



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



Project Scope of Work

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**Project Name: Fuel Reduction in the Mosquito Fire Protection District**

**Project Tracking Number: 19-FP-AEU-1030**

**Project Description Summary:**

The Mosquito Fire Protection District (MFPD) covers 13 square miles just northeast of Placerville, across the South Fork of the American River at 2400-3100 ft. It has a population of 1,610 persons, and includes the community of Swansboro, which covers about 75% of the district. Two narrow, twisting cliffside roads are the only access: Mosquito Road and Rock Creek Road. They run for part of their length within ¼ mile of each other along opposite shoulders of the steep, densely forested Mosquito Creek canyon. Fire protection is provided by the MFPD Fire Station, CAL FIRE, and USFS.

The Mosquito District is in the Urban-Wildlands Interface, surrounded by deep forested canyons, industrial timberland and national forest. Some 700 habitable structures (2019 Nexus study) are served by networks of narrow, heavily wooded local roads. Dozens of homes have only a single access route down dead-end roads. The vegetation--from grass-oak woodland and chaparral to mixed conifer forest--can give rise to rapid fire spread and crown fires. Steep topography, untreated fuels, and seasonal winds create a high risk for wildfire. About 85% of the District is ranked as a "Very High Severity Fire Hazard Zone"; the rest is "High Severity".

Fuel loads along the Rock Creek Road access/escape route are currently being treated under a California Fire Safe Council (Cal FSC) fuel reduction grant that will overlap in time with this one. This proposed fuel reduction project will focus on the other, busier access route: Mosquito Road. There are two main thrusts, both prioritized in the Mosquito Community Wildfire Protection Plan (CWPP):

- 1 - Creating a modified shaded fuel break (up to 260 feet wide) along both sides of roadside clearance along the primary entry (and escape) route, Mosquito Road. It will cover 1.6 miles and about 39 acres of treatment.
- 2 - Construction of a shaded fuel break in canyon rim and ridgetop areas above the American River gorge adjacent to Mosquito Road, identified by the CWPP as Priority Area M-1 (221 acres).

Two secondary thrusts, carried out by residents with technical support from the MFPD will be

- 3 - Strengthening existing defensible space efforts of residents and local volunteer organizations that support chipping, dead tree felling, local roadside clearance, and other defensible space improvements, with special attention to the elderly, economically disadvantaged, and disabled. That work has been started under the current Cal FSC grant; this new Cal Fire project will benefit from and continue the community outreach, education, and defensible space mobilization. Such community engagement will greatly increase the impact and sustainability of the fuel reduction measures carried out under this grant.
- 4 - Training residents on maintenance of roadside clearance and shaded fuel breaks constructed on their properties: TIZ residents have asked to be trained on how to keep up treated areas.

**Anticipated results:** This project will provide 1.6 miles of roadside clearance and build between 174 and 261 acres of adjacent shaded fuel break, depending on contractor pricing. Community education and participation will be deepened; an involved community will be expanding its defensible space and looking to finish the protective ring of shaded fuel breaks prioritized in the CWPP.

Greenhouse gas reduction benefits will accrue due to the reduced risk of severe wildfire both within the fuel break and across the landscape. Carbon will be sequestered through enhanced growth of residual trees within the fuel breaks. Short-term emissions associated with the vegetation treatments and equipment operations will be offset by long-term mitigation of greenhouse gas emissions.

Other benefits of the project will include protection of Mosquito and neighboring low-income communities to the South, protection of infrastructure—water, energy, transportation, communications, and emergency services assets—and improved resiliency of forests to wildfire, insects and disease. Of particular interest will be the protection of the new Mosquito bridge, to be completed by 2023.

## **SCOPE OF WORK**

### **Section 1: Hazardous Fuel Reduction/Removal of Dead or Dying Trees**

#### **1. *Geographic scope of the project.***

The geographic scope *sensu latu* is the entire Mosquito Fire Protection District (MFPD), within which in-kind contributors will work on roadside clearance, dead tree removal, and improvement of defensible space with brush and undergrowth clearing, chipping, and firewood splitting. These efforts will be led by local residents and volunteer organizations with other funding. These treatment areas are set in an overall Project Influence Zone (PIZ) of 6,970 acres, as shown on the maps.

The project will directly benefit the Mosquito community (700 habitable structures) that includes the Swansboro subdivision; both are bedroom communities on the outskirts of Placerville.

More narrowly focused will be the work on 261 acres of treatment influence zones (TIZ), with roadside clearance and creation of shaded fuel breaks along the Mosquito Creek access road (1.6 miles; up to 100 feet on either side of the right-of-way—see map) and in the adjacent CWPP Priority Area M-1 (South Fork/La Paz project—see map). Roadside clearance will start at the north end of the new Mosquito bridge being constructed over the South Fork of the American River (due for completion in 2022) and run north to the Mosquito Cutoff Road near the center of the MFPD.

Property owner entry permits, CEQA considerations, and assessment of on-the-ground feasibility in each part of the TIZ during the first months of the project will determine which areas can be included in the bidders' scope of work. Depending on funding and contractor pricing (as determined by an open bidding process), 174 to 261 acres will be targeted for roadside clearance and/or shaded fuel breaks.

## 2. *Goals, objectives, and expected outcomes.*

### **Goals:**

#### Primary goal:

- Reduce fuel loads to increase fire safety in the Mosquito community and return the project area to a more managed, fire-resistant condition;

#### Subsidiary goals:

- Implement a second phase of the CWPP, continuing to build shaded fuel breaks, clear roadside vegetation, and extend defensible space around homes and businesses.
- Protect communities, infrastructure and forest resources within the WUI.
- Support a collaborative approach to creating fire-adapted communities, engaging residents in firewise practices through support for and interaction with local service groups and their defensible space, educational, outreach, and planning activities.
- Provide training and experience opportunities for firefighters. Several in-kind activities will not only reduce fuel loads and fire risk but also build capacity of firefighters in fire prevention tasks like tree felling and firewise community outreach. Their acquisition of skills and practice will carry over to sustain future fuel reduction efforts.
- Train residents how to maintain cleared roadsides and shaded fuel breaks.

### **Objectives:**

BACKGROUND. The Mosquito CWPP identifies eight fuel reduction priorities: six canyon-head or ridgetop shaded fuel breaks and two access road clearance projects. All are in the path of natural flues where fire coming up the canyons is likely to be funneled by prevailing winds into the community. Fuel loading in these areas is heavy; ladder fuels are dense. If fire ignites, roads may be quickly blocked.

- I. SHADED FUEL BREAKS AND ACCESS ROAD FUEL REDUCTION: Of those eight priorities, this grant will address two.

**Objective 1** => Implement Mosquito Road fuel load clearance and adjacent shaded fuel break construction (CWPP priority M-1, La Paz/South Fork). If contractor prices allow, construct further shaded fuel breaks around the footprint of the new Mosquito bridge and in CWPP areas M-2 (Log Cabin) and/or M-4 (Swansboro/North District).

II. DEFENSIBLE SPACE CREATION: Field study shows that many property owners maintain adequate defensible space; but numerous properties show little or no effort. Defensible space is particularly important in Mosquito because of its very high fire risks. Defensible space creation and maintenance will be addressed primarily by community volunteers with support of the partly concurrent Cal FSC grant; this proposed Cal Fire grant will provide a framework to continue that work.

**Objective 2** => Provide limited support to defensible space needs that are beyond many residents' capacity (via in-kind community collaboration including tree felling, log splitting, chipping, local roadside clearance, community clean-up days, and campsites for crews).

III. SECONDARY OBJECTIVES include

- ⇒ Gain experience in fuel reduction project implementation. It is anticipated that the project will be managed by the Georgetown Divide Resource Conservation District (RCD), experienced in running fuel reduction grants and able to ensure compliance with Cal Fire and other requirements. The RCD will have the collaboration and support of the MFPD Fire Chief and staff, who will contribute local knowledge and skills while learning from example and experience, thus increasing local capacity for this type of project.
- ⇒ Foster post-treatment maintenance by training residents and deepening community engagement in firewise practices. The project will be an educational opportunity to increase residents' awareness, interact with local groups and support defensible space, education, outreach, and planning. Maintenance of reduced fuel loads will be a focus of planning by local partners.
- ⇒ Monitor, evaluate, and communicate results, with before-after photos to show progress.

**Expected Outcomes and indicators of success:**

The general outcome will be establishment of a WUI defense zone along Mosquito Road, to protect life, property and resources. This strategic fuel management project will help contain wildfires and facilitate long-term firewise ecosystem stewardship in cooperation with other projects.

Specific Outcomes:

- ⇒ Outcome 1: Mosquito Road cleared and available as an access/escape route; new Mosquito Bridge protected.  
*Indicator 1: Fuel reduction / roadside clearance along 1.6 miles of Mosquito Road, creating about 39 acres of modified shaded fuel break.*
- ⇒ Outcome 2: Shaded fuel break constructed in CWPP priority zone M-1; possibly others.  
*Indicator 2: At least 174 acres of shaded fuel break constructed.*
- ⇒ Outcome 3: MFPD Fire Department skills strengthened in areas like hand crew fuel reduction, tree felling, project management, and community engagement.  
*Indicator 3: Successful completion of project, with full MFPD participation in the aspects cited.*

- ⇒ Outcome 4: Strengthened community skills and participation, including planning for continued expansion and maintenance of defensible space and of shaded fuel breaks.

*Indicator 4: Updated CWPP vetted and in use, supporting on-going maintenance of Mosquito Road clearance and associated fuel breaks, as well as construction of additional fuel breaks.*

### **3. Rationale for how the proposed project will reduce the risks associated with wildfire to habitable structures in the WUI.**

**Landscape level.** A number of large human-caused fires have occurred along both the Highway 50 corridor (east-west) and the Highway 193 corridor (south-north) from Chili Bar to Georgetown (2014 King Fire, 2004 Fred's Fire, 1992 Cleveland Fire, 1989 Chile Bar Fire, 1981 Wrights Fire, 1973 Pilliken Fire, etc.). The Mosquito District lies at the intersection of those corridors, in lands between them. Such wildfires are a great threat to the community and burn in steep terrain where fire is difficult to control.

Since the 97,000 acre King Fire in 2014, CAL FIRE, the USFS El Dorado National Forest, and other agencies have engaged in unified strategic planning under the South Fork American River Cohesive Strategy, SOFAR to foster landscape-scale risk mitigation along both corridors, establishing or renewing fuel breaks, roadside clearance, dead tree removal, and forest thinning projects, and encouraging development of others. Work under this proposed grant will start to fill the gap between the fuel reduction projects on the landscape framed by those corridors, bridging between the 193 corridor to the west, the Darling Ridge and other USFS shaded fuel breaks to the north, and the Slab Creek Dam/Camino/Pollock Pines shaded fuel breaks to the east along the 50 corridor (under the Fire Adapted 50 Strategy, FA50). These efforts will increase the connectivity of treatments across the landscape, supporting creation of a large-scale community protection zone to defend hardened infrastructure points, high value investments, and critical habitats.

Suppression crews are the first line of defense to protect the greater area. By removing roadside fuels and creating additional shaded fuel breaks this project will change fire behavior along roads and in wind-swept canyons so that crews can more reliably reach these larger managed landscapes, maintain open the lines of access and exit, and suppress fires that might reach Mosquito or neighboring communities.

**Local level:** within Mosquito, the project will 1) protect access routes so that emergency personnel can enter and residents can evacuate; 2) implement the second of the encircling series of fuel breaks recommended in the CWPP; and 3) engage and support community groups active in defensible space and roadside clearance. All these will reduce risk to homes, small businesses, and residents.

Fuel reduction activities proposed in this project will focus on lessening wildfire hazard, improving tree growth, and increasing forest resilience. Treatments will eliminate the vertical and horizontal continuity of vegetative fuels to reduce the rate of fire spread, duration and intensity, fuel ignitability, and ignition of tree crowns. The prescriptions used may include mechanical and hand thinning, removal of ladder fuels and treatment of slash. No merchantable trees will be removed by the project. Vegetation will be treated on-site or removed, or in select cases burned to provide firefighter training.

#### **4. *Additional assets at risk to wildfire that will benefit.***

MFPD is responsible for infrastructure critical to regional and local safety, economic security, and citizen well-being. Disruption of these systems has the potential to cause widely felt consequences. The vulnerability of this infrastructure and the ability to protect it is a major concern. Critical infrastructure that this project will help protect includes

- Two hydroelectric dams that provide power, flood protection, and potable water serving thousands of residents in our region (PG&E, SMUD).
- A major electric power generating station with multiple towers supporting the power grid for millions of residents and businesses in the region that extends to three different counties (SMUD).
- A smaller hydroelectric intake facility and powerhouse (ENEL).
- High voltage transmission lines and towers that cut across our district, serving a regional grid.
- Local domestic power lines that serve residents and businesses.
- The El Dorado Irrigation District water storage tanks that support both the hydrant system and domestic and agricultural water system that serves hundreds of residents (about 30% of the PIZ).
- Two narrow access roads, winding on cliffs 8 and 15 miles in from state highways, both easily cut by wildfire, which would eliminate emergency access and escape routes.
- Two highway bridges, the Mosquito Bridge and the Rock Creek Bridge. Damage to either would severely limit access and egress from the community, which would then be limited to the remaining mountain road.
- A new, high Mosquito bridge scheduled to be constructed during this project (completion in 2022). It will convert Mosquito Road into the primary access route for fire equipment. This project will protect the northern end of the bridge.
- Telephone and internet communications networks, including cell towers, transmission lines, and control boxes.
- Swansboro Airport, used by commuters, recreational flyers, and emergency response craft.
- Mosquito Fire Station 75 itself, which serves not only for local emergency response services and mutual response to neighboring districts but also as a community center for meetings and events.
- Thousands of acres of USDA Forest Service national forest lands and watersheds adjacent to our district, with systems of unpaved access roads, culverts, signage, and recreational facilities.
- Hundreds of acres of nearby commercial forests managed by Sierra Pacific Industries (SPI) and other private landowners.

#### **5. *Is the scale of the project appropriate to achieve the stated goals, objectives and outcomes discussed in Item 2 above?***

Yes. It represents a workable second step toward carrying out the fuel reduction strategy set forth in the CWPP. Using conservative unit price estimates that reflect the recent rise in contractors' bids for similar work, it retains flexibility enough to do more acreage and adjust if prices are more favorable. At

the same time the project is designed to engage and support the community in defensible space and other fuel reduction efforts, and to strengthen the fire prevention and response capacities of the Mosquito fire department. These provisions will enhance the sustainability of grant-funded activities.

## **6. How will the project utilize the leftover woody biomass? Will it use a biomass facility to reduce greater greenhouse gas emissions?**

Opportunities for utilizing biomass derived from the project will be investigated. However, there are no plans to use a biomass facility at this time. Woody biomass will be either 1) chipped and spread to under 4" in depth, 2) made into firewood or chips for gardening and given to local residents, or 3) lopped and scattered.

The project expects to use mechanized and hand thinning to chip and scatter vegetation, with removal of ladder fuels and treatment of slash. No merchantable trees will be removed. Hand crews will be required along Mosquito Road due to the steep slopes and proximity to a main road and powerlines. Mastication may be used on the M-1 shaded fuel break, parts of Mosquito Road, and elsewhere, depending on bidder proposals.

Material from the project area would potentially be attractive to biomass power plants enrolled in the BIORAM program, including Rio Bravo, Rocklin. Currently no operational biomass facility is near enough to the project for biomass to be economically transported to it. If access to a biomass facility becomes available at a feasible cost we will shift to using it.

## **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?*

The project proposed supports the goals and objectives of the California Forest Action Plan, the Cal Fire AEU Unit Plan, and Community Wildfire Protection Plans (CWPP) at both the local and County levels.

**California Forest Action Plan:** the proposed project is located within a priority landscape. It will utilize the CFAP strategies cited below to implement project goals, as follows:

1. Conserve: *“support comprehensive planning at the statewide and regional scales that is coordinated with wildlife habitat conservation efforts.”* This project is aligned with comprehensive planning at state and regional levels on wildfire prevention and response, tree mortality, and wildlife habitat conservation. Its implementation will raise local awareness of and support for such planning.

2. Protect: *“Reduce the occurrence of damaging wildfires and reduce life, property and natural resource losses through the implementation of effective and efficient fire prevention programs and activities.”* By reducing fuels via shaded fuel breaks, roadside clearance, and residential defensible space—as well as by collaborating with community education and planning programs and by strengthening the MFPD fire department—this project will help reduce the

occurrence and damage of wildfires. These measures constitute effective, efficient fire protection activities within a larger programmatic context (the CWPP and Cal Fire Unit Plan).

*“Protect life and property from wildfire through efficient and effective fire protection planning and suppression, financial management, and firefighter/public safety strategies.”* By strengthening the fire department, promoting community awareness of wildfire risk, and encouraging a community response to fuel reduction via planning, education, and action, this project will both draw on and support efficient and effective fire protection planning and public safety strategies. Reduced fuel loads will also make fire suppression more efficient.

*“Reduce the impacts of wildfire on ecosystem health, public safety and private property through appropriate scientific, research, education and training.”* The use of evidence-based approaches in designing this project and its support of community education, planning, and firefighter training represents local application of science, research, education and training to reduce wildfire impacts on ecosystems, public safety, and private property.

**3. Enhance:** *“Promote formation of Local Fire Safe Councils for priority communities.”* This project will help consolidate the role of the Mosquito FSC in the community and further its work. It will also provide an example to nearby localities that have no FSC.

*“Promote participation in the National Firewise/USA Program.”* The MFSC, MFPD and the Mosquito community have participated in the National Firewise/USA program from 2016 through 2019 and will continue to do so under this project.

*“Sustain healthy forest ecosystems to maintain California’s unique biodiversity.”* Mitigation of catastrophic wildfire risk, as supported by this fuel reduction project, will help sustain healthy forest ecosystems that maintain California’s biodiversity. In addition, by returning the local landscape to a status closer to its pre-settlement character, the project will enhance wildlife habitat and support growth and re-establishment of native biota.

**Cal Fire Unit Plan:** In the 2019 Amador-El Dorado Unit Strategic Fire Plan, the Mosquito community is listed in the area of Battalion 2, as are the Mosquito Fire Protection District local fire agency and the Mosquito FSC (p. 24). The proposed project specifically addresses two high-priority objectives of the Amador-El Dorado CAL FIRE unit plan:

1. Support project work and planning efforts that encourage the development of safe ingress and egress routes for emergency incidents.
2. Utilize CAL FIRE and community resources to mitigate large and damaging wildfires with defensible fuel zone/fuels reduction projects at critical operational locations.

Some quotes from the 2019 AEU Unit Plan reflect clearly that Mosquito is included and given a certain priority:

Battalion 2 Projects include the **Mosquito Pre-Attack Plan / Evacuation Routes (SRA Fee Funded – CAL FIRE):** “CAL FIRE is in the process of developing a Pre-Attack Plan for the community of Mosquito that includes informational material, and an evacuation map. Mosquito is unique due to the combination of its remoteness and limited roads suitable for fire apparatus ingress to the community. The community has been identified in the Unit Fire Plan as a community at risk. It has experienced two catastrophic fires; the Chili Bar Fire and the most



recent King Fire. In recent years, a fuels reduction project took place and focused defensible space inspections have been on going every year for the past 4 years.” (p. 44)

**Battalion 2 Hazard/ Target Areas:** *“The entire area covered within Battalion 2 would be considered a Target Area with significant potential. As noted earlier, the [Georgetown] Divide has a significant fire history that has proven to challenge fire suppression efforts over the years. With the increase in population on the Divide, the potential for increased ignitions are ever growing. Some Target Areas include ...:*

- *Community of Mosquito* [this is first on the list] . ...
- *Major travel corridors noted below* [the corridors cited include Mosquito Road and Rock Creek Road, the sole access routes to Mosquito]. ...
- *American River Drainage* [Mosquito is surrounded by the drainage of the South Fork of the American River and its tributaries] ...” (p. 45)

**Future Battalion 2 Projects:**

*“Future projects within the boundaries of Battalion 2 should focus on the following areas: ...*

- *Continuous Defensible Space inspection program (PRC 4291) ...*

*“As opportunities present themselves, we plan to accomplish these goals through CWPPs, Fire Safe Council collaborations and grants as well as working with Cal Trans and County Roads to provide roadside clearances along all major routes of travel on the Divide. ...*

- *Rock Creek Road*
- *Mosquito Road...* (pp. 45-46)

**Community Wildfire Protection Plan:** The Mosquito CWPP, developed in 2016 by the Mosquito Fire Safe Council in cooperation with the El Dorado County FSC is approved and in use. A summary was published as a chapter in the Western El Dorado County Community Wildfire Protection Plan, adopted by the Board of Directors of the EDCFSC on March 28, 2017. A revision and update is scheduled (with CAL Fire grant support) for publication in 2021.

The Mosquito CWPP is summarized on pp. 172-181 of the Western El Dorado County CWPP.\* The shaded fuel break proposed here is listed as priority area M-1 (and possibly M-4, and M-5, funds permitting). The full Mosquito CWPP (unpublished document) has far more detail and has been used in this proposal to supplement the summary in the EDCFSC CWPP. In the full version it is clear that all six proposed shaded fuel breaks, plus the two access road clearance projects, are of approximately equal priority, and that creation of defensible space and local roadside clearance are vital.

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\* WESTERN EL DORADO COUNTY COMMUNITY WILDFIRE PROTECTION PLAN (EDCFSC), prepared by the El Dorado County Fire Safe Council and Spatial Informatics Group, LLC (SIG), January 2017. Accessed 1 November 2019 at <<http://www.edcfiresafe.org/wp-content/uploads/2017/04/MOSQUITO-FIRE-SAFE-COUNCIL-ACTIVITIES.pdf>>

## **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.*

The Fire Hazard Severity Zone (FHSZ) of the project area is shown on the FRAP maps as Very High Severity over about 82% of the PIZ (including all the proposed TIZ / intervention areas). The remainder is mapped in the High Severity Fire Hazard Zone (8%) or as in the Federal Responsibility Area (10%).

2. *Describe the geographic proximity of the project to structures at risk to damage from wildfire in the WUI.*

Mosquito is an intermix type Wildland-Urban Interface community. There are 700 homes within the Mosquito District boundaries; many also have outbuildings, some used for businesses. Over 10,000 homes and businesses are in adjacent areas that might be reached by a wildfire started in or burning through Mosquito (Placerville, Camino, Garden Valley, Pollock Pines, Georgetown, etc.). The King Fire for example was stopped at the edges of Mosquito in 2014; had it escaped, it might have gone on to do much more damage in nearby settlements. Wildfire risk to all these structures will be diminished directly or indirectly by this project.

Within the 261 acres of the TIZ, there are 13 houses. Fire risk to these will be directly affected (lowered) by the construction of shaded fuel breaks that in many cases will surround the structures.

## **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?*

In-kind contributions rather than matching funds are included. The construction of fuel breaks and related fuel reduction work under this grant will be set in the context of broader firesafe activities led by the Mosquito Fire Safe Council (MFSC), the Mosquito Fire Protection District (MFPD), the Swansboro Country Property Owners Association (SCPOA), and the Mosquito Volunteer Fire Association (MVFA). Each of these has submitted a Letter of Commitment specifying a minimum set of in-kind contributions to be undertaken.

The project will be supported by public information, education, outreach, and planning activities, most of them on-going—begun under the current Cal FSC grant. Planning will include development of a Forest Management Plan for SCPOA common lands as well as updating the Mosquito CWPP within the county-wide CWPP renewal process.

Several residents of the Treatment Influence Zone have signed a Letter of Commitment indicating their willingness to support the grant in at least three ways:

“We will continue to improve and maintain our defensible space and other fuel reduction, as well as household hardening, during the grant period and after.

“We will participate in grant activities as needed, including by permitting entry to our parcels and by encouraging neighbors to do so too, as well as by participating in training on how to best maintain the level of fuel reduction attained after the grant ends.

“We will work after the grant period to sustain the gains in fuel reduction by keeping brush down, maintaining fuel breaks, continuing roadside clearance, etc.”

Activities that will facilitate in-kind contributions to support the work of this Cal Fire grant include

- a. A concurrent California State Fire Safe Council (Cal FSC) grant to the Mosquito FSC for fuel reduction and defensible space creation in the amount of \$540,072 is being used for roadside clearance and shaded fuel break construction along Rock Creek Road, in the adjacent CWPP Area M-3, and in CWPP Area M-4. A shaded fuel break across the narrow neck in Mosquito Creek Canyon between the two roads will be constructed jointly by both projects, each working from its side. The Cal FSC funding will directly support community mobilization, education, outreach, and planning, providing a fire safe context that will also support this project. Activities and resources will be coordinated, respecting the purposes and restrictions of each grant.

The in-kind funding matching activities for the Cal FSC grant are very similar to those proposed for this Cal Fire grant and will be contributed by the same partners. The \$190,000 in matching contributions required by Cal FSC has already been exceeded in the first nine months of the two-year project (over \$210,000 has been documented, involving more than 130 volunteers). Contributions continue to be made at the same rate, indicating that the community support for this Cal Fire grant will be similarly satisfactory.

- b. Though only \$190,000 was required, matching commitments offered by those same partners in support of that two-year Cal FSC grant exceeded \$414,000 both in cash (\$80,000) and in kind (\$334,000). This supports community defensible space evaluations and work, with chipping and log splitting volunteer teams to help, as well as roadside clearance, community clean-up, and participation in firewise educational, training, organizational, and planning activities. Since less in matching efforts is required by the Cal FSC grant, much of the amounts committed will be shifted to fill similar needs in support of this grant.
- c. Local support for fire safe activities like those proposed for this grant has been building for several years. For example, some 300 Swansboro property owners cooperated with their Property Owners Association (SCPOA) to arrange for cost-free felling of over 2,000 trees killed by bark beetles, with removal of 130 logging truckloads by a commercial LTO in 2017-2018. This kind of experience and capacity will be brought to bear in support of this project.
- d. SCPOA is planning to do vegetation clearance along its 22 miles of local roads; work on that will be done in coordination with this grant. SCPOA will provide machinery and a work crew to undertake a program of roadside clearance at its own expense.
- e. The most important in-kind contribution to this grant will be to the sustainability of its treatments. The community engagement and planning it encourages will lead to training and long-term support for continued maintenance of the roadside clearance, shaded fuel breaks, and defensible space created.

**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.**

External communications will be organized initially in coordination with the Cal FSC grant to take advantage of the well-developed communication / education / outreach program it will promote. This will avoid having two separate grant-related communications programs overlapping in the same small community. After the Cal FSC funding is over (end of 2020), activities relevant to this grant will be continued, principally via community organizations with their own funding and in-kind capacities. In both stages the role of Cal Fire will be highlighted appropriately.

To support creation and maintenance of defensible space, a series of education and outreach activities will be organized to raise awareness, engage, train, and inform residents. Among them:

Community events to inform the public and motivate participation, like the National Fire Preparedness Day picnic (MFSC), the firefighters' pancake breakfasts, the annual meetings of SCPOA, and the MVFA Community Dinners, will be used to inform residents about hazards and fuel reduction programs, invite them to join in, apprise them of plans and progress, and recruit some for training and specific tasks. Simple flyers and informational handouts will be distributed. Outside and local speakers will present firewise information at many events.

Media Communications. Existing communication mechanisms of the partners (newsletters, websites, social media, a new MFPD electronic billboard, mailings, and others) will be used to spread the word and gather feedback. Project management will coordinate release of bulletins on upcoming events, updates on efforts underway, and calls for action in support of fuel reduction programs. Forms for residents and volunteers to document their contributions will be accessible on the web and elsewhere. Media for feedback, suggestions, and evaluation of activities will also be available.

Press releases: Periodic press contacts, interviews and written news releases will be targeted to ensure wide awareness of this project, its accomplishments, and its lessons.

Training for volunteers. Access will be facilitated to practical training (onsite where feasible, offsite, or website) via courses, workshops, online exercises, or hands-on mentoring. Focus will be on preparing participants to contribute effectively and safely to the fuel reduction project. Relevant outreach and instructional opportunities and resources like those of EDCFSC, Cal Fire, and California Fire Safe Council will be tapped. Where appropriate, training will lead to certifications. Among the potential topics:

- Defensible space evaluation (source: Cal Fire, EDCFSC, MFPD, etc.);
- Defensible space and fire prevention: pointers for residents (Cal Fire, EDCFSC, MFSC);
- Firewise household practices, for adults and for schoolchildren (EDCFSC, MFSC, MFPD)
- Evacuation preparations and procedures (MFPD, MFSC, etc.);
- Maintenance of shaded fuel breaks and roadside clearance (MFPD, USFS);
- Proper use of burn piles (MFPD, Cal Fire);
- Chipper use and safety (SCPOA, CCC);

Traffic control flagging (DOT; MFPD Support Group);  
Chainsaw use and safety (MFPD, CCC).

Guest speaker program: public forums on aspects of firesafe communities, regional developments, and related topics, led by local and regional specialists (MFSC).

Public meetings on the project. At project inception, midpoint, and end, or as needed, residents will be invited to learn of and comment on plans, opportunities to participate, accomplishments to date, ideas for improvement, and sustainability mechanisms.

Outreach to elected and appointed officials: the MFPD Board and Fire Chief, as well as the local partners work closely with county officials and agencies involved in fire prevention and emergency services, such as the Board of Supervisors, LAFCO, the Office of Emergency Services, and other fire departments (e.g., the county-wide fire chiefs, fire marshals, and training officers meetings). Supportive relationships also exist with the RCD and the USFS. Additional contact with key agencies is maintained via the El Dorado County Fire Safe Council, membership of which includes officials of the CALFIRE El Dorado-Amador Unit, the El Dorado National Forest, the El Dorado County Fire Chiefs Association, and the EDC Fire Marshalls. These liaisons will be actively developed during this project and will contribute to its sustainability.

Field visits: Opportunities to tour project sites and learn about fuel reduction and fire prevention processes will be scheduled and advertised for residents, interested officials, the press, outside FSCs and community groups, and interested members of the general public.

Participatory planning processes: community members will be encouraged to help lead, develop, and vet plans for further activities to expand and sustain the fuel reduction and fire prevention measures achieved. Updating the CWPP will be one focus; organizing an ongoing response from the property owners' association and other community groups will be another.

### ***3. Describe any plans to maintain the project after the grant period has ended.***

Given that this project is a step in implementing the Mosquito CWPP, the community intends to follow up. That applies to the mobilization of resources to carry out the remaining CWPP fuel reduction projects that roughly encircle the community, to the maintenance of the clear roadsides and newly constructed shaded fuel breaks, and to the improvement of defensible space. Two aspects will be fundamental to motivating the community to continue investing post-project: planning and buy-in.

#### **Continued planning:**

A Cooperative Forest Management Plan will be developed by SCPOA for its 72 acres of forests, 22 miles of local roads, and 700 rural properties, 80% with homes. SCPOA will use the forest management plan to guide its investments in fuel reduction and recommendations to members. Forest management planning will also raise community awareness of fire risk and the need for healthy forests, motivating continuing action on fuel reduction projects.

Updating the Mosquito Community Wildfire Protection Plan (CWPP). MFSC, with EDCFSC technical assistance, will lead review and updating of the current Mosquito CWPP in the context of the EDCFSC renewal of the county-level CWPP (2019-2021). This will be based on community risk assessment and expert consultation, with inputs from local and regional partner organizations and the interested public. Future maintenance of shaded fuel breaks created under this and other grants will be built in.

Participation in Regional Planning will continue to provide landscape context: the nearby SOFAR efforts, the Chili-Bar to Georgetown and highway 193 corridors, the USFS Darling Ridge and Trail Gulch fuel breaks, the Camino-Pollock Pines-Highway 50 corridor (FA50), and the countywide EDCFSC work.

**Developing buy-in and teamwork:** [take notice of TIZ resident LOCs]

Buy-in is enhanced by engagement and empowerment, education and outreach. Firewise awareness leads to continuing prevention measures. Once households begin to create defensible space on their own places, they see its value and will often support broader fire prevention measures in the community. Education and outreach efforts will channel this motivation. Partner activities to encourage post-project follow-up will include efforts to

- Engage residents in evaluating defensible space needs;
- Create or clean up defensible space on some 300 properties;
- Motivate residents to contribute work and tools;
- Have firefighters train residents, provide technical assistance, and lead specialized activities like dead tree felling;
- Use chippers from SCPOA and EDCFSC to clean out brush and slash;
- Organize volunteer log splitter crews to make firewood (SCPOA);
- Hold community clean-up days to eliminate flammable trash and green waste (MVFA, etc.);
- Promote community-wide maintenance of defensible space, shaded fuel breaks, and roadside clearance with training and local organizational support (chippers, etc.).

Levels of effort will be documented and individual participants publicly recognized and thanked. Before-after photos and defensible space evaluation records will document fuel reduction.

Firewise consciousness on the part of residents will foster on-going support for SCPOA and other groups to use their resources to leverage further grant funding to build and maintain the shaded fuel breaks envisioned in the CWPP and maintain momentum in the defensible space efforts.

***4. Does the proposed project work with other organizations or agencies to address fire hazard reduction at the landscape level?***

The Mosquito Fire Safe Council (MFSC) works through the El Dorado County Fire Safe Council (EDCFSC), which focuses on fire hazard reduction across the county. MFSC cooperates with the Mosquito Fire Protection District (MFPD) which coordinates with the El Dorado County Fire Chiefs Association, the Fire Marshals and the Training Officers groups, CAL FIRE's Amador-El Dorado Unit, the El Dorado National Forest, and the County Office of Emergency Services, all of which address fire prevention and fire hazard reduction at the landscape level. MFSC also liaisons with the SOFAR Cohesive Strategy Group, the Chili Bar-Georgetown Corridor project, and the numerous stakeholders committed to the collaborative all-lands Strategy.

This project will work closely with the El Dorado County and Georgetown Divide Resource Conservation Districts (RCD), which coordinate the landscape-level fuel reduction efforts along the Highway 50 (FA50) and Highway 193 corridors (Chili Bar-Georgetown), both part of SOFAR—and both adjacent to

Mosquito. This grant will help fill the gap between the fuel reduction projects in the landscape framed by those, bridging between the 193 corridor to the west, the Darling Ridge and parallel USFS shaded fuel breaks to the north, and the Slab Creek/Camino/Pollock Pines shaded fuel breaks to the east along the 50 corridor. Creation of this landscape-scale array of fuel breaks will reduce regional risk.

## **PROJECT IMPLEMENTATION**

### ***1. Discuss the anticipated timeline for the project. Make sure to take seasonal restrictions into account.***

The **timeline** for the project is as follows:

Project start date	September 15, 2020
Right of Entry Agreements	September 30, 2020
CEQA Completed	December 31, 2020
Project Layout	January 15, 2021
Contractor Agreements	February 29, 2021
Construction (Start)	March 15, 2021
Grant Completion	Before March 15, 2024

Factors that will influence implementation and scheduling will include winter conditions which can preclude equipment operations for extended periods, limited operating periods due to wildlife species considerations, periods of high fire hazard (i.e., “red flag” days) when compliance with CAL FIRE requirements will be mandated, and unforeseen equipment or personnel issues. Given the 42-month performance period – from September 2020 through mid-March 2024 – none of these factors will impair project on-time completion.

### ***2. Verify the expected timeframes to complete the project will fall under the March 15, 2024 deadline.***

The plan outlined above allows sufficient time to execute the work proposed, including supporting tasks and documentation, well before the March 15, 2024 deadline. Two work periods totaling nine months each will be more than adequate to accomplish the work, while allowing for contingencies such as equipment breakdowns, bad weather or other unexpected events.

### ***3. Describe the milestones that will be used to measure the progress of the project.***

Project milestones will include procurement of right of entry to private properties, completion of CEQA requirements, awarding of implementation contract(s), specific milestones built into the contracts to track progress in terms of acres and miles of road treated for each progress reporting period, quarterly reporting, and project completion.

**4. Describe measurable outcomes (i.e. project deliverables) that will be used to measure the project's success.**

The main deliverable from this Project will be 174 or more acres of land that has been treated to reduce fire hazard, improve forest resiliency and enhance firefighters' abilities to fight a wildfire in a safe and effective manner. This will take the form of roadside clearance and 174 acres of modified shaded fuel break along 1.6 miles of Mosquito Road and an adjacent shaded fuel break going east along the north side of the canyon rim of the South Fork of the American River (CWPP Area M-1).

Specific measurable outcomes will include

- a) Quarterly Progress Reports to be submitted on a regular and consistent basis to meet the State's requirement for disbursement of funds. These Reports will provide a brief description of the major accomplishments during the reporting period (i.e. tasks completed, contracts awarded, expenditures, milestones met, meetings held or attended, press releases, any problems encountered, etc.) in the performance of the work under this Agreement during the reporting period.
- b) Project Completion Report, submitted within ninety (90) calendar days of Project Completion. It will include reimbursement status, a brief description of the project accomplishments, and how this project has contributed to and complemented the landscape-level goals of the Fire Adapted 50 and Chili Bar-Georgetown Corridor projects.
- c) Project monitoring will include photo documentation and narrative that describes baseline conditions, location of monitoring points, before-and-after photos, frequency, and interpretation.

The community involvement components of this project, funded entirely from non-grant sources, will deliver

- Over 200 acres of defensible space improvements on private lands,
- 10 miles or more of local roadside clearance via partners,
- An updated CWPP that will support maintenance of the roadside clearance and shaded fuel break done under this grant, as well as creation and maintenance of further fuel reduction areas nearby.
- Strengthened community and fire department skills and engagement in on-going fire prevention activities, including creation and maintenance of defensible space and shaded fuel breaks.

Reporting will include three-month progress reports, draft and final completion reports. Submittal and approval of all reports is a requirement for the successful completion of this Agreement. Reports will meet generally accepted professional standards for technical reporting and will be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to State. All reports will be submitted to the State's Project Manager in both electronic and hard copy forms. If requested, RCD shall promptly provide any additional information deemed necessary by State for the approval of reports.

**5. If applicable, how will the requirements of the California Environmental Quality Act (CEQA) be met?**



The Georgetown Divide RCD will be the Lead Agency for the purposes of preparing the CEQA document under Section 15051 of the State CEQA Guidelines. The “Lead Agency” is a title referencing the public agency which has principal responsibility for carrying out or approving a project. The Lead Agency is also responsible for determining the level of environmental analysis required for individual projects under CEQA. The RCD will conduct any necessary CEQA surveys and analyses, prepare all required documents, and ensure the field team delineates the treatment area and adopts methodologies consistent with the CEQA findings. We anticipate the CEQA requirements to be met by December 2020.

CEQA compliance will have been advanced well in advance of the grant award date. An Archeological Records Search has been initiated and a search of the California Natural Diversity Data Base has been conducted in relation to the current fuel reduction grant under California State Fire Safe Council/USFS funding. Preparation of an Initial Study for this adjacent target area is underway.

Will be done before any on ground implementation activities starts

## **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.***

The Mosquito Fire Safe Council (MFSC) is implementing a parallel fuel reduction project funded by the California Fire Safe Council (Cal FSC; grant # TMG 123448, 2019-2020) that addresses roadside clearance and shaded fuel break needs along Rock Creek Road, the Mosquito District’s other access/escape route. For this the MFSC is partnered with the El Dorado County Fire Safe Council (EDCFSC) as fiscal sponsor and the Georgetown Divide Resource Conservation District (RCD) as project manager. Progress has been satisfactory in all aspects.

The EDCFSC has extensive, successful experience as sponsor of Cal Fire Grants. Current grants are 2018 5GG17104 WS Veg Mgmt, 2018 5GG17107 PP Weber Creek, 2018 5GG17105 WS Chipping, 2018 5GG17101 Patterson Ranch, and 2018 5GA18202 LT.

For this grant the MFSC will continue with EDCFSC as its fiscal sponsor and with the Georgetown Divide Resource Conservation District (RCD) as project manager. Thus the MFSC will partner with more experienced organizations that can provide project support.

The Georgetown Divide RCD and its sister organization, the El Dorado County RCD, share offices and staff. They have the following projects currently underway and/or completed within the past year:

- Fuel Reduction and Defensible Space in the Mosquito Fire Protection District. \$540,072. California State Fire Safe Council grant (TMG 123448) to the El Dorado Fire Safe Council (fiscal sponsor for MFSC). Scope: Roadside clearance and shaded fuel breaks along Rock Creek Road and Mosquito CWPP priority area M-4. Partners: RCD, Mosquito Fire Safe Council, Mosquito FPD, Swansboro Country POA, Mosquito Volunteer Fire Association, private landowners.

- El Dorado County Collaborative Watershed Management Strategy. \$190,000. Good Neighbor Agreement between CAL FIRE and the RCD. Scope: Joint NEPA/ CEQA Environmental Analysis on 1625 acres of lands in the Wildland-Urban Interface. Project Partners: RCD, CAL FIRE, Sierra Pacific Industries, El Dorado Irrigation District, private landowners.
- Sly Park Vegetation Management Project. \$150,000. Stewardship Agreement between USFS/ Mule Deer Foundation and the RCD. Scope: Joint NEPA/ CEQA Environmental Analysis on 2800 acres of lands in the Wildland-Urban Interface. Project Partners: RCD, CAL FIRE, USFS, private landowners.
- Fire Adapted 50 Phase I: \$972,000. Scope: Vegetation Management on 675 acres of lands in the Wildland-Urban Interface within the priority area of the SOFAR. Project Partners: RCD, CAL FIRE, Sierra Pacific Industries, El Dorado Irrigation District, private landowners.
- Fire Adapted 50 Phase I.a: \$975,000. Scope: Vegetation Management on 925 acres of lands in the Wildland-Urban Interface. Project Partners: RCD, CAL FIRE, Sierra Pacific Industries, El Dorado Irrigation District, private landowners.
- Fire Adapted 50 Phase I. SNC: \$500,000. Scope: Vegetation Management on 380 acres of lands in the Wildland-Urban Interface. Project Partners: RCD, CAL FIRE, El Dorado Irrigation District, private landowners.
- Fire Adapted 50 Phase II: \$1,975,000. Scope: Vegetation Management on 1625 acres of lands in the Wildland-Urban Interface. Project Partners: RCD, CAL FIRE, Sierra Pacific Industries, USFS, El Dorado Irrigation District, SMUD, BLM, private landowners.
- Tahoe Central Sierra Partnership: \$200,000. Scope: Develop community protection plans.
- King Fire Restoration & Reforestation Project: \$1,893,957. Scope: to begin the process of reversing the ecological, economic, environmental, aesthetic and social impacts of the King Fire. Specific objectives include: 1) treat private lands affected by the King Fire to reduce the potential for future wild fire by removing accumulated debris and dead trees; 2) conduct site preparation and planting to re-establish forest cover on the private lands; and 3) increase potential carbon sequestration and achieve greenhouse gas emissions reduction through the reforestation of the burned area.
- EDC Cooperative Wildland Fire Prevention Strategy: \$190,000. The agreement includes the completion of NEPA (where NEPA has not been completed) and CEQA as required by state and federal law for the Highway 50 and Camino/Pollock Pines fuel break.

**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 RCD will track expenses and maintain auditable records for all contract work. As fiscal sponsor for MFSC, EDCFSC will maintain auditable records and archives on the entire project.

Project Administration and Management will be the responsibility of the Georgetown Divide Resource Conservation District (RCD) and includes technical and administrative services needed for project completion; supervision and review of all work performed; assurance the project is completed within the budget, performance period, and in accordance with approved procedures, applicable laws, and regulations. RCD will comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in contracts with other entities for acquisition of goods and services with funds provided by State under this Agreement.

## **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.***

The Project budget contains \$495,842 in contractual costs for project management, professional services agreements, construction contracts, and fiscal sponsorship. No additional costs will be covered by the grant. The Other Costs listed represent entirely in-kind contributions provided by the partner organizations, valued at a total of \$345,300.

The impact of the grant funds requested will be enhanced by the in-kind actions of the partner organizations and their members, who will continue the defensible space, educational, and planning activities begun under the current fuel reduction grant funded through the California State Fire Safe Council, which will overlap with the start-up phase of this project. This engagement of the community with the grant activities will help ensure the sustainability of the fuel reduction measures achieved.

Project Management: The grantee, El Dorado County Fire Safe Council (as fiscal sponsor for Mosquito FSC), will engage the Resource Conservation District (RCD) as Project Manager, with responsibilities (further defined below) that include administrative and technical coordination, contractual arrangements, oversight of budgets, environmental compliance, field work, achieving expected results, and reporting. The grantee will ensure suitable performance by RCD, and act as primary liaison with local partners, the Cal Fire grant administration, and other state authorities.

Operational project management will be the responsibility of the RCD, including technical and administrative services needed for project completion; supervision and review of all work performed; assuring that the project is completed within the budget, performance period, and in accordance with approved procedures, applicable laws, and regulations. RCD will comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations to contract with other entities for acquisition of goods and services with funds provided by the State under this Agreement. The RCD will provide administrative personnel and licensed Registered Professional Foresters and will engage the services of licensed contractors to

perform the CEQA surveys and vegetation treatments. Formal consent from participating property owners will be obtained by the RCD, which will also conduct preliminary reconnaissance on each parcel. The RCD will provide flagging materials for delineation of property boundaries, treatment boundaries and all sensitive resource zones in accordance with the California Forest Practice Rules. The RCD will prepare quarterly progress reports, draft and final completion reports that meet generally accepted professional standards for technical reporting. If requested, RCD will promptly provide any additional information deemed necessary by State for the approval of reports.

Professional Services. The RCD will contract the services of specialists for CEQA studies and one or more Registered Professional Foresters to assist with project planning and tracking, to oversee Implementation by contractors, and to ensure adherence to the treatment prescriptions and all local, state and federal regulatory requirements.

Construction Contracts. RCD will contract with other entities for specified vegetation treatments. The budget allocation and estimated acres proposed to be treated are based on current rates being paid for similar work in nearby areas. We used \$2,350/acre as a cost basis when developing this proposal. Actual rates may be lower or higher and as such may affect the amount of land treated.

Other Costs. As noted above, all Other Costs are in-kind contributions of equipment and volunteer work programmed by the partners, as outlined in their Letters of Commitment. They reflect the volume of community support activity anticipated, conservatively estimated, based on contribution levels established in the current Cal FSC fuel reduction grant. This community effort will continue, in benefit of this proposed Cal Fire grant, as part of Mosquito community efforts to work together to reduce fuel loads, expand defensible space, and support firewise education and planning.

***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.***

The costs estimated for project management and professional services are based on current rates as verified with EDCFSC and RCD managers. Competitive selection processes will ensure market prices for professional services and vegetation treatments.

The per acre contract costs estimated are reasonable, based on recent experience of similar, nearby projects on bidding for similar work through the RCD and EDCFSC. Per acre rates bid by Fuel Load Reduction Contractors have fluctuated recently, creating uncertainty. We have attempted to estimate enough per acre to be confident that it will cover the minimum acreage shown and with luck allow expansion of the treatment acreage.

***3. Is the total project cost appropriate for the size, scope, and anticipated benefit of the project?***

We believe so. We expect to complete the Project within Scope, Budget, and timeline. Project activity will be measured and reported in acres treated and percent expenditures as compared over time.

**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).**

Indirect costs are not requested. Instead, direct administrative expense is included as part of the fiscal sponsor fee (contractual) and of the project management contact. Both are necessary to ensure high quality results, proper tracking and reporting, and timely completion of the project, without undermining the financial and operating status of the implementing agencies.

**5. Explain each object category in detail and how that would support meeting the grant objectives.**

Budget Category A: Salaries and Wages.

Not applicable

Budget Category B: Employee Benefits.

Not applicable

Budget Category C: Contractual.

*Project management.* EDCFSC, as fiscal sponsor, will contract the Resource Conservation District (RCD) to manage the project. RCD responsibilities are defined above (see Budget point 1); they include technical and administrative services needed for project completion, supervision and review of work performed, conducting field inspections, and ensuring timely project completion within the budget and in accordance with approved procedures, applicable laws, and regulations.

*Environmental Compliance.* The RCD will contract specialists as needed to meet CEQA requirements; adhere to silviculture prescriptions and marking guides; and protect natural and historical resources as necessary to comply with federal law, regulation, and policy.

*Registered Professional Forester consultants.* The RCD proposes to acquire two RPFs, a Planning Forester to assist with project tracking and GHG Analysis, and an Implementation Forester to oversee contractors and ensure adherence to the treatment prescriptions and all local, state and federal requirements. We anticipate a cost range from \$95-\$125/hour for each consultant.

*Fuel Reduction Contractor(s).* RCD will secure competitive bids and undertake competitive negotiations with contractors to use funds provided by State. The budget allocation and estimated acres proposed to be treated are based on current rates being paid for similar work in nearby areas.

*Fiscal sponsor.* The El Dorado County Fire Safe Council (EDCFSC) will act as fiscal sponsor on behalf of the Mosquito Fire Safe Council (MFSC), which is an Associate Council of the EDCFSC. They are cooperating successfully on the current Cal FSC grant. The EDCFSC fiscal sponsor fee is 5%.

Budget Category D: Travel & Per Diem.

Not applicable

Budget Category E: Supplies.

Project Tracking Number: 19-FP-AEU-1030

Not applicable. No expenses will be incurred under this category.

Budget Category F: Equipment.

Not applicable

Budget Category G: Other Costs.

The four community partner organizations presented letters of commitment covering these activities for the Cal FSC grant that far exceeded matching requirements. In recent board meetings they have reaffirmed and extended these commitments to cover this proposed Cal Fire grant, to continue to improve fire safety in the community. See their LOCs for detail.

Estimates of in-kind costs are based on current published rates for volunteer labor, equipment rental, fuel and supplies, and campsite use. While these may vary, the partners commit to meeting the total in-kind contribution specified.

*Volunteer labor:* partners have for years organized residents as volunteers in varied activities. Volunteer hourly value is estimated as \$30 based on the published Independent Sector data for California: \$29.95 for 2018. Extrapolating, this will exceed \$30/hr by 2021 (published rates will be applied). The value of tools and equipment used will also be counted. Relevant activities include:

- Community Clean up Days (dumpsters loaned via MVFA)
- SCPOA splitting for dead tree removal (log splitters loaned by volunteers)
- SCPOA chipping volunteers (chippers loaned by volunteers)
- Defensible Space Evaluations (trained volunteers working with owners)
- Defensible space creation volunteers (property owners and others)
- Update of the CWPP (volunteer work, expert consultations, materials)
- Photo documentation and reporting (labor and materials)

Equipment rental. Use of equipment owned by MFPD, SCPOA, and MVFA; rental rates are based on Cal Fire and CFIP tables.

- Chipper rental (CFIP rate for 15" capacity; SCPOA chipper is 21").
- Fire Engine rental – MFPD; Cal Fire rates for strike team use.
- Water Tanker rental – MFPD; Cal Fire rates for strike team use.
- Dump Truck use/rental: SCPOA dump truck in tandem with chipper – CFIP rates

Other In-kind cost estimates. These lines reflect a variety of in-kind contributions planned for this project; quantities are conservatively estimated and may change, as may specific activity types.

*Community Defensible Space Creation:* Residents will continue to maintain and expand defensible space around homes. Over 130 persons are currently reporting their hours.

*Local roadside clearance and common area fuel breaks:* SCPOA will undertake clearance of substantial sections of its 22 miles of overgrown feeder roads that connect residents to Mosquito Road; it will also construct shaded fuel breaks in its forested common areas.

*Community education, outreach, participation:* They generate in-kind contributions of two sorts: volunteer hours, including participation; and costs of set-up and materials.

*Training* (of firefighters, support group, residents): this covers time dedicated to instruction and learning, including training on maintenance of fuel reduction works for sustainability (see MFPD LOC for detail).

## **CALIFORNIA CLIMATE INVESTMENTS**

### ***1. How will the project/activity reduce Greenhouse Gas emissions?***

By removing hazardous fuels the project will reduce the likelihood of wildfire both within the treated area and in the larger fireshed, reducing the potential severity and rate of spread of wildfire throughout the area. This will reduce potential greenhouse gas emissions by avoiding them altogether or lowering emissions if a wildfire does occur. The proposed treatment methods will also promote greater health and resiliency in residual forest stands leading to longer-term greenhouse gas reductions by increasing the forest's absorption of atmospheric carbon dioxide. Finally, the project will employ mastication and hand-thinning methods to remove hazardous fuels, thus eliminating production of greenhouse gases associated with fires.

### ***2. Is the project located in a Low-Income or Disadvantaged Community? If not, does the project benefit those communities. Please explain.***

The project is not located in a Low Income or Disadvantaged Community. However, it is adjacent to areas identified as low income by the California Air Resources Board across the South Fork of the American River (south boundary of MFPD). By providing landscape level fuel breaks that may prevent the spread of wildfire from Mosquito to these neighborhoods the project will provide benefits to them.

On the landscape level it will indirectly benefit surrounding communities by providing fuel breaks that can slow or stop the advance of large fires. Such potential beneficiaries include the communities of Camino and Pollock Pines, Kelsey, Garden Valley, Georgetown, and Placerville.

### ***3. What are the expected co-benefits of the project/activity (i.e. environmental, public health and safety, and climate resiliency)?***

*Environmental* co-benefits of the project include improving forest health within the project area by The principal co-benefits the project will be reduced fire hazard at a landscape level, enhanced resiliency of residual forests, reduced risk of wildfire in the surrounding communities, and improved safety and effectiveness of fire suppression personnel if a fire occurs.

thinning the understory, thereby providing conditions conducive to growth of native trees and supportive habitat for native species. Cleared vegetation biomass will be spread throughout the affected area, contributing to a healthier forest by promoting moisture retention in soils by incorporating the biomass debris.

*Public health and safety* will be enhanced by the reduction of wildfire risks in the community. Quality of Life benefits also accrue to local residents adjacent to the project area, as the project will provide park-

like conditions on portions of their properties to be used, maintained and enjoyed into the future. Fuels reduction along Mosquito Road will improve visibility around corners, widen the road for passing, and create more turnouts, significantly improving safety on a very dangerous stretch.

*Climate resiliency* will be increased by the shift toward more natural, fire adapted forest ecosystems that lower risk of catastrophic wildfire.

***4. When are the Greenhouse Gas emissions and/or co-benefits expected to occur and how will they be maintained?***

Greenhouse gas reduction benefits will accrue on project completion because of the reduced likelihood of severe wildfire and will increase over time as residual forests grow. Thinning and removal of excess biomass is expected to benefit the growth of residual trees. This growth, in turn, will offset the emissions associated with biomass removal and equipment operations. Over time the amount of carbon sequestered by these residual trees will exceed that of the excess biomass removed.

It is anticipated that treated areas will be maintained by the efforts of adjoining landowners and the local Fire Safe Council either on their own or through procurement of future grants. Landowners will recognize an immediate benefit from maintaining the reduced fuel areas near to their residential defensible space. The revision of the CWPP scheduled for 2020-2021 will cover maintenance of fuel reduction projects; future projects will address maintenance and potential expansion of the reduced fuel areas. Thus, the inherent benefits of the project – avoiding or reducing the severity of wildfire events throughout the project area – will continue well beyond project completion and will serve to limit generation of greenhouse gases by such events.