



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



**Project Name: Nevada County Hazardous Vegetation Removal Equipment**

**Project Tracking Number:** 17-FP-NEU-XXXX

**Project Description Summary:** Please provide a paragraph summarizing proposed project including the location, habitable structures, acres treated, etc.

The Nevada County Hazardous Vegetation Removal Equipment Project will focus on the procurement and implementation of a Skid Steer Brush Mulcher. Defensible space and evacuation route clearing specifications were developed by foresters at Cal Fire and delineated through California Public Resource Codes 4290 and 4291. The Vegetation Management Ordinance 2411 was developed in collaboration between the Nevada County Planning Department and the Cal Fire NEU forester. The treatment prescription is for the management of vegetation within 100 -300 feet of structures (dependent upon home siting, vegetation model and overall fuel loading), 10 feet along the road/driveway shoulder with a 15 foot vertical clearance for emergency equipment response. Nevada County also provides roadside vegetation management and must maintain its lands free of hazardous vegetation. Procured equipment (Skid Steer Brush Mulcher) will assist in both County hazardous vegetation maintenance projects along with vegetation abatements on private property as specified in ordinance 2411.

**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?

Answer only 1 set of questions from above, depending on your project; Fuel Reduction, Planning or Education.

Nevada County is situated on 978 square miles of diverse and rugged rural lands in the Sierra Nevada Range and has a wide variety of natural vegetation due to the changes in elevation from 300 - 9,100 (mls). Nevada County's population of over 98,000 resides in 52,590 housing structures. According to Cal Fire's Fire Hazard Severity Zone maps, 8% of the County is living within the moderate zone, 29% in the high zone and 62% in the very high zone. In the unincorporated areas of Nevada County, approximately 28,000 parcels are located within the WUI as defined by the Community Wildfire Protection Plan. According to Cal Fire, Nevada County has over 25,000 structures in the State Responsibility Area, which is the 5<sup>th</sup> highest county. Therefore, the vast majority of the population, and homes, lie within very high wildfire hazard areas where effects of wildfire would be devastating.

Our project seeks to minimize the impacts of large wildfires and allows firefighters a safer working environment to more effectively combat catastrophic wildfires through vegetation management to reduce fire severity, intensity and rate of spread. The project will support the reduction of hazardous vegetation, while promoting a healthy ecosystem. The primary goals of this strategy are to enhance public safety and improve the effectiveness of fire suppression through hazardous fuels reductions.

The Nevada County Hazardous Vegetation Removal Equipment Project will provide for a cost effective measure to allow for hazardous vegetation removal around county roads, facilities, and will provide residents with cost effective abatement program in comparison to contracted abatement. Currently the county does not have a Skid Steer Brush Mulcher or similar equipment. Because of this the County must utilize a larger labor force and/or contract with an agency to provide these services.

The County of Nevada maintains roadways, critical facilities, and administrative buildings. This includes treatment plants, water supplies, areas near power lines, communication facilities and community centers. The County also provides hazardous vegetation abatement on private lands per Ordinance 2411. The Skid Steer Brush Mulcher assists in vegetation management in these areas.

A Skid Steer Brush Mulcher requires fewer personnel to and less time to operate in comparison to traditional vegetation management operations. Faster vegetation management and mulching will add to our county's capabilities. A Skid Steer Brush Mulcher applies less ground pressure (than a tractor), and do not typically rut the soil, making them ideal for environmentally-sensitive areas. These machines also process around existing vegetation without damaging keeper trees.

The Skid Steer Brush Mulcher will mulch brush and competing scrubs underneath tree canopy. Benefits to a Skid Steer Brush Mulcher include mulching in place; it is more effective and efficient than a wood chipper and provides less GHG emissions than a traditional hand crew burning the woody biomass. The Skid Steer Brush Mulcher can also mulch scotch broom, black berries, and several levels of undergrowth. Biomass will not be transported and will instead be used as mulch. This will result in the soil maintaining more moisture thus supporting healthy and mature trees.

## **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?

Consensus among planning efforts to address the wildfire hazard through fuels reduction efforts are contained in the Nevada County Local Hazard Mitigation Plan Update 2017, the CAL FIRE Nevada Yuba Placer Unit Fire Plan and the Fire Safe Council of Nevada County's Countywide Community Wildfire Protection Plan. Vegetation management, and landowner assistance is stated as a priority in each plan. The Nevada County Hazardous Vegetation Removal Equipment Project will provide for a cost effective measure to allow for hazardous vegetation removal around county roads, facilities, and will provide residents with cost effective abatement program in comparison to contracted abatement.

## **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.

According to Cal Fire's Fire Hazard Severity Zone maps, 8% of the County is living within the moderate zone, 29% in the high zone and 62% in the very high zone. Nevada County has 43 communities considered at risk this includes: Alta Hill, Alta Sierra, Cedar Ridge, Cherokee, Cherry Creek Acres, Chicago Park (Pinecrest), Donner, Floriston, Forest Knolls - Banner Mountain, French Corral, Glenbrook, Glenshire-Devonshire, Gold Flat Nevada, Grass Valley, Higgins Corner (Wolf), Hirschdale, Hobart Mills, Kingvale, La Barr Meadows, Lake City, Lake of the Pines, Lake Wildwood, Mooney Flat, Nevada City, Newtown, Norden Nevada 2001, North Bloomfield Nevada, North Columbia Nevada 2001, North San Juan, Peardale Nevada 2001, Penn Valley, Prosser Lakeview Estates, Red Dog, Rough and Ready (Bitney Corner), Sherwood Forest, Soda Springs, Sweetland, Truckee, Union Hill, Washington, Willaura Estates, Willow Valley - Cascade Shores, and You Bet.

Historically, Nevada County's ecosystems have been kept healthy and in balance by a variety of natural disturbances, including fire. Over the last two centuries, this balance has been affected by human disturbance through fire exclusion and effective fire suppression. More importantly, altered fire regimes can destabilize ecosystems and landscapes, thus creating conditions that may promote unprecedented catastrophic wildfire disturbance events, and subsequent mudslides from soils destabilized from high intensity wildfire.

**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?

Project includes \$9,000 matching funds from Nevada County Facilities Management Budget. Though not required, these funds show a good faith effort on behalf of the County to fully execute this project. Should grant be awarded, Nevada County will advertise award through press releases, social media and website. Our local non-profits, incorporated cities and districts will also be informed of this award. As the project is specific to procure a Skid Steer Brush Mulcher, the County will provide regular maintenance on the equipment and has supporting staff and local vendor contracts to support with differing levels of maintenance. It is to the County's advantage to have the Skid Steer Brush Mulcher operate as long as possible. Vegetation management through the Skid Steer Brush Mulcher will be coordinated with county priorities and will involve work in and near incorporated areas and throughout fire districts. Additionally the county will continue to coordinate with HOA neighborhoods and non-profits such as Fire Safe Council to understand priority clearance areas.

**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?

Implementation of this project will focus on six specific actions 1) Grant Award 2) Development of Bid Documents 3) Submit Request for Bid 4) Choose Applicable Vendor 5) Procure Material and 6) Project Closeout. Upon grant award County of Nevada will allocate \$9,000 as matching funds for this project and will begin necessary financial tracking associated with this program. Once this is conducted the county will then formally develop a material bid package for the specified Skid Steer Brush Mulcher. After bid documents have been internally approved the County will move forward with an open material bid. Once all bids are gathered the County will select the vendor per local, state, and federal regulations. The County will then issue purchase order to selected vendor and will track material estimated time of arrival. Once material and final invoices are received the County will work with Cal Fire administrative staff to financially close project. The anticipated timeline for the project is 12 months and will not be impacted by seasonal changes. Skid Steer Brush Mulcher will be procured by CARB regulations and does not require California Environmental Quality Act documentation.

Although the procurement will last approximately 12 months, the Skid Steer Brush Mulcher will be utilized throughout the duration of its equipment life on a multitude of projects. Examples of projects the Skid Steer Brush Mulcher will be utilized include Defensible Space along County Facilities, Defensible Space at NSJ Medical Center, Roadside Vegetation Management, and vegetation abatement. Currently the County does not have proper defensible space around its own facilities let alone areas covered by Ordinance 2411. The County already has proper personnel and training to operate the equipment. The Skid Steer Brush Mulcher will be utilized regularly throughout the county.

**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.

The County of Nevada OES department prides itself on the timely completion of grant funded projects while reaching desirable milestones as outlined in previous grants. Nevada County OES regularly applies for, receives, and manages the Emergency Management Performance Grant, and the Home Land Security Grant. Every effort is made to ensure equipment purchases are conducted within Federal, State and local level policies.

John Gulserian, Program Manager of Nevada County's Office of Emergency Services will manage this grant. Gulserian served for 21 years in the U.S. Army, where his duty station was in Anchorage, Alaska, where he served as an advisor to the National Guard and a liaison to the state's emergency operations center. Communication grew between local and state governments and the military after 9/11. Gulserian then switched careers to emergency services after leaving the army and began working in Butte County in 2004. In 2016 Gulserian became the Program Manager for Nevada County's Office of Emergency Services and is considered one of most experienced and knowledgeable OES directors in the state.

## **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.



Budgeted grant funds will be solely spent on equipment and will not include salary, benefits contracts, travel or supplies. Equipment to be procured includes (1) Skid Steer with a horsepower power rating of 95 budgeted at \$60,000 and (1) Brush Mulcher Attachment budgeted at \$30,000. Skid Steer is budgeted at \$60,000, while it is proposed that the granting agency will cover 90% of this cost (\$54,000) and the County of Nevada will provide 10% in matching funds (\$6,000). The Brush Mulcher Attachment is budgeted at \$30,000, while it is proposed that the granting agency will cover 90% of this cost (\$27,000) and the County of Nevada will provide 10% in matching funds (\$9,000). The total project cost is projected at \$90,000 with the granting agency providing 90% of the funds at \$81,000, and the County of Nevada providing the remaining 10% at \$9,000. The County of Nevada has both the staffing and funding available to properly maintain this equipment through the course of its lifetime and will conduct regular maintenance.

Costs for material are considered reasonable and is listed at the industry standard cost. We are confident that the budgeted amount will achieve the objectives of the project. As equipment procured will reduce, contractor costs, GHG emissions and related labor for large scale vegetation management, the total project cost appropriate for the size and scope of this project. Project does not include indirect costs and any administrative expenses will be covered by County of Nevada.

Our project allocates all funds to the equipment budget category and does not include other budgeted categories. Equipment supplied will directly benefit current County of Nevada vegetation management responsibilities. Equipment will allow us to expand our current responsibilities due to lower vegetation removal costs. Our project seeks to minimize the impacts of large wildfires and allows firefighters a safer working environment to more effectively combat catastrophic wildfires through vegetation management to reduce fire severity, intensity and rate of spread. This equipment will support the reduction of hazardous vegetation, while promoting a healthy ecosystem.

## **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?

Skid Steer Brush Mulcher will mulch brush and competing scrubs underneath tree canopy. Benefits to a Skid Steer Brush Mulcher include mulching in place, a more effective and efficient than a wood chipper while providing less GHG emissions than a traditional hand crew burning woody biomass. Biomass will not be transported and will instead be used as mulch. This will reduce material going to landfills and improving air quality and does not require GHG emissions caused by transport.

Mulch will also result in the soil maintaining more moisture thus supporting healthy and mature trees. The causality of this includes mandating healthy trees ensuring future carbon storage and resilient areas of forested land. Aside from soil moisture retention, mulch will also provide erosion control and weed mitigation. The Skid Steer Brush Mulcher will treat vegetation along roads and driveways to improve site access and firefighting. Moreover County maintenance will assist in the reduction of emissions caused by uncontrollable wildfires.

The following US Census Tracts located in Nevada County are considered low-income communities: 6057000105, 6057000501, 6057000502, 6057000600, and 6057000900. Low-Income residents would directly benefit from this program as it provides for lower fire hazard abatement costs, provides public safety for potential wildfire areas, and assists in maintaining critical infrastructure.