

## Appendix B - Full Application Checklist

SNC Reference#: \_\_\_\_\_

Project Name: Butte Forest Thin - Doe Mill Ridge Watershed Project

Applicant: Sacramento River Watershed Program (SRWP)

Please mark each box if item is included in the application. Please consult with SNC staff prior to submission if you have any questions about the applicability to your project of any items on the checklist. All applications must include a CD including an electronic file of each checklist item, if applicable. The naming convention for each electronic file is listed after each item on the checklist. (Electronic File Name = EFN: "naming convention". file extension choices)

Submission requirements for all Category One and Category Two Grant Applications

1.  Completed Application Checklist (EFN: Checklist.doc,.docx,.or .pdf)
2.  Table of Contents (EFN: TOC.doc,.docx, or .pdf)
3.  Full Application Project Information Form (EFN: SIform.doc, .docx, or .pdf)
4.  CCC/Local Conservation Corps Document (EFN: CCC.pdf)
5.  Authorization to Apply or Resolution (EFN: authorization.doc, .docx, or .pdf)
6.  Narrative Descriptions (EFN: Narrative.doc or .docx)
  - a.  Detailed Project Description (5,000 character maximum for section 5a only)
    - Project Description including Goals/Results, Scope of Work, Location, Purpose, etc.
  - b.  Workplan and Schedule
  - c.  Restrictions, Technical/Environmental Documents and Agreements
    - Restrictions / Agreements (EFN: RestAgree.pdf)
    - Regulatory Requirements / Permits (EFN: RegPermit.pdf)
  - d.  Organizational Capacity
  - e.  Cooperation and Community Support
    - Letters of Support (EFN: LOS.pdf)
  - f.  Tribal Consultation Narrative (EFN: tribal.doc, docx)
  - g.  Long Term Management and Sustainability
    - Long-Term Management Plan (EFN: LTMP.pdf)
  - h.  Performance Measures
7. Budget documents
  - a.  Detailed Budget Form (EFN: Budget.xls, .xlsx)
8. Supplementary Documents
  - a. Environmental Documentation
    - California Environmental Quality Act (CEQA) documentation (EFN: CEQA.pdf)
    - National Environmental Policy Act (NEPA) documentation (EFN: NEPA.pdf)
  - b. Maps and Photos
    - Project Location Map (EFN: LocMap.pdf)
    - Parcel Map showing County Assessor's Parcel Number(s) (EFN: ParcelMap.pdf)

- Topographic Map (EFN: *Topo.pdf*)
- Photos of the Project Site (10 maximum) (EFN: *Photo.jpg, .gif*)
- c. Additional submission requirements for Fee Title Acquisition applications only
  - Acquisition Schedule (EFN: *acqSched.doc, .docx or .pdf*)
  - Willing Seller Letter (EFN: *WillSell.pdf*)
  - Real Estate Appraisal (EFN: *Appraisal.pdf*)
- d. Additional submission requirements for Site Improvement / Restoration Project applications only
  - Land Tenure Documents (EFN: *Tenure.pdf*)
  - Site Plan (EFN: *SitePlan.pdf*)
  - Leases or Agreements (EFN: *LeaseAgmnt.pdf*)

I certify that the information contained in the Application, including required attachments, is accurate, and that I have been authorized to apply for this grant.

  
Signed (Authorized Representative)

2/29/2016

Date

**Holly R. Jorgensen**

Name and Title (*print or type*)

# Sacramento River Watershed Program

## Sierra Nevada Conservancy Sierra Nevada Watershed Improvement Program Proposition 1 Grant Application

### Table of Contents

Project Information Form	1
CCC Documents	3
Authorization to Apply	5
Narrative	7
● Detailed Project Description	7
● Work Plan and Schedule	9
● Description of Community Support	10
● Status of Tribal Involvement	11
● Description of Long-Term Management Plan	11
● Description of Regulatory Requirements	12
● Description of Restrictions	12
● Description of Organizational Capacity	12
● Performance Measures	14
Budget	16
Budget Detail	17
Supplementary Documents	20
● NEPA	
● Project Location Map	
● Parcel Map	
● Topographic Maps	
● Photos of the Project Site	
● Land Tenure Documents	
● Site Plan	
● BLM MOU	
● Letters of Support	

<b>SIERRA NEVADA CONSERVANCY</b>		
<b>PROPOSITION 1 – Watershed Improvement Program Project Information Form</b>		
<b>SNC REFERENCE #</b>		
<b>PROJECT NAME</b> Butte Forest Thin - Doe Mill Ridge Watershed Project		
<b>APPLICANT NAME</b> <i>(Legal name, address, and zip code)</i> Sacramento River Watershed Program PO Box 9233 Chico, CA 95926		
<b>AMOUNT OF GRANT REQUEST</b> \$494,697		
<b>TOTAL PROJECT COST</b> \$685,547		
<b>PROJECT LOCATION</b> <i>(County with approx. lat/long, center of project area)</i> Butte County MDM T24N R3E S27.35 Sterling City and Cohasset, CA		
<b>SENATE DISTRICT NUMBER</b> 4	<b>ASSEMBLY DISTRICT NUMBER</b> 1 and 3	
<b>PERSON WITH MANAGEMENT RESPONSIBILITY FOR GRANT CONTRACT</b>		
<i>Name and title</i>	<i>Phone</i>	<i>Email Address</i>
<input type="checkbox"/> Mr. Holly Jorgensen	530/781-2220	holly@sacriver.org
<input checked="" type="checkbox"/> Ms.		
<b>TRIBAL CONTACT(S) INFORMATION</b>		
<i>Name:</i>		<i>Phone Number:</i>
Kyle McHenry		530/899-8932
<i>Email address:</i> kmac31@gmail.com		
<b>COUNTY ADMINISTRATOR OR PLANNING DIRECTOR CONTACT INFORMATION</b>		
<i>Name:</i>		<i>Phone Number:</i>
Paul Hahn, Butte County CAO		530/538-7631
<i>Email address:</i> phahn@buttecounty.net		
<b>NEAREST PUBLIC WATER AGENCY CONTACT INFORMATION</b>		
<i>Name:</i>		<i>Phone Number:</i>
Paul Gosselin, Director		530/538-4343
<i>Email address:</i> pgosselin@buttecounty.net		

**Please identify the appropriate project category below and provide the associated details** *(Choose One)*

Category One Site Improvement

Category Two Pre-Project Activities

Category One Acquisition

**Site Improvement/ Acquisition Project Area (for Category One Projects Only)**

Total Acres: 200

SNC Portion (if different):

**Acquisition Projects Only For Acquisitions Only**

Appraisal Included

**Select one deliverable (for Category Two Projects Only)**

Permit

CEQA/NEPA Compliance

Appraisal

Condition Assessment

Biological Survey

Environmental Site Assessment

Plan

Prop1 Community Corps to Mike

Feb 22

Hello Mike,

Thank you for contacting the Local Conservation Corps. Unfortunately, we are unable to participate in this project. Please include this email with your application as proof that you reached out to the Local Conservation Corps.

Thank you,

Dominique

...

California Association of Local Conservation Corps

Proposition 1 – Water Bond

Consultation Review Document

Applicant has submitted the required information by email to the Local Conservation Corps (CALCC):

✓Yes (applicant has submitted all necessary information to CALCC)

After consulting with the project applicant, the CALCC has determined the following:

✓It is NOT feasible for CALCC to be used on the project (deemed compliant)

APPLICANT WILL INCLUDE THIS DOCUMENT AS PART OF THE PROJECT APPLICATION.

...

Prop 1@CCC to Mike, Prop, Holly, Naomi

Feb 22

Hello Mike.

Keith Welch, the Conservation Supervisor at our CCC Chico location has responded to the partnership for your project: Butte Forest Thin Project. CCC can assist with forest thinning, removal of cut vegetation, and pile burning.

Please include this email with your project application as proof that you reached out to the CCC. Feel free to contact Keith Welch at [Keith.Welch@ccc.ca.gov](mailto:Keith.Welch@ccc.ca.gov) directly if you have project-specific questions and when your project receives funding.

Thanks,

Nick Martinez

Region II Analyst

California Conservation Corps

Office (916) 341-3157

[Nicholas.Martinez@ccc.ca.gov](mailto:Nicholas.Martinez@ccc.ca.gov)



From: Mike Peevers [mailto:[mike@terrafuego.org](mailto:mike@terrafuego.org)]

Sent: Thursday, February 11, 2016 4:39 PM

To: Prop 1@CCC <[Prop1@CCC.CA.GOV](mailto:Prop1@CCC.CA.GOV)>

...

Cc: Holly Jorgensen <[holly@sacriver.org](mailto:holly@sacriver.org)>; Naomi Tora <[naomi@firestormfire.com](mailto:naomi@firestormfire.com)>

Subject:

...



**RESOLUTION NO. 2016-01**

Adopted by the Sacramento River Watershed Program Board of Trustees

**Sierra Nevada Conservancy Sierra Nevada Watershed Improvement Program (WIP)**

A RESOLUTION that an application be made to the Sierra Nevada Conservancy to obtain a WIP Grant, and to enter into an agreement to receive a grant for the proposal entitled, "Butte Forest Thin – Doe Mill Ridge Watershed Project." Holly Jorgensen, Executive Director, is hereby authorized and directed to prepare the necessary data, conduct investigations, file such application, and execute a grant agreement with Sierra Nevada Conservancy.

Whereas, the Board authorizes Sacramento River Watershed Program to enter into and submit a SNC WIP grant application; and

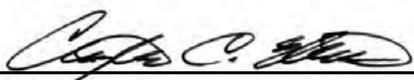
Whereas, the Board certifies that funding from the Sierra Nevada Conservancy will not present a conflict of interest for the Board or any of its members; and

Whereas, the Board certifies the Board Chair, to sign the Agreement, and any amendments thereto; and

Now, therefore, be it resolved, that the Sacramento River Watershed Program Board of Trustees hereby adopts Resolution 2016-01 on February 25, 2016.

ON A MOTION made by Trustee Robert Meacher, seconded by Trustee Dennis Heiman, the foregoing resolution was passed and adopted by the SRWP Board of Trustees this 25<sup>th</sup> day of February 2016, by the following vote, to wit:

AYES: 6  
NOES: 0  
ABSTAIN: 1  
ABSENT: 4

  
\_\_\_\_\_  
Approved by Chris Elliott, SRWP Board Chair

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WHEREAS, the Legislature and Governor of the State of California have provided Funds for the program shown above; and

WHEREAS, the Sierra Nevada Conservancy (SNC) has been delegated the responsibility for the administration of a portion of these funds through a local assistance grants program, establishing necessary procedures; and

WHEREAS, said procedures established by the Sierra Nevada Conservancy require a resolution certifying the approval of application(s) by the Applicant's governing board before submission of said application(s) to the SNC; and

WHEREAS, the Applicant, if selected, will enter into an agreement with the SNC to carry out the project; and

WHEREAS, the Sacramento River Watershed Program (SRWP) has identified the Butte Forest Thin – Doe Mill Watershed Project as valuable toward meeting its mission and goals.

BE IT HEREBY RESOLVED by the Board of Trustees of the SRWP that this Board:

- Approves the submittal of an application for the Butte Forest Thin – Doe Mill Watershed Project; and
- Certifies that Applicant understands the assurances and certification requirements in the application; and
- Certifies that Applicant or title holder will have sufficient funds to operate and maintain the resource(s) consistent with the long-term benefits described in support of the application; or will secure the resources to do so; and
- Certifies that Applicant will comply with all legal requirements as determined during the application process; and
- Appoints Holly Jorgensen, or designee, as agent to conduct all negotiations, execute and submit all documents, including but not limited to: applications, agreements, payment requests, and so on, which may be necessary for the completion of the aforementioned project(s).

PASSED AND ADOPTED by the Sacramento River Watershed program on the 25th day of February, 2016.

## **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.

<b>Deliverables</b>	<b>Date</b>
<b>Administrative:</b>	
1. Approval of SNC Grant Application	June 2016
2. Convene Quarterly Stakeholder Meetings	June 2016
3. Contract Negotiation	July-August 2016
4. Contract Start	September, 2016
5. Hire Crew/Partner with CCC	September 1 – 15, 2016
6. Develop Tracking System for Performance Measures	September 1 – 30, 2016
7. Quarterly Stakeholder Meetings	September, 2016 March, 2018
8. Bi-Annual Report Due	December 2016 December 2018
9. Final Report Due	March 30, 2018
<b>Site Restoration:</b>	
1. Thin and pile roadside and trail shaded fuelbreaks, (89 acres)	September 1, 2016 – February 2017
2. Roadside cut and pile	
3. Handline construction for controlled burn and burn piles	

4. Pile burn 5. Roadside chipping	
6. Lop and scatter 7. Roadside pile burning 8. Broadcast burn 124.5 acres 9. 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

**SIERRA NEVADA CONSERVANCY**  
**SNC Watershed Improvement Program - DETAILED BUDGET FORM**  
**Project Name: Butte Forest Thin – Doe Mill Ridge Watershed Project**  
**Applicant: Sacramento River Watershed Program**

<b>SECTION ONE DIRECT COSTS</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>	<b>Total</b>
Project Manager	\$14,040.00	\$8,400.00	\$1,200.00			\$23,640.00
Site Restoration Work Costs	\$240,000.00	\$140,000.00	\$20,000.00			\$400,000.00
Project Equipment, Building, Land purchases	\$2,500.00	\$1,000.00	\$0.00			\$3,500.00
Project Materials & Supplies Purchased	\$1,000.00	\$1,000.00	\$0.00			\$2,000.00
<b>DIRECT COSTS SUBTOTAL:</b>	<b>\$257,540.00</b>	<b>\$150,400.00</b>	<b>\$21,200.00</b>			<b>\$429,140.00</b>

<b>SECTION TWO PARTIAL INDIRECT COSTS</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>	<b>Total</b>
Monitoring	\$4,200.00	\$4,200.00	\$4,200.00			\$12,600.00
Publications, Printing, Public Relations	\$2,000.00	\$2,000.00	\$2,000.00			\$6,000.00
Administration, reporting and invoicing	\$14,040.00	\$3,510.00	\$5,850.00			\$23,400.00
<b>INDIRECT COSTS SUBTOTAL:</b>	<b>\$20,240.00</b>	<b>\$9,710.00</b>	<b>\$12,050.00</b>			<b>\$42,000.00</b>
<b>PROJECT TOTAL:</b>	<b>\$277,780.00</b>	<b>\$160,110.00</b>	<b>\$33,250.00</b>			<b>\$471,140.00</b>

<b>SECTION THREE Administrative Costs (Costs may not exceed 15% of the above listed Project costs)</b>						<b>Total</b>
Organization operating/overhead costs	\$13,889.00	\$8,005.50	\$1,662.50			\$23,557.00
<b>ADMINISTRATIVE TOTAL:</b>	<b>\$13,889.00</b>	<b>\$8,005.50</b>	<b>\$1,662.50</b>			<b>\$23,557.00</b>
<b>SNC TOTAL GRANT REQUEST:</b>	<b>\$291,669.00</b>	<b>\$168,115.50</b>	<b>\$34,912.50</b>			<b>\$494,697.00</b>

<b>SECTION FOUR OTHER PROJECT CONTRIBUTIONS</b>	<b>Year One</b>	<b>Year Two</b>	<b>Year Three</b>	<b>Year Four</b>	<b>Year Five</b>	<b>Total</b>
Sacramento River Watershed Project	\$4,250.00	\$4,250.00	\$4,250.00			\$12,750.00
Terra Fuego Resource Foundation	\$11,000.00	\$5,000.00	\$2,000.00			\$18,000.00
Firestorm	\$5,000.00	\$5,000.00	\$2,000.00			\$12,000.00
Alliance for Workforce Development	\$70,000.00	\$70,000.00	\$0.00			\$140,000.00
CSUC	\$2,700.00	\$2,700.00	\$2,700.00			\$8,100.00
<b>Total Other Contributions:</b>	<b>\$92,950.00</b>	<b>\$86,950.00</b>	<b>\$10,950.00</b>			<b>\$190,850.00</b>

**Project Name: Butte Forest Thin – Doe Mill Ridge Watershed Project**  
**Applicant: Terra Fuego Resource Foundation**

**SNC Watershed Improvement Program – Budget Detail**

**Direct Costs:**

**Project Manager:** The project will include one project manager, who is the Executive Director of Terra Fuego Resource Foundation. The first year budget consists of 0.155 FTE of his time, which starts at \$45/hour 6 hours/week. The second year is 3.6 hours/week and the final year is ½ hours/week.

**Site Restoration Work Costs:** These costs are figured at an average hourly rate of \$22 per hour for the labor for the site work. The estimate is based on \$2,000 per acre. The treatment area is diverse in terrain, some areas are very steep, (expensive), and some areas that are almost flat, (less expensive). This includes the development of a burn plan, preparation for a broadcast burn, firing operations, mop up and scouting.

**Project Materials:** We are requesting funding to increase Terra Fuego fuels crews work capacity. These funds would purchase 2 chainsaws, a power pole saw, and miscellaneous hand tools.

**Supplies:** These costs include the pile covering, chain rolls, chaps, bar covers, burn fuel, saw fuel, and bar oil.

**Partial Indirect Costs:**

**Monitoring:**

California State University, Chico, Dr. Don Hankins will do the monitoring 56 hours at \$75/hr, per year and subsidize the needed extra hours through in-kind using university resources.

**Publications, Printing, Public Relations**

Terra Fuego and SRWP staff will facilitate a community resiliency planning effort and will participate in quarterly meetings, evaluate progress and new opportunities, and review and disseminate information. The estimate of in-kind support from SRWP and Terra Fuego is \$12,150. We are requesting funding in the amount of \$2,000/year to offset a small amount of the travel, meeting space costs, and the generation of education and outreach materials including maps, brochures, and press releases.

**Administration, reporting and Invoicing:**

SRWP staff will perform administrative and fiscal oversight including managing grants and contracts, tracking budgets, coordinating and communicating with the Project team and subcontractors, and reporting and invoicing. Staff time is calculated at \$45/hr and 6 hours/week in year one, 1.5 hours/week in year two and 2.5 hours/week in year three.

### **Administrative Costs:**

Administrative costs are calculated at 5% of the annual budget to cover a portion of overhead expenses that include bookkeeping, insurance, Internet and email, and office supplies.

### **In-Kind:**

#### **Sacramento River Watershed Program**

SRWP will provide 40 hours of IT and website development services at \$50/hr in years one, two and three. SRWP staff will provide 45 hours at \$45/hr in years one, two, and three for communicating and coordinating with stakeholders in the community, assessing community risks and priorities, and developing a mitigation or protection plan to address those risks.

#### **Terra Fuego Resource Foundation**

Terra Fuego will provide 120 hours of GIS mapping at \$75/hr to support logistical planning, monitoring, and community outreach and education in the first year and 40 hours in the second year. Terra Fuego staff will provide 45 hours at \$45/hr in years one, two, and three for communicating and coordinating with stakeholders in the community, assessing community risks and priorities, and developing a mitigation or protection plan to address those risks

It is anticipated that once the Project and community planning effort is underway, additional funding will be identified and secured and more staff time and resources will be used for this effort.

#### **Firestorm**

In the first two years Firestorm will provide 60 staff hours for crew supervision, crew development, and training at \$35/hour and equipment discounts of \$3000 such as the use of a type IV engine or multiple Clump Pumps for holding and mop up, fire hose, Personal Protective Equipment, (PPE), and drip torches. In the third year firestorm will provide 60 hours for crew supervision at the same rate.

#### **Alliance for Workforce Development**

Alliance for workforce development has been working with Terra Fuego utilizing Proposition One drought funds to subsidize fuels crews. In return Terra Fuego has been providing training for these crews in safety, forestry, and prescribed fire. To date the in-kind contribution to the larger project on Doe Mill Ridge is over \$100,000. We expect to be able to utilize the Alliance workforce for some of this project, pending availability of funds. The match dollar amounts are for 25 weeks of labor at \$14/hour \* 40 hours \* 5 person crew, actual contribution could be higher or lower.

#### **California State University, Chico**

Dr, Don Hankins, and the department of geography will provide in-kind labor for the monitoring, assessment and reporting beyond the amount requested. Costs for the three year period are calculated at 90 hours at \$15/hour for student interns, and 90 hours at \$75/hr for Dr. Hankins' time beyond our funding request. Additionally, the department's GIS assets will be leveraged to capture and make publicly accessible all direct and indirect project data.

## Appendix F - CEQA/NEPA Compliance Form

(California Environmental Quality Act & National Environmental Policy Act)

*Instructions: All applicants must complete the CEQA compliance section. Check the box that describes the CEQA status of the proposed project. You must also complete the documentation component and submit any surveys, and/or reports that support the checked CEQA status.*

*If NEPA is applicable to your project, you must complete the NEPA section in addition to the CEQA section. Check the box that describes the NEPA status of the proposed project. Submit any surveys, and/or reports that support the NEPA status. For both CEQA and NEPA, submittal of permits is only necessary if they contain conditions providing information regarding potential environmental impacts.*

*NOTE: Effective July 1, 2015, AB52 compliance is required.*

### **CEQA STATUS**

#### **(All applicants must complete this section)**

*Check the box that corresponds with the CEQA compliance for your project. The proposed action is either Categorical Exempt from CEQA, requires a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report per CEQA.*

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#### **Categorical Exemption or Statutory Exemption**

*If a project is exempt from CEQA, all applicants, including public agencies that provide a filed Notice of Exemption, are required to provide a clear and comprehensive description of the physical attributes of the project site, including potential and known special-status species and habitat, in order for the SNC to make a determination that the project is exempt. A particular project that ordinarily would fall under a specific category of exemption may require further CEQA review due to individual circumstances, i.e., it is within a sensitive location, has a cumulative impact, has a significant effect on the environment, is within a scenic highway, impacts an historical resource, or is on a hazardous waste site. Potential cultural/archaeological resources must be noted, but do not need to be specifically listed or mapped at the time of application submittal. Backup data informing the exemption decision, such as biological surveys, Cultural Information Center requests, research papers, etc. should accompany the full application. Applicants anticipating the SNC to file an exemption should conduct the appropriate surveys and submit an information request to an office of the California Historical Resources Information System (CHRIS).*

1. Describe how your project complies with the requirements for claiming a Categorical or Statutory Exemption per CEQA:

2. If your organization is a state or local governmental agency, submit a signed, approved Notice of Exemption (NOE) documenting the use of the Categorical Exemption or Statutory Exemption, along with any permits, surveys, and/or reports that have been completed to support this CEQA status. The Notice of Exemption must bear a date stamp to show that it has been filed with the State Clearinghouse and/or County Clerk, as required by CEQA.
3. If your organization is a nonprofit, there is no other California public agency having discretionary authority over your project, and you would like the SNC to prepare a NOE for your project, let us know that and list any permits, surveys, and/or reports that have been completed to support the CEQA status. All supplementary documentation must be provided to the SNC before the NOE can be prepared.

- 
- Negative Declaration OR**  
 **Mitigated Negative Declaration**

*If a project requires a Negative Declaration or Mitigated Negative Declaration, then applicants must work with a qualified public agency, i.e., one that has discretionary authority over project approval or permitting, to complete the CEQA process.*

1. Describe how your project complies with the requirements for the use of a Negative Declaration or a Mitigated Negative Declaration per CEQA:

2. Submit the approved Initial Study and Negative Declaration/Mitigated Negative Declaration along with any Mitigation Monitoring or Reporting Plans, permits, surveys, and/or reports that have been completed to support this CEQA status. The IS/ND/MND must be accompanied by a signed, approved Notice of Determination, which must bear a date stamp to show that it has been filed with the State Clearinghouse and/or County Clerk, as required by CEQA.

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**Environmental Impact Report**

*If a project requires an Environmental Impact Report, then applicants must work with a qualified public agency, i.e., one that has discretionary authority over project approval or permitting, to complete the CEQA process.*

1. Describe how your project complies with the requirements for the use of an Environmental Impact Report per CEQA:

2. Submit the Draft and Final Environmental Impact Report along with any Mitigation Monitoring or Reporting Plans, permits, surveys, and/or reports that have been completed to support this CEQA status. The EIR documentation must be accompanied by a signed, approved Notice of Determination, which must bear a date stamp to show that it has been filed with the State Clearinghouse and/or County Clerk, as required by CEQA.
-

## **NEPA STATUS**

*Check the box that corresponds with the NEPA compliance for your project.*

**Categorical Exclusion**

Submit the signed, approved Decision Memo and Categorical Exclusion, as well as documentation to support the Categorical Exclusion, including any permits, surveys, and/or reports that have been completed to support this NEPA status.

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**Environmental Assessment & Finding of No Significant Impact**

Submit the signed, approved Environmental Assessment and Finding of No Significant Impact along with any permits, surveys, and/or reports that have been completed to support this NEPA status.

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**Environmental Impact Statement**

Submit the Draft and approved, Final Environmental Impact Statement, along with the Record of Decision and any permits, surveys, and/or reports that have been completed to support this NEPA status.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

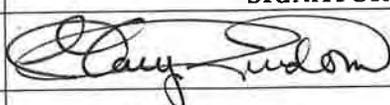
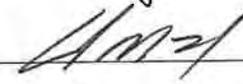
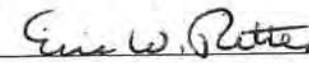
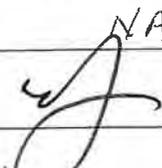
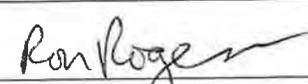
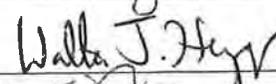
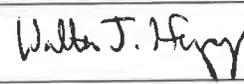
REDDING FIELD OFFICE  
355 Hemsted Drive, Redding, CA 96002

**ENVIRONMENTAL ASSESSMENT**

**Project Name: BUTTE FOREST THIN**

**EA Number: DOI-BLM-CA-N060-2012-017**

**LIST OF PREPARERS:**

POSITION -	SIGNATURE
WILDLIFE -	 5/7/12
BOTANY/RANGE -	 5/9/12
CULTURAL RESOURCES -	 5/7/12
MINERALS -	
RECREATION - (Wilderness Characteristics, VRM)	 5-10-12
LANDS - (Use Authorizations, Land Tenure Adjustments)	n/a
AIR, SOIL, & WATER -	 5/9/12
FORESTRY-	 5-9-12
FIRE/FUELS MANAGEMENT -	 5-9-12
PLANNING & ENVIRONMENTAL COORDINATOR -	 5-10-12

Project Leader: WALTER HERZOG  5-10-12  
(Name) Signature Date

**Project Location:** The project area consists of two separate units along the east and west canyon rim BLM property boundaries for the Forks of Butte Area of Critical Environmental Concern (ACEC). The ACEC is approximately 1.5 miles northwest of Magalia, CA in Butte County.

**Legal Location:** MDM T24N R3E S27, 35

**Map Locations:** Stirling City & Cohasset, CA 7.5' topo quads. See attached project map.

**Land Use Classification:** BLM public lands are managed as an ACEC with limited multiple use. Public use is moderate with dispersed recreation such as recreational gold panning, camping, hiking, and hunting.

## **1.0 INTRODUCTION**

### **1.1 BACKGROUND**

The 2002 Healthy Forest Initiative and Health Forest Restoration Act directs land management agencies to restore healthy forest conditions on federal lands near communities in the wildland interface.

The 2001 National Fire Plan, 2004 BLM Redding Fire Management Plan, and 2006 Butte County Community Wildfire Protection Plan place a high priority on reducing hazardous fuels near communities at risk and in forest vegetation types with fire Condition Classes of 2 or 3 (moderate to high altered vegetation ecosystems due to fire exclusion and moderate to high risk of losing key ecosystem components). The Forks of Butte area, with steep slopes and dense forested vegetation has a high risk of human fire starts due to camping and other recreation activities occurring along Butte Creek. Both units in the project area are directly adjacent to private rural residential property and the outlying communities of Magalia and Forest Ranch, CA.

### **1.2 PURPOSE AND NEED FOR ACTION**

The Forks of Butte ACEC and other BLM forested lands in Butte County contain a mixture of dense brush and oak woodlands intermixed with middle aged mixed-conifer forests. Lack of large wildland fires have led to increased tree and brush densities with a build-up of surface fuels. Tree spacing is now too dense and combined with the competing brush vegetation, has created a fire hazard and an unnatural, unhealthy forest. The desired future conditions for BLM forested land in this area are to have a moderately open-spaced and multi-aged mixed conifer-hardwood forest.

Forest thinning, removing cut vegetation, and pile burning would 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 or 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.



Dense forest would be thinned to reduce fire hazard and promote mature and more healthy forest.

### **1.3 CONFORMANCE WITH BLM LAND USE PLANS**

The 1993 Redding Resource Management Plan and Record of Decision outlines the following resource condition objectives: maintain the long-term sustained yield of forest products from available commercial forest land outside of the Butte Creek Canyon and protect and enhance the scenic quality of the canyon, and maintain the fisheries habitat.

### **1.4 RELATIONSHIP TO STATUTES, REGULATIONS AND OTHER PLANS**

The primary goal of the 2004 BLM Redding Field Office Fire Management 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 2001 National Fire Plan and has guiding principles to restore and maintain fire resilient landscapes across all jurisdictions and create fire adapted communities.

The 1990 Forks of Butte Creek Recreation Area Management Plan has objectives to manage forested lands for sustained yield forest products while maintaining view sheds with all age classes of trees.

The 2003 Healthy Forest Restoration Act contains provisions for expedited environmental analysis of projects implemented under its authority if projects 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. This expedited environmental analysis will analyze the proposed action and a 'No Action' alternative.

## 1.5 SCOPING, PUBLIC INVOLVEMENT, AND ISSUES

The proposed project has been discussed with various adjacent landowners and the Butte County Fire Safe Council. A letter describing the proposed project and soliciting comments was sent in January, 2012 to all adjacent landowners, local special interest groups, and eight local federal and non-federally recognized tribes including; Pakan-Yani Maidu, Mooretown Rancheria, Indian's of Enterprise #1, Berry Creek Rancheria, Enterprise Rancheria Chico Rancheria/Mechoopda Indian Tribe, Greenville Rancheria, and Konkow Valley Band of Maidu. The Chico Rancheria/Mechoopda tribe responded with no primary concerns and the Enterprise Rancheria responded stating they wanted to meet about the project. A planned on site meeting with the Enterprise Rancheria was not attended by the Rancheria and no further interest was demonstrated by the Rancheria.

Internal scoping occurred through the use of an interdisciplinary team made up of recreation, natural and cultural resources management, fire management, and forest management BLM staff. Numerous field trips to the project area and informal staff meetings were conducted in 2011 and 2012 to evaluate on-site conditions, discuss proposed land management actions, and coordinate any proposed actions with other ongoing and planned land management activities.

The following issues are either not present or not affected and will not be further considered in this analysis: air quality, recreation, Native American religious concerns, rights of way, wild & scenic rivers, and wilderness. Six issues were identified for full analysis within this document including:

- Vegetation & Invasive Species
- Cultural Resources
- Wildlife and Fisheries
- Soils
- Areas of Critical Environmental Concern
- Special Status Plants



Small understory trees in this intermediate aged forest along Garland Rd. would be thinned to improve forest health.

## 2.0 PROPOSED ACTION AND ALTERNATIVES

### 2.1 ALTERNATIVE ONE- PROPOSED ACTION

#### **Conduct pre-commercial and commercial forest thinning and burning project.**

The BLM would utilize mechanical and prescribed fire treatment methods to facilitate forest succession, improve forest health, and reduce fire hazard to residual forest along the flatter lands on each side of the Forks of Butte canyon rim. In addition, about 20 merchantable trees would be cut along the Ditch Grade road berm to provide better access for future road maintenance and improvement. The project would be implemented as an advertised timber & biomass sale using mechanized ground equipment. Prescribed fire pile burning would be completed by BLM staff with an approved prescribed fire burn plan.

#### Commercial and Pre-Commercial Thinning Project Specifications:

The treatment would involve thinning 131 acres of commercial and non-commercial trees in two separate units to create 50-60% canopy closure and 140' square feet/acre basal area. Approximately 75% of small diameter trees (4"-7" DBH) and 60% of large diameter trees (8"-28" DBH) would be cut and thinned to create a residual average over story tree spacing of 30' between boles. Approximately 800 thousand board feet and 1,400 tons of biomass would be removed. All trees would be cut and removed by tractor skidders according to the following specifications:

- Healthy, vigorous dominate or co-dominate oaks and conifers would be the priority leave trees.
- Primary cut trees would be diseased, suppressed, have low crown ratio, or poor form. Primary cut species would be Douglas fir and tan oak. Favor leaving incense cedar, sugar pine, ponderosa pine and black oak.
- Do not cut uncommon species such as California bay and California nutmeg,
- Cut trees would be whole tree yarded using tractor logging on slopes less than 40 %.
- All non-commercial material that is cut including branches, tops, and unmerchantable logs would be chipped and removed as biomass or piled at landings for burning.
- All existing roads within the project area would be watered for dust abatement and graded to maintain or improve existing condition.

#### Prescribed Fire Pile Burn Specifications:

BLM fire staff would subsequently burn landing piles and any other hand piles created from cut vegetation during the non-fire season in accordance with a burn plan using the following burn objectives:

- Burn 60-95% of all piles within two years of creating the piles.
- Ensure average of 75% consumption of all slash piles immediate post burn.

### 2.2 PROJECT DESIGN FEATURES

All treatment work would be conducted subject to the following stipulations:

#### **Wildlife**

- To effectively provide for life requisites for Pacific fisher, and maintain habitat features associated with suitable CSO habitat, all dominant (i.e., legacy) conifers would be retained ( $\geq 28''$  dbh) with the exclusion of those that occur within the ditch grade road berm. Conifers between 24"-28" dbh may be selectively removed based upon project specifications however; removal will maintain habitat suitability criteria (average stand conifer d.b.h.)
- Residual crown closure retention would average approximately 50% to 60 % throughout project area.
- Leave occasional multi-stemmed oak trees (1-2 per acre) where their canopy form is a dominant or co-

dominant component. No treatment clumps 30' x 30' (1-2 per 2 acres) will be focused on structural elements (e.g., large live trees with mistletoe brooms, broken and forked tops with umbrella spires, heart rot, tree bole cavities, large branches, rodent nests; large snags with cavities; and logs with cavities, or piles of logs). These structural features are important habitat features associated with Pacific fisher and California (CSO) spotted owl. These elements provide for nesting habitat, reproductive dens and resting, shelter from predators and inclement weather, and contribute to prey habitat (Lofroth *et al.* 2010, 2011, Thomas *et al.* 1990).

- Retain existing LWD and snags within the project area unless deemed a roadside hazard, as determined by an authorized officer. Where downed LWD occurs, approximately one hundred and twenty (120) linear feet of down logs per acre will be retained. Logs shall be greater than or equal to sixteen (16) inches in diameter and sixteen (16) feet long. When available, leave trees immediately surrounding large (greater than 16" dbh and 16' in length) pieces of LWD. Retention of trees adjacent to LWD and snags minimizes disturbance and maintains the functional integrity of such habitat features. Removal of these elements will be minimized and limited to where they present a safety concern.
- A limited operating period of Sep 15-Jan 31 will be established if a Northern goshawk or CSO nest tree is established prior to the implementation of the project within the project area. Additionally, a 500' no cut buffer will be established around the nest tree to protect it from disturbance during until the juvenile is fledged. If surveys indicate that no nest trees are established within the project area, the LOP for Northern goshawk or CSO will not be implemented.
- One slash pile per acre, strategically placed, will be left within the project area to supply refuge for wildlife cover.

#### **Erosion and Soil Impacts**

- Best management practices for control of erosion will be implemented, where necessary, as part of the project specifications. These measures shall include, but not limited to, the stabilization of disturbed soils, use of weed-free straw to cover disturbed areas, use of sediment berms and/or curtains to reduce storm water erosion.
- Utilize existing road systems and old skid trails running through each unit. Any temporary new skid trails and landings would be ripped and /or covered with slash following treatment.
- All operations would be completed outside of wet winter months.
- No mechanized vehicle or harvesting equipment (except chainsaws) allowed within 50' of seasonal creek drainages and/or on slopes over 40%. 1-2 temporary skid trail crossings would be allowed across seasonal drainages. The skid trail crossing across the drainage would be completely rehabbed and storm proofed prior to the rainy season.

#### **Invasive and Non-native species**

- To minimize risk of sudden oak death or other invasive species, contractors would be required to have all contractor equipment and vehicles washed prior to entering Butte County and no work allowed during cold and wet months (November 20 – March 31).
- Cover burn pile areas with 1-3" mulch of adjacent litter and duff native vegetation.

#### **PGE Canal Protection**

- No trees may be felled across the Butte Creek canal (along eastern boundary of the Ditch Grade unit).

#### **Air Quality**

- All pile burning would only be conducted on favorable air quality Butte County burn days.

#### **Recreation**

- To comply with Occupational Safety and Health Administration (OSHA) regulations, dispersed recreation use would be restricted within the proposed units during timber harvest operations in order to protect recreationists.

#### **Post Treatment Monitoring**

- Monitor the project area 1-3 years following treatment for erosion, invasive and non-invasive species, and unauthorized OHV use. Mitigate adverse impacts by mulching, covering with slash, or installing OHV barriers.

## 2.3 ALTERNATIVE TWO- NO ACTION

A decision to not complete any vegetation management work in the Forks of Butte area would not address land management plans, activity plans, and federal policy that give specific direction to actively manage forest lands and watersheds to maintain or improve their overall health and condition and provide improved recreation opportunities for the public.

Risk of wildfire and insect epidemics would continue to be a threat to the increasingly dense forested lands and overall watershed health. With no action and continued fire suppression, an insect epidemic and/or wildfire would eventually occur and potentially create open exposed slopes with unstable soils. Habitat and sub-watershed conditions would remain static in the short term but could be significantly degraded in the event of a wildfire that kills the oak and mixed conifer forests.

## 3.0 AFFECTED ENVIRONMENT

The project area is located along the upper slopes of Forks of Butte Creek in the Sierra Nevada foothills. Butte Creek flows in a southwesterly direction and the canyon runs parallel to Doe Mill Ridge. The western unit (84-acres) is situated on an east facing aspect of Doe Mill Ridge and the eastern unit (47-acres) is less than one mile to the southeast across Butte Creek on a west facing aspect. Slopes are 0-60% and elevations range from 2,400' – 3,200'. Steeper slopes < 40-60% that are along seasonal stream corridors will not be treated.

Primary access roads for the area run through each unit. The eastern unit along Ditch Grade Road was acquired from Sierra Pacific Industries in 1998. Adjacent private lands consist of rural residential property with forest and/or oak woodland/brush vegetation. Adjacent private timberlands contain mostly even-aged young forest and tree plantations. Since both units are within one mile of each other and contain similar vegetation, they will be described together.

### Vegetation and Invasive Species

Vegetation consists of a 30-200 year old multi-aged mixed conifer and oak forest. Trees range from 40'-140' tall with 6"- 34" DBH and 80-100% canopy closure. Tree species include Douglas-fir, ponderosa pine, tan oak, sugar pine, incense cedar, gray pine, pacific madrone, California black oak, California nutmeg, interior live oak. Understory species include white-leaf manzanita, green-leaf manzanita, California bay, and tan oak.

The Ditch Grade Road unit contains older trees and a larger percentage of tan oak, probably the result of past logging activity focused on removing the high value conifers and leaving tan oak. Marginal riparian vegetation along some of the seasonal stream corridors consists of maple, dogwood, and alders.

The project area has been identified by the California Oak Mortality Task Force as potential habitat for the spread of sudden oak death. Sudden oak death is a forest pathogen that has caused high mortality of several oak species along the California coastal mountains and Oregon. There is no known occurrence of the disease in Butte County but hazard risk maps show a moderate to low risk for it to spread into the moister canyon areas of Butte County.

Some scattered invasive and non-invasive species such as mullein and bull thistle occur on adjoining private lands and BLM lands within the project area. Weeds are generally restricted to disturbed and exposed soil areas and do not occur under shaded forest and brush land vegetation with natural litter and duff.

## Cultural Resources

The proposed project area is within Konkow Maidu territory. These people were relatively affluent hunters and gatherers at the time of contact in the 1830s-40s. By the 1850s the area witnessed a Gold Rush-era boom with towns and supporting infrastructure developing within Butte Creek Canyon and on the adjoining ridges. Indian people were soon re-located or forced to move to other locations. Agriculture enterprises in nearby Paradise and the need for water at various mines necessitated the building of flume/canal systems. Roads continued to be constructed into the early 20<sup>th</sup> century including the famous Ponderosa Way, built along the Sierra-Cascade foothills to serve in fire-fighting. Archaeological sites related to historic developments can be found within or near the subject project area as described below.

Both areas of the proposed project have been intensively surveyed. The Garland Road parcel was previously inventoried for a BLM timber sale in 1975 by Dr. Peter Jensen (report on file with BLM). Follow-up spot inventory was completed by BLM cultural resource specialists in 2011-2012. No archaeological sites have been discovered in the subject parcel or within an area of .5 miles surrounding the parcel based on a 2011 records' search at the Chico State Northeast Information Center.

The eastern project area just north of DeSabra was intensively inventoried by the Redding Field Office archaeologist with the assistance of one Archaeological Technician. A spacing between 15 and 30 m was employed and soil was periodically exposed with a hoe and examined. Roads were also walked with cut-bank and road bed exposures. Nearby areas have been previously inventoried based on Information Center records with no sites discovered.

The archaeological inventory and search of historic records including GLO plats reveals a number of cultural resources within the DeSabra parcel. Resources include the Butte Creek Canal (CA-BUT-874-H) still in use but built in 1871 and modified thereafter (including large conifers along the ditch bank or immediately adjoining the ditch with telephone cable pieces and stringing loops); the Ponderosa Way built in the mid -1930s by the Civilian Conservation Corps; and a small side-ditch labeled the Butte Creek Canal Ditch (CA-030-1943) of unknown age. This small ditch may have served placer mines downhill outside the subject parcel. The Ditch Grade Road does not show up on the 1953 USGS 15' Paradise Quadrangle and is likely "modern historic."

Work undertaken in 2008-2012 for the FERC re-licensing of the DeSabra-Centerville Hydroelectric Project (FERC Project No. 803) indicates that the Butte Creek Canal is a contributing feature of the larger hydroelectric system. The Ponderosa Way, despite some surface alterations, is clearly National Register of Historic Places eligible based on its associations with the New Deal, CCCs, early fire control, engineering feats, etc. The Ditch Grade Road is relatively modern and commonplace. The small ditch off of the Butte Creek Canal is of low integrity based on past logging and home/road construction and is not distinctive in terms of its size and configuration. Its association with the Butte Creek Canal seems secondary to the hydroelectric complex. Someone tapped some water from the ditch likely for a short period of time for a small operation down the American Ravine.

An examination of Kari L. Forbes' *An Ethnographic Study of the Contemporary Values of the Foothill Konkow, Butte County, California* (1990 on file with BLM) revealed no Traditional Cultural Properties within the project area. Likewise, letters sent to the various tribes with territorial claims revealed no Traditional Cultural Properties within the project area.

## **Wildlife and Fisheries**

Characterization of the project area included searching the office wildlife records, CNDDDB historic records, GIS mapping data and wildlife range maps. Based upon the project's location, no aquatic wildlife and fish species occur or have the potential to occur within the project area. The primary vegetation type within the project area is Sierran mixed conifer consisting primarily of Douglas fir, Ponderosa pine with montane hardwood, oak woodlands and chaparral components. See the attached Wildlife and Fisheries Resource Assessment memorandum for a detailed assessment of wildlife and fisheries resources.

No federally threatened or endangered species or their critical habitat is present within the project area with the exception of Pacific fisher, a federal candidate species, and BLM sensitive species. BLM sensitive species that have the potential to occur within the project area include Northern goshawk, California spotted owl, Pacific fisher, and multiple bat species.

Multiple avian species, protected by the migratory bird treaty act, have the potential to occur within the project area. Further additional species identified by the U.S. Fish and Wildlife Service (FWS) in "Birds of Conservation Concern 2008" (USDI 2008) and the Coniferous Forest Bird Conservation Plan (CalPIF 2002) have the potential to occur within this project area. These species include the brown creeper, downy woodpecker, and red-breasted nuthatch. Additional species that may occur based upon range maps and professional knowledge includes the pileated woodpecker, and acorn woodpecker. With the exclusion of the Northern goshawk, which is a Bureau sensitive species, the remaining species will be collectively referred to as, "bird species of special concern".

Multiple other common wildlife species use the area year round. Some of these species include bear, black-tailed deer, grey fox, and various other bird, mammalian, reptile and amphibian species.

## **Soils**

Soils in the project area are of the Cohasset-McCarthy association and the Neuns series. Soils of the association are moderately deep, or deep and moderately steep or steep and stony, and are underlain by volcanic rock. They support thick vegetative cover and are very productive soils for timber. The majority of the soils are fairly stable with a slight to moderate erosion hazard in the undisturbed state. There is a moderate to heavy conifer and hardwood litter and duff load ( 2"-10" deep) that is covering most of the soils on both units. Both units are over ½ mile from Butte Creek.

## **Areas of Critical Environmental Concern**

The Forks of Butte ACEC was designated to promote the scenic quality of the canyon, maintain fisheries habitat, protect the historic values of the canyon, manage as a visual resource management Class II (retain the existing character of the landscape. The level of change to the characteristic landscape should be low) and maintain long term sustained yield of forest products outside of Butte Creek Canyon. The Redding RMP states that available commercial forest land within the ACEC should be managed for the enhancement of other resource values.

## **Special Status Plants**

Searches of the CDFG California Natural Diversity Database, the CNPS Inventory of Rare and Endangered Plants, and past special status plant reports for the project area have been conducted. It has been determined that four special status plant species have potential to occur within the unit. White-stemmed clarkia (*Clarkia gracilis* ssp. *albicaulis*), Ahart's buckwheat (*Eriogonum umbellatum* var. *ahartii*), Butte County morning-glory (*Calystegia atriplicifolia* ssp. *buttensis*), and Butte County fritillary (*Fritillaria eastwoodiae*) have suitable

habitat within the unit. Additionally, the Butte County morning-glory has a known population that may cross into the southeastern portion of the East Unit. The other species all have known occurrence that are located outside of, but within a mile of the project area units. No identifiable specimens of the special status species in question have been found during preliminary surveys of the units within the project area, but additional surveys are required due to the flowering times of these species. Additional surveys will be conducted from May through August.

#### **4.0 ENVIRONMENTAL EFFECTS**

##### **4.1 DIRECT AND INDIRECT EFFECTS OF THE PROPOSED ACTION AND ALTERNATIVES**

###### **Vegetation and Invasive Species**

Removing cut vegetation as forest products and/or burning piled un-merchantable material would remove available forest fuels and reduce hazardous fuel loads. This action would directly help protect the remaining residual forest and adjacent private lands. Burning piles over portions of the project area would achieve beneficial ecological effects of mimicking natural fire regimes.

If any invasive or non-invasive plant species are found in disturbed soils following the Proposed Action, the BLM would map and treat these areas using BLM best management practices (BMP's). Activities associated with the Proposed Action that are prone to invasive species will be monitored for the introduction of new occurrences.

###### **Cultural Resources**

No impacts from the project are expected to occur to the Butte Creek Canal and Ponderosa Way due to avoidance of activity. Likewise, no impacts are expected to the Ditch Grade Road and to the Butte Creek Canal Ditch due to flagging and avoidance. Workers will be alerted to the sensitivity of heritage resources present within the project area and the need to avoid these resources. A BLM Archaeological Technician will be monitoring the project to ensure that archaeological sites are not damaged and that any undiscovered heritage resources will be avoided or minimally damaged with operations ceased in that location until the resources can be assessed by the Field Office Archaeologist.

###### **Wildlife and Fisheries**

###### **Birds Species of Special Concern**

There would likely be a short-term disturbance from the proposed action with the removal of habitat features within the project area and potential displacement of those avian species which seek the dense cover provided by the overstocked forest stands. However, the proposed action would have some long-term benefit by reducing the density of small trees and providing more openings and foraging opportunities while still maintaining nesting structure through snag retention and LWD requirements provided by project conservation measures.

###### **California Spotted Owl (CSO)**

Examination of aerial imaging data combined with field visits indicates that portions of the project area contains suitable habitat (nesting, roosting and foraging). Habitat suitability however is further constrained within the project area based upon slope position, aspect, and by the fragmented nature of the habitat bordering the project area due to water developments, roads, rural residential infrastructure and associated development and timber

harvest on private lands. Based upon the above information it is likely that the existing habitat within the project area is marginal to unsuitable and serves as foraging and dispersal habitat.

Modification (thinning) of this habitat will likely improve and degrade the habitat in the short-term. Modification of the structural elements which includes thinning the densely packed small diameter trees improves habitat, providing an open canopy and understory permitting owls to fly and forage within and beneath it. Degradation of the habitat includes reduction in canopy closure, lower snag recruitment, reduced LWD, and reduced understory vegetation immediately following the proposed action, but should provide for some long-term benefits by promoting and accelerating growth of larger trees, larger snags and recruitment of LWD needed for owls and their prey. Fuels treatments (prescribed fire) following immediately after the proposed thinning may further reduce components necessary for owl habitat. However, these treatments would have a beneficial impact by reducing hazardous fuels.

Owls rely heavily on small mammal populations. It is expected the no-touch islands, patch cuts (landings), and hardwood stands will help provide for habitat heterogeneity, maintain a diversity food, and cover resources for small mammalian species. This diversity in vegetation composition provided for across the landscape in conjunction with the herbaceous plant species and shrubs, which would remain, will provide food and cover resources in addition to necessary habitat structure, which will buffer small mammal populations and reduce the overall impacts to the prey base.

Project design features and potentially a limited operating period (LOP) have been incorporated into the proposed project to protect and improve habitat for the species as well as minimize potential effects. Additionally, if a CSO nest tree is established prior to the implementation of the project within the project area, a LOP will be established and a 500' no cut buffer will be established around the nest tree to protect it from disturbance. If surveys indicate that no nest trees are established within the project area, the LOP for CSO will not be implemented. Guidelines for snag retention and LWD requirements, in addition to structural element retention, canopy closure retention guidelines, and retention of legacy and large conifers will minimize those short-term impacts.

### **Northern Goshawk**

In general, impacts to potential northern goshawk habitat would be similar to that of the northern spotted owl. A LOP and protection buffer would be implemented near active nest sites during times of goshawk nesting activity coinciding with the LOP and protection buffer distance for CSO.

### **Pacific Fisher**

Short term habitat degradation includes reduction in canopy closure, lower snag recruitment, reduced LWD, and reduced understory vegetation, but should provide for some long-term benefits by promoting and accelerating growth of larger green trees, larger snags and recruitment of LWD needed fisher and their prey. Guidelines for snag retention and LWD requirements, in addition to structural element retention, canopy closure retention guidelines, and retention of legacy and large conifer and hardwoods will minimize those short-term impacts. Fuels treatments following immediately after the proposed thinning may further reduce components necessary for owl habitat. However, these treatments would have a beneficial impact by reducing hazardous fuels. Stand structure (multistory stand, LWD and snags) is an important characteristic within the owl habitat to maintain nesting and foraging habitat. Removing these features of the stand structure may limit habitat suitability for owls. Project Design Features (PDFs) maintain a diversity of snags, LWD, understory trees and shrubs would minimize impacts, maintain the habitat as suitable, and reduce hazardous fuels.

Fisher rely heavily on small mammal populations. It is expected the no-touch islands, small patch cuts established at landings, and the presence of hardwood stands will help provide for habitat heterogeneity and

maintain a diversity food and cover resources for small mammalian species. This diversity in vegetation composition provided for across the landscape in conjunction with the herbaceous plant species and shrubs, which would remain, will provide food and cover resources in addition to necessary habitat structure, which will buffer small mammal populations and reduce the overall impacts to the prey base.

### **Bats**

Habitat within the project area serves as foraging and roosting habitat. Although there will likely be a reduction in roosting and foraging opportunities in the short term while the project commences, project specifications and conservation measures maintain foraging habitat in the long term.

For those species that roost in snags, limited cavity roosts may be lost through project activities if a snag has to be removed for operational safety concerns, however, snag retention guideline will maintain sufficient snags to provide for roosting structure. There would likely be some short-term disturbance to these species within the project but this would end at the completion of project activities.

### **General Wildlife**

Although fragmented and modified, the continuity of vegetation adjacent to the project area and within the project area will be maintained. It is anticipated that project impacts will be minimal and consist of a short-term avoidance of wildlife to the area while work occurs. This temporary disturbance does not constitute impacts that affect the ecologically sustainability of wildlife occurring in either the project or action area.

### **Soils**

Cut vegetation and temporary skid roads to landings could create some soil compaction or exposed soil. This could create some short term erosion and sediment transport to seasonal drainages but residual vegetation along with branches, and leaf litter would quickly cover most treated areas within 1-3 months of treatment. This effect is expected to be minimal and not result in an overall reduction to soil productivity or soil loss due to the small area expected to be impacted.

### **Areas of Critical Environmental Concern**

Positive impacts of the treatment would improve overall forest health, and promote a more open fire resilient forest that would be less prone to stand replacing fires and increased soil erosion.

Selectively cutting and removing trees could result in some short term visual impacts of post logging skid trails, pushed over small trees, and stumps from recently cut trees. These impacts would not be visible within the Forks of Butte ACEC canyon since both units are on the top outer flat edges of the canyon rim.

### **Special Status Plants**

Of the four special status plant species with potential to occur within the project area, Butte County morning-glory (*Calystegia atriplicifolia ssp. buttensis*) and Butte County fritillary (*Fritillaria eastwoodiae*) have been noted to be potentially threatened by logging and road maintenance type activities. To minimize impacts to any special status plant species, special status plant populations that are located during surveys will be flagged for avoidance. If populations are located and flagged, then no road maintenance or logging activities will occur within a buffer zone to be determined by the staff Botanist.

## 4.2 CUMULATIVE EFFECTS

Similar projects have been completed on both private and BLM public lands. Treated forested areas to date are less than 10% of the approximately 1,500-acres of BLM public lands in the Forks of Butte area. This project would mimic structural effects of fire and therefore result in a positive effect of creating a more open forest that is resistant to high severity wildfire.

Once this project is completed, there would be no plans for other treatments within the same project area for another ten to twenty years. Similar treatments could occur on nearby BLM lands over the next four to ten years but would be less than 25% of the total project planning area around the Forks of Butte ACEC.

## 5.0 CONSULTATION AND PUBLIC INVOLVEMENT

Project collaboration has been done with local tribes, organizations, and various Butte County citizens such as:

- Butte County Fire Safe Council
- Sierra Pacific Industries
- Pacific Gas & Electric Co.
- Native American Groups: Pagan-Yani Maidu, Mooretown Rancheria, Indian's of Enterprise #1, Berry Creek Rancheria, Enterprise Rancheria, and Chico Rancheria/Mechoopda Indian Tribe.

### Cultural Resources Section 106 Compliance

Compliance with Section 106 of the National Historic Preservation Act under the guidance of the 2007 National Programmatic Agreements and a "No Effect" determination was made. It has been determined that there will be no effect to scientific, cultural, or historical resources.

### LIST OF SPECIALISTS CONSULTED

Eric Ritter	BLM Archeologist
Gary Diridoni	BLM Wildlife Biologist
Chase Lentz	BLM Botanist
John Ribinsky	BLM Civil Engineering Technician
Sean Ryon	BLM Engineering Equipment Operator
Tim Bradley	BLM Fire Management Officer
Kiren Oleary	Sierra Pacific Industries, Forester
Brent Lincicum	PG&E Generation Supervisor, Magalia, CA

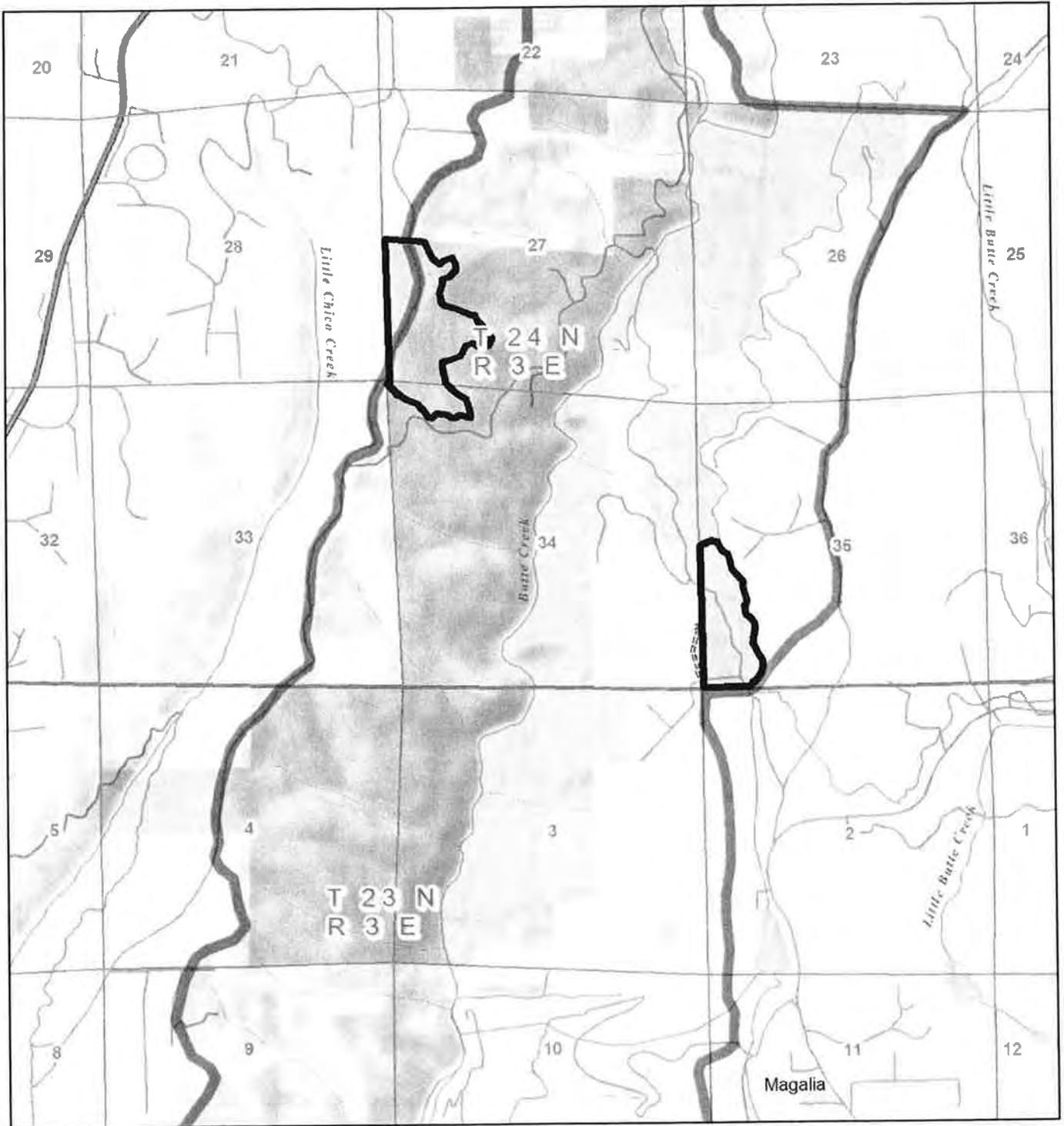
**Prepared By:** Walter Herzog, BLM Forester

## 6.0 REFERENCES

- Redding Resource Management Plan, 1993
- National Fire Plan, 2000
- Healthy Forest Restoration Act, 2003
- BLM Redding Fire Management Plan, 2004
- BLM Forks of Butte Creek Recreation Area Management Plan, 1990
- Forks of Butte Salvage Sale Environmental Assessment, CA-030-EA-0-20, 1979
- Butte County Community Wildfire Protection Plan, 2006
- Sudden Oak Death Guidelines for Forestry, CA Oak Mortality Task Force, 2010
- BLM Integrated Vegetation Management Handbook H-1740-2, 2008

VICINITY MAP: Butte Forest Thin

CONTRACT #:



T24N, R3E, S.27,34,35  
 Elevation: 2,400' - 3,200'  
 Stirling City and Cohasset 7.5' topo quads  
 Contour Interval: 40'

Unit 1 (East Unit): 49-acres  
 Unit 2 (West Unit): 84-acres  
 Total Size: 133-acres

-  Butte Thin Units
-  Forks of Butte ACEC Boundary
-  BLM Lands
-  Private Lands

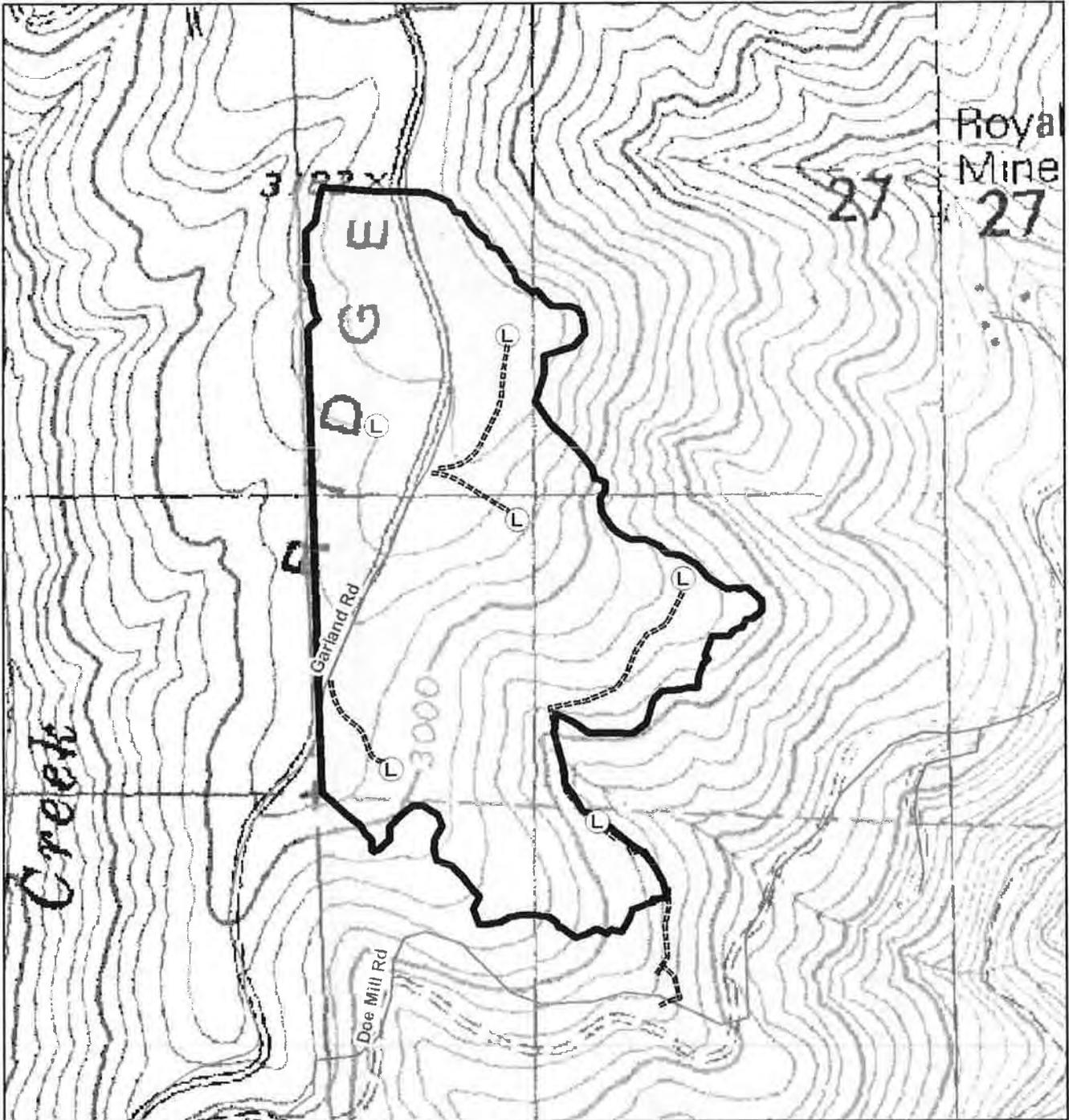
0 0.375 0.75 1.5 Miles



WH 1/2012

PROJECT MAP: Butte Forest Thin (West Unit)

Contract #:

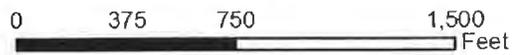


T24N, R3E, S34

Elevation: 2,760' - 3,200'  
Contour Interval: 40'  
Cohasset 7.5' topo quad

Unit 2 ( West Unit): 84-acres

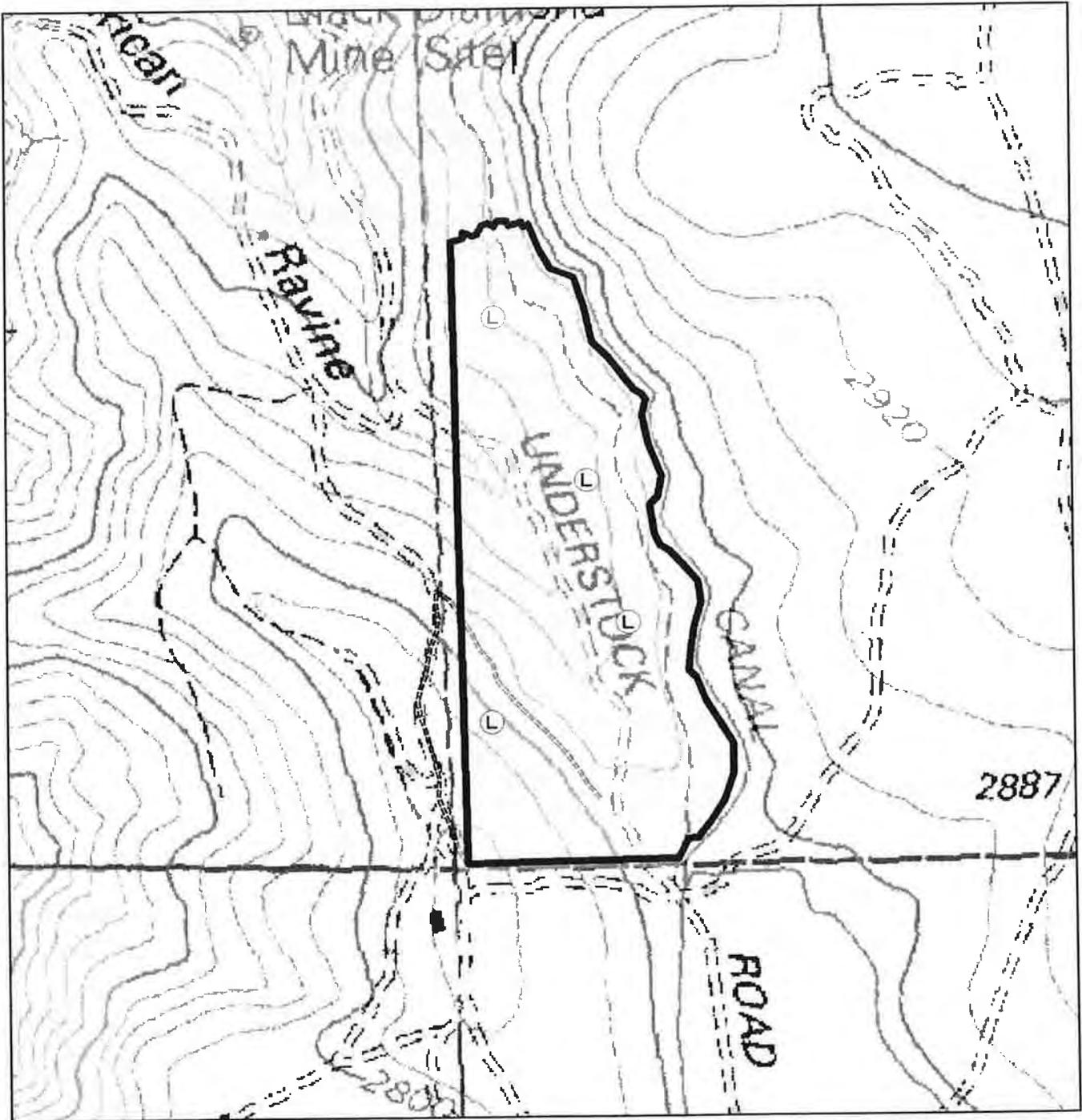
- Old BLM Road
- ▭ Butte Thin Units
- ▭ BLM Lands



WH 05/2012

**PROJECT MAP: Butte Forest Thin (East Unit)**

**CONTRACT #:**



T24N, R3E, S,35

Elevation: 2,400' - 2,800'  
Contour Interval: 40'  
Stirling City 7 5' topo quad

Unit 1: 49-acres

-  Butte Thin Units
-  Stream Protection Zone
-  BLM Lands
-  Billups Lane

0 380 760 1,520 Feet



WH 4/2012

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
REDDING FIELD OFFICE

FINDING OF NO SIGNIFICANT IMPACT

BUTTE FOREST THIN  
EA Number: DOI-BLM-CA-N060-2012-017

**BACKGROUND**

This project is proposed to selectively thin approximately 130-acres of dense forest to create a more natural open and fire resilient forest along the flatter lands on each side of the Fork of Butte canyon rim. The project would involve thinning commercial and non-commercial trees using mechanized ground equipment and prescribed fire for pile burning.

**FINDING OF NO SIGNIFICANT IMPACT**

On the basis of the information contained in the EA, and all other information available to me, it is my determination that: (1) the implementation of the Proposed Action will not have significant environmental impacts beyond those already addressed in [1993 *Redding RMP and EIS*]; (2) the Proposed Action is in conformance with the Resource Management Plan; and (3) the Proposed Action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR '1508.27), both with regard to the context and to the intensity of the impacts described in the EA or as articulated in the letters of comment.

**CONTEXT**

The project area contains two units which are located along the upper slopes of Forks of Butte Creek in eastern Butte County approximately two miles northwest of Magalia, CA. The western unit (84-acres) is situated on an east facing aspect of Dow Mill Ridge and the eastern unit (47-acres) is less than one mile to the southeast across Butte Creek on the west facing aspect. Slopes are 0-40% and elevations range from 2,400' – 3,200'.

**INTENSITY**

I have considered the potential intensity/severity of the impacts anticipated from the project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

**1. Impacts that may be both beneficial and adverse.**

Potential impacts are insignificant to minor at the local scale or cumulatively because of the small scale of the project and project design features that would reduce sensitive plant, wildlife, cultural, soil erosion, and visual impacts to immeasurable levels.

**2. The degree to which the proposed action affects public health and safety.**

The project has the potential to positively improve public safety by creating a more fire resilient forested landscape and reduce fire hazards along access and egress roads for the area.

**3. Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

BLM lands in the Forks of Butte area are designated as an ACEC for its scenic quality, historic value, and fisheries habitat.

Nearby historic mining sites were associated with placer gold mining, however, no cultural or historic sites were found or recorded in the project vicinity.

**4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.**

No anticipated effects have been identified that are scientifically controversial. As a factor for determining within the meaning of 40 C.F.R. § 1508.27(b)(4) whether or not to prepare a detailed environmental impact statement, "controversy" is not equated with "the existence of opposition to a use." Northwest Environmental Defense Center v. Bonneville Power Administration, 117 F.3d 1520, 1536 (9th Cir. 1997). "The term 'highly controversial' refers to instances in which 'a substantial dispute exists as to the size, nature, or effect of the major federal action rather than the mere existence of opposition to a use.'" Hells Canyon Preservation Council v. Jacoby, 9 F.Supp.2d 1216, 1242 (D. Or. 1998).

**5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.**

The analysis does not show that this action would involve any unique or unknown risks.

**6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

The proposed forest thinning and pile burning are common land management activities with standard outcomes of improved land condition and recreation opportunities.

**7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.**

No significant site specific or cumulative impacts have been identified. The project is consistent with the actions and impacts anticipated in the Redding RMP.

**8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.**

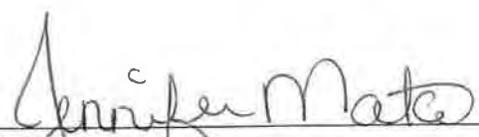
The project area includes sites listed on the National Register of Historic Places or sites known to be eligible. These sites will be avoided by project activities.

**9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

No ESA listed species (or their habitat) are known to occur in the project area.

**10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

There is no indication that this decision will result in actions that will threaten such a violation.

  
\_\_\_\_\_  
Field Manager  
Redding Field Office

5/21/12  
\_\_\_\_\_  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
REDDING FIELD OFFICE

DECISION RECORD

BUTTE FOREST THIN  
EA Number: DOI-BLM-CA-N060-2012-017

**Introduction**

This project is proposed to selectively thin approximately 130-acres of dense forest to create a more natural open and fire resilient forest along the flatter lands on each side of the Fork of Butte canyon rim. The project would involve thinning commercial and non-commercial trees using mechanized ground equipment and prescribed fire for pile burning.

**Decision**

It is my decision to approve the proposed action as described in environmental assessment (EA) number DOI-BLM-CA-N060-2012-017. Compliance with the design features identified in the EA is hereby required and is incorporated into this decision record as stipulations by reference.

**Alternatives Considered but not Selected**

The Healthy Forest Restoration Act contains provisions for expedited environmental analysis of projects implemented under its authority if projects lie within 1.5 miles of an at-risk community and a County Community Wildfire Protection Plan recommends the proposed hazard fuels reduction treatment methods. Only the proposed action and No Action alternatives were analyzed in this environmental analysis.

**Decision Rationale**

Based on the analysis documented in the aforementioned EA which has been reviewed by an interdisciplinary team, I conclude that the approved action will not result in any unnecessary or undue degradation of the Federal lands. The approved action is in conformance with the approved land use plan.

**Consultation and Coordination**

Surveys for sensitive and special status wildlife and botanical species were conducted and will be continued to be monitored throughout project implementation.

Fragmented habitat for the Northern Goshawk, California spotted owl, and Pacific Fisher occur within the project area and project design features will be incorporated into the proposed action to maintain habitat. No populations were found within the project area.

Of the four special status plant species with potential to occur within the project area, Butte County morning-glory (*Calystegia atriplicifolia* ssp. *buttensis*) and Butte County fritillary (*Fritillaria eastwoodiae*) have been noted to be potentially threatened by logging and road maintenance type activities. To minimize impacts to any special status plant species, special status plant populations that are located during surveys will be flagged for avoidance. If populations are located and flagged, then no road maintenance or logging activities will occur within a buffer zone to be determined by the staff Botanist

I agree that all necessary steps were taken by a qualified staff specialist(s) to identify, record, and determine effects on cultural properties. These steps comply with all standards and guidelines of the Protocol Agreement of 2007 between BLM and the California State Historic Preservation Officer. Based on the design features identified in this environmental analysis, there will be no adverse impacts to any cultural and historic resources including those Eligible for the National Register of Historic Places.

**Public Involvement**

The project has been discussed with various adjacent landowners, the Butte County Fire Safe Council, Forks of Butte Watershed Group, Sierra Pacific Industries, and Pacific Gas and Electric Company. Internal scoping has occurred through the use of an interdisciplinary team made up of recreation, natural and cultural resources management, fire management, and forest management BLM staff. Numerous field trips to the project area and informal staff meetings were conducted in 2011 and 2012 to evaluate on-site conditions, discuss selected land management actions, and coordinate any proposed actions with other ongoing and planned land management activities.

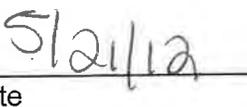
**Plan Consistency**

Based on information in the EA, the project record, and recommendations from BLM specialists, I conclude that this decision is consistent with the 1993 Redding Resource Management Plan, 2003 Healthy Forest Restoration Act, the National Fire Plan, the 10-year Comprehensive Strategy for Implementing the National Fire Plan, and the BLM Redding Fire Management Plan, 2004, the Endangered Species Act; the Native American Religious Freedom Act; other cultural resource management laws and regulations; Executive Order 12898 regarding Environmental Justice; and Executive Order 13212 regarding potential adverse impacts to energy development, production, supply and/or distribution.

**Administrative Remedies**

Administrative remedies may be available to those who believe they will be adversely affected by this decision. Protests may be made to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of Interior, Board of Land Appeals (Board) in strict compliance with the regulations in 43 CFR Subpart 5003. If a protest is taken, an original, signed hard copy must be received by this office by close of business (4:30 p.m.) within 15 days of the date the Decision Record is posted on BLM's internet site. Postmark does not qualify as meeting the deadline.

  
Field Manager, Redding Field Office

  
Date

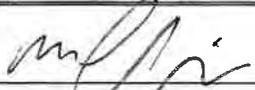
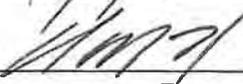
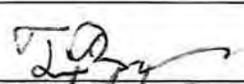
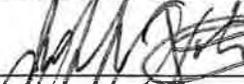
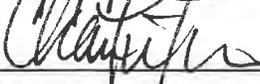
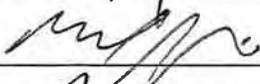


**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
REDDING FIELD OFFICE**

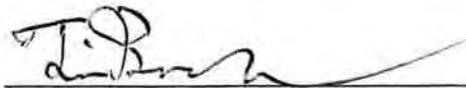
**ENVIRONMENTAL ASSESSMENT**

Redding Field Office Developed Area Fuels Reduction

NEPA DOC#: DOI-BLM-CAN060-2012-055

POSITION	SIGNATURE
AIR, SOIL, & WATER	 20 NOV 2013
BOTANY/RANGE	 11/27/2013
CULTURAL RESOURCES	Eric W. Puckey 12/3/13
FIRE & FUELS MANAGEMENT	 12/3/13
FORESTRY	 11/19/13
LANDS (Use Authorizations, Land Tenure Adjustments)	 11/19/13
MINERALS	 20 NOV 2013
RECREATION (Wilderness Characteristics, VRM) <sup>ENG.</sup>	 11-20-13
WILDLIFE	 11/20/13
PLANNING & ENVIRONMENTAL COORDINATOR	

Project Lead:



Signature

12.23.13

Date

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
REDDING FIELD OFFICE**

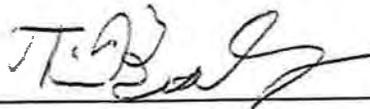
**ENVIRONMENTAL ASSESSMENT**

Redding Field Office Developed Area Programmatic Fuels Reduction

NEPA DOC#: DOI-BLM-CAN060-2012-055

POSITION	SIGNATURE
AIR, SOIL, & WATER	
BOTANY/RANGE	
CULTURAL RESOURCES	
FIRE & FUELS MANAGEMENT	
FORESTRY	
LANDS (Use Authorizations, Land Tenure Adjustments)	
MINERALS	
RECREATION (Wilderness Characteristics, VRM)	
WILDLIFE	
PLANNING & ENVIRONMENTAL COORDINATOR	 12/20/13

Project Lead:



Signature

12.23.13

Date

5. Promote late seral forest characteristics of forest ecosystems.

The need for action is established by the Bureau of Land Management (BLM) responsibility to meet Healthy Forest Initiative (HFI) (2003), Federal Wildland Fire Management Policy and objectives as outlined in the Redding Field Office (REFO) Fire Management Plan (FMP) (2004).

**CONFORMANCE WITH BLM LAND USE PLANS**

This action conforms to the Redding Resource Management Plan (RMP) and June 1993 Record of Decision because it is specifically provided for or is clearly consistent with the RMP objectives and decisions as follows: protect regionally significant values and provide future recreational use opportunities in these areas and others.

**RELATIONSHIP TO STATUTES, REGULATIONS AND OTHER PLANS**

Projects that are within the range of the northern spotted owl are subject to the survey and management standards and guidelines in the 2001 Record of Decision (ROD), as modified by the 2011 Settlement Agreement. On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al. v. Rey, et al.*, No. 08-1067 (W.D. Wash.) (Coughenour, J.), granting Plaintiffs' motion for partial summary judgment and finding a variety of NEPA violations in the BLM and USFS 2007 Record of Decision eliminating the Survey and Manage mitigation measure.

Judge Coughenour deferred issuing a remedy in his December 17, 2009 order until further proceedings, and did not enjoin the BLM from proceeding with projects. Plaintiffs and Defendants entered into settlement negotiations that resulted in the 2011 Survey and Manage Settlement Agreement, adopted by the district court on July 6, 2011.

The Ninth Circuit Court of Appeals issued an opinion on April 25, 2013, that reversed the District Court for the Western District of Washington's approval of the 2011 Survey and Manage Settlement Agreement. The case is now remanded back to the District Court for further proceedings. This means that the December 17, 2009, District Court order which found National Environmental Policy (NEPA) inadequacies in the 2007 analysis and records of decision removing Survey and Manage is still valid.

Previously, in 2006, the District Court (Judge Pechman) had invalidated the agencies' 2004 RODs eliminating Survey and Manage due to NEPA violations. Following the District Court's 2006 ruling, parties to the litigation had entered into a stipulation exempting certain categories of activities from the Survey and Manage standard (hereinafter "Pechman exemptions").

Judge Pechman's Order from October 11, 2006 directs: "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

- A. Thinning projects in stands younger than 80 years old (emphasis added);
- B. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- C. Riparian and stream improvement projects where the riparian work is riparian

*A Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)* was released to the public on June 29, 2007. The PEIS analyzed the effects of using herbicides for treating vegetation on public lands in the western U.S., including Alaska. These lands include Oregon and California Land Grant lands, Coos Bay Wagon Road lands, Areas of Critical Environmental Concern, and lands administered by the BLM through its National Landscape Conservation System, such as Wilderness Study Areas, designated Wilderness Areas, National Monuments, National Conservation Areas, Wild and Scenic Rivers, and National Recreation Areas. In accordance with NEPA, the PEIS identified impacts on the natural and human environment associated with herbicide use. The BLM evaluated five program alternatives in the PEIS, including the Preferred Alternative and the No Action Alternative. The alternatives considered in the PEIS address known public concerns and issues.

Decisions made through the PEIS process included: 1) which USEPA-registered herbicides are available for use by the BLM and under what circumstances; and 2) which vegetation management practices can be used with applications of herbicides and under what circumstances. These decisions are supported by herbicide treatment standard operating procedures (SOPs) and mitigation measures to ensure that the natural and human environments are protected during implementation of herbicide treatments.

The PEIS makes broad assumptions on the numbers of acres to be treated annually by herbicides by each state or in aggregate on a national scale. Because of the broad nature of the PEIS and the uncertainty associated with timing and location of treatments on a national scale, specific levels of acres to be treated are assessed at the regional and local level. This EA is tiered to the 2007 PEIS and Record of Decision. Site-specific analysis needed to issue pesticide use permits will be done on a case by case basis.

## **SCOPING, PUBLIC INVOLVEMENT, AND ISSUES**

This proposal was presented to the Shasta County, Trinity, Butte, Tehama and Siskiyou County fire safe councils during meetings in 2012 and it received overwhelming support from all of the councils for hazard fuel reduction projects in general. Press releases were issued seeking public comment in March of 2012 covering trails and facilities in Shasta County and in April of 2012 covering facilities in Trinity County, with no response received. Internal BLM staff also discussed the project during several NEPA planning meetings during 2011 and 2012. Review of potential impact topics or elements of the human environment were assessed through this process. The following three issues were identified for full analysis within this document:

- Vegetation (including invasive non-native plant species, special status plants and fuels)
- Terrestrial Wildlife (including Threatened and Endangered Species)
- Cultural resources
- Recreation

adverse effects associated with dozer lines and other hard on the land fire suppression efforts by the responsible fire suppression agency, Cal Fire. In addition and as a result of this mitigation, high severity fire effects will likely be reduced, with a direct result in reducing adverse water quality effects. Because these are all benefits and related to best management practices, water quality impacts are not analyzed in this EA.

○ **Riparian Areas**

Similar to water quality, best management practices will include avoidance of work in drainages. Some very minor cutting of riparian vegetation may occur where facilities and trails border riparian areas, but this cutting will be a very small percentage of any individual riparian area and will not have a measurable effect on the riparian structure or function, thus is not analyzed in this EA. Prior to any work, sites will be examined and where appropriate and consistent with planning documents, examined for Aquatic Conservation Strategy objective compliance.

○ **Climate Change**

Rising greenhouse gas (GHG) levels are likely contributing to global climate change. In the project area, climate change is typically expected to result in warmer, drier conditions and potentially more extreme weather events. Natural processes such as volcanic eruptions contribute to the increasing levels of GHGs in the atmosphere. Human activities related to the proposed action may contribute GHGs during the operations phase. The reduction of fire hazard, creation of additional growing space and the reduction of competition for available resources will result in long-term increase in tree vigor and stand vitality, thereby enhancing the ability of the forest to capture carbon dioxide and offset any short-term operational releases during implementation.

○ **Lands with Wilderness Characteristics Resources**

Lands that clearly lack wilderness characteristics are those that do not meet the naturalness criterion because they have extensive surface disturbance and/or do not meet the size criterion of 5,000 acres or larger. Areas less than 5,000 acres may have wilderness characteristics and require protective actions if BLM determines that wilderness characteristics are present. The project is located adjacent to human developments and other improvements thus by nature does not contain Lands with Wilderness Characteristics.

○ **Scenic Quality and Visual Resources**

The proposed project will result in opening up of understory allowing minor increased visibility into forest and some probable localized browning of vegetation on a local scale and for a short duration. This impact would be within range of what is expected to occur within a natural forest ecosystem, and would be particularly small in comparison to impacts that are associated with wildland fire and accompanying suppression impacts that have scarred many of the local hillsides in recent years. Overall the proposed project

## CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

- A) Alternative 1: **The proposed Action** - hazard fuel reduction activities in and directly adjacent to recreational facilities managed by the BLM, Redding field office. Specific locations included in this analysis are identified in county areas as follow.

### Butte County:

- Forks of Butte; all drivable, open roads (excluding all downhill portions of road that are adjacent to Forks of Butte Creek within Forks of Butte Creek Recreation Area), hiking trails, and kiosk locations
- Upper Ridge Nature Preserve: all included roads and trails and all private property boundaries where structures exist within 100 feet of BLM lands
- The Martin Cemetery

### Tehama County:

- Bend ACEC: all building structures, picnic tables, maintained recreation trails, maintained roadways and parking lots

### Shasta County:

- Swasey ACEC and Mule Mountain: all developed trails, Delano Road, developed parking lots, overflow parking lots, gated access roads, and archeological enclosures
- Clear Creek Greenway, including Cloverdale: all developed trails, parking lots, China Garden access road, Clear Creek Overlook and China Garden day use areas
- Interlakes/Keswick Basin Areas: all developed hiking and OHV trails, all developed parking lots and staging areas, Iron Mountain Shooting Area, Shasta Dam and Bohemotash Campgrounds
- West Redding: Salt Creek, Middle Creek, and Westside and Keswick Rail Trails, all archaeological enclosures and the Black Canyon Indian Cemetery

### Trinity County:

- Steel Bridge, Douglas City, Junction City, and Steiner Flat Campgrounds
- Union Hill Pond access road, trail and picnic area
- Weaverville Community Forest (all developed parking areas, roads and trails)

### Siskiyou County:

- Quartz Hill Management Area: all improved roads and trails within the Quartz Hill Management area and the historic stamp mill

**Treatment specifications:** Generalized goals are to establish and maintain conditions that minimize fire intensity and fire spread, although treatments will vary depending on site specific hazard and vegetative/ecological conditions. In tree dominated forested areas, the common goal is to achieve stand and fuel conditions such that, if subjected to a head fire under the 80<sup>th</sup> percentile weather conditions, at least 80% of the basal area of the dominant and co-dominant trees would survive (80/80 rule). Specific fuel

piles off site. Additional consultation with Tribes will be conducted prior to commencement of work in any cemetery.

- Prescribed fire treatments would consist of up to 75 acres of pile and broadcast burning annually, with no more than 10 acres completed per day except for burning around shooting areas. All burning would be conducted under an approved smoke management plan in accordance with County specific guidelines.
  - Pile burning would treat piles created under the manual provisions of this assessment. Piles would be placed at least 10 feet away from tree boles to avoid impact to trunks of retained trees. Seeding of piles with native grass and forbs would occur if exotic plants are common in the area.
  - Broadcast burning would be limited to buffers 100-400 feet around campgrounds and picnic areas or in 1/10 to ¼ mile buffer around shooting areas and would focus on consuming 20-75% of litter and herbaceous fuels, 5-25% of duff, 15-45% of 10hr surface fuels, and 0-15% of larger size class surface fuels. Burns would also focus on killing 10-40% of live vegetative canopy less than 6ft in height, with parameters established to maintain average flame length of 0.4 to 1.5 feet as modeled by BehavePlus5. Retreatment with broadcast burn would occur up to two additional times to attain target conditions when initial entry burns underachieve.
- Herbicide treatments would be used to prevent resprouting in shrub species in Shasta County only. Herbicides would be applied on up to 5 acres annually, with monitoring completed within 2-5 months after each treatment to determine effectiveness and provide feedback to future herbicide treatments as an adaptive management program. Acreage total applies to the cumulative canopy cover of treated vegetation. Resprouting shrub applications would be made as basal bark or cut stump treatments applied in conjunction with manual cutting, while exotic plant and poison oak applications would be foliar or basal/cut stump. Retreatment applications may occur up to 2 times following initial treatment. Monitoring data collected for each area treated will include date applied, herbicide type, species treated, date cut, application type (basal cambium or foliar). Additional representative monitoring data will be collected as described below. Herbicide use would occur only after considering the effectiveness of all potential methods and only after completion and approval of a Pesticide Use Proposal.
- Biological control consists of the intentional use of domestic animals, such as goats, that weaken or destroy vegetation. As with manual treatments, biological treatments would focus on reduction of live shrub fuels. Live vegetative removal would focus on creating a gap in vertical fuel continuity by reducing understory shrubs and small trees, retaining a minimum of at least 30% total live canopy cover. Interspersed understory vegetation would be retained on a site specific basis to aide in managing users, buffering streams or to enhance wildlife habitat values. Biological treatments may be used alone, but they would most likely be used as follow-up treatments to manual or prescribed fire treatments. Treatment by biological methods would occur on up to 30 acres annually.

- 3) **To protect cultural resources:** All known, previously identified occurrences of cultural resources will be flagged by staff archaeologist or by qualified archaeological technician working under direction of staff archaeologist for avoidance unless determined that they are not sensitive to proposed action. Flagging should be red-white striped and clearly visible to ensure protection of resources and reapplied if faded or otherwise difficult to see. If any objects of cultural value (e.g. historic or prehistoric ruins, graves, fossils, or artifacts) are found during the implementation of the proposed action, operations will be suspended until the site has been evaluated by a professional archaeologist to determine the appropriate mitigation action.
- 4) **To protect wildlife resources:** Prior to work, projects areas will be examined and where appropriate and consistent with planning documents Survey and Manage (S&M) guidance, compliance, and protection measures implemented for those S&M species and habitat. Any identified mining features found during project work will be inventoried for potential bat habitat and additional measures identified for implementation if features such as shafts, adits or test pits have active bat colonies. Downed large woody debris (LWD) in association with talus and rock accumulations shall not be disturbed and will be protected to the extent practical to protect sensitive mollusk habitat. Piles will not be placed in drainages to avoid pile burning impact to amphibians and associated habitat features in drainages.
- 5) **To manage recreation users:** Where needed vegetation or woody materials will be retained or deposited to inhibit creation of undesired trails by recreationist or to protect or screen sensitive resources.
- 6) **To protect all resources:** Implement an adaptive management approach utilizing monitoring data, refining treatment methodology or approach from suite of tools addressed in this analysis.

**B) ALTERNATIVE 2: NO ACTION**

No hazard fuel reduction activities would be conducted. Individual environmental analyses may be completed at a future point for each project.

Numerous studies and synthesis papers (refer to reference section) discuss in detail the range of changes and issues facing the area's fire adapted ecosystems as a result of fire suppression strategies that exclude fire from the landscape. Without any fuel reduction treatments, vegetation growth would continue, with increasing density of understory fuels. In untreated landscapes, fire, when it did escape initial suppression efforts, would likely burn only under more extreme conditions, resulting in much greater damage to resources as well as surrounding within urban interface communities. Suppression efforts under this scenario would include much more heavy machinery and, subsequently, damage to the natural resources. Fire suppression costs would be greater, with greater impact to the human environment.

**C) ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS**

No other alternatives were considered for this analysis.

occurred in limited portions of the project area, but no significant future logging is anticipated. In general, these impacts are likely to have tended to reduce the overall dominance of large trees in the landscape and increased the overall shrub cover and increased the level of dead woody vegetation on the forest floor. These conditions contribute to increased hazard and probability that future fire would burn with high intensity and have largely adverse impacts within the treatment area.

#### *Special Status Species*

Appendix A lists the potential special status plant species that are known or may potentially occur within the project area. This species list was compiled through querying the California Natural Diversity Database, Fish and Wildlife Service Threatened and Endangered Species Lists, (by county), and past special status plant surveys. Although no special status plant species that occur on lands managed by the RFO are known or suspected to be dependent upon these facilities, habitat adjacent to these facilities where work may occur may provide habitat for special status plant species. Surveys for special status plant species, including Survey and Manage species, will be carried out prior to any vegetation treatment activities.

### **Environmental Consequences**

#### ***Alternative 1 (Proposed Action)***

Direct & Indirect Impacts: The treatment would break up the fuel continuity and create open small open areas that replicated historic conditions. Fuel thinning through burning or manual treatments would reduce competition for water and soil resources, resulting in an increased vigor of retained trees and shrubs. Open areas also would promote an increase of grass and herbaceous cover, as well as limited pockets of young, early successional stages of brush. This action would help promote areas of older growth forest and some limited increase in diversity. The scale of the impact would be highly localized and of relatively short to medium duration. The proposed treatments would serve as control points and aid in control and in reducing negative effects and the extent of high severity fire to vegetation. If fires were to occur, this would result in a reduction in ground and vegetation disturbance associated with suppression activities.

#### *Special Status Species*

If special status plants populations are identified and avoided, injury or mortality to any special status plants present on the treatment sites will be avoided. Therefore, no negative impacts are expected to special status plant species.

Cumulative Impacts: Ongoing maintenance of the facilities is anticipated for an indefinite period of time. This maintenance would continue to promote healthy trees and focus on reducing hazardous fuels. This improvement to the native plant community would be classified as a minor positive long-term effect. No other projects are anticipated within the project area that would impact vegetation resources.

#### ***Alternative 2 (No Action)***

Direct & Indirect Impacts: Since many wildfires are the result of human caused ignition sources, the risk of fires near roads, trails, and facilities is higher than in the surrounding plant

## **RESOURCE B: WILDLIFE AND FISHERIES (INCLUDING THREATENED AND ENDANGERED SPECIES)**

### **Affected Environment**

Upland vegetation communities vary considerably from open grasslands at lower elevations, through deciduous blue oak savannah, juniper woodlands and mixed chaparral into mixed coniferous forests at the higher elevations. Barrens, sometimes serpentine or argillite derived occur at middle to higher elevations. Riparian dependent communities are found through all elevations ranging from valley oak / cottonwood galleria along the Sacramento River to alder dominated stretches of the Trinity River and higher elevations.

### *Wildlife and Fisheries Habitat*

The multiple habitats types encompassed by the Redding Field Office plays host to many uncommon and common species of wildlife. A host of species from the following classes of wildlife are present on those lands managed by the Redding Field Office; invertebrates, amphibians, reptiles, birds and mammals, rely on the various habitats provided by those lands present. Although no wildlife species that occurs on lands managed by the RFO are known or suspected to be dependent upon these facilities habitat adjacent to these facilities where work may occur provides habitat.

Fish habitat consists of an aquatic environment and the associated riparian environment. The Sacramento, Klamath, Trinity and Shasta rivers and their tributaries provide spawning and rearing habitat for anadromous fishery and resident fishery resources. In addition to this important fishery resource these aquatic environments host important resident warm and cold water game and non-game species as well as aquatic wildlife species.

### *Special Status Species*

Appendix A lists the potential sensitive status species that are known or may potentially occur within the project area. This sensitive species list was compiled through querying the California Natural Diversity Database, Fish and Wildlife Service Threatened and Endangered Species Lists, (by county), and using office field records and personal knowledge. Although no wildlife species that occurs on lands managed by the RFO are known or suspected to be dependent upon these facilities, habitat adjacent to these facilities where work may occur provides habitat (e.g. talus next to trails provides habitat for Oregon shoulderband snail).

Some categories of species within the NWFP require site-specific, pre-disturbance surveys to be conducted, referred to as Survey and Manage (S&M) prior to habitat-disturbing activities. These surveys focus on the project unit with the objective of reducing the inadvertent loss of undiscovered sites by searching specified potential habitats.

## **Environmental Consequences**

### *Alternative 1 (Proposed Action)*

the landscape due to the increased density of vegetation adjacent to these high use areas will likely reduce habitat quality. Additionally this has the potential to provide mechanisms for further invasive species colonization and dominance further altering habitat quantity and quality.

## **CULTURAL RESOURCES**

### **Affected Environment**

The affected environment includes prehistoric and historic sites of many types as well as Traditional Cultural Properties, including cemeteries and villages. Known archaeological sites related to the proposed action include prehistoric midden deposits and lithic scatters, historic mines and mills, ditches, railroad grades, cabins or cabin ruins, historic dumps, historic landscapes, rock shelters, and other sites

### **Environmental Consequences**

#### ***Alternative 1 (Proposed Action)***

**Direct & Indirect Impacts:** The proposed action—with site specific follow up or review by the RFO archaeologist in the Determination of NEPA Adequacy (DNA) process—will not adversely effect significant heritage resources since these will be avoided based on information provided to the fire/fuels staff and flagging or other actions. Proposed actions can be carefully planned to provide positive protection from unplanned fires. Any project area will need to be evaluated for heritage resources if not previously surveyed by an archaeologist. If heritage resources are subsequently found these will be avoided or managed through hazard fuel reduction to provide positive impacts by preventing intense burning and overgrowth and vegetation damage as happens sometimes with root and vine growth for instance.

Certain heritage resources such as cabins or cabin ruins or other historic structures such as mill sites, cemeteries or grave sites with enclosures/fencing or other site types with enclosures/fencing can have careful hazard fuel reduction actions undertaken in consultation with the RFO archaeologist. These actions can have a beneficial effect on the resource by preventing intense burn impacts and loss of protective infrastructure.

#### **Cumulative Impacts:**

The cumulative impacts from the proposal would be increased protection of heritage resources rather than any incremental losses. In some cases proactive vegetation removal or burning can prevent fires and fire suppression damage to heritage resources such as precluding bulldozer damage.

#### ***Alternative 2 (No Action)***

**Direct & Indirect Impacts:** When dense vegetation grows on select heritage resources intense fires can cause damage or destroy those resources. This must be balanced with opening up a site to looters or vandals. So depending on the individual select resource reduction in hazardous fuels overall will be a positive step in site protection. With no action there will likely be damage

**Alternative 2 (No Action)**

Direct & Indirect Impacts: Visitor safety would be slightly impacted adversely by a failure to maintain line of sight safety for motor vehicles, failing to clear out vegetation that made parking areas more obscure and prone to vehicle break-ins, and failing to maintain safe egress routes should a fire occur, and contributing to poor aesthetic conditions along trail and road corridors.

Cumulative Impacts: Decreased visitor experience would lead to higher probability of vandalism and other adverse impacts to BLM image and facilities.

**CHAPTER 4 – CONSULTATION, COORDINATION AND PUBLIC INVOLVEMENT**

**PERSONS, GROUPS, AND AGENCIES CONSULTED**

Project collaboration has been done with local organizations and various citizens:

- Shasta County, Trinity County, Siskiyou County, Butte County and Tehama County Fire Safe Councils
- Redding Foundation
- Native American Groups: Kenneth Wright, Marilyn Delgado, Bob Burns, Paul Ammon, Andrew Freeman, Ronald Kirk, Daniel Gomez, Patsey Seek, Kyle Self, Dennis Ramirez, Glenda Nelson, James Edwards, Calvin Rose, Gary Archuleta, Dolores Raglin, Chairperson Wintoon Tribe, Lea Harper, Wade McMaster, Caleen Sisk-Franco, Jason Hart.

**List of Preparers**

Gary Diridoni	Wildlife Biologist	AIR, SOIL, & WATER/ WILDLIFE & FISHERIES
Chase Lentz	Botanist	BOTANY/RANGE
Eric Ritter	Archeologist	CULTURAL RESOURCES
Tim Bradley	Fire Management Officer	FIRE & FUELS MANAGEMENT
Jeff Bellaire	Forester	FORESTRY
Charles Wright	Supv Realty Specialist	LANDS
Ron Rogers	Geologist	MINERALS
Bill Kuntz	Supv. Outdoor Recreation Planner	RECREATION



## **INTENSITY**

I have considered the potential intensity/severity of the impacts anticipated from the project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

***1. Impacts that may be both beneficial and adverse.***

Potential impact includes the reduction of hazardous fuels for fire mitigation and enhancing improvement of visitor experience. This impact is at the local, small scale that would be small with no appreciable cumulative impact.

***2. The degree to which the proposed action affects public health and safety.***

No aspects of the project have been identified as having the potential to significantly and adversely impact public health or safety.

***3. Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.***

BLM lands included in the project are designated within existing ACECs for a variety of uses which include promoting and enhancing qualified recreation uses. Nearby mining sites and other cultural and historic sites are known and recorded adjacent to the project vicinity but have not been recorded in the project area. The analysis does not show that the action would have any risk to these unique resources.

***4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.***

No anticipated effects have been identified that are scientifically controversial. As a factor for determining within the meaning of 40 C.F.R. § 1508.27(b)(4) whether or not to prepare a detailed environmental impact statement, “controversy” is not equated with “the existence of opposition to a use.” Northwest Environmental Defense Center v. Bonneville Power Administration, 117 F.3d 1520, 1536 (9th Cir. 1997). “The term ‘highly controversial’ refers to instances in which ‘a substantial dispute exists as to the size, nature, or effect of the major federal action rather than the mere existence of opposition to a use.’” Hells Canyon Preservation Council v. Jacoby, 9 F.Supp.2d 1216, 1242 (D. Or. 1998).

***5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.***

The analysis does not show that this action would involve any unique or unknown risks.

***6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.***

Hazard fuels reduction projects are not precedent setting.

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
REDDING FIELD OFFICE**

**DECISION RECORD**

**REDDING FIELD OFFICE DEVELOPED AREA FUELS REDUCTION  
EA NUMBER: DOI-BLM-CA-N060-2012-055**

**Introduction**

The purpose of the action is to reduce risk associated with wildland fire to BLM improvements, recreation users, area homes and private property, and to reduce susceptibility of lands to severe fire effects and/or a stand replacing fire and to promote late seral forest characteristics. The current risk to is high due to fuel accumulations and dense ladder fuels that could contribute to a very intense canopy fire that would be difficult to suppress. The need for action is established by the Bureau of Land Management (BLM) responsibility to meet Healthy Forest Initiative (HFI) (2003), Federal Wildland Fire Management Policy and as detailed in the Redding Field Office (REFO) Fire Management Plan (FMP) (2004) and the Redding Resource Management Plan (RMP) (1993).

**Decision**

It is my decision to approve the proposed action as described in environmental assessment (EA) and Finding of No Significant Impact (FONSI) number **DOI-BLM-CA-N060-2012-055** Compliance with the design features identified in the EA is hereby required and is incorporated into this decision record as stipulations by reference.

**Alternatives Considered but not Selected**

A no action alternative was considered within this analysis. This alternative would have contributed to long-term fuel accumulation and have failed to attain basic recreation goals for maintenance of facilities. The no action alternative would also have failed to promote protection of numerous resource management objectives and would have failed to improve fire safety and fire hazard reduction goals. For these varied reasons the no action alternative was not selected.

**Decision Rationale**

Based on the analysis documented in the aforementioned EA which has been reviewed by an interdisciplinary team, I conclude that the approved action will not result in any unnecessary or undue degradation of the Federal lands. The approved action is in conformance with the approved land use plan.

**Consultation and Coordination**

Surveys for sensitive and special status wildlife and botanical species were conducted and will be continued to be monitored throughout project implementation.

## APPENDIX A

### Special Status Species (plant and animal):

The following table lists species of special management concern that are either known to occur or have potential to occur or are suspected to occur on lands within the Redding Field Office.

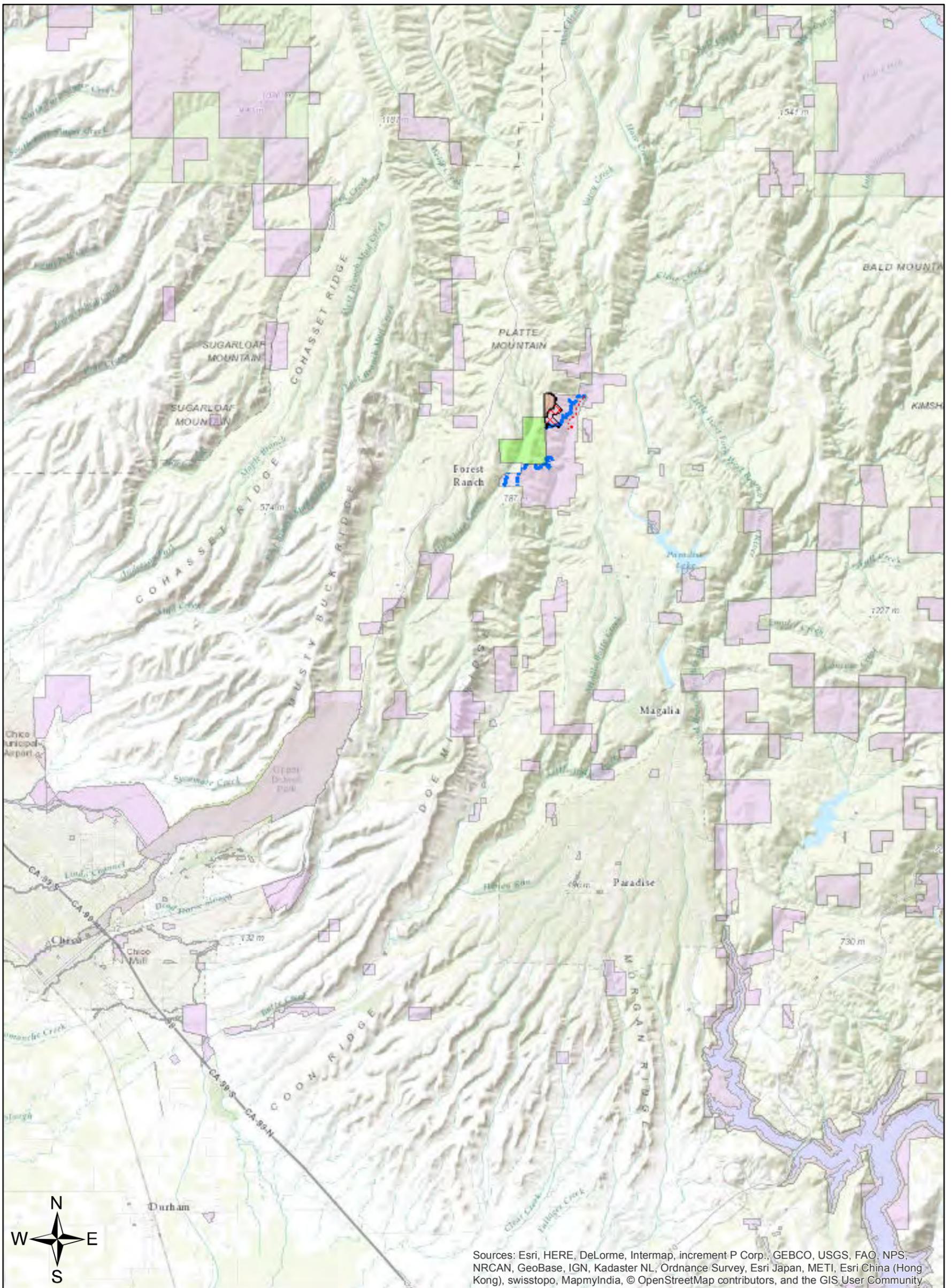
State (S) and Federal (F) listed (Endangered-E Threatened-T), former Federal Candidates for listing (FC), CDFG Species of Special Concern (SC), CDFG fully protected (PT), CDFG Rare (RARE), BLM Sensitive (BLMS), Northwest Forest Plan Survey and Manage Species (NWFP)

INVERTEBRATES		
Common Name	Scientific Name	Status
valley elderberry beetle	<i>Desmocerus californicus dimorphus</i>	FT,X
conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE, X
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT, X
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE, X
Hooded lancetooth	<i>Ancotrema voyanum</i>	BLMS, NWFP
Oregon shoulderband snail	<i>Helminthoglypta hertleini</i>	BLMS, NWFP
Trinity shoulderband snail	<i>Helminthoglypta talmadgei</i>	BLMS, NWFP
Siskiyou sideband snail	<i>Monadenia chaceana</i>	BLMS, NWFP
Keeled sideband snail	<i>Monadenia circumcarinata</i>	BLMS, NWFP
Hairy Sierra sideband snail	<i>Monadenia mormonum hirsuta</i>	BLMS, NWFP
Tehama chaparral	<i>Trilobopsis tehamana</i>	BLMS, NWFP
Pressley's Hersperian snail	<i>Vespericola pressleyi</i>	BLMS, NWFP
Tehama Chaparral	<i>Monadenia troglodytes wintu</i>	NWFP
Blue-Gray Taildropper	<i>Prophysaon coeruleum</i>	NWFP
Shasta Chaparral	<i>Trilobopsis roperi</i>	NWFP
Shasta hesperian	<i>Vespericola shasta</i>	NWFP
Potem Pebblesnail	<i>Flumicola n. sp. 14</i>	NWFP
Flat-top pebblesnail	<i>Flumicola n. sp. 15</i>	NWFP
Shasta Springs Pebblesnail	<i>Flumicola n. sp. 16</i>	NWFP
Disjunct Pebblesnail	<i>Flumicola n. sp. 17</i>	NWFP
Globular Pebblesnail	<i>Flumicola n. sp. 18</i>	NWFP
Nugget Pebblesnail	<i>Flumicola seminalis</i>	NWFP
Cinnamon Juga	<i>Juga (Oreobasis) n. sp. 3</i>	NWFP
Canary Dusksnail	<i>Lyogyrus n. sp. 3</i>	NWFP
Knobby Rams-horn	<i>Vorticifex n. sp. 1</i>	NWFP
FISH		

Spotted bat	<i>Euderma maculatum</i>	SC, BLMS
Fringed Myotis	<i>Myotis thysanodes</i>	SC, BLMS
Small-footed Myotis	<i>Myotis ciliolabrum</i>	SC, BLMS
Long-eared Myotis	<i>Myotis evotis</i>	SC, BLMS
Cave myotis	<i>Myotis velifer</i>	SC, BLMS
Yuma Myotis	<i>Myotis yumanensis</i>	SC, BLMS
<b>VASCULAR PLANTS</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
red-flowered lotus	<i>Acmispon rubriflorus</i>	BLMS
Jepson's onion	<i>Allium jepsonii</i>	BLMS
bent-flowered fiddleneck	<i>Amsinckia lunaris</i>	BLMS
scabrid alpine tarplant	<i>Anisocarpus scabridus</i>	BLMS
Klamath manzanita	<i>Arctostaphylos klamathensis</i>	BLMS
Jepson's milk-vetch	<i>Astragalus rattanii</i> var. <i>jepsonianus</i>	BLMS
Ferris's milk-vetch	<i>Astragalus tener</i> var. <i>ferrisiae</i>	BLMS
woolly balsamroot	<i>Balsamorhiza lanata</i>	BLMS
big-scale balsamroot	<i>Balsamorhiza macrolepis</i>	BLMS
silky balsamroot	<i>Balsamorhiza sericea</i>	BLMS
Serpentine Rockcress	<i>Boechera serpenticola</i>	BLMS
Indian Valley brodiaea	<i>Brodiaea rosea</i>	BLMS
Greene's mariposa	<i>Calochortus greenei</i>	BLMS
long-haired star-tulip	<i>Calochortus longebarbatus</i> var. <i>longebarbatus</i>	BLMS
Shasta River mariposa	<i>Calochortus monanthus</i>	BLMS
Siskiyou mariposa lily	<i>Calochortus persistens</i>	BLMS
Castle Crags harebell	<i>Campanula shetleri</i>	BLMS
Klamath sedge	<i>Carex klamathensis</i>	BLMS
pink creamsacs	<i>Castilleja rubicundula</i> subsp. <i>rubicundula</i>	BLMS
Shasta chaenactis	<i>Chaenactis suffrutescens</i>	BLMS
Hoover's spurge	<i>Chamaesyce hooveri</i>	FT
Stony Creek spurge	<i>Chamaesyce ocellata</i> subsp. <i>rattanii</i>	BLMS
dwarf soaproot	<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	BLMS
Ashland thistle	<i>Cirsium ciliolatum</i>	BLMS
Brandegees clarkia	<i>Clarkia biloba</i> subsp. <i>brandegeae</i>	BLMS
Shasta clarkia	<i>Clarkia borealis</i> subsp. <i>arida</i>	BLMS
northern clarkia	<i>Clarkia borealis</i> subsp. <i>borealis</i>	BLMS
white-stemmed clarkia	<i>Clarkia gracilis</i> subsp. <i>albicaulis</i>	BLMS
Mildred's clarkia	<i>Clarkia mildrediae</i> subsp. <i>mildrediae</i>	BLMS
Mosquin's clarkia	<i>Clarkia mosquinii</i>	BLMS
pallid bird's-beak	<i>Cordylanthus tenuis</i> subsp. <i>pallescens</i>	BLMS
silky cryptantha	<i>Cryptantha crinita</i>	BLMS
clustered lady's slipper	<i>Cypripedium fasciculatum</i>	BLMS
mountain lady's slipper	<i>Cypripedium montanum</i>	BLMS

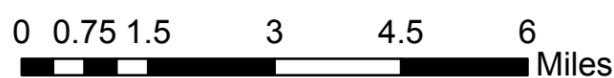
Howell's alkali-grass	<i>Puccinellia howellii</i>	BLMS
showy raillardella	<i>Raillardella pringlei</i>	BLMS
California beaked-rush	<i>Rhynchospora californica</i>	BLMS
Columbia yellow cress	<i>Rorippa columbiae</i>	BLMS
Hall's rupertia	<i>Rupertia hallii</i>	BLMS
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	BLMS
Feather River stonecrop	<i>Sedum albomarginatum</i>	BLMS
Canyon Creek stonecrop	<i>Sedum obtusatum paradisum</i>	BLMS
Butte County checkerbloom	<i>Sidalcea robusta</i>	BLMS
long-stiped campion	<i>Silene occidentalis subsp. longistipitata</i>	BLMS
English Peak greenbriar	<i>Smilax jamesii</i>	BLMS
Butte County golden clover	<i>Trifolium jokerstii</i>	BLMS
<b>BRYOPHYTES</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
green bug moss	<i>Buxbaumia viridis</i>	BLMS
Pacific fuzzwort	<i>Ptilidium californicum</i>	BLMS
<b>FUNGUS</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
no common name	<i>Dendrocollybia racemosa</i>	BLMS
California phaeocollybia	<i>Phaeocollybia californica</i>	BLMS
olive phaeocollybia	<i>Phaeocollybia olivacea</i>	BLMS
spadicea phaeocollybia	<i>Phaeocollybia spadicea</i>	BLMS
stalked orange peel fungus	<i>Sowerbyella rhenana</i>	BLMS
fairy fan	<i>Spathularia flavida</i>	BLMS
<b>LICHEN</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
yellow-twist horsehair	<i>Bryoria tortuosa</i>	BLMS
northern moon shrub	<i>Dendriscoaulon intricatum</i>	BLMS

# The Butte Forest Thin – Doe Mill Ridge Watershed Project

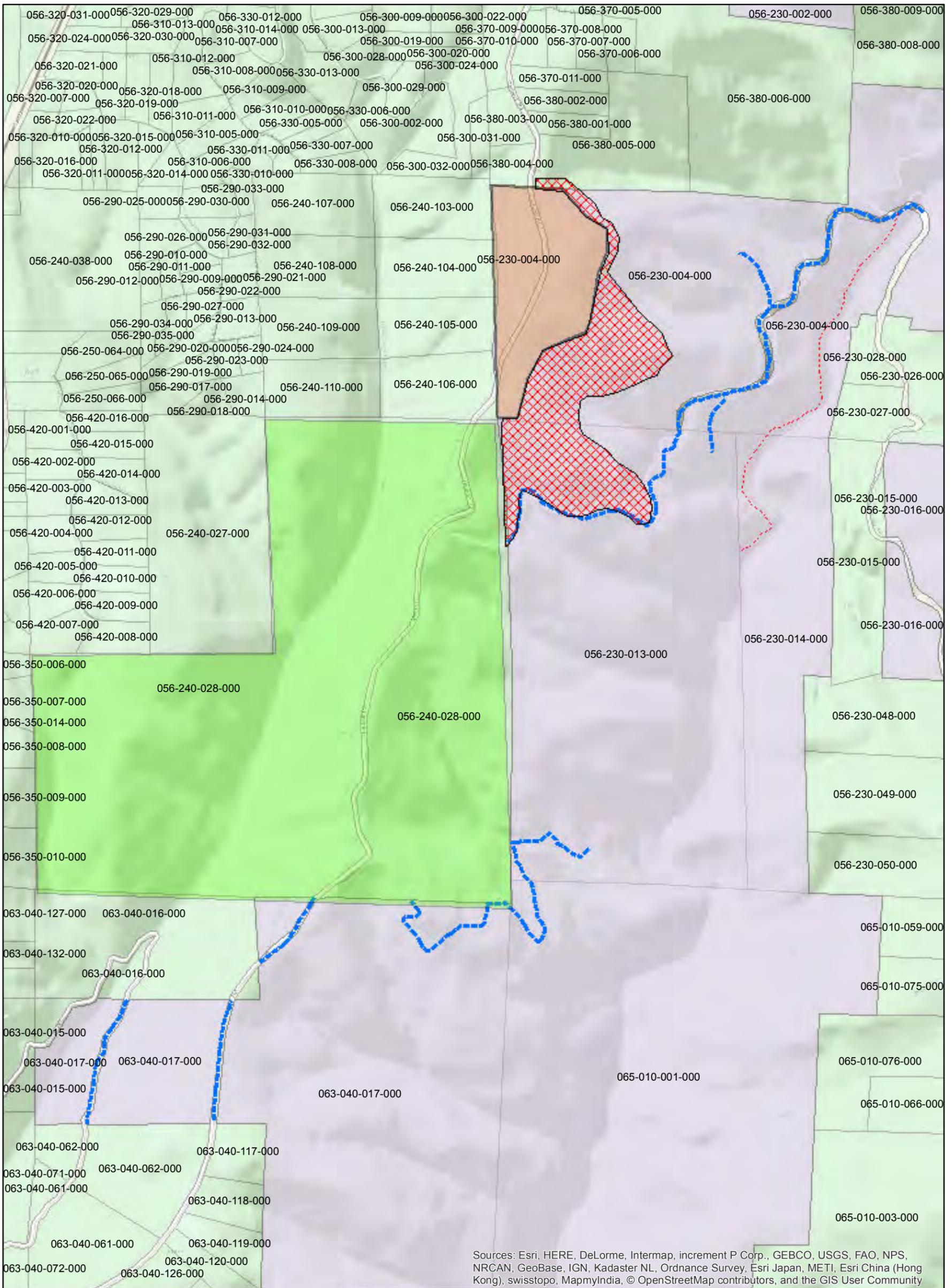


## Legend

- SPI 2015 Thinning
- Proposed Additional RxBurn Area
- Proposed RxBurn Area
- Trail Shaded Fuel Break
- Road Shaded Fuel Break
- BLM 2014a2 Holdings



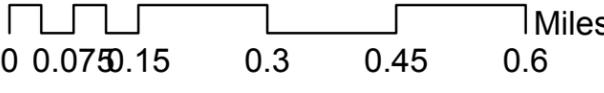
# The Butte Forest Thin – Doe Mill Ridge Watershed Project



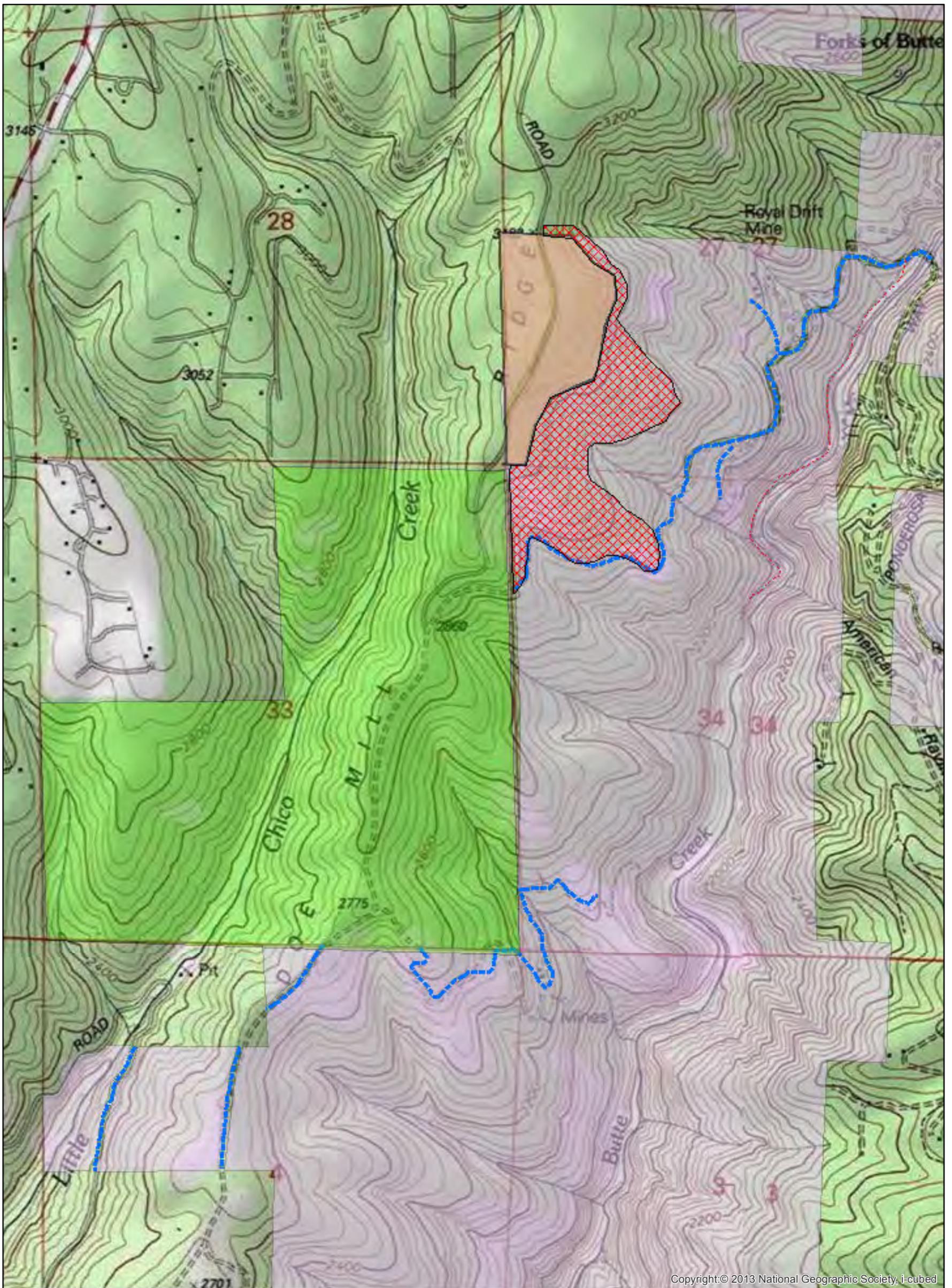
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

### Legend

- SPI 2015 Thinning
- Proposed Additional RxBurn Area
- Proposed RxBurn Area
- Trail Shaded Fuel Break
- Road Shaded Fuel Break
- BLM 2014a2 Holdings
- taxparcels201212

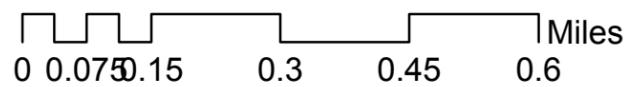


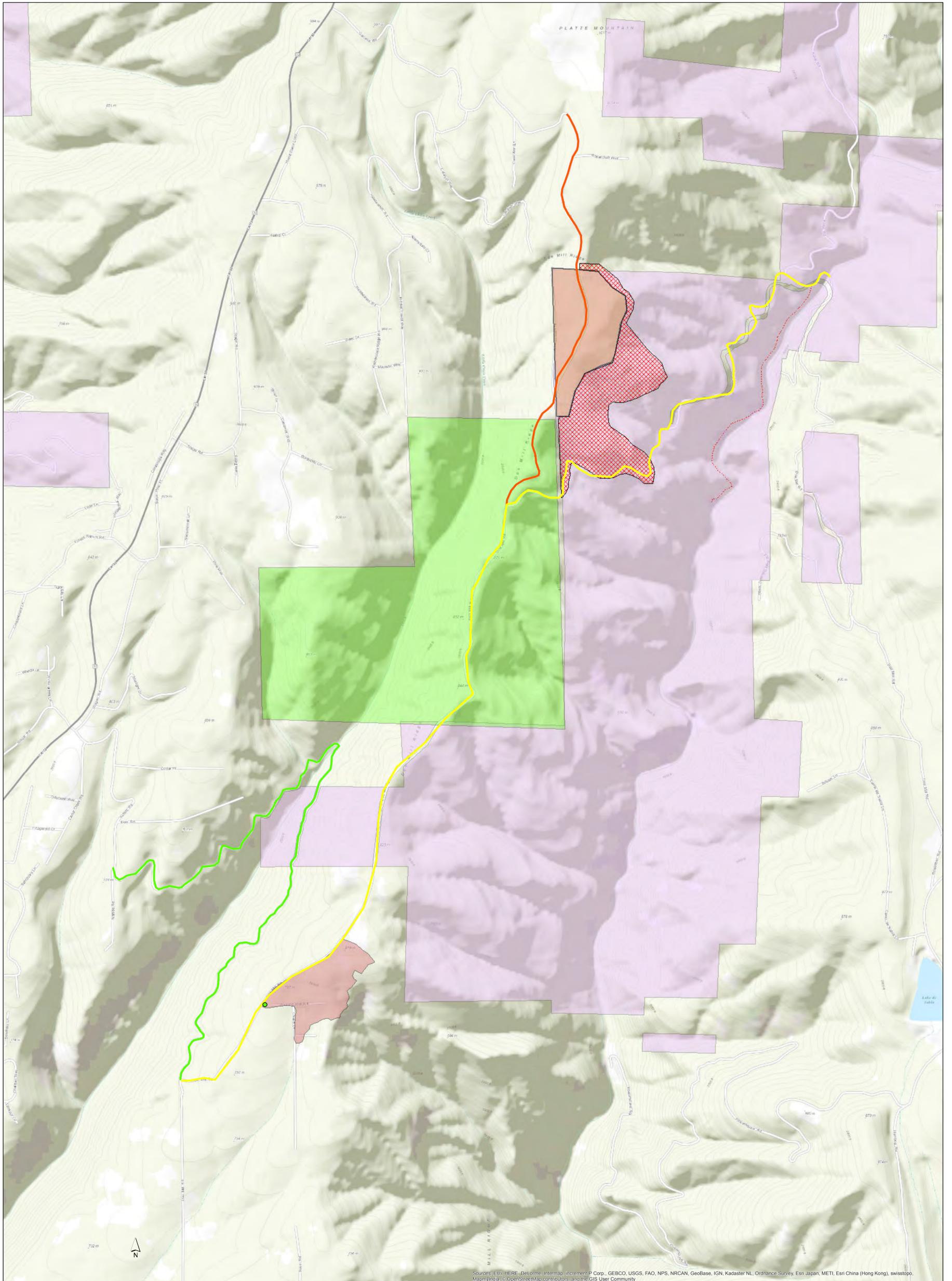
# The Butte Forest Thin – Doe Mill Ridge Watershed Project



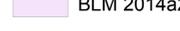
## Legend

- SPI 2015 Thinning
- Proposed Additional RxBurn Area
- Proposed RxBurn Area
- Trail Shaded Fuel Break
- Road Shaded Fuel Break
- BLM 2014a2 Holdings

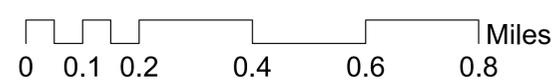




**Legend**

-  DoeMillRoad
-  GarlandRd
-  Schott
-  SPI\_2015\_Thinning
-  BLM Proposed\_Additional\_RxBurnArea
-  BLMProposed\_RxBurnArea
-  Trail
-  Spring\_2016\_Pilot\_Project\_Perimeter
-  BLM 2014a2 Holdings

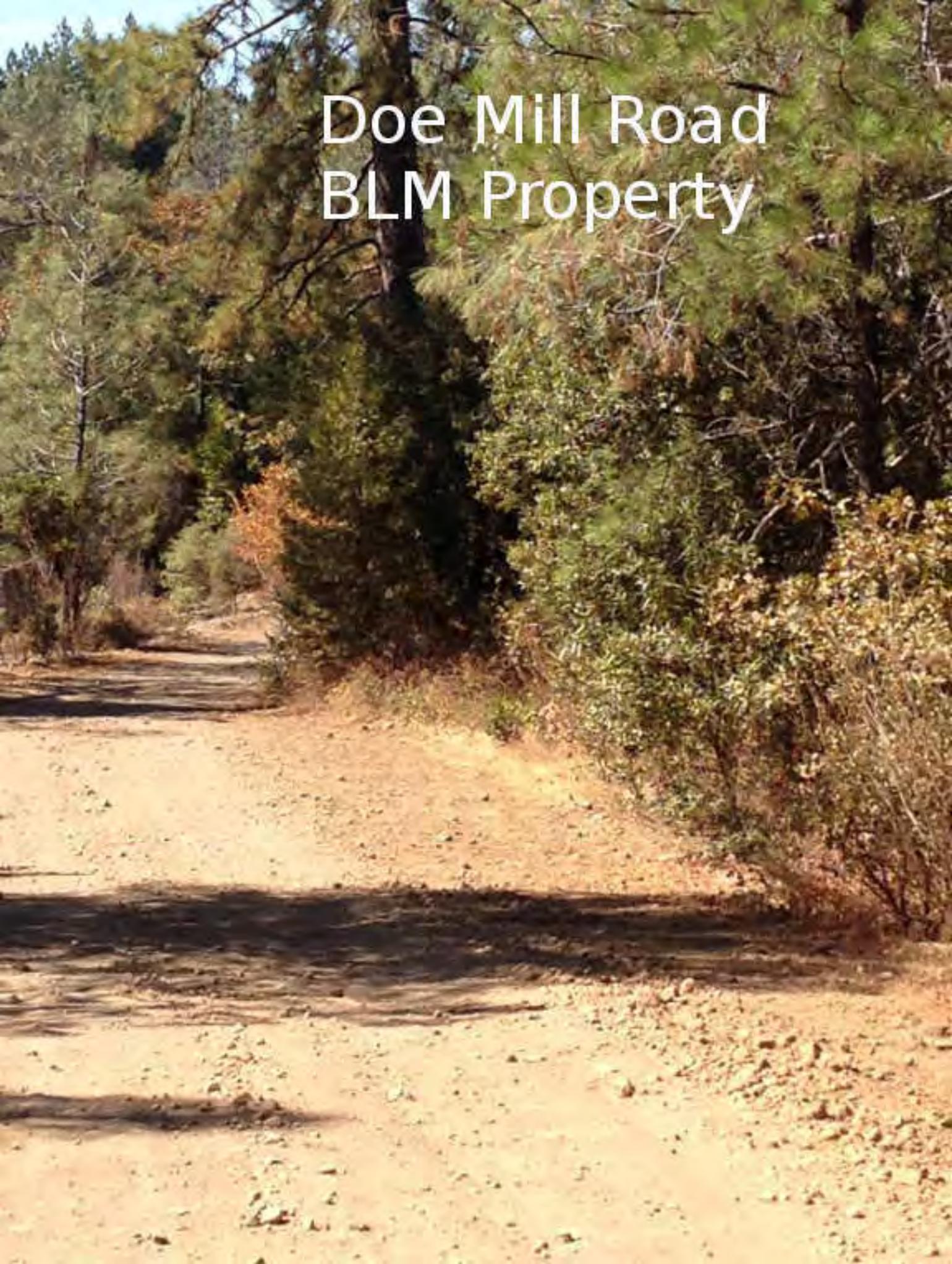
**Pilot BURN Project 2016  
Doe Mill Ridge, Forest Ranch CA**



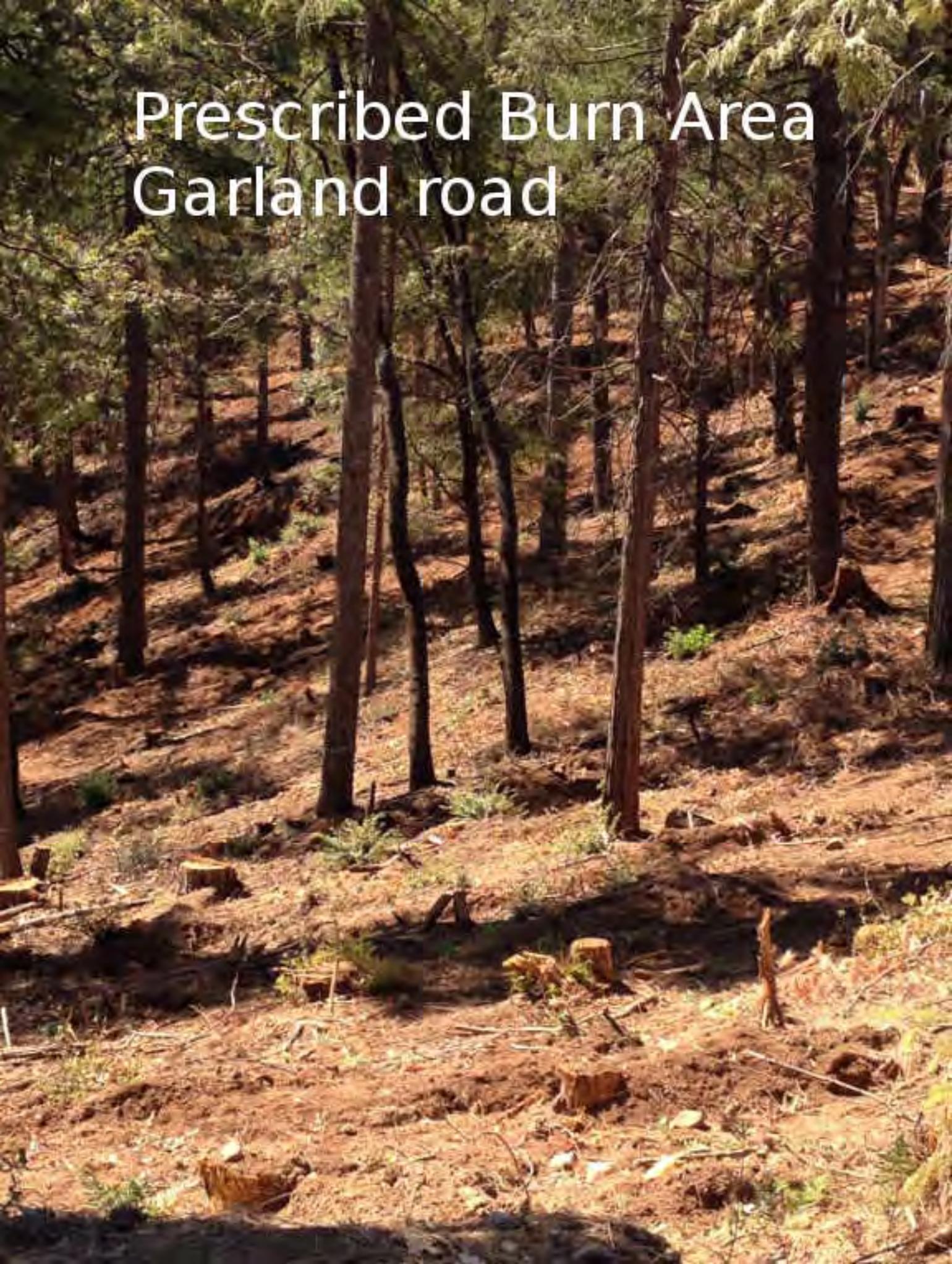
Doe Mill Road  
Looking down BLM  
access road



# Doe Mill Road BLM Property



# Prescribed Burn Area Garland road





Looking East over SPI Clear cut From Doe Mill Road  
Tree Line is BLM Property

A photograph of a wooden bridge crossing a stream in a forest. The bridge is made of weathered wood and has a simple railing. The stream is small and flows through a narrow canyon. The forest is dense with tall, thin trees and a thick canopy. The ground is covered in fallen leaves and moss. The overall scene is peaceful and natural.

Forks of the Butte Hiking Trail  
Bottom of canyon, Forks of  
Butte Creek



Looking uphill from Doe Mill Road from  
bottom of Butte Creek Canyon



Doe Mill Road dropping into Butte Creek Canyon  
thin and pile, Both sides

A dirt path winds through a forest. On the left, several tall, slender pine trees stand prominently against a clear blue sky. The ground is covered with dense, low-lying brush and shrubs, some with green leaves and others appearing brown and dry. The path leads from the foreground into the distance, flanked by the vegetation.

Interior BLm Needle Cast



Interior BLM property, Conifer Encroachment

- 1 DoeGarland
- 2 DoeMill
- 3 RxBurnGarland
- 4 SPI Clearcut
- 5 TrailForksButte
- 6 DoeMillUphill
- 7 DoeMillLower
- 8 BLMInteriorNeedlecast
- 9 BLMInterior

Updated Land Tenure added to file 4/1/2016 (PE)



**United States Department of the Interior**  
**BUREAU OF LAND MANAGEMENT**

Redding Field Office  
355 Hemsted Drive  
Redding, CA 96002  
[www.blm.gov/ca/redding](http://www.blm.gov/ca/redding)



9210 (CAN06) P

Sacramento River Watershed Program  
PO Box 9233  
Chico, CA 95927

Subject: Long-Term Management and Tenure of BLM lands in Sacramento River Watershed Program grant proposal for hazardous fuels reduction in the greater Forest Ranch area.

The Redding Field Office, Bureau of Lands Management (BLM) acknowledges the Sacramento River Watershed Program and its partners, including the Sierra Nevada Conservancy, are providing labor, funding or other support for the purpose of improving status of BLM lands in the greater Forest Ranch Project area.

The BLM understands that funds granted by the Sierra Nevada Conservancy require project operation and maintenance and agrees to provide Sacramento River Watershed Program and the Sierra Nevada Conservancy access to the site for a 10 year period for maintenance and for a 25 year period for monitoring provided a statutory directive does not alter BLM management of these lands.

The greater Forest Ranch fuels treatment area is located within the Forks of Butte Creek Area of Critical Environmental Concern (ACEC). The 1993 Redding Resource Management Plan identifies several specific resource management condition objectives for the ACEC including the protection of historic values, maintenance of fisheries habitat and protection and enhancement of the area's scenic quality. Public lands in the Management Area are managed for these purposes unless there is a statutory mandate to convey such lands out of federal ownership.

Under current and anticipated future land use plan allocations, and absent a statutory directive to dispose of such lands, the BLM anticipates that the land upon which the project improvement would be made under the grant covering hazardous fuels work in the greater Forest Ranch area will be operated and maintained indefinitely well beyond the period addressed above with full access granted to the Sierra Nevada Conservancy and other project cooperators.

For any questions relating to this subject please contact me at (530) 224-2124.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Bradley". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Tim Bradley  
Fire Management Officer



**United States Department of the Interior**  
**BUREAU OF LAND MANAGEMENT**

Redding Field Office  
355 Hemsted Drive  
Redding, CA 96002  
[www.blm.gov/ca/redding](http://www.blm.gov/ca/redding)



9210 (CAN06) P

Terra Fuego Resource Foundation  
1100 Fortress ST. Ste. 2  
Chico, CA 95973

**Subject: Long-Term Management and Tenure of BLM lands in Terra Fuego Resource Foundation grant proposal for hazardous fuels reduction in the greater Forest Ranch area.**

The Redding Field Office, Bureau of Lands Management (BLM) acknowledges the Terra Fuego Resource Foundation and its partners, including the Sierra Nevada Conservancy, are providing labor, funding or other support for the purpose of improving status of BLM lands in the greater Forest Ranch Project area.

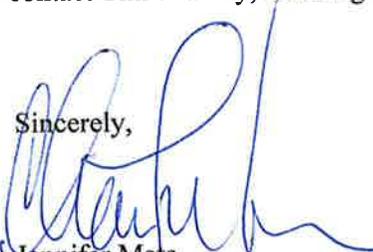
The BLM understands that funds granted by the Sierra Nevada Conservancy require project operation and maintenance and agrees to provide Terra Fuego and the Sierra Nevada Conservancy access to the site for a 10 year period for maintenance and for a 25 year period for monitoring provided a statutory directive does not alter BLM management of these lands.

The greater Forest Ranch fuels treatment area is located within the Forks of Butte Creek Area of Critical Environmental Concern (ACEC). The 1993 Redding Resource Management Plan identifies several specific resource management condition objectives for the ACEC including the protection of historic values, maintenance of fisheries habitat and protection and enhancement of the area's scenic quality. Public lands in the Management Area are managed for these purposes unless there is a statutory mandate to convey such lands out of federal ownership.

Under current and anticipated future land use plan allocations, and absent a statutory directive to dispose of such lands, the BLM anticipates that the land upon which the project improvement would be made under the grant covering hazardous fuels work in the greater Forest Ranch area will be operated and maintained indefinitely well beyond the period addressed above with full access granted to the Sierra Nevada Conservancy and other project cooperators.

For any questions relating to this subject please contact Tim Bradley, Redding Field Office Fire Management Officer, at (530) 224-2124.

Sincerely,

  
Acting  
for  
Jennifer Mata  
Field Manager

**MEMORANDUM OF UNDERSTANDING**  
**Terra Fuego Resource Foundation**  
**And**  
**Bureau of Land Management**

This **Memorandum of Understanding (MOU)** sets forth the terms of a working relationship between the Terra Fuego Resource Foundation (TFRF) and Bureau of Land Management, Redding Field Office (BLM) to implement the Forest Ranch Hazardous Fuels Project.

Whereas BLM has undertaken a number of fuels reduction projects on their property and has partnered with several non-profit groups in the area. Whereas BLM and TFRF share a common vision of reducing hazardous fuels and restoring and maintaining resilient forest ecosystems and have partnered on prior grant applications.

Therefore BLM and TFRF agree to continue to seek funding for fuels reduction on BLM property:

**Project Description:** Reduce hazardous fuels on BLM property. The project will restore Forks of Butte Creek Area of Critical Environmental Concern (ACEC) watershed health by enhancing the forest ecosystem and watershed protection by thinning densely overstocked trees and brush.

**Project Goal:**

1. Restore Forks of Butte Creek ACEC watershed health by enhancing the forest ecosystem.
2. Improve the probability that fires developing in the Forks of Butte Creek ACEC can be contained in the initial attack phase and will not result in high severity fire that could damage BLM lands nor cause adverse impacts to the adjacent community of Forest Ranch.

**Project Objectives:**

1. Reduce fire hazardous fuels with pile construction, pile or broadcast burning and by cutting and chipping.
2. Monitor the projects with periodic field surveys.

Through this agreement TFRF and BLM acknowledge their individual responsibilities and agree to provide the following services necessary to carry out the above referenced grant in a timely and appropriate manner.

BLM maintains responsibility for overall project management that through the following tasks:

1. Complete required environmental compliance work.
2. Maintain the project for 10 years.
3. Allow access of Sierra Nevada Conservancy to monitor the project for 25 years as detailed in Land Tenure Letter.

4. Provide qualified burn boss or other required staff and other tasks required by federal prescribed fire planning and implementation policy.

TFRF as fiscal sponsor will provide the following services:

1. Maintain all financial records
2. Supervise on the ground work and/or administer all subcontracts for services and materials as the project requires.
3. Prepare any reports required by the grant.
4. Prepare Request for Advance/Reimbursement.
5. Monthly disbursements based on invoices from contractors and sub-contractors as appropriate.

Term: The term of this MOU is for three years from the date of execution.

Amendments: This MOU may be amended with the written approval of BLM and TFRF.

Cancellation: either party upon the giving of thirty (30) day's advance written notice may cancel this MOU.

**Terra Feugo Resource Foundation:**

By \_\_\_\_\_  
Mike Peevers, Executive Director

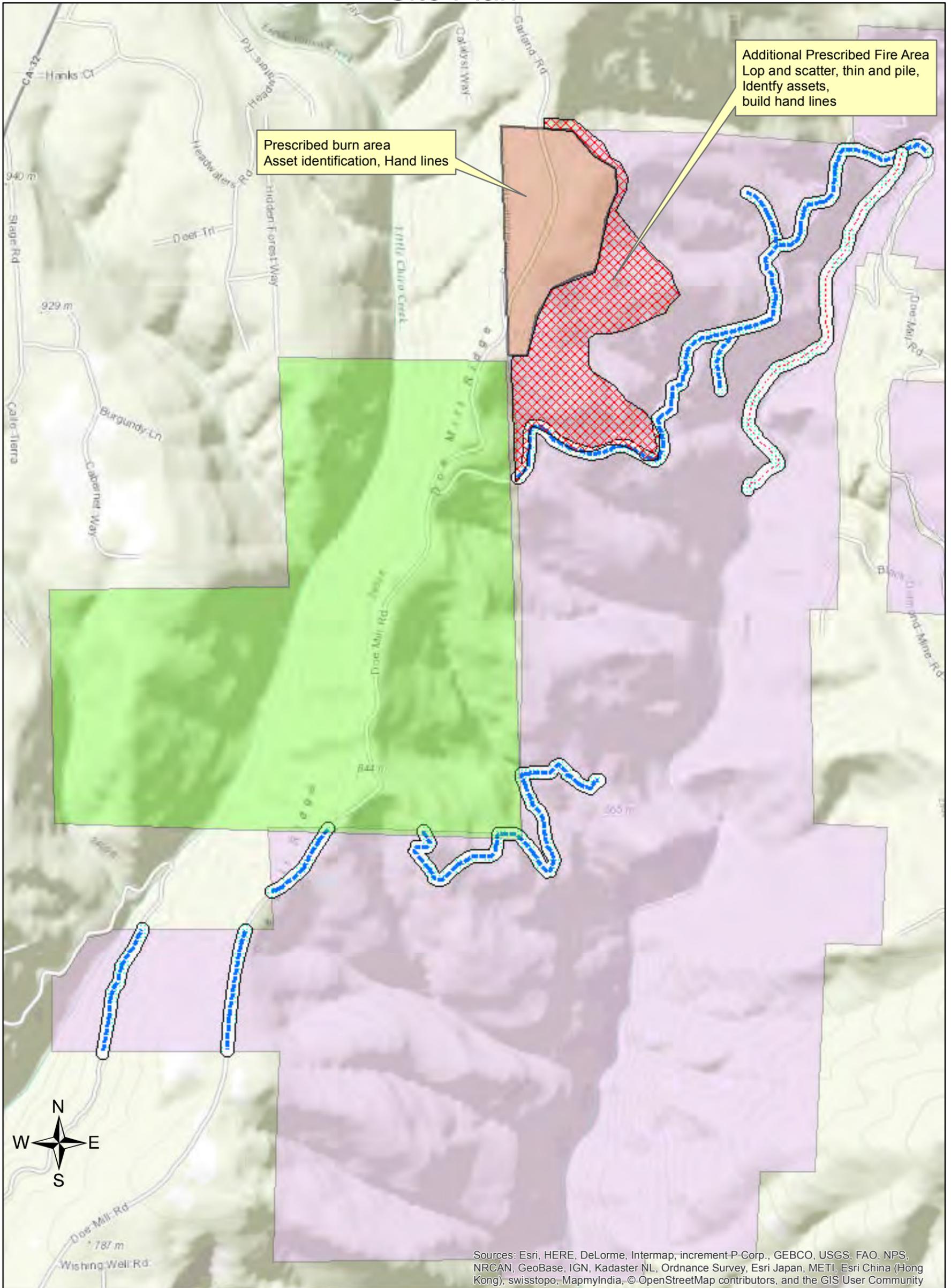
Date: \_\_\_\_\_

**Bureau of Land Managment :**

By \_\_\_\_\_  
Jennifer Mata, Field Manager

Date: \_\_\_\_\_

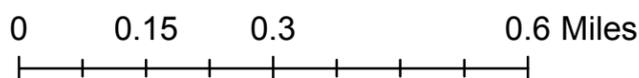
# The Butte Forest Thin – Doe Mill Ridge Watershed Project Site Plan



Sources: Esri, HERE, DeLorme, Intermap, increment-P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

## Legend

- SPI 2015 Thinning
- Proposed Additional RxBurn Area
- Proposed RxBurn Area
- Trail Shaded Fuel Break
- Trail Proposed buffer thin pile 150 feet
- Road Shaded Fuel Break
- Road Proposed buffer thin pile 150 feet
- BLM 2014a2 Holdings





**United States Department of the Interior**  
**BUREAU OF LAND MANAGEMENT**

Redding Field Office  
355 Hemsted Drive  
Redding, CA 96002  
[www.blm.gov/ca/redding](http://www.blm.gov/ca/redding)



9210 (CAN06) P

Sierra Nevada Conservancy  
11521 Blocker Drive, Ste. 205  
Auburn, CA 95603

Subject: Letter of Support for the Butte Forest Thin - Doe Ridge Mills Watershed Project

This letter documents our support of the application of grant funds for the project titled "Butte Forest Thin - Doe Ridge Mills Watershed Project" through the Sierra Nevada Conservancy's Sierra Nevada Watershed Improvement Program.

The Bureau of Land Management (BLM) has been conducting fuels reduction activities in the area. Given our limited workforce and funding, the BLM lands will greatly benefit from the implementation of the coordinated management efforts this project will provide. The project will aid in protection of watershed values of both Little Chico and Butte Creek which contribute to the health of Chinook Salmon runs. The project will also protect the community and forest from devastating wildfires by allowing future fuels reduction. By strengthening existing and forging new partnerships with stakeholders, the BLM will ensure that the nation's public lands are managed and conserved.

We agree to grant full access to the BLM administered parcel for the purposes of completing fuel reduction planning. For any questions relating to this subject please contact Tim Bradley, Redding Field Office Fire Management Officer, at (530) 224-2124.

Sincerely,

*Sara E. Acridge*  
FOR Jennifer Mata *Sara E. Acridge*  
Acting Field Manager



17 February 2016

Dear Sierra Nevada Conservancy,

I am writing on behalf of the Sacramento River Watershed Program and Terra Fuego Resource Foundation to offer my support in their grant application for Proposition 1 funding for the Watershed Improvement Program.



The work they have planned is in partnership with the California State University Chico Ecological Reserves, the Forest Ranch Firesafe Council, and The Butte County Firesafe Council. I am with each of these entities, and consider the project to be a high priority with regards to our management plans and local wildland fire planning efforts. This project is a step in the right direction as a means of enhancing and protecting the Butte Creek watershed while building community capacity. It is hopeful this project will be the beginning of a long term vision for landscape and species conservation and community based engagement. This is something I have personally invested time, research and effort into over the past decade, and I'm pleased to see the synergies of the individuals and organizations involved becoming a reality.

I have reviewed the proposal and find that the methodologies described are appropriate within the framework of successfully meeting the goals and outcomes for this funding opportunity. I look forward to participating and contributing to this project as it is implemented and progresses over time. I know future generations will benefit from the decisions being made today to protect and enhance our waterways, restore habitat as well as protect us from a mega fire.

Please let me know if you have questions.

Sincerely,

A handwritten signature in blue ink that reads "Don L. Hankins".

Don L. Hankins, Ph.D.

February 16, 2016

Dear Sierra Nevada Conservancy,

I am writing on behalf of Terra Fuego Resource Foundation to offer our support in their grant application for Proposition 1 funding for the Watershed Improvement Program.

The work they have planned is in partnership with our Forest Ranch Fire Safe Counsel. Additional partners are the Sacramento River Watershed Program, Bureau of Land Management, California State University Ecological Reserve, and The Butte County Firesafe Counsel. We consider this project to be a high priority in both our local fire protection plan, but also as a means of furthering our efforts to enhance and protect our watershed system along Chico and Butte Creeks, while building community capacity.

We have reviewed their proposal and find that their methodologies are sound and within the framework of successfully meeting the goals and outcomes within this funding opportunity. We look forward to participating and contributing to this project as it is implemented and progresses over time. We know future generations will benefit from the decisions being made today to protect and enhance our waterways, restore habitat as well as protect us from a mega fire.

Please let me know if you have questions.

Sincerely,

A handwritten signature in blue ink that reads "Marlene Fune". The signature is written in a cursive, flowing style.

Marlene Fune  
Chair, Forest Ranch Firesafe Counsel

1100 Fortress St. #2  
Chico, CA 95973

Office: 530-898-8153  
Fax: 530-898-8579



**FIRESTORM**  
WILDLAND FIRE SUPPRESSION, INC.

February 20, 2016

Re: Sierra Nevada Conservancy

To whom it may concern,

I am writing on behalf of Terra Fuego Resource Foundation to offer our companies support in their grant application for Proposition 1 funding for the Watershed Improvement Program.

The project that has been planned has community and natural benefits that align with our beliefs and goals. I feel that the partnership with Terra Fuego's and the goals of this project are of a high priority in both our local fire protection plan, providing work that aligns with the National Cohesive Wildland Fire Management Strategy through a means of enhancing and protecting our watershed system along Butte Creek, while building community capacity to maintain these watersheds through employment opportunities and public training.

I have reviewed their proposal and find that their methodologies to be sound and within the framework of successfully meeting the goals and outcomes within this funding opportunity. I look forward to participating and contributing to this project as it is implemented and progresses over time. I know future generations will benefit from the decisions being made today to protect our waterways, as well as protect us from a catastrophic fire.

If you would like to discuss our involvement in this project, please do not hesitate to call.

Sincerely,

Jess Wills

President

Firestorm Wildland Fire Suppression Inc.



Cooperative Fire Protection since 1931



## BUTTE COUNTY FIRE

**INTERIM FIRE CHIEF—Darren Read**

**176 Nelson Avenue, Oroville, CA 95965 • (530) 538-7111**

---

February 22, 2016

Sierra Nevada Conservancy  
11521 Blocker Dr., Ste. 205  
Auburn, CA 95603

RE: Letter of Support – Bureau of Land Management Doe Mill Road Fuel Reduction

Dear Sierra Nevada Conservancy:

CAL FIRE/Butte County Fire supports the grant application for funding of the project titled “Butte Forest Thin” submitted by the non-profit Sacramento River Watershed Program and Terra Fuego Resource Foundation. This project will reduce understory fuels along Doe Mill ridge and leading down in to Butte Creek below the Forks of the Butte. Ultimately, it is proposed to tie together with adjoining public and private projects on Doe Mill Ridge, including the Doe Mill project supported by CAL FIRE and identified in the unit Community Wildfire Protection Plan (CWPP).

We feel that this project can help protect the Forest Ranch and Magalia Communities from wildfire. Doe Mill Ridge lies between these communities and is sparsely populated, but is flanked to the east by the Butte Creek watershed and west by the Little Chico Creek watershed. Both watersheds are steep and dense with brush and mixed conifer in the upper extent.

The viability of the Butte Creek watershed is essential to ensuring the survivability of the threatened spring run salmon population in the creek as well as the Sacramento River watershed in general. Terra Fuego is seeking to partner with the Sacramento River Watershed Program to receive Proposition 1 funding to continue fuels reduction work which will help protect the Butte Creek watershed and neighboring communities of Magalia and Forest Ranch as well as help improve forest health and resilience.

Sincerely,

David Hawks, Division Chief  
North Division Operations  
CAL FIRE/Butte County Fire/Paradise Fire Department

---

### MEMBERS OF THE BOARD

Bill Connelly • Larry Wahl • Maureen Kirk • Steve Lambert • Doug Teeter



February 26, 2016

Dear Sierra Nevada Conservancy,

I am writing on behalf of the Sacramento River Watershed Program and Terra Fuego Resource Foundation to offer the support of my organization, which represents Tribal water interests for California Indians, in regards to the grant application for Proposition 1 funding for the Watershed Improvement Program.

The work they have proposed are a significant step towards securing water quality and quantity within the Little Chico and Butte Creek watersheds, and ensuring the resiliency of the landscape against wildland fires. Furthermore, given the significance of Butte Creek as one of the largest remaining spring run Chinook salmon streams, this project would aid in reducing risk from wildland fire and enhance conditions to protect the populations within Butte Creek, and ultimately to the benefit of the broader ecosystems for which the salmon are connected.

Please give your consideration to funding this necessary project.

Sincerely,

Randy Yonemura

February 29, 2016

Sierra Nevada Conservancy

To whom it may concern,

It is my pleasure to write a letter in support for Jim Wills and the team at Terra Fuego on behalf of the Fire Learning Network.

The Fire Learning Network (FLN), a cooperative partnership between the United States Forest Service and The Nature Conservancy, has worked with Jim Wills on numerous prescribed fire, wildfire and fire training projects in the past 6 years including more than 20 weeks of prescribed fire implementation in California, Nebraska and Utah. Most recently, Jim and the team at Terra Fuego have been leading our prescribed fire training program with the Yurok Tribe on the Klamath River near Weitchpec, California. Partnering with the FLN, Terra Fuego is helping us advance the three goals of the Cohesive Strategy; resilient landscapes, fire adapted communities, and safe and effective wildfire response.

The leadership, dedication, innovation and can-do-attitude displayed by Jim and his team has consistently helped the FLN accomplish our goals of building local capacity by training municipal and tribal fire departments, working with local land owners and federal and state agencies, as well as providing mentorship to the next generation of fire managers by working closely with the Student Association of Fire Ecology members and faculty.

Sincerely,



Jeremy Bailey  
Associate Director, Fire Learning Network  
The Nature Conservancy



**Doug Teeter**

Supervisor, Fifth District  
Board of Supervisors

747 Elliott Road  
Paradise, California 96969

T: 530.872.6304  
F: 530.872.6339

[dteeter@buttecounty.net](mailto:dteeter@buttecounty.net)  
[buttecounty.net/boardofsupervisors](http://buttecounty.net/boardofsupervisors)

February 25, 2016

Terra Fuego, Chico Headquarters  
Mike Peevers, Executive Director  
1100 Fortress St., Suite 2  
Chico, CA 95973

RE: Support for Sierra Nevada Conservancy, 2016 Prop. 1 grant application

Dear Mr. Peevers;

As Butte County Supervisor of District 5, I embrace the opportunity to comment on Terra Fuego's new partnerships for a project area vital to my constituents on Doe Mill Ridge, Butte Creek canyon, Magalia, and Paradise. This project also provides our neighboring Butte County District 3 of Forest Ranch (Doe Mill Road and Garland Road areas), and Butte Creek the same strength of attention.

Management of roadside and trails vegetation will provide a needed strategic shaded fuel break on Bureau of Land Management lands (BLM) in the Butte Creek Watershed. Needless to say, Terra Fuego's partnership with the Sacramento River Watershed Program, as their fiscal agent, lends strength and experience to the management of the grant funds for this project.

In my opinion, the tie-in to area projects done by Sierra Pacific Industries (SPI), BLM, and Terra Fuego ensure support to the watershed improvements and resilience of the area.

That being said, I am pleased to say that I feel I can fully support and endorse your project and grant application.

Best Wishes,

Doug Teeter,  
Supervisor

DT:rb  
file



## MAUREEN KIRK

SUPERVISOR, THIRD DISTRICT

196 MEMORIAL WAY ■ CHICO, CALIFORNIA 95926  
TELEPHONE: (530) 891-2800  
FAX: (530) 891-2877

August 31, 2015

Dear Sierra Nevada Conservancy,

I am writing on behalf of Terra Fuego Resource Foundation to offer my support in their grant application for Proposition 1 funding for the Watershed Improvement Program.

The work they have planned falls mainly within my supervisory district and I consider this a high priority in both our fire protection plan, but also as a means of enhancing and protecting our watershed system along Butte Creek.

I have reviewed their proposal and find that their methodologies to be sound and within the framework of successfully meeting the goals and outcomes within this funding opportunity. I look forward to watching this project as it is implemented and progress over a long term in which future generations may benefit from the decisions being made today to protect our waterways, as well as protect us from a mega fire.

Please let me know if you have questions.

Sincerely,

Supervisor Maureen Kirk  
Butte County Board of Supervisors



# Sierra Pacific Industries

2849 Northgate Dr • Chico, California 95973 • (530) 345-0025

August 25, 2015

James Wills  
Terra Fuego Resource Foundation  
1100 Fortress St. Ste. 2 Airport Road  
Chico, Ca. 95973

**Subject: Forest Ranch Area Hazardous Fuels Treatment:**

This letter is to serve as support and consideration between Terra Fuego Resource Foundation and Sierra Pacific Industries (SPI). We have completed timber harvest along Doe Mill Road that is supportive of the Doe Mill fuel break. SPI understands that the integrity of these landscape scale fuel breaks depends on continuity of the fuel break across all land ownerships. This collaboration will provide an avenue to address many of these recognized issues and aid in preparing the community for future wildland fire.

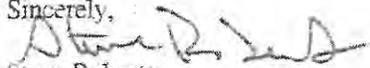
Specific actions covered in any agreement between SPI and Terra Fuego Resource Foundation will be consistent with existing approved CQUA documents and will comply with California policy as it applies to forestry practices.

SPI Fully supports these proposed treatments and believes it is a direct benefit to the community and forest health.

Once the details of the agreement have been presented to SPI, and the document has met our and the communities objectives, SPI is willing to commit to fire line construction, brush clearing and man power and equipment for prescribed burning. The cost of such work will be borne by SPI or with in kind contributions, once the project scope and design has been finalized and costs of such work can be determined.

Any questions regarding this agreement please contact Steve Roberts, Stirling District Manager at 530-345-0025 Extension 2101

Sincerely,

  
Steve Roberts

Stirling District Manager  
Sierra Pacific Industries