***SIERRA NEVADA CONSERVANCY***

**PROPOSITION 1 – Watershed Improvement Program**

**PROJECT NAME: Butte Forest Thin – Doe Mill Ridge Watershed Project**

**APPLICANT NAME: Sacramento River Watershed Program**

**AMOUNT OF GRANT REQUEST: $494,697**

**ESTIMATED TOTAL PROJECT COST: $685,547**

**DESCRIPTION OF PROJECT: (Limit 5,000 characters including spaces)**

California is a fire adapted environment. Fire adapted environments need managing to avoid the excessive fuels buildup that create mega-fires. Fire exclusion has created an unhealthy ecosystem which strains our ecological diversity, amplifies the effects of a changing climate, and creates an environment where significant and lasting change takes place through disease, insects and mega fire. The Sacramento River Watershed Program (SRWP) and the Terra Fuego Resource Foundation (Terra Fuego) are working in close partnership to develop the infrastructure, methodology and management practices to address the devastating impacts of drought and the need to significantly increase forest management efforts in the Sacramento River Watershed. The Butte Forest Thin – Doe Mill Ridge Watershed Project(Project) will use forest thinning and follow-up low intensity prescribed fire to treat 200 acres on public land administered by the Bureau of Land Management(BLM) and conduct pre- and post-monitoring to examine how pre-fire fuel reduction restoration treatments impact fire severity and improve forest health.

There is an immense need for projects that minimize the risk of catastrophic fire, control and eradicate invasive species and restore habitat along with a strong desire to demonstrate the linkages between the landscape/management in upstream areas and impacts onthe downstream water availability, quality, and inundation. Recently, state and federal agencies and officials have formally acknowledged the need for periodic fire to reduce hazardous fuels and protect humans and the environment from extreme fires. This has led to the development of programs and initiatives focused on increasing
the use of fire including the SNC's WIP, CalFire's declaration to return more prescribed fire to the landscape, and a Memorandum of Understanding (MOU)between the US Forest Service, Sierra Forest Legacy and other partners including the SNC for the purpose of increasing the use of fire to meet ecological and other management objectives. This Project will help to garner support for the development of a community resiliency plan for the Butte Creek
and Chico Creek watersheds and build confidence in using prescribed burns in
future large-scale restoration projects.

The Project area is located along Doe Mill Ridge situated between Little Chico Creek and Butte Creek in the Southern Sierra-Cascade Foothills and contains steep slopes and dense forested vegetation. The BLM property contains a mixture of dense Sierra Nevada mixed conifer forest, chaparral, and oak woodlands in an area that has not experienced a large fire in recorded history. Recent drought conditions have limited water availability and impacted surrounding vegetation and wildlife. The Lack of large wildland fires has lead to increased densities in trees and shrubs, and an accumulation of surface fuels. Evidence of bark beetle infestation is present in some areas of the Project area.

Doe Mill Ridge is situated so that it captures some of the greatest precipitation in the region. However, dense vegetation limits the maximization of recharge due to
interception and loss from vegetation and increases evapotranspirative loss. Snow accumulation is rapidly lost due to ablation related to crown density. Despite this, the Project area contains several springs and seeps which feed into Little Chico and Butte Creek . In normal years many of these springs and seeps are perennial. Waters from these springs and seeps along with shaded riverine habitat are a critical elements in regulating base flows and water temperature in the creeks, particularly for spring-run Chinook Salmon in summer. The CWP identifies fire risk as one of the key stressors to
spring-run Chinook salmon and steelhead and states that long-term survival of
spring-run Chinook salmon in Butte Creek is unlikely under climate change
projections resulting in higher risk of wildfire.

Butte Creek transitions into a complex system of water supply diversions that provide surface supply for municipal and agricultural users. State planning priorities and
recommendations included in the California Water Action Plan (CWP), SNC Strategic Plan and WIP, and CalFire's 2010 Assessment of California's Forests And Rangelands (Assessment) suggest that protecting and managing forests insource watersheds is essential to future strategies for providing sustainable supplies of clean water. The combined effects of forest thinning and fire treatments in the Project area will effectively reduce existing hazardous fuel loads, promote forest succession, and improve the overall quality and health of the remaining forest. If dense forests are not thinned and treated with low-intensity fire, the potential for future high severity wildfires to convert the area back to the beginning stages of forest succession (brush and young trees) would remain and continue to create a threat to California’s water supply and air quality resulting from a mega-fire.

**DESCRIPTION OF PROJECT WORKPLAN AND SCHEDULE**

The Project extends from Garland Road south to Doe Mill Road to the southern end of Schott Road. See Roadsmap.pdf. This project will focus on BLM land as part of the initial phase of the project and will leverage a large scale thinning project just completed by SPI. SPI is also a partner in the larger project but cannot meet the 25 year tenure stipulations of this grant.

Pre- and post-treatment ecological monitoring will involve the establishment of fixed monitoring plots throughout the treatment area. Approximately one plot will be established per 10 treated acres. Each plot will be assessed using the releve method to assess floristic diversity, cover, and down woody debris. Furthermore, photos will be taken in the cardinal directions from each plot to illustrate changes in environmental conditions. Data will be collected at three intervals commencing in spring before and two years following treatment.

This initial project is expected to take 36 months to complete, with the majority of the work being completed within the first 12 months, depending on weather conditions and windows of opportunity to implement fuels treatment and prescribed burning. The CCC has indicated that they will plan to participate in the hand crew work. The chart below provides a listing of deliverables and the expected date of completion.

|  |  |
| --- | --- |
| **Deliverables** | **Date** |
| **Administrative:** |  |
| 1. Approval of SNC Grant Application
 | June 2016 |
| 1. Convene Quarterly Stakeholder Meetings
 | June 2016 |
| 1. Contract Negotiation
 | July-August 2016 |
| 1. Contract Start
 | September, 2016 |
| 1. Hire Crew/Partner with CCC
 | September 1 – 15, 2016 |
| 1. Develop Tracking System for Performance Measures
 | September 1 – 30, 2016 |
| 1. Quarterly Stakeholder Meetings
 | September, 2016March, 2018 |
| 1. Bi-Annual Report Due
 | December 2016 December 2018 |
| 1. Final Report Due
 | March 30, 2018 |
| **Site Restoration:** |  |
| 1. Thin and pile roadside and trail shaded fuelbreaks, (89 acres)
2. Roadside cut and pile
3. Handline construction for controlled burn and burn piles
4. Pile burn
5. Roadside chipping
 | September 1, 2016 – February 2017 |
| 1. Lop and scatter
2. Roadside pile burning
3. Broadcast burn 124.5 acres
4. Mop up and Patrol
 | February, 2017 – February, 2018 |

**DESCRIPTION OF COMMUNITY SUPPORT**

The Forest Ranch Fire Safe Council (Fire Safe Council) has been working to engage the community to address forest health concerns inclusive of the Butte Creek, Little Chico Creek, and Big Chico Creek watersheds. Stakeholders currently involved in this community effort include Butte County, City of Chico, California State University Chico, BLM, Sierra Pacific Industries, Cal FIRE, Forest Ranch Volunteer Fire, Butte County Firesafe Council, Firestorm Wildland Fire Suppression Inc., and a variety of private landowners whose land abates to this property. SPI is also a partner in the larger project..

The CalFire Assessment suggests that the public is generally unaware of the role forests play in protecting critical water supply assets and of the existing threats to water supplies in headwater regions. This Project and planning effort will help to illustrate and promote the role of fire as a natural and necessary element for most of our natural areas. Coordination and communication are necessary to help communities become more resilient to the impacts of drought and fire. SRWP and Terra Fuego will partner with the Fire Safe Council and other stakeholders to develop information and opportunities to foster and sustain stakeholder engagement and increase collaboration between federal, state and local governments and partner organizations. Project data and information will be used to develop a community resiliency plan that will help stakeholders assess their community’s situation regularly and adjust their management actions accordingly.

The Forest Ranch community will benefit from the socio-economic investments associated with the implementation of the Project that includes tools and guidance, education and outreach, data and information, and job training and creation. Terra Fuego utilizes off season firefighters from Firestorm and other agencies to train and field fuels and prescribed fire burn crews. The training of new forestry workers is expedited by the use of seasoned firefighters with strong leadership skills and experience. Our partnership with the California Conservation Corps (CCC) will create a unique opportunity to create a cohesive and effective team of those who are being trained and those with extensive experience in forest restoration and watershed improvement. The Project will integrate community fuels crews with the CCC’s while providing training in the use of tools and equipment and in watershed restoration, fire adapted environments and the social science of engaging a community around stewardship.

**STATUS OF TRIBAL INVOLVEMENT AND CONTACT INFORMATION**

Local federal and non-federally recognized tribes or their representatives and tribal organizations were contacted regarding the project including the Konkow Valley Band of Maidu, Mechoopda Indians of Chico Rancheria, and the California Indian Water Commission. A representative of the Konkow Valley Band noted full support for the project. No specific comments were received from the Mechoopda Indians of Chico Rancheria, but they are engaged with fire projects locally, and eager to engage in traditional stewardship practices. The California Indian Water Commission is in full support of this project due to its potential beneficial effects on water and spring run Chinook salmon.

**DESCRIPTION OF LONG-TERM MANAGEMENT PLAN**

The 2002 Healthy Forest Initiative and Health Forest Restoration Act directs land management agencies to restore healthy forest conditions on federal lands near high density rural communities in the wildland interface. The Project area is directly adjacent to residential property and the outlying communities of Magalia and Forest Ranch. The 2001 National Fire Plan, 2004 BLM Redding Fire Management Plan (BLM Plan), and the 2015 Butte Unit and County Community Wildfire Protection Plan place high priority on reducing hazardous fuels near communities at risk and in the forest vegetation types with fire Condition Classes of 2 or 3. The Project area is susceptible to human fire starts due to recreational activities occurring along Butte Creek including camping and is ranked at a 3, high risk.

The management plan for the Project area as identified in the BLM Plan is to use prescribed fire, mechanical, and biological treatments to improve and maintain flora and fauna species diversity and reduce hazardous fuels for fire adapted ecosystems on both watershed and landscape levels. The desired future conditions for BLM forested land in the area are to have a moderately open-spaced and multi-aged mixed conifer-hardwood forest. However, dispersed land holdings, staff limitations, and lack of agency funding continue to contribute to a deficit of fire in this strategically located area.

BLM, SPI and other local, state and federal agencies regulate planning processes over private and public land management in the Little Chico Creek and Butte Creek Watersheds. These local governments have each adopted a comprehensive, long-term management plan for the property within their boundaries but there is no comprehensive long-term management plan tailored for this area. SRWP and Terra Fuego will work to advance a community effort to develop a Community Resiliency Plan that will help stakeholders assess their community’s situation regularly and adjust their management actions accordingly. This Project will help to identify opportunities for investment and develop funding mechanisms to continue and maintain the work over time.

This planning effort will provide a practical and flexible approach to help communities improve their resilience by setting priorities and allocating resources to manage risks. This landscape scale planning effort will integrate other planning and assessment documents and align community priorities and resources with resiliency goals. The plan will establish objectives, priorities and tasks to monitor, manage, maintain and report on watershed conditions. This multi-generational plan will leverage job creation, community capacity building with NWCG certified firefighting training, community education through the local Fire Safe Council, and civic engagement through relevant media channels. The purpose of this long-term management plan is to ensure the Project area and surrounding watershed is managed, monitored, and maintained in perpetuity.

**DESCRIPTION OF REGULATORY REQUIREMENTS/PERMITS NEEDED**

The 2003 Healthy Forest Restoration Act contains provisions for expedited environmental analysis of projects implemented under its authority if project lie within 1.5 miles of an at-risk community (town of Magalia is 1.2 miles away) and the Butte County Community Wildfire Protection Plan recommends the proposed hazard fuels reduction treatment methods. BLM has completed NEPA, a smoke management plan will be developed and submitted to the Butte County Air Quality Management District for the prescribed burn, Air Quality permits will be filed as needed. A burn plan will be developed as per NWCG guidelines, burn permits shall be filed with CAL FIRE as required by law.

**DESCRIPTION OF RESTRICTIONS/AGREEMENTS NEEDED/IN PLACE**

Terra Fuego has agreements in place with the BLM to immediately begin this work. Terra Fuego also has MOU's with most of the surrounding landowners.

**DESCRIPTION OF ORGANIZATIONAL CAPACITY**

**SRWP**

The SRWP will provide administrative and fiscal oversight of the project and assist with stakeholder education and outreach. For almost 20 years SRWP has been dedicated to enhancing the watershed through consensus-based collaborative partnerships. SRWP has a successful track record of managing projects and developing effective efforts to improve the health of the watershed since 1996, including management of a $2.2 million grant from the CALFED Watershed Program. This Project and planning effort are part of SRWP’s long-term goal to improve watershed health by developing cooperative, cross-boundary projects in the Sacramento River Watershed that are compatible with larger collaborative forest management efforts.

Holly Jorgensen is the Executive Director of SRWP and works closely with regional, state, and federal partners to develop existing programs and new watershed initiatives aimed at promoting conservation and investment in the region. Upon graduating from CSU, Chico with a Bachelor of Science in Natural Resources Management and a Bachelor of Arts in Sociology, she began her career in the watershed community as an environmental educator. Holly has worked to secure financial support, develop partnerships, and manage numerous programs, projects, and activities. She has a holistic understanding of the region’s watershed issues and extensive knowledge of natural resources plans, programs, and policies and will earn a Master of Arts in Geography and Planning from CSU, Chico in May 2016.

**Terra Fuego**

Terra Fuego will manage the project and provide technical oversight. Terra Fuego Resource Foundation advocates the creation and maintenance of healthy forests, grasslands and open space through accepted land management practices, including prescribed burning, mechanical manipulation of fuels and control and eradication of invasive species. The organization was formed to address the need for prescribed treatments to improve forest health by their for-profit partner, Firestorm. Terra Fuego utilizes off season firefighters and is actively providing training for community members in wildland firefighting, fuels reduction, fuels management techniques and invasive plant management and eradication. Terra Fuego is responsible for the implementation of the Proposition one Drought Crew that fielded two twenty persons crews who have collectively done over $100,000 dollars worth of drought relief and land restoration work on BLM and public lands in Butte and Tehama counties.

Mike Peevers, Executive Director of Terra Fuego started out as a wildland forest firefighter. As an Engineering consultant he has managed numerous technical projects over the years and has managed training exchanges (TREX) financed by The Nature Conservancy's Fire Learning Network that successfully trained thirty new firefighters, and provided an opportunity for many more experienced firefighters to expand their qualifications. Mike is working with local, state and federal partners in the Klamath River and Chico and Butte Creek watersheds to establish efforts to mitigate catastrophic fire hazard and restore watershed and habitat.

Jim Wills, former CEO of Firestorm Fire Suppression, a for-profit contract firefighting agency leads Terra Fuego as their Board Chair and Advisor. He has 40 plus years of experience in wildland fire. He has been training and deploying wildland firefighters and is a qualified Type I Burn Boss, Operations Section Chief for The Nature Conservancy's TREX programs, instructor for Shasta Community College in Fire Science, and is a current steering committee board member for the NorCal Prescribed Fire Council. Jim has provided project planning and implementation on 10,000 acres on National Forest lands that has included biomass removal, thinning, piling, prescribed burn planning, and implementation.

**CSU, Chico**

CSU Chico’s Department of Geography and Planning and Ecological Reserves under have provided key research and planning support for wildfire protection, prescribed fire use, and outreach and education throughout the region, and have been engaged with the Forest Ranch community in relationship to the development of landscape scale fire restoration. This relationship is unique in that applied research is occurring within the landscape, academic expertise is available to the community for decision making, and student interns gain valuable experience in working with a diverse public and applying their classroom knowledge in the field.

Don Hankins is a Professor in the Department of Geography and Planning at California State University, Chico. His areas of expertise are pyrogeography, water resources, and conservation ecology. He is particularly interested in the application of indigenous land management practices as a keystone process to aid in conservation and management of resources. He has been engaged in applied fire and water research and restoration projects involving indigenous California and Aboriginal Australian communities for approximately 15 years. Don has career experience and continues to be involved in various aspects of land management and conservation for a variety of organizations and agencies including federal and tribal governments and organizations.

**PERFORMANCE MEASURES**

Terra Fuego Resource Foundation plans to undertake the four required performance measures as well as two additional performance measures that are:

* Acres of Land Improved or Restored
* Feet of Trail/Path Constructed or Improved

**PROJECT LOCATION (County with approximate lat/long, center for project area)**

Butte County

MDM T24N R3E S27, 35

Stirling City and Cohasset, CA

**PERSON(S) WITH MANAGEMENT RESPONSIBILITY**

Holly Jorgensen, Executive Director, SRWP

PO Box 9233

Chico, CA 95927

530.781.2220

Mike Peevers, Executive Director, Terra Fuego

1100 Fortress Street, Suite 2

Chico, CA 95973

530.521.3703

**COUNTY ADMINISTRATOR OR PLANNING DIRECTOR CONTACT INFORMATION**

Paul Hahn, Butte County CAO

25 County Center Drive, Suite 200

Oroville, CA 95965

530.538.7631

**NEAREST PUBLIC WATER AGENCY CONTACT INFORMATION**

Butte County Water and Resources

Paul Gosselin, Director

308 Nelson Avenue

Oroville, CA 95965

530.538.4343

**BRIEF DESCRIPTION OF THE CEQA STATUS OF THE PROJECT**

The SRWP is requesting the SNC to serve as CEQA responsible party/lead.

**BRIEF DESCRIPTION OF THE NEPA STATUS OF THE PROJECT**

BLM has completed NEPA. The NEPA status and paperwork is attached to this document.

Please identify the appropriate project category below and provide the associated details:

**Category One, site improvement**

**Project Area:**

Total acres: 200