arts and Recreation (SoFAR): The South Fork Arts and Recreation (SoFAR) is a non-profit organization in the South Fork American River valley that seeks to inspire and teach music and art, advocate for and help provide recreational opportunities, and promote community involvement in Coloma, Lotus, and the surrounding area. SoFAR currently operates the Coloma Shuttle along the South Fork of the American River and produces music events (https://www.coloma.com/community/organizations/). Note: SoFAR is distinct from the SOFAR Cohesive Wildland Strategy for the upper watershed of the South Fork of the American River. That multi-agency watershed effort (https://sofarcohesivestrategy.org/about/) does not include the Coloma-Lotus Valley part of the watershed.

Private grazing property: The CLFSC area includes large tracts of undeveloped private property that are currently grazed by several ranches, as identified in the 2020 Amador-El Dorado – Sacramento Cal Fire Unit's Strategic Fire Plan. The Bacchi Ranch has been the site of controlled burns sponsored by CAL FIRE as training exercises. These large grazing areas are essential to the community, and it is important that grazing continue as a key mitigation strategy to keep fire spread and intensity potential to a minimum across significant acreage within the fire safe council boundary.

3.0 CLFSC Recent Activities and Projects

Since the CLFSC was organized in 2015, the group has been active in alerting members of the Coloma-Lotus community about ways to prepare for wildfire, thereby minimizing its potential impacts. The Council has held evening meetings with speakers and discussions focused upon educating residents of the benefits of defensible space, the availability of fuel reduction resources (EDCFSC chipper program, etc.), and advantages of readiness before an emergency. The CLFSC emphasizes the importance of preparedness, as exemplified by an October 2015 Community Preparedness Event, with presentations by the El Dorado County Office of Emergency Preparedness. We have also applied for, received, and implemented two vegetation management grants.

Grant work is expected to leverage the effectiveness of adjacent defensible space created by adjoining Coloma-Lotus residents and businesses, as well as fire safe actions by BLM, State Parks, County Parks, and other private landowners. Moreover, it is also expected that the granted road clearance work will be maintained by the responsible public agencies and private landowners. The ultimate success of a vegetation management grant project depends upon leveraging the granted efforts by community residents creating and maintaining defensible space.

3.1 Previous Vegetation Management Project Grants

There have been two wildfire fuel reduction grants awarded to the CLFSC totaling \$156,407 since the group was organized in 2015. The first project entailed CAL FIRE funding to create shaded fuel breaks within the relatively narrow county road rights of way. The second grant project sought to strategically broaden the size of the Project's shaded fuel breaks by extending onto adjoining private properties. CLFSC volunteers obtained signed right of entry forms from willing landowners prior to beginning vegetation work by the private contractor, Foothill Tree Service of Diamond Springs, CA.

2016 CAL FIRE Grant - \$58,957: Road Clearing

The CLFSC received \$58,957 in CAL FIRE funding for the Coloma-Lotus Phase 1 (CL-1) Project to complete over 36 acres of reduced fuel work along four major County roads. Approximately 7.5 miles of roadwork (totaling 36,960 lineal feet) was conducted in May 2017, through a coordinated effort by the EDCFSC, Greenwood California Conservation Corps (CCC) and EDC Department of Transportation (DOT). The EDCFSC provided fiscal sponsorship and project management, while the CCC crews completed the hand clearing work. The entire effort was helped immensely by EDC DOT provision of staff, chipping equipment, and traffic control. The roads completed are listed below.

- 1. Marshall Road 2.8 miles from Highway 49 to the top of Marshall Grade, near the intersection with Mt. Murphy Road
- 2. Lotus Road 1.9 mile from Highway 49 to the bottom of the Lotus Road hill; and
- 3. Cold Springs Road 1.8 miles from Highway 49 to the Gold Trail School;
- 4. Bayne Road 1.0 miles from Mt. Murphy Road to River Road;

The Marshall Road and Bayne Road portions of the Project, located in High Fire Hazard Severity Zones, strategically reduced the potential for a wildland fire traveling uphill into the nearby Garden Valley and Kelsey communities. The Lotus Road and Cold Springs Road corridor clearings minimized the potential for a CL FSC area fire spreading south and west into the more populated Placerville area. This CAL FIRE project was viewed as the first phase of a valley-wide effort to establish and maintain a Fire Safe Community.

2018 PG&E Grant - \$97,450: Shaded Fuel Breaks

Pacific Gas and Electric (PG&E) awarded the CLFSC a \$97,450 vegetation management grant, used to develop shaded fuel breaks along seven roads in the CLFSC area during fall 2018. The treatment objectives were to reduce surface and ladder fuels, achieve canopy spacing to mitigate the threat of wildfire to private property and provide safe ingress of fire equipment and egress of evacuees along with selected road segments within the communities of Coloma and Lotus. The roads successfully treated for fuel reduction are listed below.

- 1. Mt. Murphy Road 2.0 miles starting at Carvers Road uphill to the intersection with Sagebrush Road;
- 2. Bayne Road 1.8 miles from Serenity Lane uphill to Twin Ridges area;
- 3. Carvers Road 0.5 miles from Mt. Murphy Road to end of the public road;
- 4. Coloma Heights Road 0.4 miles from Highway 49 to Highway 49;
- 5. River Road 0.3 from Bayne Road to end;
- 6. Beach Court 0.2 miles from Highway 49 to end; and
- 7. New River Road 0.1 mile from Coloma Heights to end.

3.2 Community Activities

The community activities described in CWPP Project Section 4.6 list the ongoing meetings, modes of communication, and other fire-safe activities conducted by the CLFSC since 2015. In particular, we have:

- Used the local Google group, Coloma-Lotus News, with about 1,265 participants, to regularly disseminate EDCFSC information, relevant meeting notices, and other current events;
- Prepared our original CWPP in 2017 and updated it during 2021;
- Participated in National Night Out programs in 2017 and 2018; and
- Coordinated and participated with other community groups that share our emergency preparedness and resiliency goals.

Additional future community activities will be conducted based on volunteer interest and participation.

4.0 FIRE SAFE PROJECTS

The major focus of this update to the El Dorado County FSC and the CLFSC CWPPs are projects lists and scoping, sufficiently defined and prioritized to create ready-to-submit applications for future grant opportunities. Maps and spatial information have also been reviewed and updated, with the CLFSC boundary and projects depicted in Attachment A - Figures. Using guidance from the El Dorado County FSC, projects have been developed and defined to be limited to fewer than ten projects and to have an estimated relevance for grant submissions of five to nine years. Cost estimate and fuel treatment information is also discussed below.

4.1 Project Types

The CLFSC proposes four types of fuel reduction and community safety projects, outlined below and more fully described on the following pages. Maps for the 2021 CWPP projects are provided in Attachment A of this document.

- 1. Roadside Fuel Reduction
 - a. First Priority Roads Main thoroughfares
 - b. Second Priority Roads Collector roads and high density roads.
 - c. Third Priority Roads Tertiary CLFSC roads
 - d. Road pull-outs and turnarounds
- 2. Strategic Fuel Breaks
 - a. Bureau of Land Management (BLM) Dave Moore Nature Area
 - b. State of California Parks, Marshall Gold Discovery State Historic Park projects
 - c. PG&E Transmission line corridors augmented by adjoining private property
- 3. Water Access
 - a. New water hydrants and storage tanks
 - b. Signage of available water facilities
- 4. Community Outreach and Education
 - a. Outreach community presentations, sharing relevant communications from CAL FIRE, EDC OES
 - b. Preparedness education about defensible space, fire insurance and home hardening
 - c. Defensible space assessments advisory property evaluations

4.2 Fuel Treatments and Project Cost Estimates

Calculating project costs for planning purposes and grant application submission calls for a defined fuel treatment that can be used to prepare a reliable cost estimate. The El Dorado County FSC, the fiscal sponsor of the CLFSC and about 25 additional satellite fire-safe councils on the western slope of El Dorado County, provides highly efficient and cost-effective grant management support.

The fuel treatment used in the CLFSC's 2016 and 2018 grant projects, and the fuel treatment recommended for most of the 2021 CWPP Projects is called "shaded fuel break". The base cost for creating a shaded fuel break is currently estimated to be \$4,000 per acre. This includes clearing understory vegetation that is 8-inches diameter or less and trimming branches on the remaining trees to a minimum height of 16 feet, a height that allows emergency vehicles to pass below. Attachment F of this document, Treatment Area Vegetation and Treatment Suggestions, discusses the range of vegetation types and management approaches that are called "fuel treatments". Based on guidance from the El Dorado County FSC, projects have been developed and defined to be limited to fewer than ten projects and to have an estimated relevance for grant submissions for five to nine years. Each potential grant project is designed to cost about \$390,000 for contractor work, with an additional \$100,000 for grant administration and project management. These figures are derived from an estimate of \$4,000/acre, with 6% of the grant amount going to our fiscal sponsor EDCFSC and the remaining funds used for California Environmental Quality Act (CEQA) documentation, a designated Project Manager, and other costs to ensure grants are completed as intended. Using this cost approach for the grant projects, each grant project submittal is expected to total just under \$500,000.

4.3 Roadside Fuel Reduction: The Dual Benefit

The condition of evacuation corridors is a top priority for the CLFSC. Without vegetation management on the roads used for evacuation, wind-driven flame lengths of 12 to 20 feet may extend across the roads making them unpassable, or worse, unsurvivable. For the many CLFSC residents who live on roads with only one way in and out, evacuation can be a dangerous prospect. Road clearance will help to assure that roads would not be inundated by fire, both allowing egress during an evacuation, and safe access and egress of emergency response: fire-fighting apparatus and personnel, law enforcement, and emergency medical services.

As mentioned previously, the CLFSC area is a junction of travel corridors to many of El Dorado County's northern and western communities and contains essential routes for evacuation and fire suppression access. Creating and maintaining vegetation well beyond the right-of-way of the County would provide safer egress and ingress and allow for the strategic use of topographically advantageous roads for suppression. All public and most private roads within the CLFSC are listed for potential treatment. Proposed treatments are detailed below and shown in the table below, in order of their significance.

Treatment specifications for roadside fuel reduction clearing are 100-foot wide, with 50 feet on either side of the road on level ground. Clearance will be adjusted according to maximum benefit for terrain, e.g. in areas of slope, greater clearance should be performed on the downslope side of road for the greatest benefit. For a slope of 100% (i.e. - 12ft rise / 12ft run) the downhill side of the road would be cleared significantly more than the upslope side of the road.

The CLFSC area roads are divided into groups with priorities determined based on the number of residences dependent upon that road. The focus is to provide safe road clearance for the greatest number of evacuees. As an example, a First Priority Road, Bassi Road, has several secondary (Peterson Lane, Clark Mountain Road) and numerous tertiary roads that feed into it. A combined 130 residences all flow into Bassi Road, their only way out. In addition, one of the valley's largest campgrounds, Camp Lotus, with potentially 100 -150 people in peak season, also has their only egress on Bassi Road. A fourth group, primarily consisting of driveways, road pull-outs and turnarounds, is not included in the priority ranking or maps. The prioritized roads are shown on Figures 2a through 2d, and listed in Attachment B of this document.

 First Priority Roads – Main thoroughfares. Most of these potential evacuation routes were cleared during 2016 and 2018 grant work, but only near the edge of the public right of way. The current estimated cost of vegetation work would be extended beyond the road right of way by about 50 feet on both sides of the road. With reference to the general cost per project goal of ~\$500,000, these first priority roads would require two or more grants.

- 2. Second Priority Roads Collector roads and high density roads. These are primarily County roads with public rights of way, and with private adjoining land to be cleared. Again, this would require multiple grants to achieve the project treatments as described.
- 3. Third Priority Roads Tertiary CLFSC roads. All public roads and many private roads in the CLFSC area are listed in this fuel reduction project.
- 4. Road pull-outs and turnarounds Selected narrow, high volume roads could be improved with additional vehicle capacity measures. This safety effort was suggested by community members and will be discussed with the EDC DOT. Because many county road rights of way are narrow, private property may be needed to provide sufficient space for road pull-outs and turnarounds. No locations have been mapped.

At the estimated \$4,000/acre, the vegetation management cost would total roughly \$2,336,970 for a 100-foot wide shaded fuel break on all the public and some private roads within the CLFSC. More extensive clearing to fell and remove larger living or dead trees would substantially raise the estimated project costs. This \$4000/acre amount does not include project management, CEQA planning and documentation, and grant administration costs which can total an additional 15 or more percent. Using an estimate of \$390,000 for field work per grant application, there would need to be a series of six or seven grants to accomplish all the proposed roadside fuel reduction effort.

The amounts are calculated as follows: with the average 100-foot road clearance area (about 50 feet on each side of the road, each acre would be 435.6 feet long (43,560 square feet per acre / 100 feet wide). Each mile (5,280 feet) would require 12.12 acres (5,280 / 435.6) of clearing. With about 48.2 miles of ranked roads within the CLFSC boundaries, the amount of roadside fuel reduction projects would total about 584.24 acres, which at \$4,000/acre totals \$2,576,000. Estimated costs for roadside shaded fuel breaks are shown in the table below:

Ranking	Length (miles)	Length (ft)	Width (ft)	Area (sf)	Area (ac)	Cost (\$4k/ac)
1. Main Thoroughfares	15.8	83424	100	8,342,400	191.515	\$ 766,061
2. Collector Roads	20.2	106656	100	10,665,600	244.85	\$ 979,394
3. Tertiary Roads	12.2	64416	100	6,441,600	147.88	\$ 591,515
Total 1, 2, 3	48.2	254,496		25,449,600	584.24	\$ 2,336,970

Table 1 – Estimated Costs for Shaded Fuel Breaks Along CLFSC Ranked Roads

4.4 Strategic Fuel Breaks

Fuel breaks are a key tool for reducing impacts to communities by creating a defensible forest structure that limits fire intensities and allows for suppression resources to have topographic advantages. Work within fuel breaks would reduce hazardous fuels, create shaded and unshaded fuel breaks, and provide gaps in fuel continuity on the landscape. Fuel breaks can be implemented on private and public lands, and are estimated to cost \$4,000/acre, with additional project management and CEQA costs as previously described.

There are approximately 17 Bureau of Land Management (BLM) parcels within the CLFSC area for a total perimeter measurement of approximately 16.5 linear miles. In addition to BLM, California State Parks maintains the Marshall Gold Discovery State Historic Park (MGDSHP) lands that lie in the heart of the CLFSC area. MGDSHP has two large

main areas: the main historic region consisting of approximately 4.3 miles around its perimeter and the Mt. Murphy lands consisting of approximately 3.3 miles around its perimeter. The total perimeter around the MGDSHP lands is approximately 7.6 miles. As mentioned above, working with willing agencies and private landowners, the creation of shaded fuel breaks along some or all boundary perimeters can be very beneficial in reducing fire danger.

The 2021 CWPP includes three potential Strategic Fuel Break Projects:

- Bureau of Land Management Fuel Break project CLFSC proposes defensible space actions for one or more BLM properties in or adjacent to the CLFSC area. In particular, we have identified a portion of the Dave Moore Nature Area (<u>https://www.blm.gov/visit/dave-moore-nature-area</u>) which is enormously overgrown, and with numerous dead limbs remaining from the snow damage of December 2012 (see Attachment A, Figure 3, and Attachment D for more information). This effort would use the BLM/FSC work in other parts of El Dorado County as a model of working with this federal agency. Attachment E provides a Mountain Democrat newspaper article about Fire Safe Council projects on BLM land.
- 2. State of California Parks, Marshall Gold Discovery State Historic Park projects The 2017 CLFSC CWPP described some vegetation management that the Gold Discovery Park staff was planning to perform, as well as potential fire-safe activities. We have again reached out to the Park staff, who created a list of potential Park projects that include staging locations (see Attachment A, Figures 4 and 5).
- 3. **Existing Utility Corridor** Fuel Breaks associated with existing PG&E Transmission Line Rights of Way (see Attachment A, Figure 6).

Bureau of Land Management (BLM) Dave Moore Nature Area:

The CLFSC has developed a potential fuel break project for Bureau of Land Management (BLM) properties in or near the CLFSC area, as shown in Attachment D of this document. The Dave Moore Nature Area (<u>https://www.blm.gov/visit/dave-moore-nature-area</u>) is densely vegetated, with elevated dead vegetation damaged by a heavy snow load in December 2012. The large land area has received little, if any, fuels management, and poses a risk of significant fire spread to nearby residential areas and more topographically severe lands.

The CLFSC proposal includes a 200-foot shaded fuel break along the southern boundary of the Dave Moore Nature, extending from Hwy 49 and Del Oro to the South Fork of the American River. The fuel break would include selective tree removal to produce a 50 ft canopy separation, in addition to removing ladder fuels, which would call for additional funds beyond the \$4,000/acre estimate used for shaded fuel breaks. The ultimate goal of the fuel break would be to remove aerial and surface fuels between the Dave Moore Nature Area and the Del Oro residential neighborhood. This hard break in the fuels would create a defensible border between the WUI transition area and the higher density residential sections of the town of Lotus (see Attachment A, Figure 3).

California State Parks

Marshall Gold Discovery State Historic Park:

The 2017 CLFSC CWPP described general terms for vegetation management that the Gold Discovery Park staff was planning to perform, as well as potential fire-safe activities. Park staff have been included in the planning of the current (2021) update, and they have created a list of potential Park projects. These projects all take place within the CLFSC planning area, and on lands managed by California State Parks. However, because Park projects would have a

direct impact on the safety of the Coloma and Lotus communities, they are presented in this document (see Attachment A, Figures 4 and 5).

Pacific Gas and Electric Existing Transmission Line Rights of Way:

Within the CLFSC area are multiple transmission rights-of-way (ROWs) owned and maintained by PG&E, a private utility. As shown on Attachment A, Figure 6, a PG&E power line corridor estimated to be about 80 feet wide passes through the valley and over the South Fork of the American River. In an effort to leverage management of an existing facility, the CLFSC proposes to coordinate with PG&E and willing property owners to promote widening of the ROW on adjacent lands.

4.5 Water Supply and Access

Coordinating water supply access and location with local Fire Protection Districts (FPDs) is a key planning effort in the CLFSC. Pre-planning of suppression resources could greatly improve the capacity of local or support resources to respond to wildfires and would enable out-of-area responders to become familiar with the area in short order. The Coloma – Lotus ditch has been mapped and projects conceptualized and is on the list of key items to discuss with the local Fire Protection District (El Dorado County FPD), CAL FIRE, and other stakeholders.

The Coloma Lotus Ditch Hydrant Initiative Project would include installing hydrants and/or water storage tanks in a large area of the Coloma-Lotus Valley that currently does not have fire-fighting water resources. As shown on the figures and other information provided in Attachment C of this document, there is a demonstrated need for additional access to water for fire suppression. The Coloma Lotus Ditch has been mapped and project phases conceptualized, which would be discussed with the local fire department chief (El Dorado County Fire District), CAL FIRE, and others.

Community Mapping and Signage of hydrants, tanks, and other water sources: Additional methods for storing and creating access to water are also a concern, and an issue that the CLFSC wants to help address. This could include improved signage of public and private hydrants, tanks, and other water sources that will be discussed with local FPD's and CAL FIRE. Pre-planning efforts to map this and similar information should be developed in coordination with state and local FPD's, and to their standards for data and format.

4.6 Community Education and Outreach

In addition to fuels reduction and planning efforts, the CLFSC conducts outreach and education. Communicating with the CLFSC community is an ongoing and essential part of creating a fire safe community with prepared residents. Meetings, in person and online, and social media for the delivery of information are ongoing CLFSC practices. Community members are invited and encouraged to participate in a variety of live and on-line forums.

As discussed in CWPP Section 2.1, a fundamental CLFSC goal is to strengthen community education and outreach related to fire safety and emergency preparedness. Educating the community about the various ways to avoid starting fires and decreasing the threat of wildfires and negative impacts once a wildfire has begun is extremely important, productive, and effective.

Outreach and education efforts are dependent on volunteer participation and support because they are ineligible for most grant funding. However, as they are an essential aspect to community preparedness and prevention, these

efforts are considered worthy of funding as available. The following are public outreach and education opportunities currently promoted by the CLFSC through our volunteer efforts, plus potential future opportunities.

- Continued outreach to area residents and businesses in the CLFSC area to promote both general information about being a fire-wise / fire-safe community as well as information specific to the Coloma-Lotus area through appropriate social media sites. The CL News Google Group is regularly used for this purpose.
- 2. Continue to promote available programs through Information sharing
 - a. EDCFSC Chipping Program
 - b. EDCFSC Senior / Vet Assistance Program
 - c. Defensible space projects and practices
- 3. Defensible space assessments: providing CLFSC members information to support their compliance with defensible space regulations and reducing fire risk on private residential and commercial properties
- 4. Development and operation of a website or internet based media (e.g. Groups.io, Google Groups or Facebook) that is specific for the Coloma-Lotus community to help keep residents informed of current and future planned projects; offer discussions of issues or concerns specific to the Coloma-Lotus area; and relay information about questions and issues about fire related topics.
- 5. Conduct public outreach via email, social media, and paper brochures about these and other issues: State defensible space regulations; County defensible space ordinance; Best practices of fire resilient communities; Fire insurance information; and Grant opportunities.
- 6. Local community meetings (to be held approximately quarterly and at a minimum, annually) to:
 - Discuss and inform residents of past, current, and future fire safe activities and projects, including Hold Public Information Meetings, in person and online, concerning public review of the CLFSC CWPP; State defensible space regulations; County defensible space ordinance; Best practices of fire resilient communities; and Grant opportunities.
 - b. Have guest speakers who can share their knowledge and experiences about fire related topics.
 - c. Have fire related educational materials available to take home for those attending the meetings.
 - d. Advise community members of various services that are available to help reduce the threat of or damage from fires in the community.
 - e. Offer a social gathering where members of the community can get to know others in the community whereby they can build stronger communication links, friendships, and support.
- 7. Encourage Development of Communication Tools that support Community Preparedness, Emergency Response and Evacuation
 - a. Code Red sign ups
 - b. Community GMRS Radio Networks
 - c. Phone Trees and other Group Messaging
 - d. Scanner Use (including web-based scanner apps)
- 8. Support placement of road signs pointing drivers to Highways 49, 50, & 80 at key locations along major area roads.
- 9. Placement of Fire Danger Level signs at key locations along major area roads to increase awareness of residents as well as visitors that may not be as familiar and knowledgeable of fire hazard potential in the area.

- 10. Suggested additional outreach activities that might be developed by the CLFSC, however these efforts would depend upon sustainable volunteer support:
 - a. Creating a program of road "ambassadors" who would assist in coordinating road meetings and acquiring the necessary signatures from property owners so that road clearing projects may proceed. This will also have an impact on the prioritization of a project; those roads projects that are "shovel ready" would be among the first to be completed.
 - b. Development of a firesafe tools lending library, possibly in collaboration with other community organizations
 - c. Creation of local chipper rental reimbursement program to fill in time gaps of the Countywide chipping program

5.0 Resources and References

BLM Sierra Proposed Resource Management Plan and Record of Decision. February 2008 <u>https://eplanning.blm.gov/eplanning-ui/project/72554/570</u>

Fire Safety in the Coloma and Lotus Valley - How to Help Reduce Wildfire Ignition and Air Pollution Risks in the Coloma and Lotus Valley. <u>https://www.coloma.com/community/firesafety/</u>

CAL FIRE Amador-El Dorado Ranger Unit (AEU) Ignition Management Plan. May 11, 2020.

CAL FIRE Strategic Plan. <u>https://www.fire.ca.gov/about-us/strategic-plan/</u> January 22, 2019.

Coloma Lotus Ditch Users Association. https://cldua.org/

El Dorado County Fire Safe Council Website. https://www.edcfiresafe.org/

Fire Hazard Severity Zone Maps, website of the Office of the State Fire Marshall. <u>https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/</u>

ATTACHMENTS TO THE CLFSC CWPP

A. Figures

B. CL CWPP Road List for Vegetation Clearing

C. Coloma / Lotus Fire Hydrant Initiative

D. 2021 Shaded Fuel Break Proposal for the Dave Moore Park – BLM Motherlode Field Office

E. Article – BLM Pine Hill FSC Newspaper Article - June 2020

F. Treatment Area Vegetation and Treatment Suggestions

Coloma Lotus Fire Safe Council – 2021 CWPP Update

Attachment A. Figures

Figure 1 – Coloma Lotus Fire Safe Council Area

Figure 2a – NW CLFSC Roadside Fuel Reduction Projects

Figure 2b – NE CLFSC Roadside Fuel Reduction Projects

Figure 2c – SW CLFSC Roadside Fuel Reduction Projects

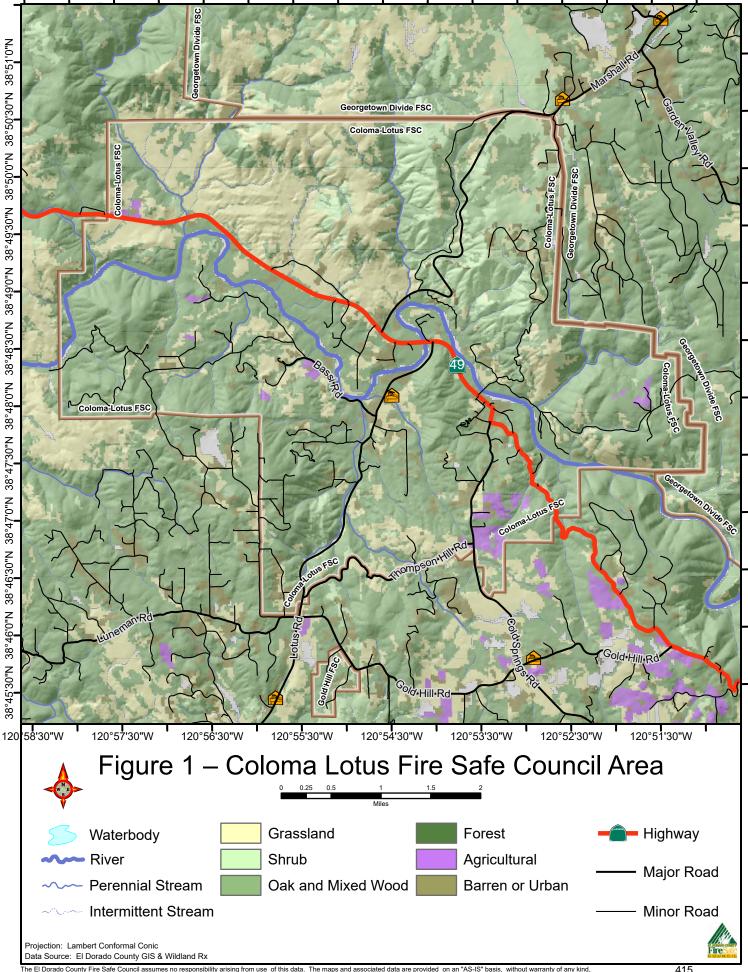
Figure 2d – SE CLFSC Roadside Fuel Reduction Projects

Figure 3 – Strategic Fuel Break: Bureau of Land Management – Dave Moore Nature Area

Figure 4 – Strategic Fuel Break: State of California Parks, Marshall Gold Discovery State Historic Park

Figure 5 – Landing Zone and Staging Area: State of California Parks, Marshall Gold Discovery State Historic Park

Figure 6 – Strategic Fuel Break: PG&E Transmission Line Corridor



120°58'30"W

120°57'30"W

120°56'30"W

120°55'30"W

120°54'30"W

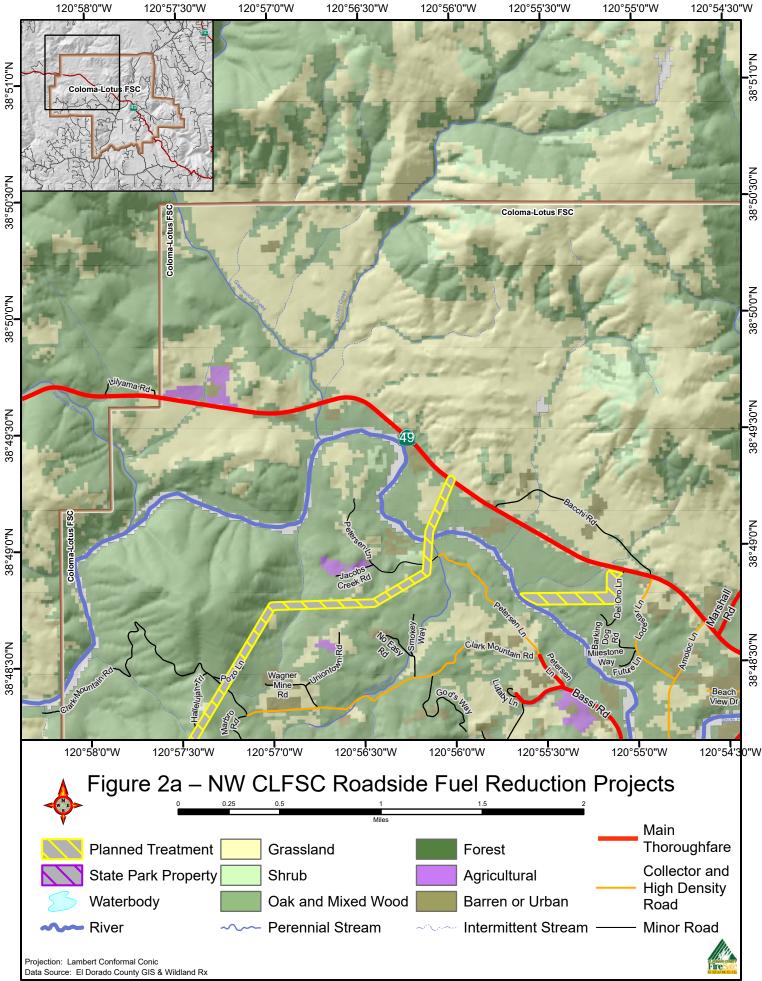
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120°52'30"W

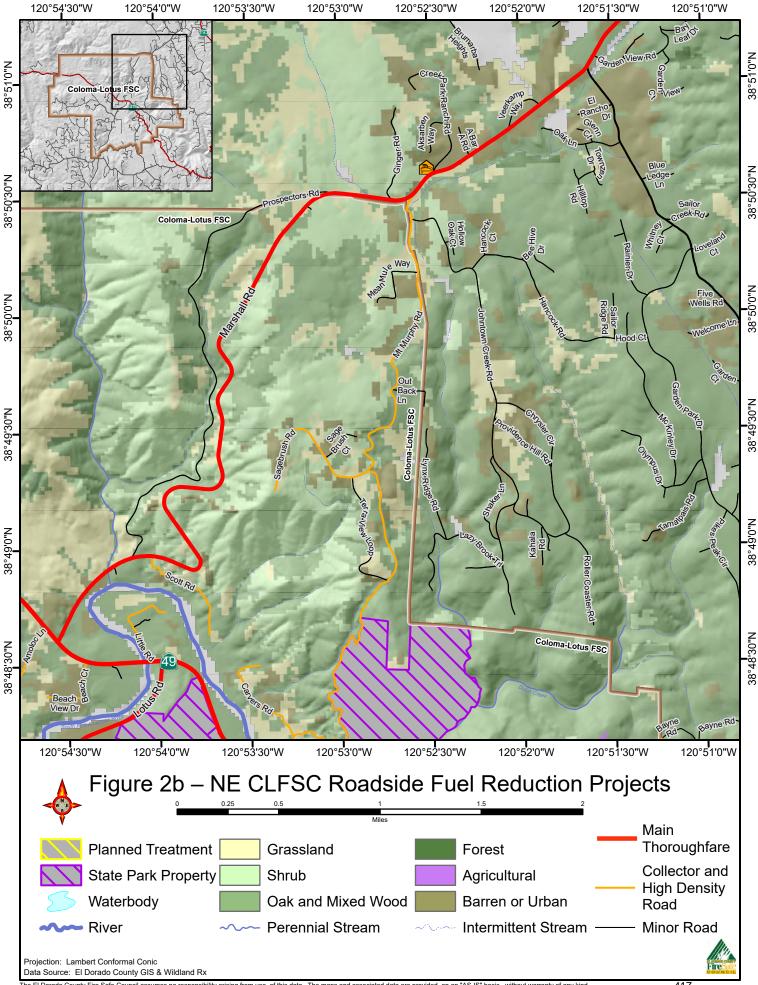
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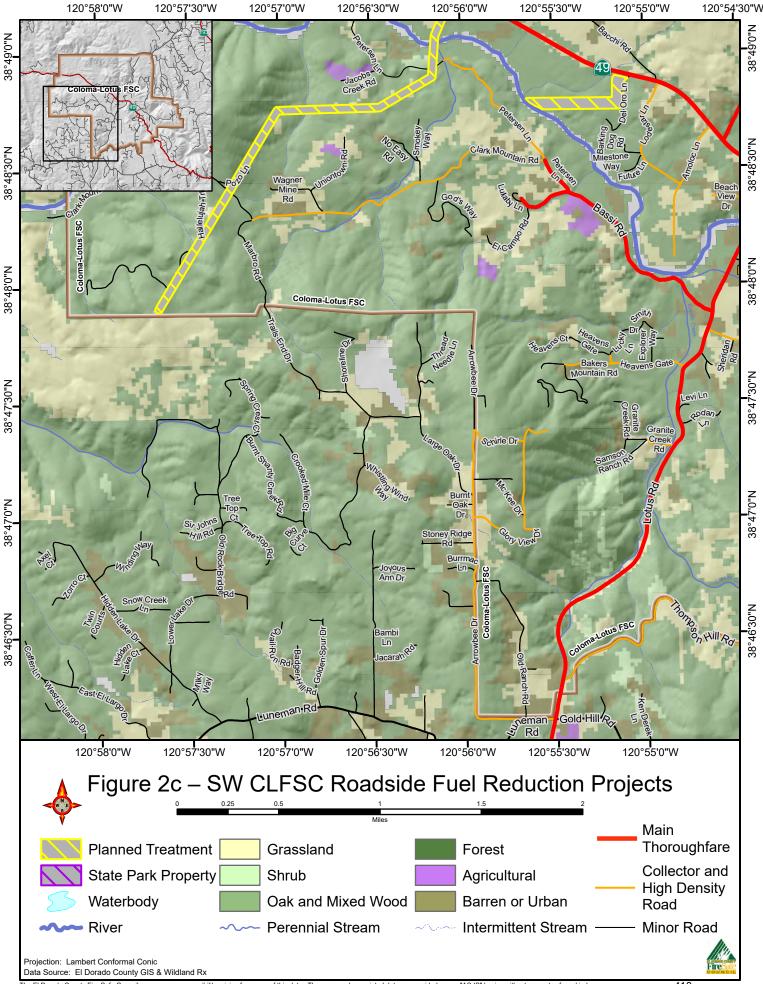
The El Dorado County Fire Safe Council assumes no responsibility arising from use of this data. The maps and associated data are provided on an "AS-IS" basis, without warranty of any kind, ither expressed or implied, including but not limited to fitness for a particular purpose. El Dorado County Fire Safe Council assumes no liability for damages arising from errors or omissions.

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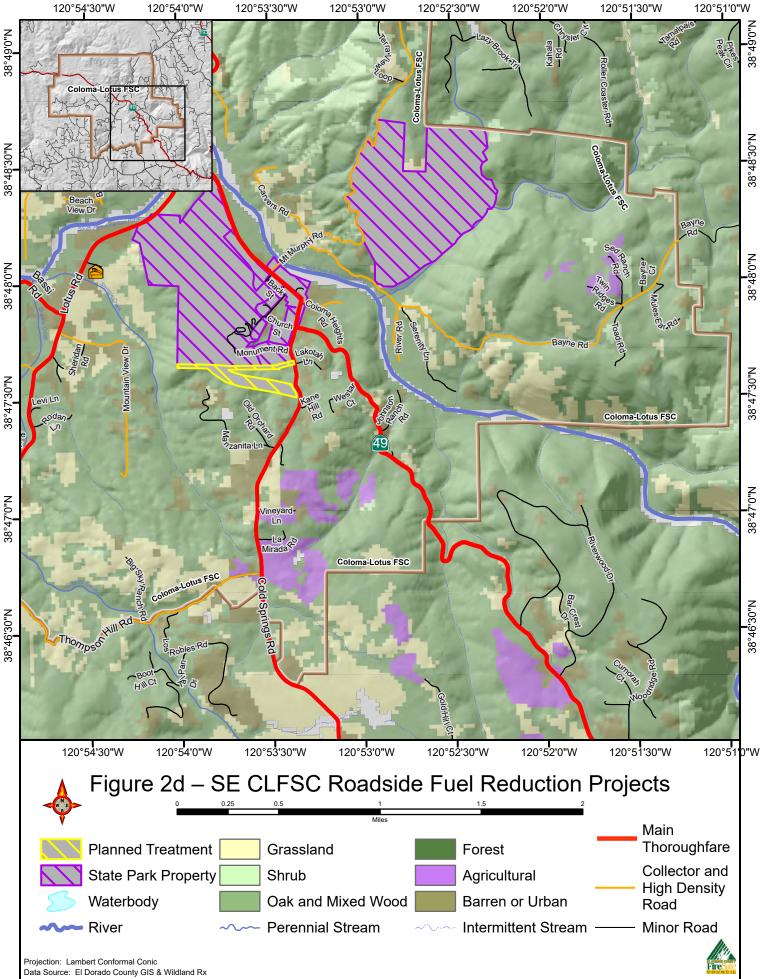


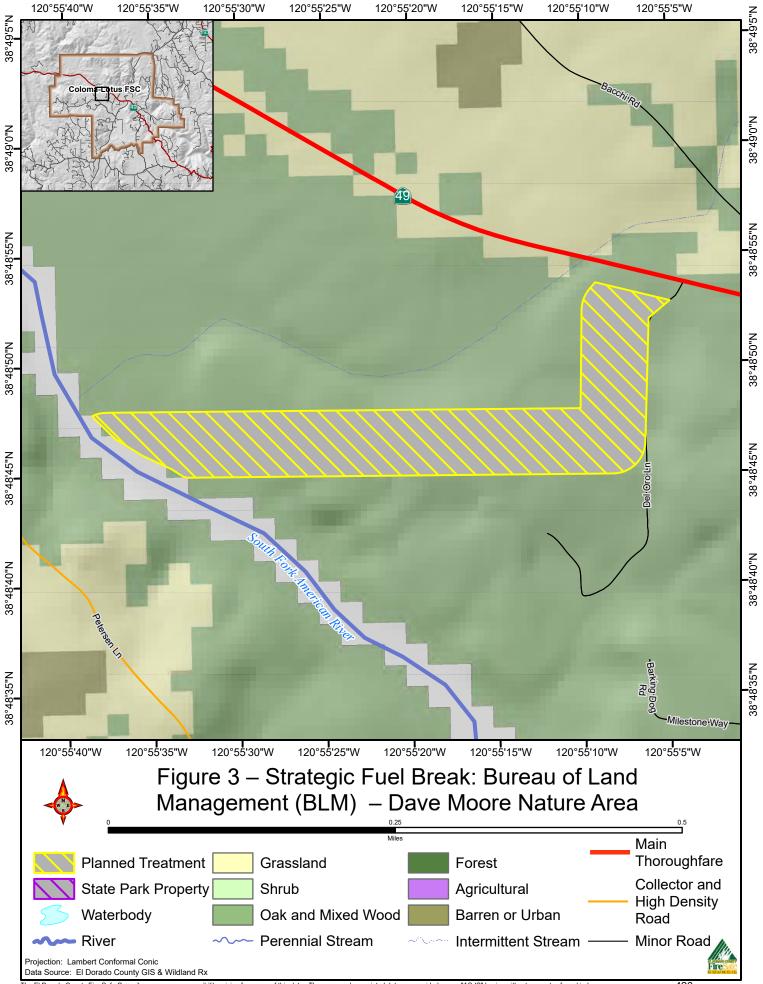
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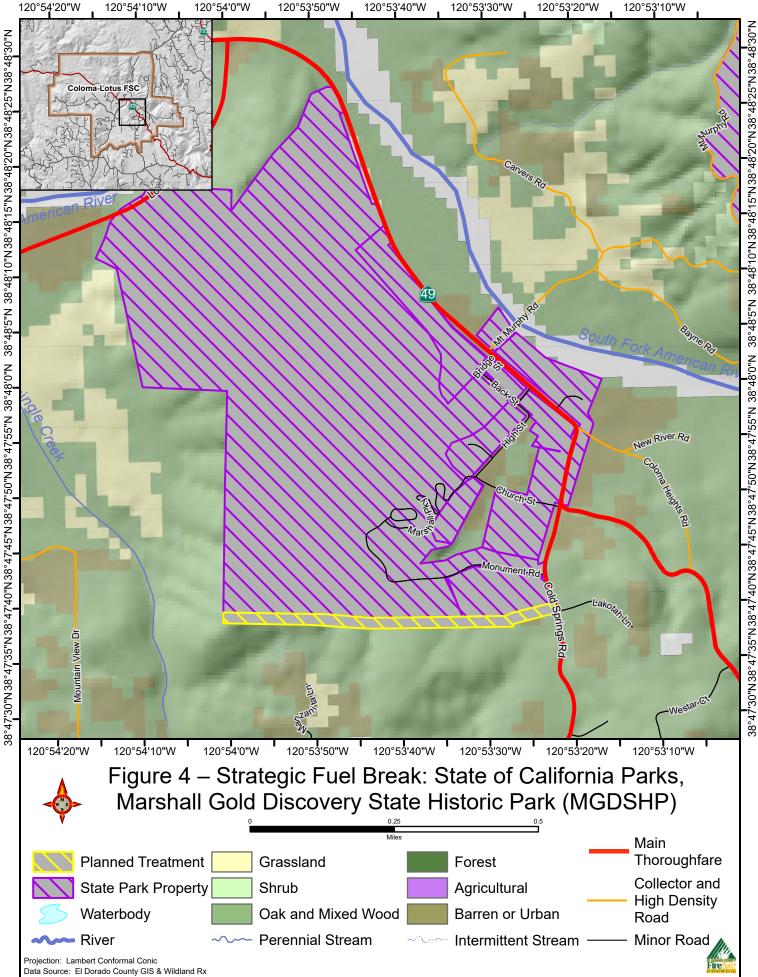




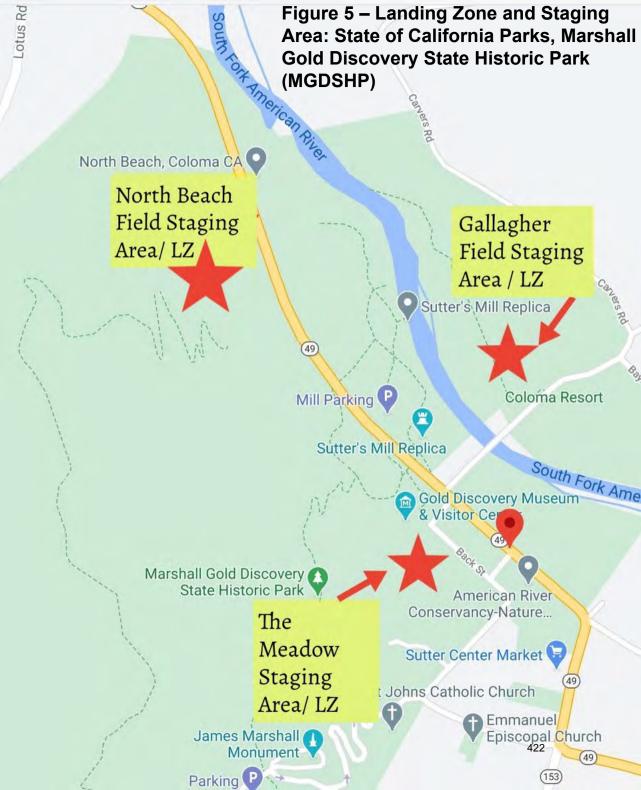
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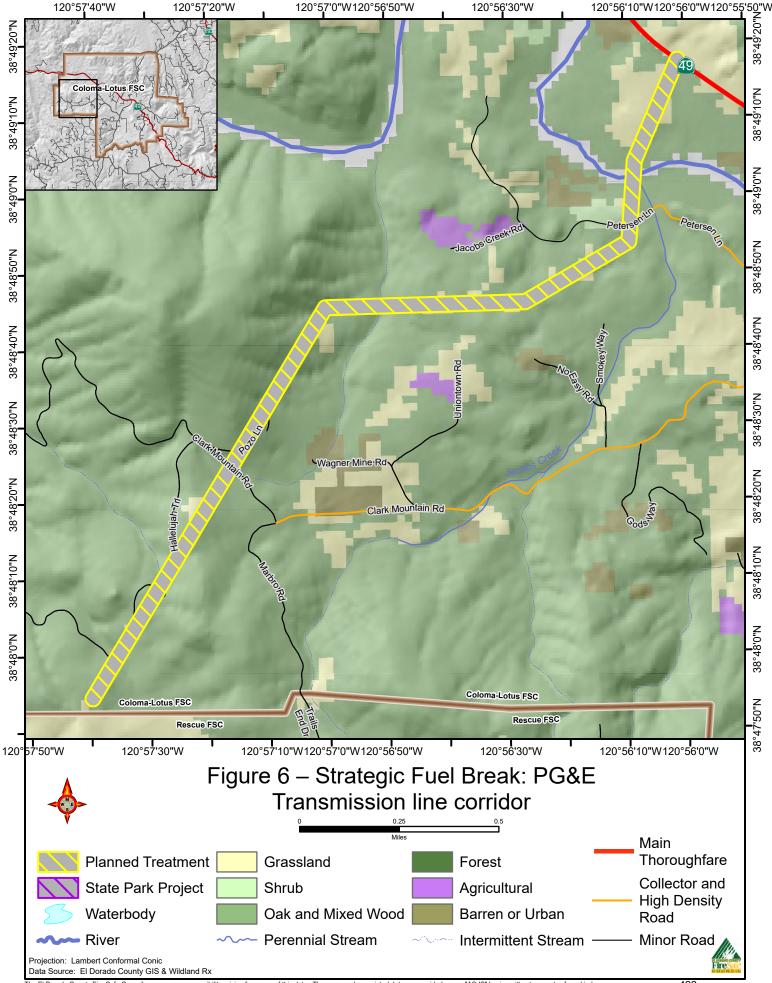






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Coloma Lotus Fire Safe Council – 2021 CWPP Update

Attachment B. CL CWPP Road List for Vegetation Clearing

Ranking CL CWPP Road List for Vegetation Clearing - December 2021 Ranked as Main Thoroughfares, followed by Priority Levels 2, 3 and 4

* Roads with asterisks are divided into sections with higher and lower populations

Ranking 1 1 1 1 1 1	Roads within CL Highway 49 Marshall Rd Lotus Road Cold Springs Road Bassi Road Peterson (to Clark Mt Rd) * Total Rank 1 (Main thoroughfares)	Notes Within CLFSC map Hwy 49 heading North - CLFSC Map Hwy 49 heading South - CLFSC Map Within CLFSC map County Major Road to Peterson Clear to Clark Mt Rd	Length (miles) 7.1 3.7 1.9 1.9 1.0 0.2 15.8	# Residences affected aka traffic shed
2	Coloma Heights Road	Very high density	0.3	35
2	New River Road	High density road + campground	0.1	11
2	Little Road	Clear to right turn	0.2	15
2	Heaven's Gate (to Lucky Ln) *	Clear to Lucky Ln	0.4	28
2	Granite Creek Road (to Sampson) *	Clear to Sampson	0.2	13
2	River Road	High density, only one way out	0.3	19
2	Bayne to River Rd	High density egress	0.5	30
2	Schirle Drive	Arrowbee to Glory View	0.2	11
2	Luneman (to Arowbee to Schirle) *	From Lotus Rd to Schirle Dr	1.8	85
		Clear to Misalana	0.2	85 11
2	Baker's Mountain Rd (to Misalana) *	-		
2	Beach Court & Beach View	Off Hwy 49	0.3	12
2	Mountain View Dr	First 0.9 miles	0.9	34
2	Amoloc Lane	Off Highway 49	0.7	26
2	Carvers Road	Clear to Lucky Ln	0.5	16
2	Clark Mountain Road (to Marbro) *	Clear to Marbro	1.6	46
2	Lodestar Lane	Hwy 49 to Amoloc	0.6	17
2	Arrowbee (beyond Schirle) *	Beyond Schirle	0.5	14
2	Scott Road	Off Marshall Grade Rd	0.6	16
2	Petersen Lane (Clark Mt to Jacobs Crk)*	From Clark Mt Rd to Jacobs Creek	1.3	35
2	Thompson Hill Rd	Connects Cold Springs Rd to Lotus Rd	2.2	43
2	Sagebrush Road	Off Mt Murphy Rd	0.8	16
2	•		3.3	60
	Mt Murphy Road	top - meets Marshall Grade Rd		
2 2	Glory View Drive	off Arrowbee	0.8	12
Z	Bayne Road (beyond River Rd) *	within CLFSC map	1.9	18
	Total Rank 2 (Collector roads and high o	density roads)	20.2	623
3	Church Street	Not in State Historic Park	0.1	4
3	Milestone	Off Loadstar	0.1	3
3	Misalana Court	Off Heaven's Gate	0.1	3
3	Levi Lane	Off Lotus Road	0.1	3
3	Explorer Way	Off Heaven's Gate	0.2	5
3	Johnson Ranch Road	Off 49 south of Coloma	0.2	6
3	Wagner Mine Road	Off Clark Mt	0.2	5
3	El Campo Road	Off Bassi Rd.	0.3	8
3	Uniontown Road	Off Clark Mt	0.4	9
3	Westar Court	Off 49 south of Coloma	0.2	5
3	Flapjack Lane	Off Lotus Road	0.2	4
3	Granite Creek (from Sampson Ranch) *	From Sampson Ranch	0.3	6
3	Samson Ranch Road	Off Granite Creek	0.1	2
3	Sheridan Rd	Off Mtn View	0.1	2
3	Heaven's Court	Off Heaven's Gate	0.1	2
3	Sagebrush Court	Off Mt Murphy	0.2	4

3	Rodan Lane	Off Lotus Road	0.1	2
3	Manzanita Lane	Off 49 south of Coloma	0.6	10
3	Old Ranch Rd	Luneman to Arrowbee	0.8	12
3	Del Oro Lane	Just north of Lodestar	0.4	6
3	Lakotah Lane	Borders Pioneer Cemetery	0.2	3
3	Tera View Loop	Off Mt Murphy	0.7	9
3	Lullaby Lane	Off Bassi Rd.	0.2	2
3	Hallelujah Trail	Off Far end of Clark Mt. Rd	1.9	13
3	God's Way	Off Clark Mt	0.8	9
3	Barking Dog	Off Milestone	0.2	2
3	Mean Mule Way	Off upper Mt . Murphy	0.4	4
3	Serenity Lane	Off Bayne	0.4	4
3	Casual Court	Off Arrowbee	0.2	2
3	No Easy Road	Off Clark Mt Rd	0.3	3
3	Mules Ear Road	Off upper Bayne	0.4	4
3	Smokey Way	Off No Easy Way	0.2	2
3	Pozo Lane	Off Far end of Clark Mt. Rd	0.2	2
3	Out Back Lane	Off upper Mt Murphy	0.2	2
3	Future Ln	Off Loadstar	0.2	2
3	Kane Hill	Off Cold Springs	0.3	2
3	Lucky Lane	Off Heaven's Gate	0.3	2
3	Bayne Court	Off upper Bayne	0.3	2
3	Marbro Road	Off Clark Mt Rd	0.5	3
3	Old Orchard Road	Off of Manzanita	0.5	2
3	Prospectors Road	Off Marshall Grade Rd	2.0	7
3	Bakers Mountain (beyond Misalana) *	Beyond Misalana	0.8	2
3	Peterson Ln (beyond Jacobs Creek) *	Beyond Jacobs Creek	0.6	1
	Total Rank 3 (Tertiary roads)		12.8	185
	Total 1, 2 & 3	ALL TOTAL	48.8	

Coloma Lotus Fire Safe Council – 2021 CWPP Update

Attachment C. Coloma / Lotus Fire Hydrant Initiative

Coloma / Lotus Fire Hydrant Initiative

Coloma/Lotus Fire Safe Council and CLDUA Bob Hansen, August 21, 2021

MINING DITCHES

Mining ditches were dug by ditch companies to carry the vast amounts of water needed for placer mining. Thousands of miles of ditches and flumes were built in the gold country; some brought immense profits to their owners due to the cost of water. As mining declined in the 1860's, the same ditches were used for irrigating orchards, vineyards and pastures in the foothills. This ditch is seven miles long and now carries irrigation water to local farmers. The hillside terraces you see here were used to grow fruit trees and grapevines. Some of them were dug by James Marshall.

MARSHALL GOLD DISCOVERY STATE HISTORIC PARK

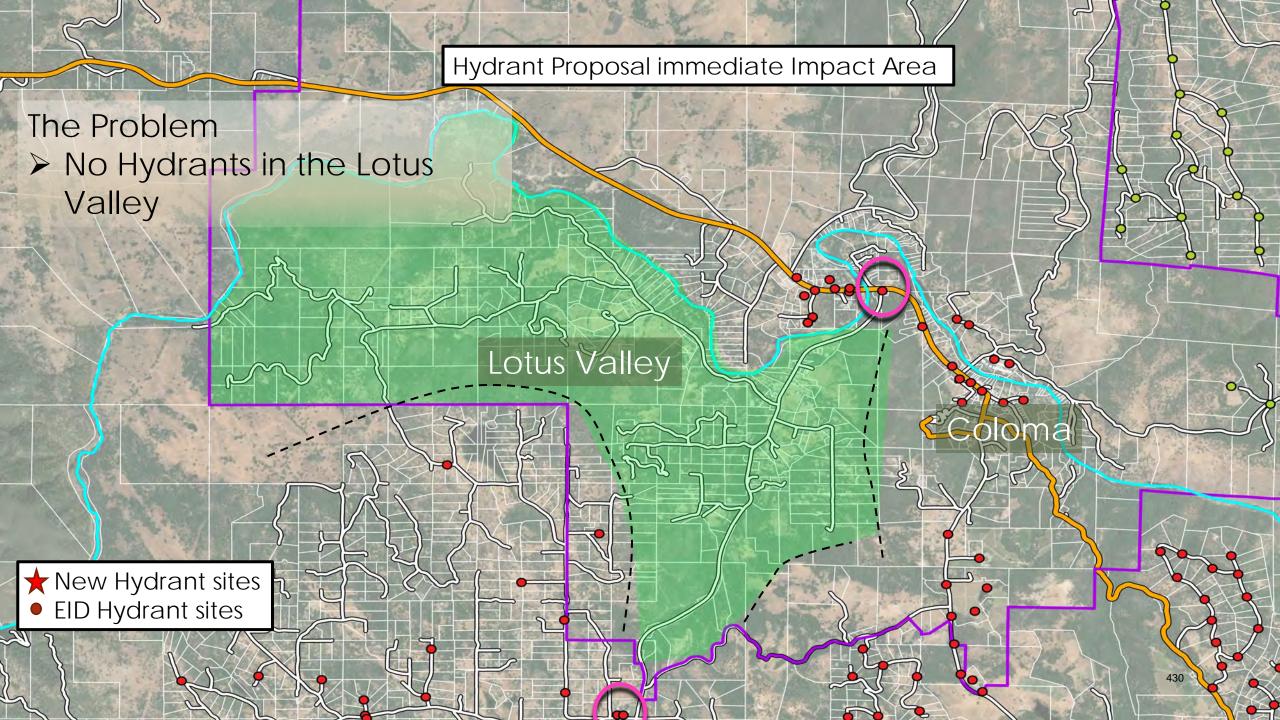


The problem

Fire Hydrants and hardened water sources are non-existent across a large portion of the Lotus valley

The underserved area includes approximately:

- 511 households, 1200 residents
- Housing valued at \$209M plus
- 40 plus sq. mi. of grassland, oak and pine forest
- Most neighborhoods are served by a single, two lane access road
- A few Eldorado Irrigation District Hydrants at the Lotus Road / Hwy 49 junction currently serve the entire valley

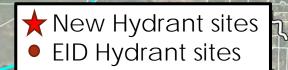


Coloma / Lotus Hydrant Locations

EDC F Station

The Solution

Install a system of Hydrants in Critical locations



Coloma / Lotus Hydrant Locations

EDC I Statio

EID or Ditch

The Solution

 Install a system of Hydrants in Critical locations
 Leverage the irrigation ditch as the water source





Coloma / Lotus Irrigation Ditch - a community resource

- An open, unlined, seasonal irrigation ditch that runs through most of the Coloma / Lotus valley on river left.
- Built by the valley ranchers/farmers in 1852
 - Officially pre-1914 appropriative water right
- Water is pumped from the South Fork of the American River into the ditch upstream of Trouble Maker rapid
- Water flow approx. 2000 GPM at head, 1000 GPM at Lotus Rd syphon
 - Flow rate and volume can be increased significantly with additional funding for power and maintenance
- Maintained and operated by the Coloma Lotus Ditch Users Association
 - CLDUA is a non-profit user's group that took over ditch management from EID in 1987
 - The CL Fire Safety Council and CLDUA are co-sponsoring this proposal

Sourcing fire hydrant water from the ditch makes fire hydrant installation possible!

Proposal -

Partner with fire professionals and the community to develop a system of water hydrants for fire suppression in the Coloma / Lotus valley

- Install low head fire hydrants (wet standpipes) at key locations in the Lotus/Coloma valley
 - Large (10,000gal?) water storage tanks fed by the irrigation ditch
 - Hydrants gravity fed from storage tanks at strategic locations
 - Road improvements to accommodate fire engines
- Establish an ongoing test and maintenance program
 - Tested and actively maintain during fire season
 - Water tanks topped off year round
- Improve ditch reliability and maintainability
- Reduce operational costs

Hydrant Initiative Cost estimate

	Bob Hansen 4 Feb 2021	nsen 4 Feb 2021						
	Cost Sumr	Cost Summary						
	Priority >>		1	2	3	4	5	6
			EDC Fire House #74	Clark Mountain Rd.	Mountain View Rd.	Granite Creek Rd <u>.</u>	Bassi Rd	* Heavens Gate Rd (EID)
	Pre-Install		000	200	000		000	
/		Survey/easement	800	800	800			
	1	Easement cost	0 2000	0 500	0			
		Engineering/drafting Permit	2000	200	200			
	Ditch Reliability	Permit	3000	3000	3000	3000		
	Hydrant system install	Construction	41878	26518				
	nyulani system natali	Inspection fees	1200	800	800			
		legal fees	600	400	400			
		Acceptance test	250	250	250			
		Operations	2150	2150	2150	2150		
/					0	C	0	
	Subtotal		49928	32468	32468	32468	36428	
	Contingency	10%	4993	3247	3247	3247	3643	
					0	C	0	
	Installation cost		54921	35715	35715	35715	40071	15000
l	Management	6%	3295	2143	2143	2143	2404	900
	Grant Proposal Ask		\$58,216	\$37,858	\$37,858	\$37,858	\$42,475	* \$15,900
	1 site total		\$58,216					
	2 site total			\$96,074				
	3 site total				\$133,931			
	4 site total					\$171,789		
	5 site total						\$214,264	¢220.474
	6 site total							\$230,164

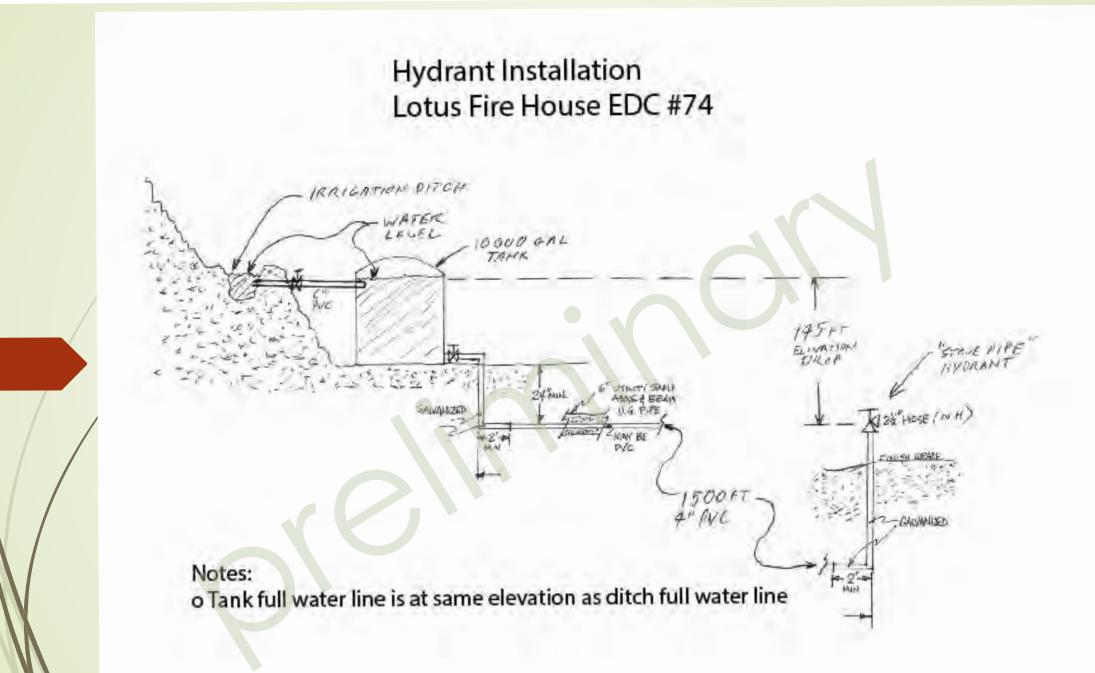
* Note: Heaven's Gate installation supplied by EID pipeline

Thank You

Bob Hansen

Coloma Lotus Fire Hydrant Initiative lead bob.hansen@yahoo.com

Backup material



Design and Installation Considerations

Hydrants

- Type, size and number of stove pipe hydrants
- Size of feed pipe from tank(s)
- Road/pad width, surface and weight bearing capacity
- Water Tanks
 - Capacity
 - Water clarity requirements
 - Screens, filters, regular tank flush
- Ditch water inlet design
 - Automatic tank top off? (top of tank at ditch level)
- Easement requirements
 - Survey work required
 - Easement donation / purchase
- Building permit requirements

Operational Considerations

- Seasonal start and stop dates
- Ditch start up and maintenance requirements
 - Reliability improvements
- Additional flow / volume required for tank fill / top off
 - Start of season fill / top off
 - Daily / weekly schedule
- Tank/hydrant system inspection and test
 - Annual
 - Periodic during fire season / off season
- Pump power usage / funding
 - Possible PG&E grant

Project organization considerations

Grant Sponsor

- The Eldorado County Fire Safe council will sponsor the grant proposal
- System ownership
 - Community / CLDUA partnership agreement
 - 501c-3 may be desirable
 - Maintenance / operational cost community contribution
- Construction project management
 - CLDUA / Grant sponsor partnership
 - Completion / acceptance criteria
- Long term maintenance and test management
 - Ongoing fire professional input and approval

Ditch water flow details

- Ditch is approx. 6 miles long and 90% open and unlined
- River water is pumped into the ditch above Trouble Maker rapids
 - Water flow approx. 2000 GPM at head, 1000 GPM at Lotus Rd syphon
 - Down ditch flow rate can be increased significantly with additional funding for maintenance
- Water generally runs clear free of sand and silt
- Screens are used at several locations to filter out material that falls in the open ditch
 - Sticks, leaves, etc.

Coloma Lotus Fire Safe Council – 2021 CWPP Update

Attachment D. 2021 Shaded Fuel Break Proposal for the Dave Moore Park – BLM Motherlode Field Office

Coloma-Lotus Fire Safe Council

2021 Shaded Fuel Break Proposal for the Dave Moore Park –

BLM Motherlode Field Office

In the interest of making the Coloma-Lotus valley and surrounding area more resilient from catastrophic fires, the Coloma-Lotus Fire Safe Council (CLFSC) is proposing an approximately 200 foot wide by 3,000 foot long shaded fuel break along the southern and southwestern edges of the approximately 100 acre Dave Moore Park located within Bureau of Land Management (BLM) public lands.

The park consists primarily of native oak woodlands as well as old mining ditch excavation work throughout the park. The winds are predominately upriver (southerly) during the warmest time of the day and then reverse (northerly) in the evening hours. The highest population density as well as the main business area of the community is to the south. However, there are significant developments in all directions.

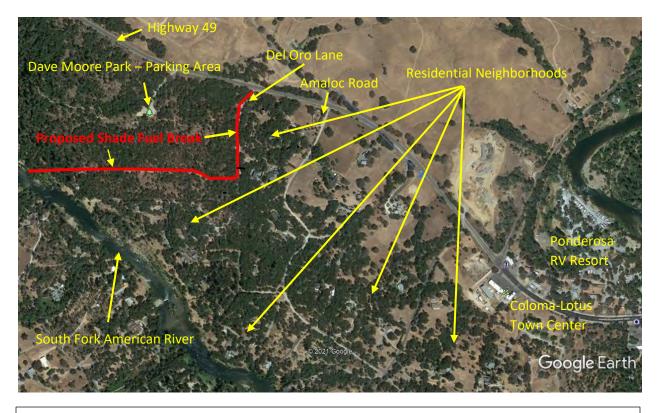
It has been frequently noted that there are often legal as well as illegal campers in the park lands as well as in other nearby BLM lands (such as at the Greenwood Creek; Magnolia Ranch and Cronin Ranch Day Use Areas). This increases the fire danger to the entire region should a campfire escape it's confined space.

Much of the park has thick and down vegetation as well as ladder fuels throughout. The project work would be accomplished by hand crews with removal of up to 8" diameter vegetation and brush and trimming of low hanging branches within 12 feet of ground level. As mentioned above, the shaded fuel break would be approximately 200 feet wide by 3,000 feet long.

The following is a Web Link to a Google Map that shows the housing density and locations of the approximately 60+ residences immediately south of the Dave Moore Park. These "pinned" houses are only those immediately south of the park, bordered by Highway 49 to the east, the South Fork American River to the west, and the town central area of Coloma-Lotus to the south. There are many additional residences and businesses in these other locations as well.

https://www.google.com/maps/d/u/0/edit?mid=1bYOYP8antLdT-MIeGA1OWOEKCK29qNnY&ll=38.81009298619002%2C-120.95031709999999&z=14

It is the improved protection of these neighborhoods and the entire town of Coloma and Lotus that this project will help to accomplish.



The satellite view above shows the Dave Moore Park in relation to the neighborhoods and businesses in the Coloma-Lotus valley to the south of the park.



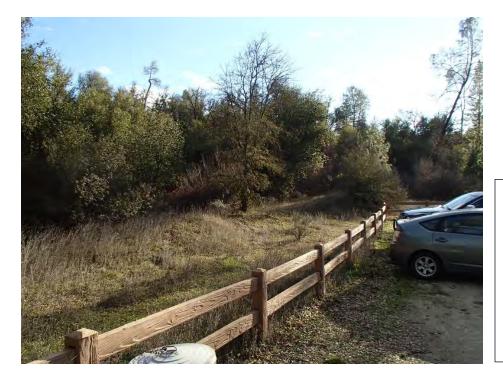
Photos 1 & 2:

These are two views within the Dave Moore Day Use Parking Area looking toward the northeast and the northwest respectively. One can note that the parking area is surrounded by dense vegetation.



<u>Photo #3</u>:

This is a view of the Loop Trail within Dave Moore Park where it leaves/enters the Day Use Parking Area. Note the heavy vegetation consisting of native oaks, brush and grasses. View is looking toward the southeast.



<u>Photo #4:</u>

View looking to the west within the Dave Moore Day Use Parking Area. Note the heavy vegetation adjacent to the parking area.



<u>Photo #5:</u>

Shows the start/end of the Loop Trail just after leaving the Day Use Parking Lot towards the south.



<u>Photo #6:</u>

View of the first creek crossing when travelling on the south end of the Loop Trail.



<u>Photo #7:</u>

View of some dense and downed vegetation a short distance from the south part of the Loop Trail.



<u>Photo #8:</u>

Another view of downed vegetation and ladder fuels along the south part of the Dave Moore Park.



<u>Photo #9:</u>

More views of additional downed vegetation and ladder fuels south of the Day Use parking lot.



<u>Photo #10:</u>

View of the fence line along the south side of the Dave Moore Park boundary that is adjacent to Del Oro Lane. Coloma Lotus Fire Safe Council – 2021 CWPP Update

Attachment E. Article – BLM Pine Hill FSC Newspaper Article -June 2020



Paul Gilchrest points out areas of the Pine Hill Ecological Reserve in Cameron Park where a fire break has been created between the reserve and neighboring homes. The goal is to create at least a 100-foot buffer and preferably 200 feet of defensible space between homes and vegetation in the reserve. Democrat photo by Dawn Hodson

News

Putting Pine Hill in check — Cameron Park man brings local agencies together to manage fire fuels

By Dawn Hodson



Controlled burns have been used in the past to help clean out underbrush in Pine Hill. Photo by Monte Kawahara/Bureau of Land Management

Snaking its way through the heart of Cameron Park is the Pine Hill Ecological Reserve.

Approximately 400-500 acres in size, the reserve is part of the much larger Pine Hill Reserve system that consists of five separate areas of varying size, totaling more than 4,746 acres.

Set aside to preserve its unique ecology, the reserve is home to eight rare plants, four of which are found nowhere else in the world. The other four are threatened or endangered species under both the state and federal endangered species acts.

Overgrown and thick with grasses, manzanita, oak and digger pine, the reserve is also a fire waiting to happen, according to concerned Cameron Park resident Paul Gilchrest.

Calling himself a person who solves problems rather than sitting around and worrying about them, Gilchrest said he realized after the Camp Fire in Paradise that a similar, destructive blaze could just as easily break out in Cameron Park.

So in February 2019 Gilchrest set out to solve the problem posed by overgrown vegetation in the Pine Hill Ecological Reserve, starting up the Cameron Park Fire Safe Council and bringing together affected local agencies and residents.

A February 2019 meeting at a fire station in Cameron Park included representatives from the Bureau of Land Management, California Conservation Corps, staff from Congressman Tom McClintock's office, Cal Fire, Growlersburg Conservation Camp, El Dorado County Fire Protection District, the Cameron Park, Rescue and El Dorado Hills fire departments and several area residents.

The CCC already had a grant and Growlersburg inmates needed a project. The CCC brought 21 corps members in to cut brush and Cal Fire delivered a Growlersburg crew to the site. Close to 100 inmates were involved in cutting brush off Meder Road in Cameron Park. The BLM also brought in a crew that did a section along Jackie Road. That was all done in 2019.

"I kept a scorecard," said Gilchrest. "Some people were both surprised at how much had been done as well as that they were being held accountable."

Elizabeth Meyer-Shields, field manager for the Mother Lode Office of the BLM, said the BLM has been responsible for managing that property for years but in the last few years they have teamed up with other agencies to do the most recent iteration of clearing.

Following that a successful grant application was submitted by the Cameron Park Community Services District and Cal Fire for \$300,000: \$250,000 of which was for fuel reduction and \$50,000 was for fire prevention education.

Funded by the California Climate Investments Fire Prevention Grant Program, the Hazardous Fuels Reduction project and the Fire Prevention Education Project, the purpose of the grant was to increase the defensible space within the Cameron Park wildland-urban interface, decrease the probability of roadside ignitions, increase the chance any fires that started could be quickly controlled, enhance ingress and egress corridors for emergency crews and members of the public and educate residents on how to make themselves more fire safe.

Work included constructing 92 acres of strategically placed fuel breaks on developed and undeveloped parcels and alongside roadside easements. A roadside buffer was also planned to clear ladder fuels and overhanging branches along 5 miles of roadways.

To pursue the work, National Environmental Policy Act and California Environmental Quality Act documentation had to be done first, said Gilchrest, who credits El Dorado County and the BLM with helping to accelerate the environmental review process. "It enabled us to burn which greatly accelerate the work."

Gilchrest said he thinks 70 acres in Pine Hill have been cleared so far — land adjacent to homes and to a senior living facility. Another 25 acres are targeted but crews may not get to them until fall or next spring.

"We were initially focused on clearing 100 feet of defensible space from homes. Once that's done they will come back and clear another 100 feet," he said.

Sherry Moranz, an assistant chief with Cal Fire said the grant will also be used to clear vegetation from ingress and egress roads in Cameron Park, making it easier for emergency vehicles to get to homes. "You're never done with it," she remarked.

Fire safe council

In the meantime, Gilchrest is keeping busy with the Cameron Park Fire Safe Council even though the COVID-19 situation has made it difficult to meet. He also serves on the El Dorado County Fire Safe Council. Slated for discussion on the local fire council's agenda is more clearing along Meder Road and more outreach to the community on how to harden their homes and be compliant with the county and state ordinances.

Gilchrest said the council is also looking for additional grants to pay for clearing and chipping.

"This is the first time since I moved here in 1999 that I've seen the preserve cleared like this," he said. "But it grows back every year. The best way to reduce the wildfire risk is do the initial clearing and come back every year and do the maintenance to keep it down. The more you wait, the more investment it will take to remove it. It's cheaper to do the prevention than replace homes that get burned down.

"Why the government won't fund these agencies to do that is in my opinion very shortsighted. That's why I reached out to them and asked them, 'What can we do?'"

The Pine Hill Ecological Reserve is managed by the Bureau of Land Management in partnership with the Bureau of Reclamation, the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, Cal Fire, El Dorado County, El Dorado County Water Agency, El Dorado Irrigation District and the American River Conservancy.

Coloma Lotus Fire Safe Council – 2021 CWPP Update

Attachment F. Treatment Area Vegetation and Treatment Suggestions

4_1_21 Forestry for the Future

Treatment Area Vegetation and Treatment Suggestions

Vegetation ranges in type from the Foothill Belt to Yellow Pine Belt.

Species in the Foothill belt include chaparral: chamise, ceanothus, yerba santa and toyon, as well as live oak, blue oak and grey pine. Freemont cottonwood can be present in more moist sites. Native and nonnative grasses and forbs are also present where shrub and tree canopy are not closed. This contributes to the formulation of an oak woodland ecotone where the oaks are scattered and grasses inhabit the open areas between trees.

Species in the Yellow Pine Belt include white fir, Douglas fir, Ponderosa pine, incense cedar, sugar pine, black oak, broad leaf maple, dogwood and golden-cup oak. Brush species include ceanothus and white leaf manzanita both of which carry fire well when moisture stressed. Leaf litter and long needle cast is present on the forest floor. This contributes to 1 hour fuel loading. Black cottonwood and alder may be present in riparian areas.

Soils range from shallow and rocky to deep loam. Soil on the west slope of the Sierra is older and well developed. Consequently, it supports very good conifer growth and rapid invasion of brush post disturbance. This factor contributes to maximum vegetation density on a site. Precipitation ranges from 15 to >70 inches per year which contributes to rapid and dense plant growth.

The vegetation ranges and grades from one plant community into the next and is predominately non-homogenous. Elevation ranges from 1000 feet to 4000 feet and topography can be 0% to greater than 100% slope. All aspects are present with many drainages trending west to east in line with the prevailing westerly air flow. This alignment of topography, wind and fuels can lead to extreme fire behavior.

Treatment Suggestions

Treatment is best accomplished mechanically via mastication or thinning from below with a harvester. Hand treatment is viable and necessary on the steep slopes. A combination of the two techniques may be necessary in some areas. Fire is an option, but in most cases pretreatment will be necessary. Mechanical treatment will be the most quick and yield results that will not require pile burning. The carbon benefit of not burning and allowing more rapid growth in the remaining vegetation is maximized in this case.

4_1_21 Forestry for the Future

Treatment Area Wildland Urban Interface (WUI)

Note: tons per acre of fuel - dead and live load ranges from 5->20 tons per acre depending upon whether the area has been treated before or is having a first treatment. The generic fuel structure modification suggestions have been taken from 14 CCR 1299 and PRC 4291. Please see the drawing taken from the California Forest Practice Rules on page 4 of this document.

Change vertical and horizontal continuity through fuel structure modification. Changing fuel structure is accomplished through horizontal and vertical spacing. Horizontal separation should be 10-30 feet depending upon slope and vegetation size and type. Vertical separation should be 4-40 feet depending on slope and vegetation size/type.

Note: Prescribed fire with either pile and let creep or broadcast is recommended for all project areas when smoke and escape issues can be mitigated.

Coloma Lotus - CL #1 and #2 Roadside vegetation treatment:

CL # 1 - #7 – Oak and grass woodland with chaparral/chamise in the understory. Some (Ponderosa, Grey pine and Douglas fir) are present depending upon slope aspect and elevation – Remove brush via mastication, hand cut and chipping or hand pile and burn. Grass may be mowed. Mastication can be used where slope steepness allows – trees should be spaced to obtain a minimum of 15 feet between crowns. Due to the density of the vegetation, only trees greater than 12 inches in DBH should be left where feasible.

Coloma Lotus has a vegetation matrix that is fire adapted. Grazing should be reinstituted were feasible. Mowing grass or prescribed fire can provide mitigation for the ladder fuels. Mastication of the heavier fuels is recommended.

El Dorado County

COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Community Tab for

Rancho del Sol Fire Safe Council



Prepared for Inclusion in the:

EL DORADO COUNTY FIRE SAFE COUNCIL Community Wildfire Protection Plan Update

Prepared for: Rancho del Sol FIRE SAFE COUNCIL

November 2021

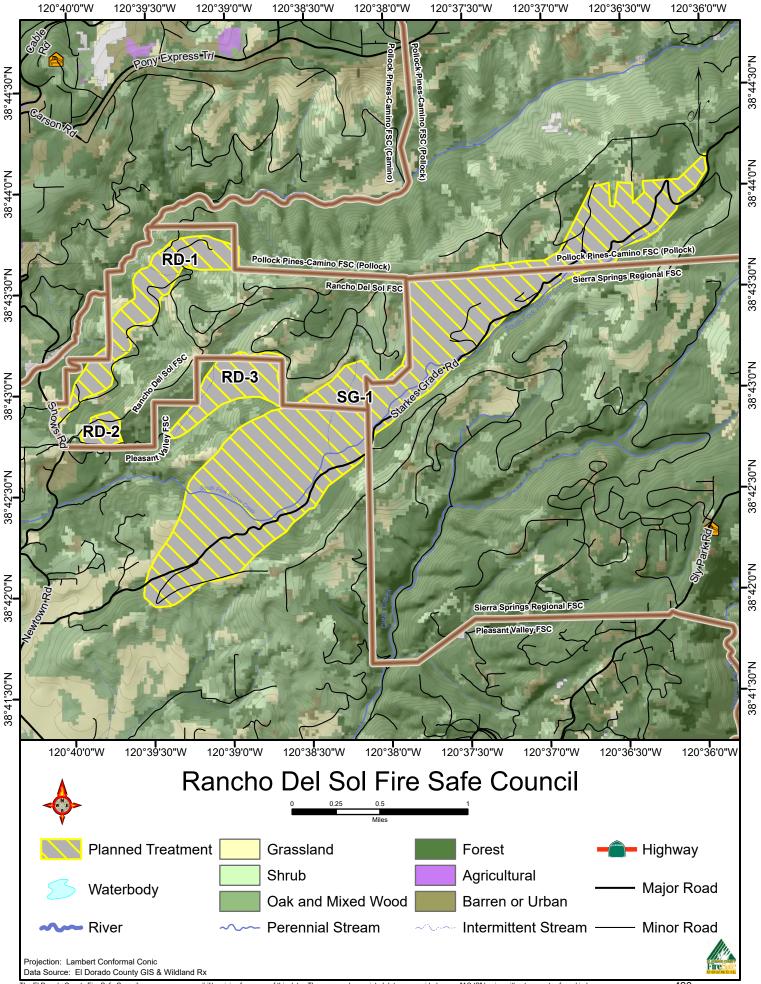
Introduction

Rancho del Sol Fire safe council is located between Apple Hill and Pleasant Valley and is part of the Rancho del Sol Homeowners Association. It is comprised of 156 parcels on 1000 acres of mixed conifer forest. Each parcel ranges I size from 3 to 40 acres. The community was a part of the Pleasant Valley FSC at the time of the 2017 CWPP. Currently it is its own Fire Safe Council. It is inside the boundaries of the Property Owners Association POA.

A link to Rancho del Sol: https://www.rdsliving.com/

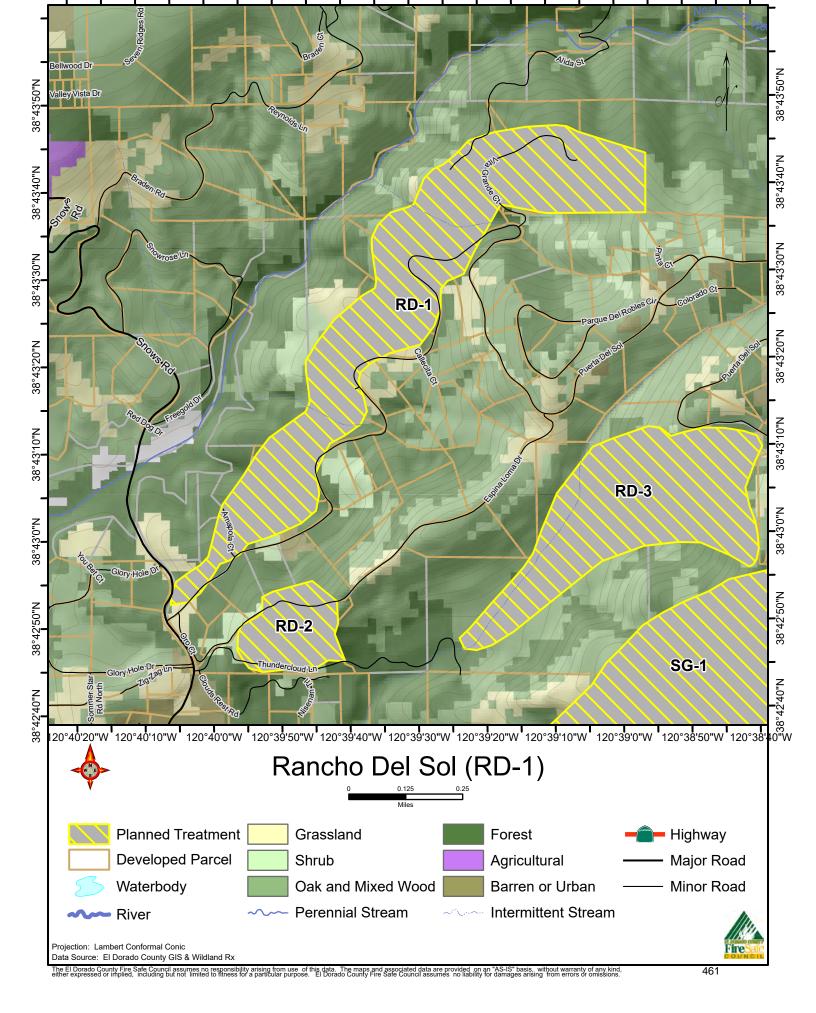
RISK ASSESSMENT			
The following Cal Fir	e personnel were invo	lved with our risk assess	ment:
Chief Mike Webb, r	etired and Forester 1	Patrick Mc Daniel	
P G & E Sr Manager	James R Monninger		
		e owners of parcels that ol and Amapola Court. T	
		onal parcel on Dos Lagos	
		hat I listed on my origina also need a firebreak or	
Patrick McDaniel ag		o have a firebreak to pre he main exit route on Pu	
considered hazardo several occasions to	us to the power lines make presentations a e way in and one way o	ths clearing all of the tre lim Monninger has visite nd at this time he identi out. His concern was tha	ed RDS on fied RDS as a
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considered hazardo several occasions to community with one need to do this wor State of California The Natural Resources Agency Department of Foresty and Fire Protec Amador-El Ocrado Unit 2840 Mt. Danaher Road Camino, CA 95709 Patrick McDaniel, RPF #2679 Extense (us to the power lines. make presentations a e way in and one way of k to save lives. ction Office: (530) 647-5288 Cett: (530) 708-790 Mail: Patrick McDaniel@fire.ca.gov	lim Monninger has visite nd at this time he identi out. His concern was tha Pacific Gas and Electric Company James R. Monninger S. Manager Lead Gutsmer Expenses Divisio Leadership Team	ed RDS on fied RDS as a at there was a 5555 Florin Perkins Sacramenta, CA 95928 530.996.4227 Mable: 415.450.5004

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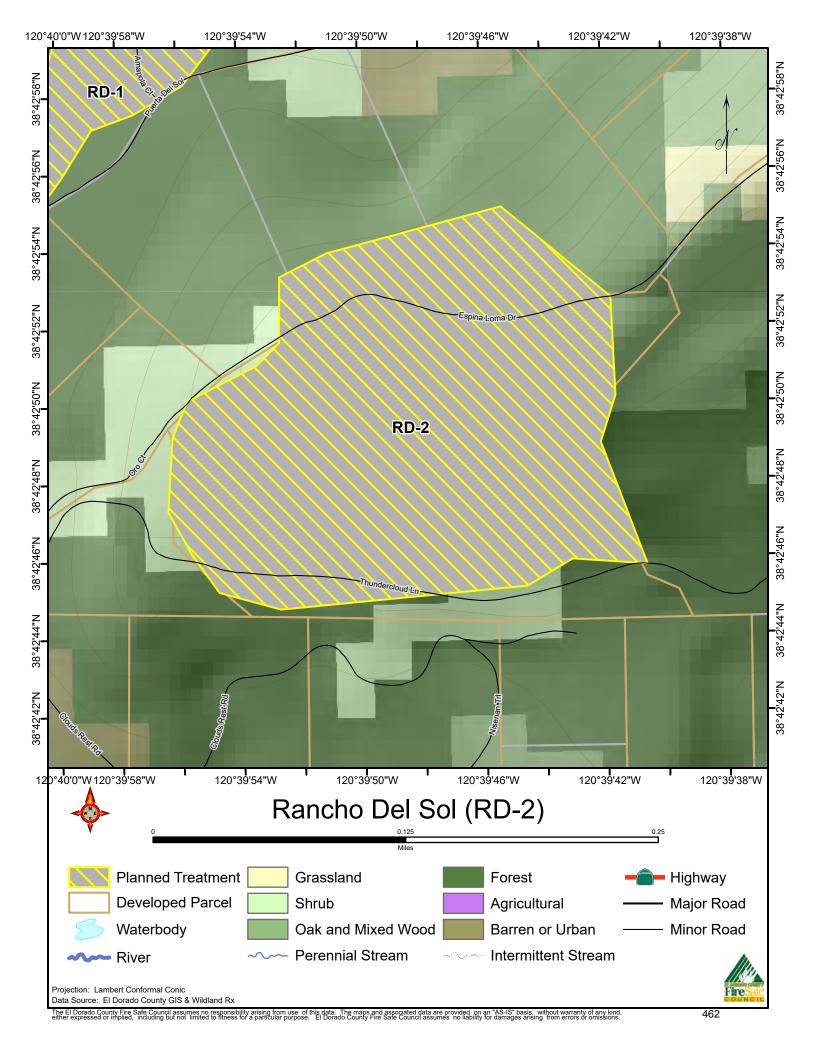


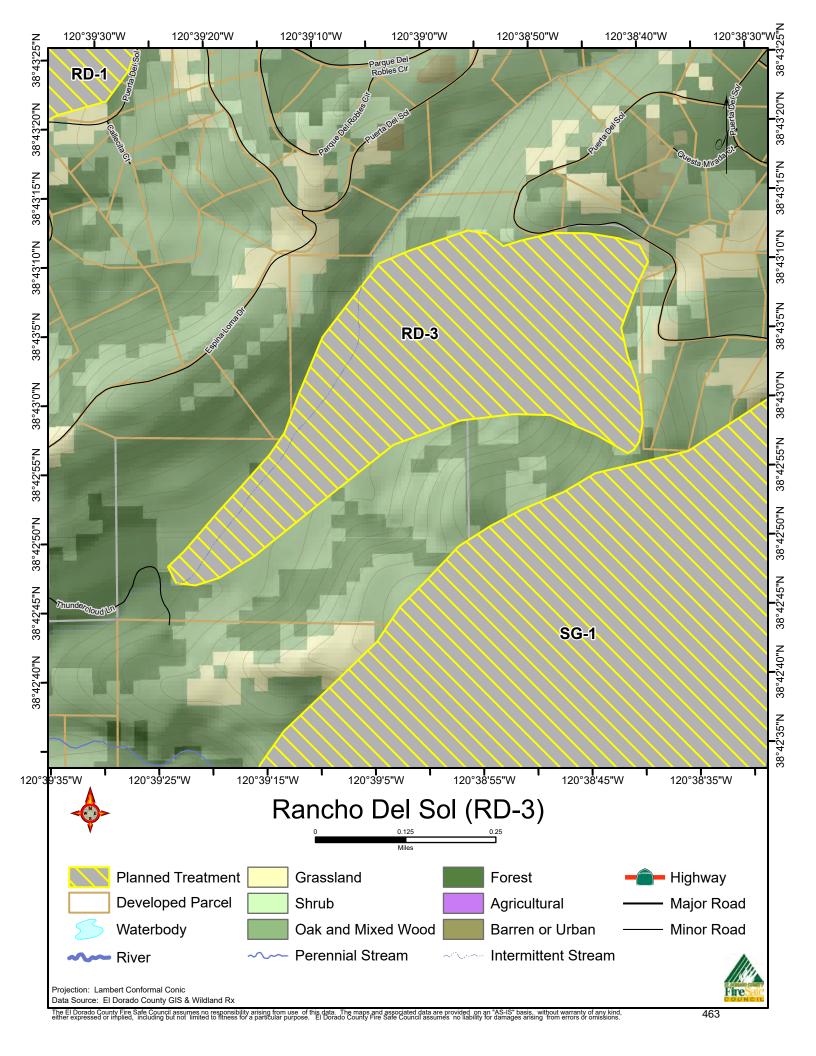
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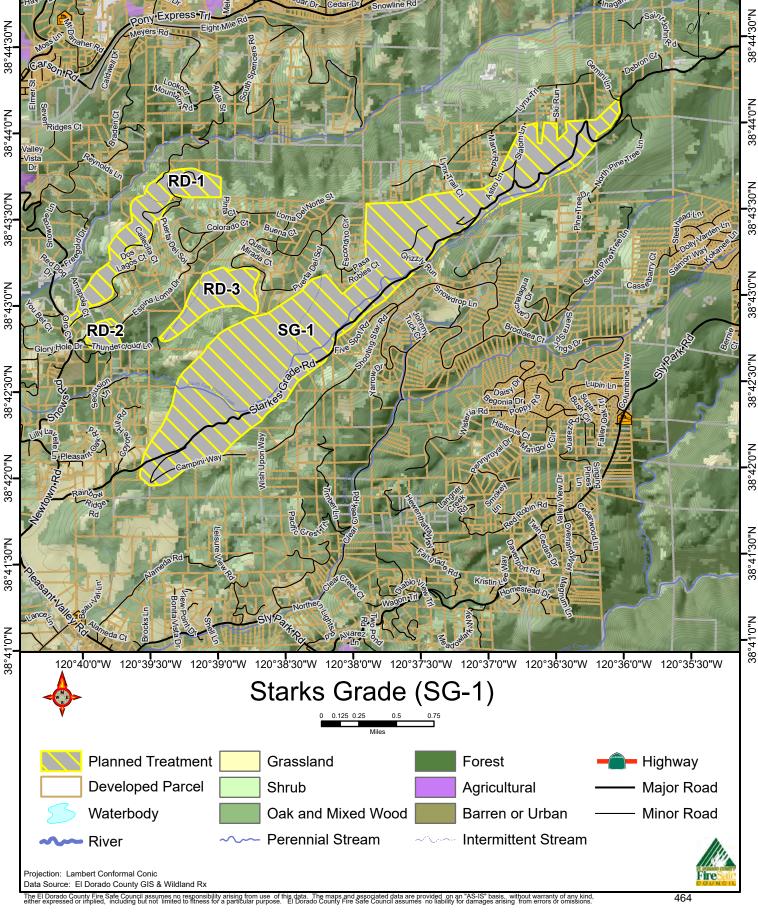
460



120°40'20"W 120°40'10"W 120°40'0"W 120°39'50"W 120°39'40"W 120°39'30"W 120°39'20"W 120°39'10"W 120°39'0"W 120°39'50"W 120°38'50"W 120°38'40"W







120°39'30"W 120°39'0"W 120°38'0"W 120°37'30"W 120°37'0"W 120°36'30"W 120°36'0"W 120°35'30"W 120°40'0"W 120°38'30"W

38°45'0"N

38°45'0"N

38°44'30"N

El Dorado County

COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

Tab for

El Dorado & Georgetown Resource Conservation District



Prepared for Inclusion in the:

EL DORADO COUNTY FIRE SAFE COUNCIL

Community Wildfire Protection Plan Update

November 2021

Resource Conservation Districts of El Dorado and Georgetown Divide

It is important to give credit to one of the important public agencies in El Dorado County that has contributed to the fuel hazard reductions in the county the El Dorado and Georgetown Divide Resource Conservation District.

"Resource Conservation Districts are grassroots government organizations that advise and assist individual landowners and public agencies in planning and implementation of conservation practices for the protection, restoration, or development of land, water, and related natural resources.

The El Dorado County Resource Conservation District (1940)(EDCRCD) and the Georgetown Divide Resource Conservation District (1953)(GDRCD) – (RCD's) are local, independent, non-enforcement, non-regulatory, self-governed districts organized under Division 9 of the Public Resources Code. Each District has a five member board of directors who serve without compensation for a four year term period.

Each RCD advises and assists individual landowners and public agencies in planning and implementation of conservation practices for the protection, restoration, or development of land, water, and related natural resources."

https://www.eldoradorcd.org/

These RCD's have been a tremendous resource for the Communities and Fire Safe Councils of El Dorado County and have done a lot of on the groundwork to CEQA and Grant proposals. The following are table of work completed or in the process of completing being completed on the West Slope of El Dorado County. They are the local partner in Conservation, protecting the future and working with creating resilient ecosystems within the county.

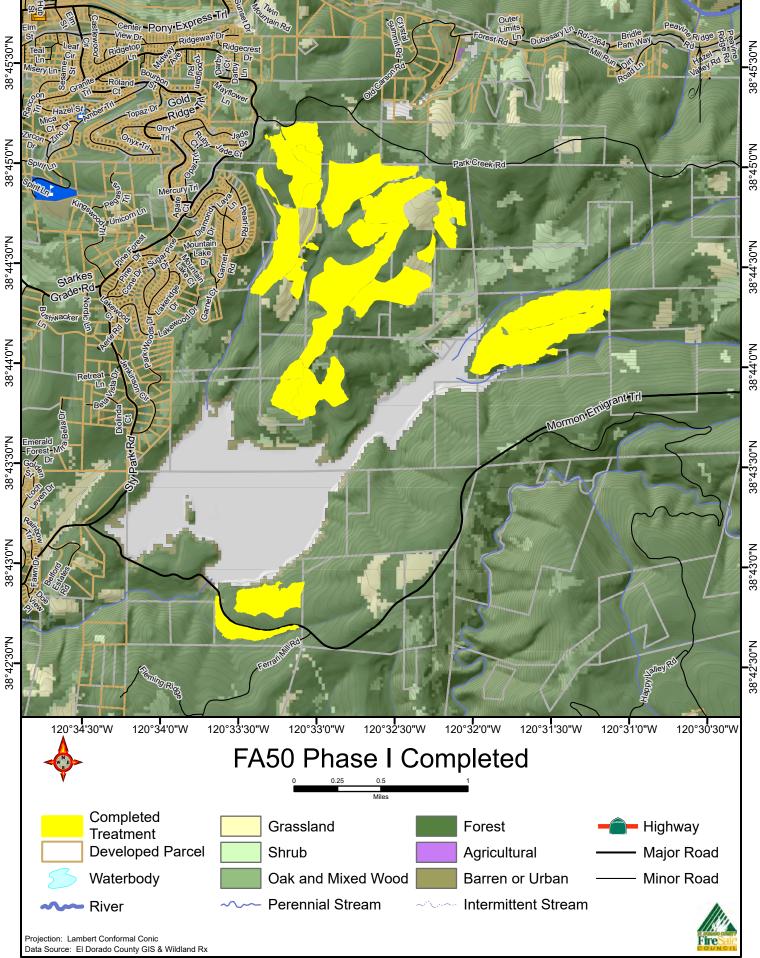
					Strategy i roject s	, anninar y			
		Landowner							
Grantor	Project Name	Term	Acres treated	EI Dorado Irrigation District	Sierra Pacific Industry	US Forest Service	Non Industrial Private Land	Beauro of Land Management	
CAL FIRE	PHI	completed	644	230	414	0	0		
SNC	PHI(SNC)	1/1/2022	270	270					
CAL FIRE	PHII	3/15/2025	968	120	30		818		
CAL FIRE	PHI(A)	3/30/2022	832		392		440		
CAL FIRE	РНВ	3/30/2025	1500			600	900		
USFS/ FSC	USFS Stevens	9/30/2022	287				287		
BLM	Georgetown FLRP	9/30/2023	580				180	400	
USFS	USFS SP	7/15/2025	518			518			
USFS/ PG&E	USFS PG&E	9/1/2022	500			500			
USFS/ CAL FIRE	PHIII		330			330			
			6429	620	836	1948	2625	400	

FA50/ Cohesive Strategy Project Summary

EID SPI USFS NIPL BLM **FSC Projects** 136 acres Logtown 136 365 Acres 365 Mosquito 136 Acres/ 2.1 miles/ 43 hazardous trees Patterson Ranch 136 Weber Creek 323 acres 323 Cameron Park CEQA 0 0 0 960 0 7389 620 836 1948 3585 400

Sierra Nevada Conservancy Grants

Submitted	Acres	
Texas Hill FSC	1	644
New York Creek	1a	832
Mt Aukum/ Fairplay FSC	П	968
Rescue	SNC	270
Texas Hill (EID)	III	330
Sierra Springs FSC	В	1500
Gold Ridge FSC	STEVE	287
Georgetown/ Kelsey FSC	USFS SP	518
	USFS PG&E	500
	Georgetown FLRP	580
		6,429



120°34'30"W

120°34'0"W

120°33'30"W

120°33'0"W

120°32'30"W

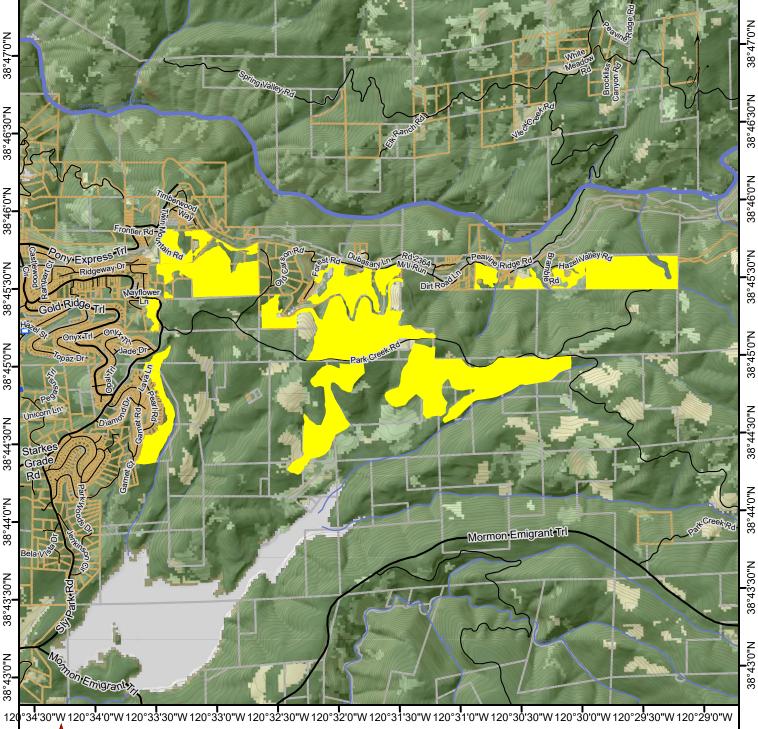
120°32'0"W

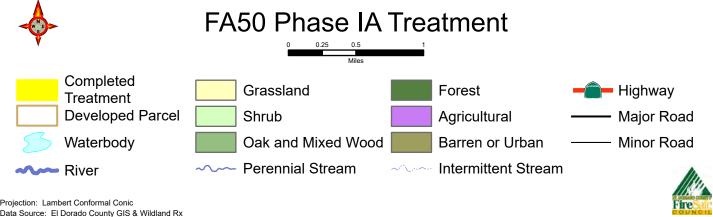
120°31'30"W

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120°31'0"W

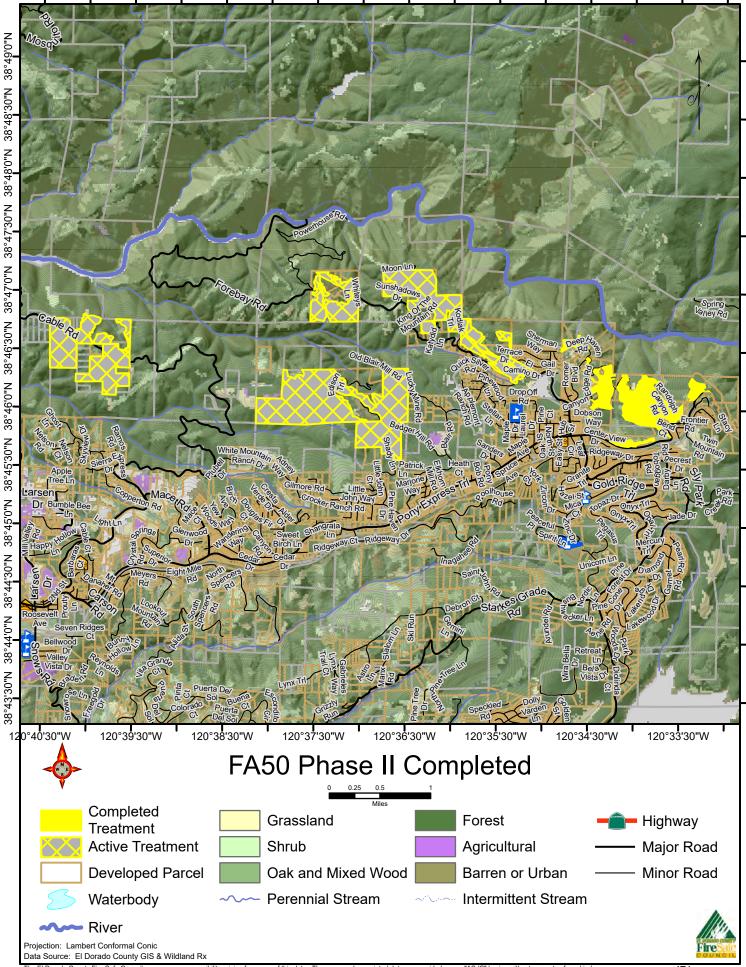
120°30'30"W





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470



120°40'30"W

38°44'30"N

120°39'30"W

120°38'30"W

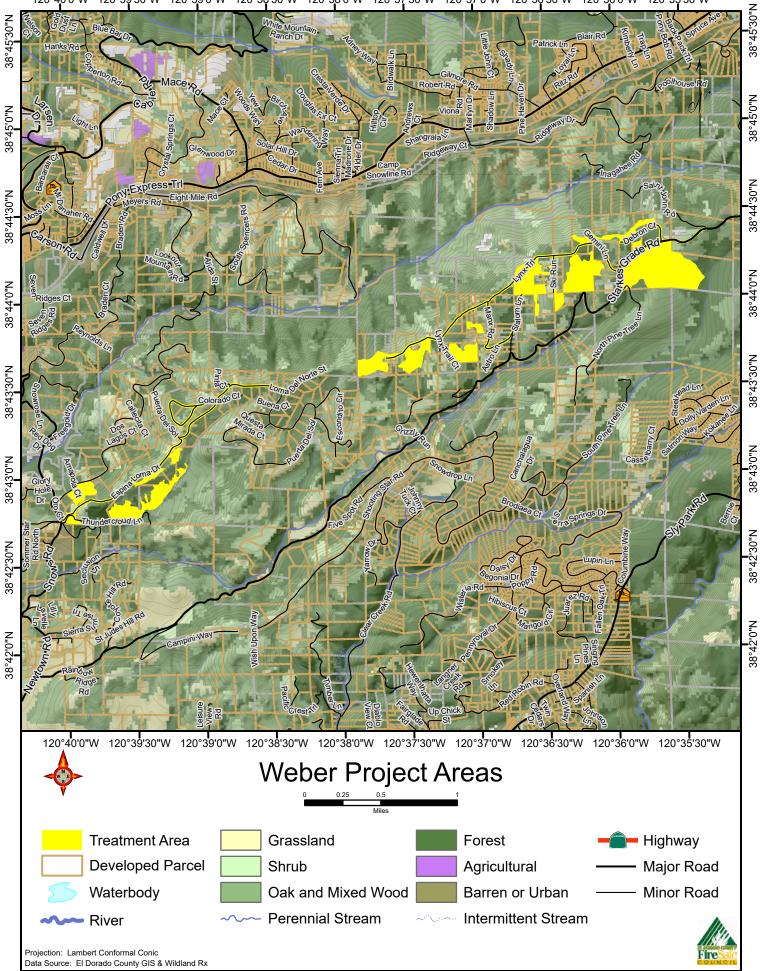
120°37'30"W

120°36'30"W

120°35'30"W

120°34'30"W

120°33'30"W



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Appendix A: Treatment Descriptions

Fuel Treatment and Restoration Projects Strategy these are a few landscape treatments designed to support wildland fire suppression, demonstration projects designed to educate, roadside treatments designed to facilitate safer evacuations, maintenance treatments and critical individual clearance zones that minimize structure-to-structure ignitions. (CPRC - 4291 and Open Space Treatments)

Treatment Prescriptions

The following treatment techniques are typical of those currently used by the, private forest landowners, the U. S. Forest Service, and described in the Sierra Nevada Framework. It was assumed that no new roads would be constructed to implement the projects. The following is a brief description of potential treatment techniques that could be employed to accomplish fuels treatment.

Mechanical Thinning

Mechanical thinning utilizes heavy equipment with large hydraulically-driven saws to cut and remove trees (generally under 24 inches in diameter). The two major harvesting methods include "whole tree removal (WTR)" and "cut-to-length (CTL)". CTL machines use a "stroke delimber" to remove branches before automatically cutting a log to predetermined lengths (Figure 7). While whole tree removal is preferable from a fuels-reduction standpoint, CTL machines create a mat of slash on which they can operate, reducing impacts to the soil. The slash vs. soil disturbance tradeoff must be considered on a site-specific basis. It is possible to use an in-woods chipper to reduce surface fuels in concert with CTL. Mechanical thinning equipment is generally confined to slopes less than 30%. WTR projects require large landings than can accommodate a skidder operation, a large chipper, and semi-trucks. CTL operations require fewer and smaller landings.



Mechanical Thinning using a cut-to-length harvesting system.

Mechanical thinning has the ability to create a more precisely targeted stand structure than prescribed fire (van Wagtendonk 1996, Weatherspoon and Skinner 1996, Stephens 1998, Agee and others 2000, Miller and Urban 2000). The net effect of removing ladder fuels is that

surface fires burning through treated stands are less likely to ignite the overstory canopy fuels. By itself, mechanical thinning with machinery does little to beneficially affect surface fuel loading. The only exception is that some level of surface fuel compaction, crushing, or mastication may occur during the thinning process. Depending on how it is accomplished, mechanical thinning may add to surface fuel loadings, thereby increasing surface fire intensity. It may be necessary to remove or treat fine fuels that result from thinning the stand (Alexander and Yancik 1977, Graham, 2004).

Prescription Mechanical Thinning: Thin stands from below by removing trees up to 30 inches in diameter at breast height (DBH). The thinning is done by starting with the smallest diameter class; removing sufficient suppressed and intermediate trees to achieve an average crown base height (distance from the ground to the base of the leaf [needle] crown) of at least 20 feet and spacing of 10 feet between the crowns of residual trees. On drier sites and on southern aspects, favor the removal of white fir over all other conifer species.

Retain 2-5 snags per acre (minimum size of 24 inches dbh) and 3-7 large downed logs per acre (minimum size 14 inches dbh and 20 feet long). The trees are removed by whole tree yarding and or disposing of slash in stands by hand piling and burning, or by chipping and scattering.

Mastication

Mastication requires machines to grind, rearrange, compact, or otherwise change fire hazard without reducing fuel loads. These treatments tend to be relatively expensive, and are limited to relatively gentle slopes and areas of high values (near homes and communities). Rocky sites, sites with heavy down logs, and sites dominated by large trees are difficult places in which to operate mastication equipment. Additionally, sparks from mastication heads have the potential to start fires and, when working on public land, these machines are subject to the same activity-level restrictions that apply to most other logging equipment.





The ecological and fire effects of mastication treatments vary depending on the size, composition, and location of the fuels left after treatment (Graham and others 2000). In many cases, mastication creates a window of 2-5 years in which surface fire intensity actually increases. While this may be offset by a decrease in crown fire potential, mastication tends to increase fuelbed continuity, and can increase fire rates of spread. Mastication is a useful tool in plantations and brushfields, and has applications in thinning small trees for fuelbreak maintenance.

Prescription Mastication: Use rubber tired or low impact tracked vehicles to cut, chip, and scatter all shrubs and small trees up to 10 inches dbh on site. White fir should be the priority for tree removal. Brush cover should be reduced by creating a mosaic of treated and untreated shrubs. Openings between shrubs should be twice the height of the shrubs and 50-70% of the shrubs should be treated. Brush that is treated should be cut to the maximum stump height of 6 inches. No individual pieces of cut material should be greater than 4 feet long. All masticated stumps should be cut to within 6 inches of the ground. Debris should not average more than two inches in thickness over the entire project area. All cut vegetation should be kept within the unit boundaries. Any cut vegetation falling into ditches, roads, road banks, trails, or adjacent units should be removed immediately.

Tractor Piling or Grapple piling: Use of rubber tired or tracked machines to pile slash, brush and small trees. Where needed trees under 8" DBH will be thinned out to 20' spacing. Most trees over 8" DBH will not be piled. Live oak will be thinned out in many places. Generally Black oak will be left on site Protection of desirable residual trees from skin ups and damage is very important. Slash piles should not be piled near residual tress so when they are burned the piles will not damage trees remaining onsite. Contractor should create clean piles that are free of dirt and no larger then 15 feet tall and 15 feet in diameter. The piles should be partly covered with a 6'x6' piece of water proof material to allow them to be burned after significant rain fall.

Mastication Soil Issues

Thin layers of wood chips spread on the forest floor tend to dry and rewet readily. Deep layers of both chips and chip piles may have insufficient air circulation, making poor conditions for

decomposition. Moreover, when layers of small woody material are spread on the forest floor and decomposition does occur, the decomposing organisms utilize large amounts of nitrogen reducing its availability to plants. Therefore, the impact of any crushing, chipping, or mulching treatment on decomposition processes and their potential contribution to smoldering fires needs to be considered (Graham, 2004).

Prescribed Burning

Prescribed burning reduces the loading of fine fuels, duff, large woody fuels, rotten material, shrubs, and other live surface fuels. These changes, together with increased fuel compactness and reduced fuel continuity change the fuel energy stored on the site, reducing potential fire spread rate and intensity. Burning reduces horizontal fuel continuity (shrub, low vegetation, woody fuel strata), which disrupts growth of surface fires, limits buildup of intensity, and reduces spot fire ignition probability (Graham, 2004). Given current accumulations of fuels in some stands, multiple prescribed fires—as the sole treatment or in combination with thinning—may be needed initially, followed by long-term maintenance burning or other fuel reduction (for example, mowing), to reduce crown fire hazard and the likelihood of severe ecosystem impacts from high severity fires (Peterson and others in prep).



Prescription for Prescribed Burning: Low intensity broadcast burning should be used to reduce all 100-hour fuels (< 3 inches diameter) by 60-80%, the brush component by 50%, and 75% of trees less than 3 inches dbh. Use fire to prune ladder fuels by scorching the lower 1/3 of branches on 100% of trees less than 8 inches dbh. Retain large down logs (20 inches in diameter or greater) to a maximum density of five per acre. Maintain 60 to 70% of ground cover on slopes 35% or less. Additionally, acceptable standards for prescribed fires should include:

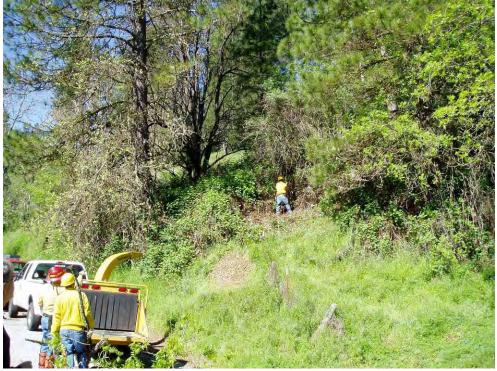
- 13 foot maximum scorch height; and,
- less than 10% mortality in conifers > 12 inches dbh.

Do not ignite fires in Steam Environmental Zones (SEZ). However, allow backing fires to enter SEZs affecting a maximum of 45% of the area in a mosaic pattern. No more than 50% of the 100-hour fuels (<3 inches diameter) should be consumed in SEZ's.

Opportunities to use prescribed fire are limited for many reasons a few are: smoke management concerns and smoke impacts to the public, potential for an escape with liability in the event of an escape, prescribed fire training and the public perception that all fire is bad.

Hand Thinning and Chipping

Hand thinning and chipping is usually accomplished by a crew of persons using chainsaws and pole saws to thin and clear undesirable vegetation. Hand thinning is conducted with crews of approximately 10 individuals who cut trees with chainsaws. Hand thinning is generally used to cut smaller trees (less than 14 inches dbh), on steep slopes where machines cannot operate, or in environmentally sensitive areas where machines would have a significant environmental impact. Removal of smaller trees is generally limited to younger stands where the trees are smaller. Because hand thinning can only effectively remove smaller material, silvicultural and fuel management objectives may be more constrained than those achieved with mechanical thinning. Therefore, hand thinning and hand thinning may not be cost effective in forest stands with excessive ground fuel loading where mechanical thinning would remove or compact those fuels.



Prescription Hand Thin and Pile Burn: Hand thinning and pile burning should be accomplished using a ten person hand crew with chainsaws. Starting with the smallest diameter trees, remove trees up to 6 inches dbh to achieve spacing of 20 feet between residual crowns . All dead and down material greater than 3 inches in diameter and up to 8 inches in diameter and all cut material regardless of size should be piled for burning. Piles should be constructed compactly, beginning with a core of fine fuels and minimizing air spaces to facilitate complete combustion. Piles should be constructed away from trees to prevent damage when burning and should not be taller than 5 feet. If broadcast burning is not scheduled for the area, then a fire line should be surrounded around each pile. Piles will be covered with a 4x4 foot square of water resistant paper to cover the fine material in the center of the piles.

Chipping: Chipping may be used as an alternative to burning. It redistributes forest vegetation that is cut by mechanical thinning or hand thinning. The chips may be removed from the site and converted to energy for other products, or they can be scattered throughout the project area. **Grazing:** Use of Goats sheep, horses or cows to reduce the small fuels such as grass, Black Berries and small brush

Cost Estimates

Cost estimates developed as part of this planning effort are based on data for similar work in the Truckee area, El Dorado County and Sierra County. Cost estimates vary widely because of fuel loadings, operational constraints, and crew capabilities. The costs are limited to the direct cost of project implementation. These cost estimates <u>do not include</u> offsetting revenue that may be generated by providing commercial products, costs associated with project planning or preparation of environmental compliance reports, or administrative overhead incurred during implementation.

Administrative cost are approximately 25% of the total project costs if the project is estimated to be \$100,000 for on the ground implementation the administrative costs would be approximately \$25,000. Administrative costs would include environmental documentation, financial administration, project layout and contract administration. These administrative costs can vary depending on Community involvement and the type of CEQA or NEPA requirements.

The cost in Figure 1 do not as stated above include **offsetting revenue** that may be generated by providing commercial products, **costs associated with project planning or preparation of environmental compliance reports**, or **administrative overhead** incurred during implementation. They include only treatment estimated costs.

Fuel Reduction Treatment	Cost per acre		
Mechanical thinning (urban interface)	\$1,000-\$3,200		
Mastication	\$700 - \$1,500		
Prescribed burning	\$400-\$900		
Hand thin and Chip	\$1,350-\$2,300		
Pile Burn	\$300 - \$700		
Machine Pile	\$185-\$275		

Figure 1: Treatment Costs based on current treatment only costs