

## **Appendix B**

# **To the Tehama East/Tehama West Community Wildfire Protection Plan**

**Mineral/Mill Creek/Childs Meadows**

**Community Wildfire Protection Plan**



**Report to the Tehama County Board of Supervisors and CAL FIRE Tehama-Glenn**

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## EXECUTIVE SUMMARY

In September 2017, the Resource Conservation District of Tehama County (RCDTC) completed an update of the Tehama East and Tehama West Community Wildfire Protection Plan. This Countywide fire and fuels management planning process and related planning document was funded by the United States Forest Service through the financial contributions of the Tehama County Resource Advisory Committee and the California Fire Safe Council. The RCD of Tehama County contributed labor hours as well. In early 2018 discussions between RCD of Tehama County personnel along with staff from the Lassen Volcanic National Park (LVNP) and Lassen National Forest (LNF) indicated a need for more detailed analysis of fire and fuels conditions within the developed areas of Mineral, Mill Creek and the Childs Meadows area along with adjacent Wildland Urban Interface (WUI) lands. Not only are these sites populated by significant numbers of full and part time residents, they also contain community assets such as water infrastructure, electrical lines, roads and drainage features. These communities are surrounded by public wildland areas managed by the National Park Service, the US Forest Service and Bureau of Land Management (BLM) that are at risk from ignition and fire spread originating in developed areas. Privately owned timber and ranchland parcels found within the planning area are at a similar risk of wildfire impact.

The goal of the **Mineral/Mill Creek/Childs Meadows Community Wildfire Protection Plan** effort is to improve fire and fuels management conditions within both developed sites and the Wildland Urban Interface that surround these relatively urbanized areas. Through the development and implementation of proposed integrated and interconnected project work, members of these communities and other County residents along with public and privately managed watershed resources can be better protected. To accomplish this goal, the RCD of Tehama County developed a collaboration of public and private sector stakeholders who assisted in identifying this area's significant community and natural resources that are in need of protection from wildfire and the in-place infrastructure that is currently available to protect these assets. This group also assisted in the development of recommendations for additions or changes to this infrastructure in order to improve current fire, fuels management and fire ecology conditions. Among this planning collaborative's participants were personnel from Lassen Volcanic National Park, Lassen National Forest, Bureau of Land Management, the Resource Conservation District of Tehama County, CAL FIRE, Collins Pine Company and Sierra Pacific Industries. In addition, Judd Hanna of the Hanna Ranch, Dick O'Sullivan of the Tuner Ranch, Kevin Wilsey of the Highlands Ranch, Bruce Starkweater of the Battle Creek Ranch along with several community residents provided input and plan review as well.

It is anticipated that the proposed project work described in this CWPP will be completed individually by an implementing entity or through cooperation between stakeholders. An example of such cooperation was the RCD of Tehama County, a unit of local government, utilizing State Conservancy dollars to complete necessary California Environmental Policy Act analysis for a proposed fire management project. At the same time, Lassen National Forest personnel provided specialist labor necessary to complete both state and federal environmental analysis. Subsequently, federal dollars were used by the RCDTC to implement the analyzed fuel treatments on privately owned timberland adjacent to the Lassen National Forest which now serve to better protect the Mineral community, public and private timberlands along with lands managed by

the Lassen National Forest and Lassen Volcanic National Park. Several other similarly collaborative efforts have resulted in many additional miles of fuel breaks and acres of vegetation treatments developed within eastern Tehama County's forest stands, chaparral, and oak woodlands, as well as capital improvements to fire management infrastructure.

Through this planning process and approval of the CWPP document by the Tehama County Board of Supervisors, CAL FIRE and the RCD of Tehama County Board of Directors, this fire and fuel management planning appendix is formally recognized as a Community Wildfire Protection Plan. With this designation, it is anticipated that obtaining public and private funding for the fire/fuels management and fire ecology improvement projects described here will be made easier and more efficient. Much work has been completed or is in process within the Mineral/Mill Creek/Childs Meadows CWPP planning area. Much remains to be completed however as Wildland Urban Interface areas continue to increase in population, vegetation within fuel breaks and other vegetation treatments continue to grow and additional important natural resources are identified making this CWPP document a work in progress. In order for future efforts developed within the CWPP planning area to be considered part of the Community Wildfire Protection Plan process, these will need to be formally incorporated into this addendum to the Tehama East/Tehama West Community Fire Plan by reference and approved by the Tehama County Board of Supervisors, CAL FIRE's Tehama-Glenn Unit Chief and the RCDTC Board of Directors.

### **PLANNING PROCESS OVERVIEW**

The project work and other efforts described in this planning document have been prioritized based upon input provided by the participants mentioned above. The results of this process can be found on the summary prioritization spreadsheet which is attached to this CWPP and is considered an integral component to this planning document along with the planning area base map which shows the location of completed, in process and proposed fire and fuels management project locations throughout the planning area. Importantly, the prioritization process represents the opinions and agenda of public and private stakeholders in Tehama County as to which projects should be completed first. The agenda of potential funders and availability of project dollars will however ultimately determine the order in which proposed project work is completed. It is the goal of the RCDTC to seek funding and implement projects according to the priorities established by local review entities without missing opportunities to complete projects that are of lower local priority.

As was the case during development of the Tehama East/Tehama West Community Wildfire Protection Plan, the Mineral/Mill Creek/Childs Meadows CWPP as an addendum to the Countywide planning document was designed to allow the incorporation of significant professional and community input into the development of this document. Planning outreach and input efforts were focused on specific landowners who expressed interest in the planning project and who were forthcoming with project ideas, questions, comments, and concerns. Once input and comments were received from participating entities and other stakeholders, they were reviewed, considered and incorporated into the revised plan's final draft which was then updated, clarified and expanded or modified. The final draft planning document was submitted to the

Tehama County Board of Supervisors, CAL FIRE and the RCDTC Board of Directors for approval and certification as a formal appendix to the Tehama East/Tehama West Community Wildfire Protection Plan. In order to assure wide distribution of the information contained in the plan, copies were distributed to public agencies, the academic community, public libraries and the general public. The final document was also permanently posted to the RCD of Tehama County's website for community reference and downloading.

### **ENVIRONMENTAL REVIEW PROCESS**

Refer to the 2017 Tehama East/Tehama West East Community Wildfire Protection plan for information pertaining to environmental review and requirements for fire and fuels management projects and efforts to streamline these processes.

### **PLANNING METHODOLOGY**

The methodology utilized in developing this addendum to the Tehama East/Tehama West CWPP was like that used in the development of the original 2017 Countywide fire plan and consisted of the following steps:

- Based upon discussions between Lassen National Park, Lassen National Forest, Bureau of Land Management and RCDTC personnel as well as local private landowners, planning boundaries were established for the Mineral/Mill Creek/Childs Meadows planning area. Park Service GIS personnel then developed a map that showed the planning area's boundary, topography, public/private ownership boundaries and the area's fire history. These maps were later populated with the locations of proposed, in process and completed fire/fuels management efforts.
- RCDTC project personnel collected current information pertaining to natural and developed resources currently impacted by wildfire, fire hazards, wildland fuels, assets at risk along with currently in-place fire protection features and infrastructure located within the Mineral/Mill Creek/Childs Meadows planning area in written, digital, and GIS formats. Included among this information were planning area demographics, community infrastructure, ecological communities, hydrology and fuel types. The threat of wildland fire throughout the planning area attributable to increasing volumes of wildland fuels as well as urban development were analyzed as well. The information utilized in the preparation of this planning document and map was obtained from CAL FIRE's Fire and Resource Assessment Program, the U.S. Forest Service, along with other public and private organizations.
- Working with public and private stakeholders, RCDTC staff identified existing fire management and fuel reduction projects within this CWPP's planning area. In process project work along with additional efforts needed to improve currently in place infrastructure were identified and incorporated into the revised plan text and the planning area map prepared by Park Service personnel. RCDTC project staff also obtained input from area landowners, land managers and other stakeholders regarding undocumented assets at risk and fire protection infrastructure. Proposed fire

and fuels management project work was then prioritized based upon input from area stakeholders and incorporated into the draft planning document.

- A draft version of the Mineral/Mill Creek/Childs Meadows CWPP document and planning area maps were prepared and submitted to project stakeholders for review and input including any additional or corrected information. Reviewers also prioritized the final set of projects listed in the prioritization sheets. RCDTC project personnel then calculated average priority ratings for each project and created a summary prioritization sheet which was included as a component in the final version of the Mineral/Mill Creek/Childs Meadows CWPP submitted to the Tehama County Board of Supervisors, CAL FIRE Tehama-Glenn Unit Chief and the RCDTC Board of Directors for review and approval.

### **CATEGORIES USED TO RANK RECOMMENDED PROJECTS**

**Community** (areas valued by community members): High value examples are a community, a housing development or a grouping of several residences, a telecommunications translator, a community water supply, or key travel corridors. Low value examples are areas containing no residences or infrastructure issues.

**Fuel Hazard** (areas with high fuel loading and/or flammable vegetation): High hazard equates to dense, flammable vegetation (e.g., thickets of second growth, untreated plantations, or brush fields). Low hazard equates to open sites, areas previously thinned, and those containing no ladder fuels.

**Fire Risk** (areas with a high likelihood of fire starting): High risk equates to areas with high slope position and southwest aspect, with a history of lightning strikes, or with high concentrations of human activity (e.g., hunting camps). Low risk equates to areas with low slope position, with little human activity, or with little history of lightning strikes or fires.

**Ecological Value** (a measure of known ecological concerns in the landscape): High value is assigned for known habitat of threatened or endangered species or species for which resource agency survey and management protocols apply (e.g., notable stands of old growth vegetation or known nesting habitats of rare species). Low value does not indicate lack of ecological value but rather no outstanding concerns for the particular area in question.

**Economic Value** (a measure of known economic value of area resources): High value is assigned for areas with private property values or with power lines, forest plantations or other investments/resources at risk. Low Value is assigned for areas containing no particular infrastructure or resource value.

**Readiness** (ability of landowners and managers to respond quickly): High value is assigned where the ability exists for private landowners and land management agencies to act immediately with community support on public or private land. Low value is assigned where significant administrative work would be needed (e.g., NEPA compliance) before activities could take place.

**Cost of Project** (referring to overall economic cost of doing the work): High cost examples include

inaccessible or steep terrain, or a large-scale project. Low cost examples include clearing defensible space around a residence, or some types of controlled burns.

Recreation Value/Viewshed: High value would be a scenic highway designation or high recreational use area. Low value would indicate that no particular value was noted.

### **PRIORITY PROJECTS SUMMARY**

Based upon the objectives of this fire planning process as well as input from planning process stakeholders, the top priority of project work is the protection of residents and firefighters as well as public and private property, including ranchlands and timberlands. To address these priorities, project work was ranked in significance as follows:

- Projects that provide immediate and direct impact on the threat and intensity of wildfires such as fuel breaks and fuel reduction projects;
- Projects that result in improvements to firefighting and fire protection infrastructure, including access for firefighting forces, egress of residents, water storage, and water delivery system upgrades;
- Projects that entail planning endeavors such as the development of a coordination plan for maintenance, vegetation management and development of long-term funding sources;
- Projects that involve regulatory matters such as changes in laws, ordinances, and codes that relate to fire safety and fire management.

## **MINERAL/MILL CREEK/CHILDS MEADOWS CWPP PLANNING UNIT**

### **LOCATION, GEOGRAPHIC AND ENVIRONMENTAL CONDITIONS**

#### Planning Unit Location and Geographic Description

The Mineral/Mill Creek/Childs Meadows Planning Unit (41,000 acres) includes the communities of Mineral and Mill Creek along with their surrounding Wildland Urban Interface areas and adjacent wildlands. Developed areas and their WUI's within Childs Meadow located near the planning area's eastern boundary is included as well. The westernmost portion of the planning area is located approximately 25 air miles east of Red Bluff. The planning area's eastern boundary near Childs Meadow is located roughly 40 miles from Red Bluff. Major streams within the planning area include segments of South Fork Battle Creek and its tributaries Martin Creek, Nanny Creek and Summit Creek. Segments of Mill Creek's upper watershed including lands inside Lassen Volcanic National Park boundaries are within this planning project's boundaries as are that stream's major tributaries Sulfur Creek and Canyon Creek. Other minor tributaries to Mill Creek are included as well. The headwaters of Gurnsey Creek are found within the planning area's eastern boundary and flow through Childs Meadows becoming a major tributary to Deer Creek. South Fork Battle Creek, Mill Creek and Deer Creek are all considered important anadromous

tributaries within the Sacramento River system. Mill Creek is also noted as having the highest elevation area of anadromy within any California stream.

Approximately 20 miles of State Route 36E, 2 miles of State Route 89 (Lassen Park Highway) and all of State Route 172 (8.9 miles) are within the planning area. Landownership within the planning area boundaries is divided between public (475 acres within Lassen Volcanic National Park, 28,400 acres within Lassen National Forest boundaries and 185 acres managed by the Bureau of Land Management and 11,940 acres of private parcels. Within that portion of the Mineral/Mill Creek/Childs Meadows CWPP planning area located on National Park Service lands are found a portion of the Lassen Volcanic Wilderness. Planning area lands that are privately owned consist of permanent and summer homes, commercial establishments in and around the communities of Mineral and Mill Creek along with developed sites located within the Childs Meadows area adjacent to State Route 36E. Also located adjacent to the Mineral community are Lassen Volcanic National Park headquarters structures and related water facilities. Large inholdings of commercial timberlands managed by Collins Pine Company and Sierra Pacific Industries as well as several large ranches are found within the planning boundaries. The Childs Meadow, Mill Creek Meadows and Battle Creek Meadows complexes are in the eastern, central, and southern portions of the planning area respectively. These large high mountain meadow complexes are used for cattle grazing as well as water and wildlife production. A portion of Childs Meadow is also used for winter recreation. These meadows are noted for having high habitat and water resource values and are considered significant ecosystems within the Sierra Nevada and South Cascade ranges by the California Department of Fish and Wildlife, California Regional Water Quality Control Board, the U.S. Fish and Wildlife Service, The Nature Conservancy and other resource management entities.

In addition to the efforts described within the Mineral/Mill Creek/Childs Meadow CWPP area and as shown on **Map A**, consideration was given to fire/fuels management and fire ecology projects that have been proposed, completed or are in process within adjacent wildland areas. These efforts outside of planning area boundaries have been included among the project work described below. Surrounding resources that are at risk of wildfire outside this planning effort's boundaries were also considered given that catastrophic wildfire often crosses natural and administrative boundaries. In considering fire control and management projects both within and outside this planning project's area of concern, it is anticipated that work on both sides of the planning area boundary can be connected, expanding the network of fire related projects throughout eastern Tehama County.

## **Description of Completed, In Process and Proposed Fire/Fuels Management Projects**

### **Completed Projects**

#### **Project #C-1 Gray Gulch Mechanical Treatment Project**

The 4,439-acre Gray Gulch Mechanical Treatment Project was implemented by the Lassen National Forest in order to improve fire and fuels management conditions as well as improve habitat and ecological functioning within a large portion of the Battle Creek watershed located on federal lands. In general project work entailed plantation thinning and establishment of a Defensible Fuel Profile Zone. To accomplish these goals, project work entailed a combination of commercial, pre-commercial, and area thinning in order to reduce fuel loading. In addition, habitat restorations such as riparian zone and aspen stand improvements were implemented.

#### **Project #C-2 A-Line Road/F-Line Road/Road 90A Shaded Fuel Break**

This large-scale fuels management project entailed the development of an 18-mile-long fuel break along three forest roads managed by Sierra Pacific Industries located north of Highway 36E approximately four miles northeast of the Ponderosa Sky Ranch, eight miles southeast of the Manton community and six miles west of Mineral. Project work entailed the use of tracked mastication equipment to cut and chip brush along with small conifer and deciduous trees having a diameter of ten inches and under and oak species six inches in diameter and under. These treatments were conducted to a distance of 150' along both sides of roadways. Along those portions of the road on steep slopes or that were otherwise unsuitable for equipment, hand cutting and chipping was completed by the RCDTC along with crews provided by the CAL FIRE/CDC Ishi Conservation Camp. The project's total treatment area was roughly 654 acres. Funding for project implementation was provided by the U.S. Forest Service and Sierra Pacific Industries. The Sierra Nevada Conservancy provided funding for required environmental analysis and project development. Project work was managed by RCDTC personnel.

#### **Project #C-3 Mineral Roadside Fuel Reduction Project**

The Mineral Roadside Fuel Reduction project was completed in and around the community of Mineral with the objective of reducing fuels adjacent to developed sites within the community and surrounding area. Now completed, project work provides a defensible space around homes, improves access roads and complements the Mineral Community Fuel Break project which the Lassen National Forest has been implementing over the past few years. Mineral Roadside Fuel Reduction Project treatments consisted of hand cutting and chipping small trees and brush, along 5 miles of roads to a width of 75 feet on both sides of the roadway (91 acres). In several instances, treatments involved removing some trees and brush on private property along the boundary between the Lassen National Forest and adjacent property owners. The RCDTC provided a chipper and operator through its Chipper Services operation to process the vegetation and contracted with the CAL FIRE/CDC Ishi Conservation Camp to provide crew labor related to cutting and handling of bush that was fed into the chipper.

**Project #C-4 Bear Cub Hand Thin**

This Lassen National Forest project completed in 2004 entailed hand thinning, piling, and burning on National Forest lands within various Wildland Urban Interface areas in and around the Mineral community.

**Project #C-5 Battle Defensible Fuel Profile Zone**

Completed in 2011, this Lassen National Forest project consisted of commercial and pre-commercial thinning. Fuel treatments included grapple piling and burning in various locations on the north and south sides of Highway 36E both east and west of the Mineral community.

**Project #C-6 Gray Gulch Service Contract**

Completed in 2015, this project was a site preparation component to a larger Lassen National Forest fuels effort north of the Mineral community. Project work entailed mastication and pre-commercial thinning techniques in order to reduce the density of brush and mixed conifer vegetation. All work was completed through a Lassen National Forest service contract.

**Project #C-7 Plantation Gulch Defensible Fuel Profile Zone**

This 2015 Lassen National Forest implemented project consisted of commercial and pre-commercial thinning in mixed conifer stands north of the Mineral community.

**Project #C-8 Mill Creek Homeowners Association Fuel Treatments**

Working in cooperation with the Mill Creek Homeowners Association (MCHA), CAL FIRE/CDC Ishi Camp Conservation Camp, Lassen National Forest fuels personnel and RCDTC staff coordinated fuel treatments on MCHA managed properties to expand upon those developed on adjacent National Forest parcels. Utilizing crews from Ishi Conservation Camp, small conifers ten inches in diameter and under along with understory vegetation and dead woody fuels were removed. Those trees left standing were limbed to eight feet above ground level. The RCDTC provided chipping services including a chipper unit and field technician/operator through its Chipper Services Program. All work was completed exclusively on Mill Creek Homeowners Association lands. A total of 5 acres were treated in connection with project work.

**Project #C-9 Mill Creek Fuel Break**

Project work entailed hand thinning, piling, and burning of excess vegetation within mixed conifer stands along Mill Creek to the south of the Highway 36E bridge. Project work was completed by the Lassen National Forest.

**Project #C-10 Brokenshire Project**

The Brokenshire area of the Lassen National Forest along State Route 172 provides an array of recreation opportunities. In addition, there are private recreation residences and an organization camp operating under a special use permit issued by the Forest Service. In order to protect and improve area resources and surrounding developed sites, the Lassen National Forest implemented the Brokenshire Project. This portion of a larger restoration effort related to fire and fuel management and entailed hand cutting, piling, and burning of small trees and shrubs around the Summit Springs Recreation Residence Tract, Camp Tehama Organizational Camp, and other recreational sites. A fifty-foot buffer was established along the east side

State Route 172 in order to reduce the threat of roadside ignitions and to develop a fuel break from which future backfire operations can be conducted in the event of a wildfire event. These vegetation and fuel treatments covered an area of approximately 53 acres.

#### **Project #C-11 Refuge Timber Harvest Plan Defensible Fuel Profile Zone**

This Defensible Fuel Profile Zone project implemented by Sierra Pacific Industries, entailed the harvest of merchantable timber, small, poorly formed trees, brush and downed fuel along a ridge line above Mill Creek Rim. Once these treatments were completed, County approved herbicides were applied to treatment areas to maintain vegetation control for an extended period of time.

#### **Project #C-12 Lassen Volcanic National Park Mineral Headquarters Wildland/Urban Interface (WUI) Shaded Fuel Break and Prescribed Burn**

LVNP headquarters are located adjacent to State Highway 36, just west of the Mineral community. All the residences east and north of the central Administration building are historic structures and contribute to an historic cultural landscape that is listed on the National Register of Historic Places. Thinning of approximately 80 acres began in 2003 and was completed prior to 2016 when NPS personnel conducted prescribed burns within the headquarters area in order to reduce surface fuels.

### **In Progress Projects**

#### **Project #IP-1 Dry Hills Forest Restoration Project**

The Almanor Ranger District of the Lassen National Forest is currently using a combination of treatment methods to implement a variety of vegetation management strategies that address a number of ecological concerns related to the Dry Hills area located near the eastern boundary of the Lassen National Forest. It was found that many of the forested stands within the project area have developed stand densities that negatively affect the health of forest stands and associated vegetation. The proposed project area also lacks vegetative diversity while the accumulation of ground and ladder fuels serve to promote high intensity fire. To improve current conditions, the Dry Hills Forest Restoration Project was designed to (1) develop defensible fuel profile zones; (2) implement group selection and conduct area thinning; improve aquatic, riparian and meadow areas; (4) promote conifer growing conditions and resiliency to disturbance; and (5) maintain and improve habitat opportunities for wildlife. Project work will be completed using a combination of commercial timber sales, service contracts, stewardship contracts, and Forest Service crews. The majority of the area lies at an elevation range between 5,800' feet and 6,400'. Red and white fir communities are the dominant vegetation types, with mixed conifer more prevalent on the west side of the proposed project area. There are several meadow complexes of various sizes, including Dry Lake and Cowslip Meadow.

#### **Project #IP-2 Highway 36 Fuels Maintenance**

The California Department of Transportation (CAL TRANS), CAL FIRE, and California Department of Conservation continue to collaborate on a shaded fuel break and fuels reduction project along the Highway 36 right-of-way from Hog Lake just east of Red Bluff to the Plumas County line. The fuels treatments completed in connection with these efforts creates an east-west fuel break along the south rim of Battle

Creek Canyon and provides partial protection to the communities of Dales, Paynes Creek, Ponderosa Sky Ranch, Battle Creek Estates, Mineral along with the developed sites within Childs Meadows, the Battle Creek Rod and Gun Club and Paynes Creek Sportsman Club. Project work is partially funded by CAL TRANS in order to meet State sight clearance standards. This project is ongoing, although not all areas are treated each year. Annually, project work is completed along approximately 25 miles of roadway. These efforts include mechanical removal of chaparral and timber species along both sides of the highway right-of-way and several auxiliary roads immediately adjacent to the highway prism. At sites where State highway treatments intersect with adjacent fuels management efforts, the impact of each project is leveraged against one another increasing their respective effectiveness.

### **Project #IP-3 Collins Almanor Forest/Highlands Ranch Resort/Childs Meadows Fuel Reduction and Forest Resiliency Project**

This project planning and implementation effort is being conducted in order to implement habitat restoration and fuel reduction treatments within forested areas around the Childs Meadows complex located along State Route 36E/89. Once completed, the planning document will take the form of a Timber Harvest Plan (THP) prepared for two adjacent timbered properties owned by Collins Pine Company that surround Childs Meadow. The THP will result in:

- An analysis of impacts related to timber removal in upland areas adjacent to the meadow complex related to wildlife and plant species habitat improvement;
- Thinning of young, suppressed and poorly growing trees and removal of understory woody vegetation in upland areas immediately adjacent to the meadow complex;
- Removal of small conifers from within the meadow complex along within an aspen stand located inside the project area;
- Thinning of roadside vegetation along State Route 36E/89 in order to reduce potential roadside ignition;

Planning and implementation efforts will be completed through a partnership between the Resource Conservation District of Tehama County (applicant/project-finance manager), Collins Almanor Forest (landowner and implementation project manager) and the Highland Ranch (landowner). The overall purpose of this project is to protect and improve forest health and resiliency in and around the Childs Meadow complex in addition to reducing potential effects of a wildfire in this relatively high use highway corridor. As a result of these efforts, it is anticipated that water quality and stream flows will be protected through a reduction in the potential effects of wildfire within the Gurnsey Creek and nearby Deer Creek watersheds both of which are major tributaries to the Sacramento River system.

Project implementation will entail the following components:

- Highway buffer (18 acres). Fuel Treatment along highway 36E/89 on both sides of the road. Mastication or pile burning of small woody material within 30 feet of the road edge to remove fine fuels and ladder fuels.

- Fuel Treatment (227 acres). Thinning of merchantable and sub-merchantable trees from the understory of the forest stands and meadow edges. This material will be chipped and cut for delivery to a local cogeneration plant.

#### **Project #IP-4 Collins Almanor Forest Hole-In-The Ground Timber Harvest Plan**

Timber harvest operations related to this CAL FIRE approved Timber Harvest Plan will be completed under the provisions of 14 CCR 933.4 (C) (Fuel Break Special Prescription). In addition to harvesting merchantable timber, this harvest operation will create a shaded fuel break that aids in the protection of both the Mill Creek community and adjacent forestlands from catastrophic wildfire. Trees of all diameter classes within the stand will be mechanically harvested in order to reduce ladder fuels, decrease horizontal continuity, and promote health and vigor within the stand. As designed, the residual stand will be composed primarily of dominate and codominant trees with some intermediate and pole size regeneration where horizontal continuity allows. Harvest operations will be completed through the use of mechanical harvesting with some hand felling of oversized trees as necessary. Cut trees will be whole tree yarded to a landing where they will be processed using delimiting equipment. All sub-merchantable trees, top and cull material along with slash will be chipped and shipped to a cogeneration plant as fuel. Treatment of understory vegetation and other fuels will occur concurrently with timber harvest operations.

#### **Planned/Proposed Projects**

##### **Project #P/PP-1 Tramway Road Fuel Break**

Tramway Road is a County-maintained wildland road that connects the Lyman Springs area with Highway 36E at Lassen Lodge. As proposed, fuel treatments would include cutting and chipping or cutting, piling, and burning of brush and small trees (conifers ten inches in diameter and under and oaks six inches in diameter and under to a distance of 100' feet on both sides of the road edge. Large trees left within roadside treatment areas would be limbed to a height of 8' above ground level. Environmental analysis for this project was completed by the RCD of Tehama County in 2014.

##### **Project #P/PP-2 Stringtown Fuel Break**

This project would entail completing 200' to 400' of fuel reduction behind the Stringtown community due east of Mineral's urban core along Highway 36E. This fuel break would be created along both sides of Highway 36E to one mile east past the Mineral community.

##### **Project #P/PP-3 Processing of Treated Vegetation Within PG&E Right-Of-Way in the Mineral/Stringtown Area**

At the present time felled trees and other cut vegetation is found within the PG&E right-of-way along developed areas of Mineral and the adjacent Stringtown area located immediately to the east adjacent to State route 36E. Without follow up processing of this material, ground fire can move through the right-of-way area impacting either developed parcels or wildland areas outside of these communities. Proposed project work would entail cutting and chipping and/or piling and burning this cut vegetation in order to reduce the risk of ignition and fire spread as well as to create a protective ground cover within utility right-of-way. It is the expectation of PG&E that landowners will clear this debris on their property. On many parcels however,

this has not occurred as owners are either absentee, elderly or otherwise unable to complete follow up processing of cut vegetation. As proposed, the treatment of cut vegetation would be completed through a fee-for-service agreement between the RCD of Tehama County with funding provided by the utility or other source of project dollars. Given that the project work would provide community benefit, the potential exists for CAL FIRE/CDC Conservation camps crews to provide labor to this effort at a reduced cost.

**Project #P/PP-4 Formal Establishment of Fire Safety Zones**

In the event of a large, fast moving fire in the Mineral, Mill Creek or Childs Meadows area, various routes out of these communities may become blocked, preventing egress to other parts of Tehama County or Shasta County. In such an event, the creation of formal safety zones and emergency evacuation routes would be essential to protect community members. Once Fire Safety Zones evacuation routes were formally established, they would need to be incorporated into evacuation maps prepared by the Tehama County Sheriff's Office with CAL FIRE Input.

**Project #P/PP-5 Sierra Pacific Industries Roadside Vegetation Treatments**

A portion of this large-scale vegetation management effort would occur within or immediately adjacent to the Mineral/Mill Creek/Childs Meadows CWPP planning area and would entail hand or mechanical treatment of vegetation along various forest roads managed by Sierra Pacific Industries. The goal of this effort is to improve access during wildfire events. As proposed, roadside vegetation would be processed to a width of approximately fifteen feet from both road edges or 30' in total. Once removal of vegetation was completed, State and County approved herbicides would be applied to treatment sites in order to extend the life of project work.

**Project #P/PP-6 Hand Treatments on BLM Lands Along Battle Creek**

Work tentatively proposed for Bureau of Land Management parcels along Battle Creek west of Mineral include hand treatments on a small parcel near the mouth of Panther Creek. These treatments would be completed in a manner that would improve defensible space around structures, access along roadways as well as infrastructure protection (utility lines) located within this BLM parcel. Road access would permit the use of both chipper units and hand crews.

**Project #P/PP-7 Roadside Fuel Treatments along Tehama County Road 769/Wilson Lake Road/Section One Old Red Bluff Road**

Treatments along a ten mile segment of various Tehama County and privately maintained roads between State Route 36E near Childs Meadow and Domingo Springs would create a significant east west fuel break that improves access for wildland fire fighters and protection to an array of watershed resources and developed features within a large area of easternmost Tehama County. Included among protected watershed resources would be Wilson Lake, Duck Lake, Blue Lake, Elizabeth Lake, Patricia Lake, Little Wilson Lake, Feather River Meadows, Chummy Meadows, Mill Creek Meadows, the north and south arms of Rice Creek, Bunchgrass Creek, a tributary to Gurnsey Creek, Domingo Springs and the headwaters of Domingo Creek. Developed features that would be better protected by these roadside treatments include the Feather River Rod and Gun Club, the Feather River and Willow Creek Homesite areas, Stump Ranch headquarters and Lassen National Forest campgrounds.

**Project #P/PP-8 Roadside Fuel Treatments and Meadow Restoration along the Gurnsey Creek Corridor Between the State Route 36E/32E Interchange and the in-Process Collins Almanor**

### **Forest/Highlands Ranch Resort/Childs Meadow Fuel Reduction and Forest Resiliency Project**

As proposed, roadside vegetation treatments would be completed to a distance of 200 linear feet along both sides of State Route 36E between the State Route 36E bridge over Mill Creek and the State Route 172 junction to Morgan Summit and the junction of State Route 89. Overstocked small (ten inches and under) conifers including White fir, Douglas fir and pine species would be removed along with various brush species in order to reduce the risk of highway related ignitions and fire spread. Protection from such treatments would be afforded the Mill Creek community, developed sites within Childs Meadows and the Seward Ranch, Lassen National Forest lands along with those within the Lassen Volcanic Park National Park boundaries.

### **Project #P/PP-9 Mill Creek Property Owners Association Roadside and Community Lands Vegetation Treatments**

Project work would entail thinning of overly dense large conifers along with understory vegetation and dead ground fuels. Treatment areas would include roadside areas along the State Route 172 corridor within and around the community of Mill Creek along with community parcels owned by the Mill Creek Property Owners Association. These treatments would provide protection to the Mill Creek community itself, many full and part time residents living along Route 172, the Camp Tehama site and Lassen National Forest recreation sites along Mill Creek. Treatments would also reduce ignition risk and fire spread from developed sites into public and private forest lands.

### **Project #P/PP-10 State Route 36E Highway Right-Of-Way Forest Vegetation Treatments Between the State Route 36E Bridge Over Mill Creek and Morgan Summit/SR 89 Junction**

Project work would entail hazard tree removal, thinning of understory vegetation and removal of excessive dead ground fuels. The project area would include the CAL TRANS highway right-of-way as well as adjacent Lassen National Forest and private forestlands along State Route 36E between the highway bridge over Mill Creek and Morgan Summit/State Route 36E/89 Junction. As proposed, treatments would extend 150' from both sides of the highway's paved edge. At the present time that portion of the State Route 36E highway corridor contains numerous overstocked small white fir and other shade tolerant species under a healthy overstory of large Ponderosa Pine. Removal of large hazard trees along with small understory trees and other vegetation would not only protect the mature pine stands from highway related ignitions, it would provide protection to the Mill Creek community located approximate six miles east of State Route 36E adjacent to Route 172. Many large ranch operations and the Lassen Volcanic National Park would be protected as well. These treatments would also improve forest stand health through the removal of excessive competition between both canopy and overstory vegetation.

### **Project #P/PP-11 Lassen Volcanic National Park Mineral Headquarters Wildland/Urban Interface (WUI) Shaded Fuel Break Project and Prescribed Burn**

LVNPS administration proposes to continue reducing stem density on lands within its Mineral headquarters area, which now include an additional 100 acres of land adjacent to the existing historic portion of the facility. Thinning from below, radial thinning to protect late seral forest structure and additional reduction in stem density is planned. In addition, NPS personnel intend to pile burn where appropriate and broadcast burn the headquarters area every 5 to 7 years in order to maintain low surface fuel loadings.

## **SUMMARY AND CONCLUSIONS**

In establishing priorities for fire and fuels management projects to be completed within the Mineral/Mill

Creek/Childs Meadows CWPP area, the lives of area stakeholders and firefighters as well as public and private property were of primary consideration. Those projects that provided immediate and direct impact to the threat and intensity of wildfire were given the highest priority. Among these critically important projects were those that entailed fuels reduction and infrastructure improvements, particularly those involving access for firefighting forces and egress of residents. In addition, water storage and water delivery projects were considered of equal importance. From this prioritization process, the following broad action items were developed by the RCDTC with extensive input from planning area stakeholders:

- The RCD of Tehama County, Tehama-Glenn Fire Safe Council and other Mineral/Mill Creek/Childs Meadows CWPP planning area stakeholders should develop a list of all currently unfunded fire and fuels management projects within the planning area.
- The Tehama-Glenn Fire Safe Council and RCD of Tehama County, with assistance from the Lassen Volcanic National Park, Lassen National Forest, Bureau of Land Management and CAL FIRE should identify possible sources of public and private dollars for unfunded projects. Funding is expected to be in the form of public and private grants, and self-funding through capital outlays, the sale of timber and biomass products, the assessment of fees and taxes, or other revenue sources. Proceeds from such funding could be used to finance both the initial completion of project work as well as the permanent maintenance of already completed infrastructure improvements.

## **PLANNING UPDATES**

With the completion of this area specific CWPP document, the recommendations generated through the planning process will be incorporated into the Tehama East/Tehama West Community Wildfire Protection Plan as a formally approved appendix. The project work and other efforts described above will also be incorporated into the CAL FIRE Tehama–Glenn Unit Fire Plan, which is updated annually. Throughout the year as new projects or resources in need of protection are identified, these will be submitted to the Tehama County Board of Supervisors, Cal Fire and the RCD of Tehama County Board of Directors for review, approval and formal incorporation into both the Countywide CWPP and the Cal Fire Unit Plan. This project information will also be used to update the Mineral/Mill Creek/Childs Meadow CWPP planning area map.

## **NEXT STEPS**

In order to efficiently and effectively initiate the efforts described in this planning document, the Coordinator of the Tehama–Glenn Fire Safe Council and RCD of Tehama County staff will immediately begin to work with members of the Tehama–Glenn Fire Safe Council to identify funding sources for project work developed within this fire plan addendum. RCDTC personnel will also assist in identifying funding sources for project work, developing project funding proposals, and providing financial/project management of project work.

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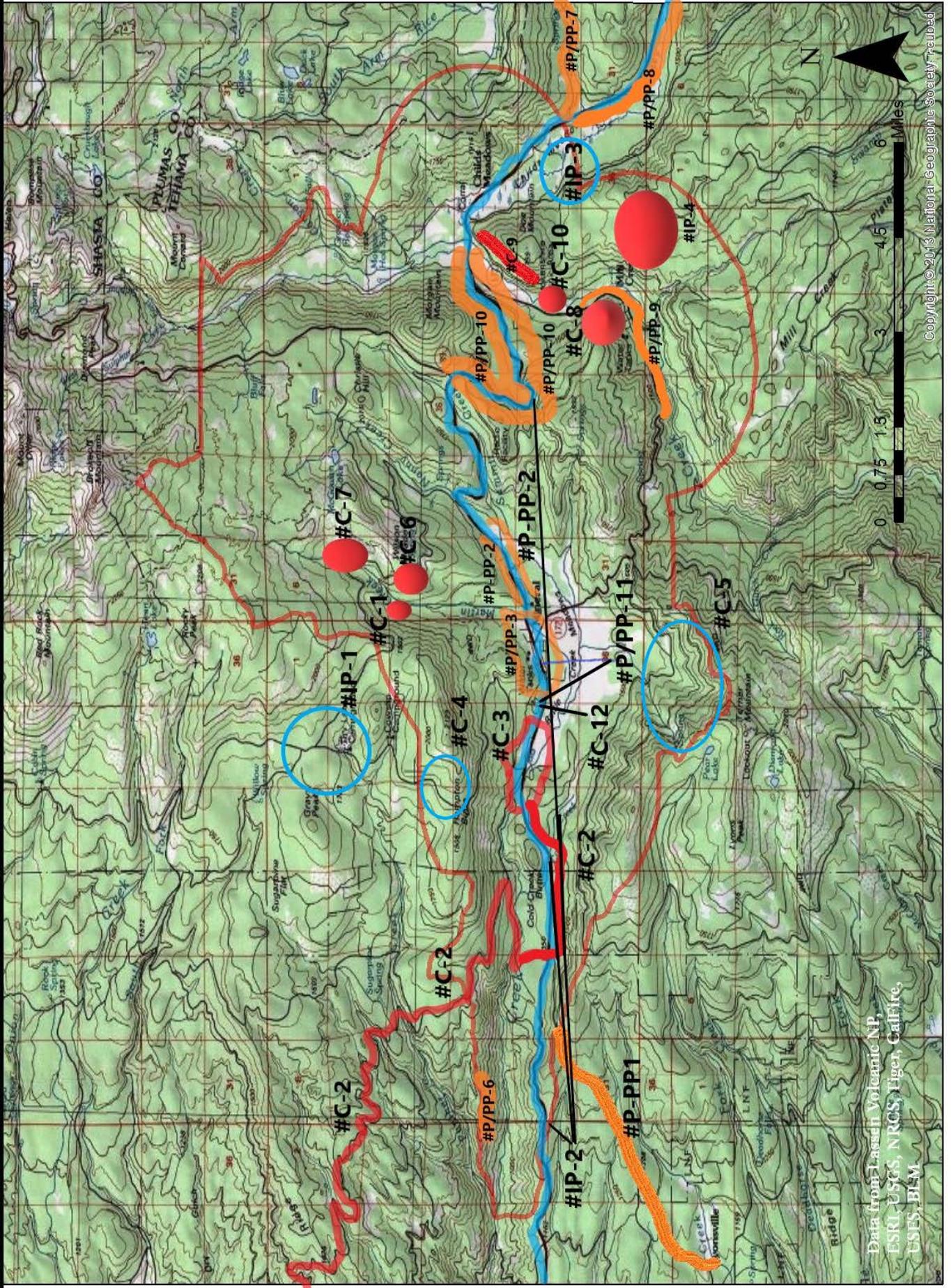
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# MAP A

# Mineral/Mill Creek CWPP Proposed Area



Data from Lassen Volcanic NP, ESRI, USGS, NRCSS, Tiger, CalFire, USFS, BLM