



California Department of Forestry and Fire Protection  
(CAL FIRE) California Climate Investments  
Fire Prevention Grants Program  
Project Scope of Work



**Project Name: Jones Hill**

**Project Tracking Number:** 18-FP-TCU-2091

**Project Description Summary:** Please provide a paragraph summarizing proposed project including the location, habitable structures, acres treated, etc. (Please type in blank space below. Please note there is no space limitations).

The proposed Jones Hill Fuel Break is approximately 111 acres in size and located within the Groveland Community Services District property line. This fuel break will allow the Rim Truck Trail West Fuel Break to be segment by segment constructed encompassing the Community of Groveland and the Groveland Community Services District. The proposed fuel break will protect the communities of Big Oak Flat, Pine Mountain Lake and Groveland from a large, damaging fire coming from the South Fork of the Tuolumne River Canyon. The overall project area is within the State Responsibility Area (SRA) in Groveland. This project will benefit approximately 3,500 habitable structures.

**A. Scope of Work**

This item is broken into project specific criteria depending on the type of project being proposed: planning, education or hazardous fuel reduction. Please **answer one section of questions** that pertain to the primary activity type for your project.

**Section 1: Hazardous Fuel Reduction/Removal of Dead or Dying Tree Projects**

1. Describe the geographic scope of the project, including an estimate of the number of habitable structures and the names of the general communities that will benefit.
2. Describe the goals, objectives, and expected outcomes of the project.
3. Provide a clear rationale for how the proposed project will reduce the risks associated with wildfire to habitable structures in the WUI.
4. Identify any additional assets at risk to wildfire that will benefit from the proposed project. These may include, but are not limited to, domestic and municipal water supplies, power lines, communication facilities and community centers.
5. Is the scale of the project appropriate to achieve the stated goals, objectives and outcomes discussed in Item 2 above?
6. How will the project/activity utilize the left over woody biomass? Will the project/activity use a biomass facility to reduce greater greenhouse gas emissions?

**Response (Section 1):** The Groveland Community Services District has an area of 14.7 square miles servicing the communities of Groveland and Big Oak Flat. Located only 26 miles from the northern entrance to the Yosemite National Park on Highway

120, today Groveland is the most convenient gateway for tourists coming from the San Francisco Bay Area, Sacramento, Stockton, or Modesto. A large percentage of those visitors, along with residents, use the wide variety of recreation assets available within Groveland along the way: fishing, lake and river sports, hiking, cycling, touring, to name just a few. Full time population of the Groveland area is approximately 5,000 residents but the population can rise to approximately 10,000 residents and visitors alike during the peak of the tourist season, which coincidentally is also during the peak of the California wildland fire season. Tourism and recreation may be the most significant element of the economy threatened by wildfire.

The geographic scope of this project is on the Groveland Community Services District property. Project goal is private contractors operating masticators will create an approximate 111-acre shaded fuel break by masticating in the understory. Generally, trees less than 10-inches in diameter at breast height, and brush would be removed to create a shaded fuel break condition. Residual trees will be spaced to break up the vertical and horizontal continuity of fuels.

The benefit of removing the understory fuels is the reduction in greenhouse gas emissions. This will allow mature trees to live through and endure a wildland fire. Mature trees process significantly more than smaller plants due to their large size and extensive root structures have a much more woody biomass to store CO<sub>2</sub>. Native Ponderosa Pines and Black Oak within the fuel break are examples of trees especially good at absorbing and storing CO<sub>2</sub>.

The expected outcome is to have a fuel break strategically placed in a location within a greater area of fuel breaks overall, at least in terms of protecting the Groveland community. This will assist in controlling large fires primarily where they provide additional access for firefighting activities, ultimately increasing initial attack success reducing the number of extended or major wildland fires. This fuel break should serve to allow firefighters to work safely in the area; to change fire direction; to drop fire to the ground; and to stop the spread of wildfire under adverse fire conditions. The width of treatment will be determined utilizing such factors as fuel loads, topography, predominant winds, values at risk and fire behavior modeling. Mitigating fire risk to the communities is a priority of the District.

Another key desirable outcome of fuel reduction is protecting the Groveland Community Services District water and sewage treatment facility. This critical infrastructure provides safe drinking water and fire protection for the Groveland and Big Oak Flat communities.

(In July 2015, the Big Creek Fire started below the Highway 120 fuel break during critical fire weather and fuel conditions allowing fire crews to anchor and quickly extinguish spot fires from spreading. The fire was stopped in the extended attack phase and was prevented from becoming a major fire greatly reducing fire suppression costs.)

Finally, with the number of large wildfires increasing in California since the early 1980s the number of catastrophic wildfires are projected to increase in the state as the climate warms. There could be profound changes to certain ecosystems which are vital for survival. The planet as a whole is entering into an unprecedented new climatic era while the worst wildfires, and the hottest summers, and the worst floods are yet to come. The only technologically proven way to keep them at bay is to reduce greenhouse gas emissions. The Jones Hill Fuel Break will be a great example of a project that reduces greenhouse gas emissions in conjunction with protecting the community from fire.

## **Section 2: Planning Projects**

1. Describe the geographic scope of the project, including the communities that will benefit, and an estimate of the number of structures within the project area.
2. Describe how the project will assess the risks to residents and structures in the WUI and prioritize projects to reduce this risk over time.
3. Does the proposed plan add or build upon previous wildfire prevention planning efforts in the general project area?
4. Identify a diverse group of key stakeholders, including local, state, and federal officials where appropriate, to collaborate with during the planning process. Discuss how the project proponent plans to engage with these targeted stakeholders.
5. Describe the pathways for community involvement that will be incorporated in the planning process.

## **Section 3: Education**

1. Describe the specific message of the education program and how it relates to reducing the risk of wildfire to owners of structures in the WUI.
2. Describe the target audience of the education program and how information will be distributed to this audience.
3. Will the education program raise the awareness of homeowner responsibilities of living in a fire prone environment?
4. Identify specific actions being advocated in the education material that is expected to increase the preparedness of residents and structures in the WUI for wildfire.
5. Describe the expected outcome of the education in terms of increased or changed public awareness about wildfire.

**Response:**

### **B. Relationship to Strategic Plans**

Does the proposed project support the goals and objectives of the California Strategic Fire Plan, the local CAL FIRE Unit Fire Plan, a Community Wildfire Protection Plan (CWPP), County Fire Plan, or other long term planning document? (Please type in blank space below. Please note there is no space limitations).

**Response:** This Jones Hill Fuel Break would complement the existing fuel breaks in the Tuolumne Calaveras Unit Fire Plan meeting the goals of CAL FIRE in the Groveland Battalion.

**C. Degree of Risk**

1. Discuss the location of the project in relation to areas of moderate, high, or very high fire hazard severity zone as identified by the latest Fire and Resource Assessment Program maps. Fire hazard severity zone maps by county can be accessed at: [http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones\\_maps.php](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.php)
2. Describe the geographic proximity of the project to structures at risk to damage from wildfire in the WUI. (Please type in blank space below. Please note there is no space limitations).

**Response:** Groveland is in an area that is subject to vegetation fires. The hilly terrain, incursion of flammable vegetation and the generally difficult road system make wildland fires the most serious threat for conflagration should a fire escape a building of origin or the ignition occurs outside. Groveland is unique in that it is in the only Battalion in the Tuolumne-Calaveras Unit to extend from the Local Response Area (LRA) boundary in the west to the Federal Response Area (FRA) / Direct Protection Area (DPA) boundary with the US Forest service in the east. Most the Battalion has been designated by CAL FIRE as a Very High Fire Hazard Severity Zone. The Fuels in the Battalion transition from west to east with the increasing elevation; from grass rangeland, to grass and oak woodland, to mature chamise stands, culminating in stands of mixed woodland and timber. These varieties of fuel, combined with the rugged terrain, create a volatile fire environment that has produced many large and damaging fires over the decades. The Battalion does have a history of large fires: Moccasin 1992, Rogge and Ackerson fires 1996, Creek 2001, Serpentine 2008, and Rim 2012 to name a few which all directly threatened the communities of Groveland and Big Oak Flat.

This project protects Downtown Groveland to the south and the Pine Mountain Lake Community with over 2800 structures to the north and east.

**D. Community Support**

1. Does the project include any matching funds from other funding sources or any in-kind contributions that are expected to extend the impact of the proposed project?
2. Describe plans for external communications during the life of the project to keep the effected community informed about the goals, objectives and progress of the project. Activities such as planned press releases, project signage, community meetings, and field tours are encouraged.
3. Describe any plans to maintain the project after the grant period has ended.
4. Does the proposed project work with other organizations or agencies to address fire hazard reduction at the landscape level?  
(Please type in blank space below. Please note there is no space limitations).

**Response:** The creation of a new fuel break that protects the community and infrastructure is supported is both publicly and politically. The Groveland Community Services District Mission is to provide environmentally sound, economic, and compliant services that meet our customer’s needs for water and wastewater treatment, fire protection, and park facilities in the unincorporated township of Groveland, California.

The Groveland Fire Department and District plan to keep the public informed of the fuel treatment work by board meetings, social media and radio.

Planned maintenance will consist of utilizing the local CAL FIRE handcrews and Sierra Training Center. Also, the Groveland Community Services District is contracted with CAL FIRE for the Amador Program in which personnel are experienced in maintaining fuel breaks.

Tuolumne County Fire along with the Highway 120 Fire Safe Council have funding for several shaded fuel breaks as a strategic “defensible landscape” to reduce the speed and severity, improve suppression by ground crews and air resources. By “blocking” these areas the fuel modifications separates the community and District to reduce fire loss and damage.

**E. Project Implementation**

1. Discuss the anticipated timeline for the project. Make sure to take seasonal restrictions into account.
2. Verify the expected timeframes to complete the project will fall under the March 15, 2022 deadline.
3. Describe the milestones that will be used to measure the progress of the project.
4. Describe measurable outcomes (i.e. project deliverables) that will be used to measure the project’s success.
5. If applicable, how will the requirements of the California Environmental Quality Act (CEQA) be met?  
(Please type in blank space below. Please note there is no space limitations).

**Response:** The timeline to complete the required environmental documentation is approximately one year which would allow for any surveys to be completed during appropriate times. This environmental work will be conducted by CAL FIRE foresters or a private contractor. Fuel reduction work can be completed in three seasons. A total of three years for the project would allow work to be conducted at appropriate times, and provide for contractor availability. Milestones for this project will include identification of areas needing treatment annually, mobilization, completion of treated areas, GPS mapping of the treatments and entry into CALMAPPER and unit GIS database.

## **F. Administration**

1. Describe any previous experience the project proponent has with similar projects. Include a list of recent past projects the proponent has successfully completed if applicable. Project proponents having no previous experience with similar projects should discuss any past experiences that may help show a capacity to successfully complete the project being proposed. This may include partnering with a more experienced organization that can provide project support.
2. Identify who will be responsible for tracking project expenses and maintaining project records in a manner that allows for a full audit trail of any awarded grant funds. (Please type in blank space below. Please note there is no space limitations).

**Response:** Groveland Community Services District under Schedule A contract with CAL FIRE has experience in planning, implementing and completing fuels treatment and reduction projects under the State Fire Prevention Fee grant program and has partnered with the Highway 120 Fire Safe Council to complete grant projects in the past. These projects included fuel breaks in and around the community of Groveland. The Groveland Community Services District will be responsible to tracking all grant project expenses, reporting requirements and record keeping for auditing purposes.

## **G. Budget**

A detailed project budget should be provided in an Excel spreadsheet attached to this grant application. The space provided here is to allow for a narrative description to further explain the proposed budget.

1. Explain how the grant funds, if awarded, will be spent to support the goals and objectives of the project. If equipment grant funds are requested, explain how the equipment will be utilized and maintained beyond the life of the grant.
2. Are the costs for each proposed activity reasonable for the geographic area where they are to be performed? Identify any costs that are higher than usual and explain any special circumstances within the project that makes these increased costs necessary to achieve the goals and objectives of the project.
3. Is the total project cost appropriate for the size, scope, and anticipated benefit of the project?
4. Identify all Indirect Costs and describe why they are necessary for a successful project implementation. Administrative expenses to be paid by the Fire Prevention Grants must be less than 12% of the total grant request (excluding equipment).
5. Explain each object category in detail and how that would support meeting the grant objectives. (Please type in blank space below. Please note there is no space limitations).

**Response:** Recent reductions in eligible inmate firefighters used to staff fire crews used in fuels work has resulted in a 20% reduction in fire crews statewide. This reduction has had a direct negative impact on the ability to construct new fuel breaks. Thus, the recommendation to contract out for services seems more viable. Grant funds will be expended to mechanically treat the perimeter of the Groveland Community Services District. Outlook of funds will be planned to maintain the fuel break.

Costs of this project will have to go out to bid but an anticipated cost of \$1,000 per acre is expected. A CEQA will need to be completed with the inclusion of an administrative expense. The budget spreadsheet documents the direct cost of the mastication, CEQA, and administrative expense.

## H. California Climate Investments

The space provided here is to allow for a narrative description to further explain how the project/activity will reduce Greenhouse Gas emissions.

1. How will the project/activity reduce Greenhouse Gas emissions?
2. Is the project located in a Low-Income or Disadvantaged Community? If not, does the project benefit those communities. Please explain.
3. What are the expected co-benefits of the project/activity (i.e. environmental, public health and safety, and climate resiliency)?
4. When are the Greenhouse Gas emissions and/or co-benefits expected to occur and how will they be maintained?  
(Please type in blank space below. Please note there is no space limitations).

**Response:** This project will reduce greenhouse gas emissions by lowering the probability of a devastating wildfire and sequester carbon by removing understory brush and trees. When extraordinary amounts of fuel are present, a fire's intensity may increase beyond the beneficial point. Mastication will allow mature trees to live through and endure a wildland fire. Mature trees process significantly more than smaller plants due to their large size and extensive root structures have a much more woody biomass to store CO<sub>2</sub>. Native Ponderosa Pines and Black Oak within the fuel break are examples of trees especially good at absorbing and storing CO<sub>2</sub>.

The project is not located in a Low-Income or Disadvantage Community. Average cost is comparable to other fuel treatment methods and may be more efficient. Co-benefits of mastication treatment is accomplished by lowering the fire intensity potential because the likelihood of a forest crown or canopy fire is reduced, minimizing the threat to the community and infrastructure.

Public health and safety is enhanced when clean energy measures improve air quality and water quality. Mastication reduces the buildup of fuels in the affected area slowing down or minimizing the burning conditions and fire behavior. This measure may prevent negative health incidences, such as illnesses and deaths. Data estimates the human health effects of air quality changes and the monetary value of avoided health effects a key component of a comprehensive economic benefit-cost analysis. Supporting documentation shows mastication can be an effective treatment for overstocked forests and few discernible negative impacts on soil compaction or watershed runoff. These

co-benefits can be recognized immediately and be maintained through continued treatments utilizing local CAL FIRE hand crews and Sierra Training Crews.