

M. Egbert #12 1/13/15



For CAL FIRE Administrative Use Only

Proposal Tracking #: [ ] CalMapper ID: [ ]

Department of Forestry and Fire Protection (CAL FIRE)
Greenhouse Gas Reduction Fund - Forest Management Projects
Concept Proposal
for

Demonstration State Forest Research, Forest Pest Control, Fuels Reduction
and Watershed Reforestation & Restoration

1. Project Name/Title King Fire Watershed Rehabilitation and Reforestation Project

2. County El Dorado

3. Organization Georgetown Divide Resource Conservation District

Organization Type Public Agencies If Other, Please specify N/A

Responsible Person to be Contacted Title District Manager

First Name Mark Last Name Egbert

Address 1 Georgetown Divide Resource Conservation District

Address 2 100 Forni Road, Suite A

City Placerville State California Zip Code 95667

Phone Number 530-295-5633 Secondary Phone Number 530-295-5630

Email Address Mark.Egbert@ca.usda.gov Fax Number 530-295-5635

4. From which Program(s) are funds being requested?

- Demomstration State Forest Research
Forest Pest Control
Watershed Reforestation & Restoration
Fuels Reduction

5. Project Funding Requested \$1,557,050.00

6. Grant Period - Please provide the estimated start date and completion date for your project. Projects MUST be completed by December 31, 2019. Note that final billing is due 30 days after project completion. Please use MM/DD/YYYY format.

Project Start Date June 2015 Project Completion Date November 2019

7. Project Location: Please identify the Township, Range, Section(s), Base Meridian and County(s) covered in your project. (Maximum 500 characters.)

Zone 1: T11N R13E Sec. 4, 7,8,9,13,17,18,19,24,25
Zone 2: T12N R13E Sec. 20,21,22,23
State: California
County: El Dorado
Meridian: Mount Diablo

8. Approximate Acres to be treated 1,400

9. Is the project in an existing management plan (e.g. Unit Fire Plan, CWPP, THP)?
Yes No

**10. Project Description:** What are the components/parameters of the project? (Maximum 3000 characters, including spaces.)

This project will include the following actions: 1) preparation of management plans and reforestation project plans for up to 1400 acres of private land affected by the King Fire; 2) fuel reduction activities including the yarding of dead trees not utilized for salvage and other debris created by the fire and disposal through appropriate means; 3) additional site preparation as needed to ready the properties for planting; 4) planting with species appropriate to the sites, with seedlings from the appropriate seed zone and at densities commensurate with site class and residual stand conditions; 5) competition control one year after planting; and 6) monitoring planting to assess survival and filing of post-project stocking reports.

The Georgetown Divide Resource Conservation District (District) has a contract with the U.S. Forest Service, Placerville Nursery to grow seedlings for reforestation. Because of this arrangement, the District is uniquely qualified to successfully plan and implement reforestation projects within the area of the King Fire. We have been informed that there is an adequate supply of suitable seed for all of the species that may be used for reforestation.

The District will work with willing landowners affected by the King Fire to develop management and reforestation plans for their properties to ensure a comprehensive and long-term framework is in place that includes reforestation, reduction of wildfire hazards and future management needs. The District will then coordinate the collection of orders for seedlings from each owner and deliver those orders to the Placerville Nursery. In 2015, the District and its consulting Registered Professional Forester will oversee the preparation of properties for planting. Preparation will include the treatment and/or removal of dead trees and/or other debris to reduce fuel loads and prepare sites for planting.

Planting will be conducted in the spring of 2016. The planting prescriptions will be developed for each property but will generally conform to Forest Practice Act stocking standards for the location and site class. Planting will be followed by stocking surveys over a period of two years to assess survival and evaluate any needs for re-planting.

**11. Project Objectives:** What are the project objectives? What is the project going to achieve? (Maximum 3000 characters, including spaces.)

In September and October of 2014 the King Fire burned 97,717 acres of land. There are 75 non-industrial forest landowners within the burn perimeter who own about 2500 acres with parcels ranging in size from 10 acres to 160 acres. These owners suffered losses ranging from complete mortality of trees and destruction of homes and other structures to relatively minor losses of forest cover.

The District has conferred with 37 of the affected private landowners to discuss their needs for assistance with reforestation. Some affected properties have been inspected in the field. On October 24, the District and UC Cooperative Extension held a workshop for landowners affected by the King Fire. For many landowners, the expense of reforestation is prohibitive. Some have the potential to generate revenue through salvage logging but even if salvage logging is conducted, there are no assurances that the revenues will be adequate to offset reforestation costs.

The overall objective of this project is to begin the process of reversing the ecological, economic, environmental, aesthetic and social impacts of the King Fire. Specific objectives include: 1) treat private lands affected by the King Fire to reduce the potential for wild fire in the future; 2) conduct site preparation and planting to re-establish forest cover on the private lands; 3) increase potential carbon sequestration and achieve greenhouse gas emissions reduction through the reforestation of the burned area; 4) identify measures that may be required to protect watershed values and water quality in watersheds that are important sources of domestic water supply; and 5) utilize the project as an educational opportunity for informing others about community response to wild fire.

An objective that is implicit in the project is to rally landowners within the King Fire perimeter to the cause of reforestation by educating them about its benefits and providing them with the financial and logistical support to do it. As a Resource Conservation District, this is exactly what our mission is in a case like this.

12. Describe how the proposed project will reduce greenhouse gas (GHG) emissions or provide GHG emission reduction benefits. All projects must be designed to meet some or all of the GHG emission objectives of AB 32 and purposes listed in the appropriate Procedural Guidelines. Include an outline of the methodology to be used to calculate and quantify the GHG emission benefit resulting from the project. (Maximum 3000 characters, including spaces.)

This project will clearly provide greenhouse gas reduction benefits because it will reforest an area devastated by wildfire. Although the grant program does not require that a project apply for compliance offset credits from the Air Resources Board (ARB), The criteria that determine the eligibility of a reforestation project to apply for compliance offset credits can be easily met by this project. In the event that application for compliance offset credits is desired, the project will be tailored to meet all criteria and conditions that determine eligibility such as product value, harvest schedule, site preparation costs, use of native species adapted to the site and site class. This project is certainly not "business as usual": in the absence of grant funding it is unlikely that any comprehensive approach to watershed reforestation will be undertaken.

Quantifying the greenhouse gas reduction benefits of the project will require the use of approved protocol(s). It is our understanding that CAL FIRE is currently evaluating choices of quantification protocols for all the AB 32 project types. There are at least two choices: 1) the relatively simple modeling exemplified by the Carbon OnLine Estimator (COLE); or 2) a much more complex approach such as the one adopted by ARB for U.S. Forest Projects and documented in "Compliance Offset Protocol, U.S. Forest Projects, October 20, 2011". The guidelines for the grant program imply that the ARB protocol should be used. The ultimate approach adopted by CAL FIRE may be based on that protocol or may be different for different project types.

The conceptual approach that will be used to quantify GHG reduction benefits will be the same regardless of what specific method(s) is chosen to do the calculations. Section 6.1.1 of the ARB protocol for reforestation projects describes the estimation procedure. Essentially, establish the baseline carbon stocks within the different carbon pools without the project; inventory the carbon stocks prior to site preparation; model future carbon stocks for a period of 100 years; consider secondary effects from emissions associated with site preparation and finally, calculate the net carbon storage and consequent reduction in GHG. Documentation is provided in the "resources" tab on the ARB website to assist with the quantification procedure. To project future carbon stocks in standing trees over the 100-year period, the western Sierra version of the Forest Vegetation Simulator (FVS; [www.fs.fed.us/fmssc/fvs/](http://www.fs.fed.us/fmssc/fvs/)) will be used. It has an extension that quantifies carbon stocks. It also has valuable visualization tools that can display stand development over time. Other tools, such as the Cairns equation (applicable to below-ground plant biomass) may be used, depending on the approach to quantification that is ultimately chosen by CAL FIRE.

13. Describe the co-benefits of the project, if any. (Maximum 3000 characters, including spaces.)

Landowners living on properties affected by the fire and engaged in reforestation will realize the benefits of seeing the recovery of their forests. For many affected landowners, the fire had devastating effects on their lifestyle and economic status. Seeing trees grow on their properties will provide at least partial relief from that tragedy. The landowners we have consulted with have all unequivocally expressed their desire to reforest their properties and move on with their lives.

A second benefit will be associated with the treatment of the project area to reduce the potential for future fire by reducing post fire fuel loads. That will provide benefits not only to the landowners involved in the project but to other landowners in the affected area and nearby and to the U.S. Forest Service.

The project will serve as a valuable lesson for communicating the benefits of reforestation after wild fire. In collaboration with our partners at UC Cooperative Extension and Northern California Society of American Foresters, we would fully intend to deliver the lessons learned through workshops, webinars, newsletter articles and other means. The availability of the AB 32 grant programs and their prioritization of reforestation are definite incentives that did not formerly exist.

Sierra Pacific Industries (SPI) owns 20,000 acres that were affected by the King Fire, including most of the land surrounding Stumpy Meadows reservoir. SPI has agreed to collaborate with the District on reforestation, a definite co-benefit. Under the terms of the agreement, SPI will provide technical and logistic assistance and professional forestry expertise and will coordinate reforestation and conservation measures with the District with the aim of preventing adverse water quality impacts on Stumpy Reservoir. It is anticipated that SPI will be conducting reforestation at the same time as this project and efficiencies of operations may be realized.

Finally, there will be co-benefits to the ecological community that was formerly associated with the mixed conifer forest burned by the King Fire. By re-establishing forest cover, the community will be put on a trajectory of recovery. Eventually, as the forest matures, the former wildlife community will be reinstated. Along with that maturation, there will be a realization of greenhouse gas reduction benefits.

14. Concept Proposal completed by:

Mark Egbert, District Manager

11/12/2014

Name, Title

Date

Print Form

Submit by Email

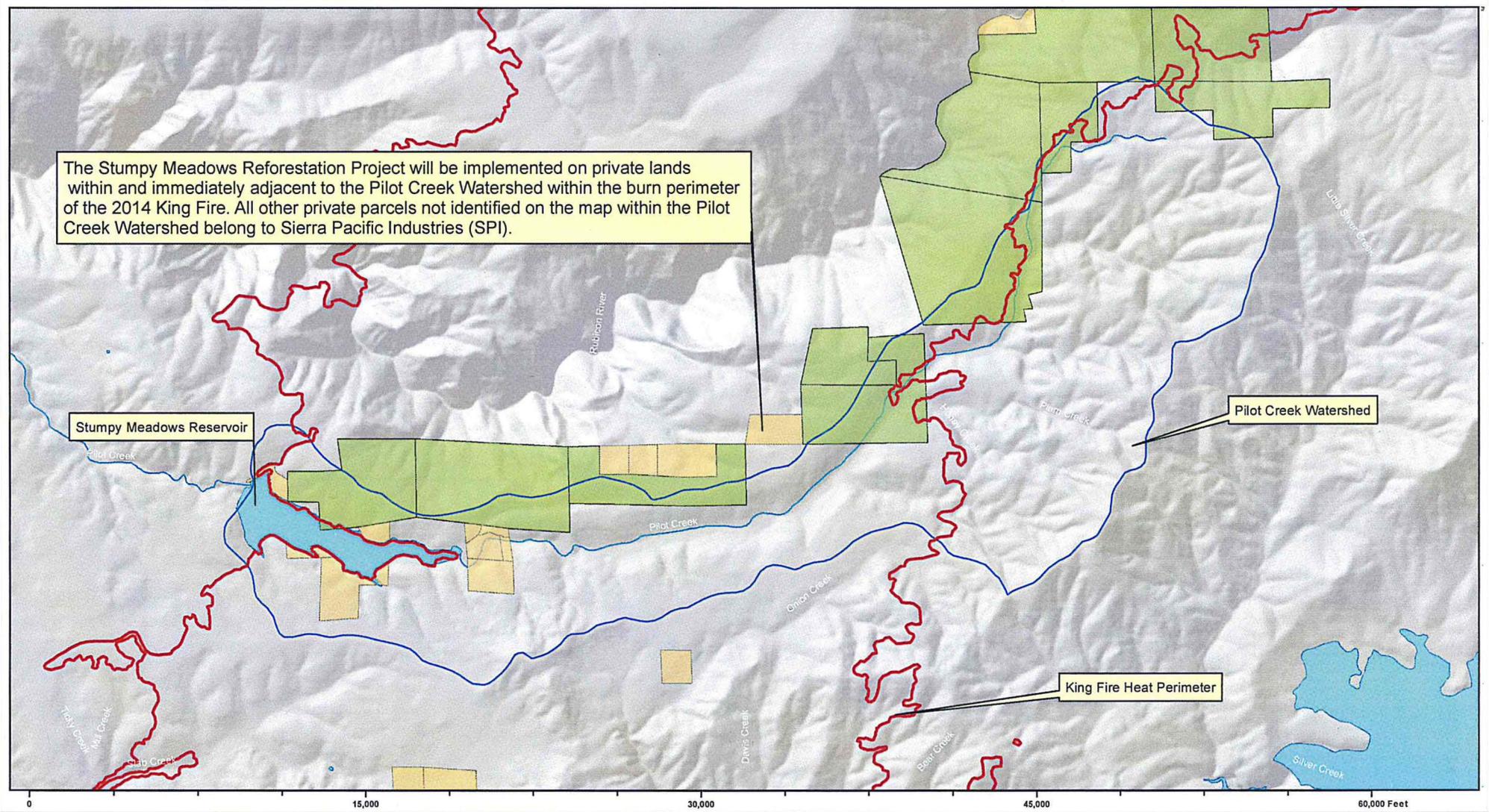
Thank you for your Concept Proposal. Please save a copy and print a copy of the Concept Proposal for your records. Submit the Concept Proposal using the "Submit by Email" button above. You should receive a confirmation email shortly after submittal. You may also mail in the documents to the address below, however in order to evaluate your submittal in a timely fashion, it is highly recommended that your Concept Proposal be submitted via email.

Mailing Address:

CAL FIRE  
Grants Management Unit  
P.O. Box 944246  
Sacramento, CA 94244-2460

4 of 5

The Stumpy Meadows Reforestation Project will be implemented on private lands within and immediately adjacent to the Pilot Creek Watershed within the burn perimeter of the 2014 King Fire. All other private parcels not identified on the map within the Pilot Creek Watershed belong to Sierra Pacific Industries (SPI).



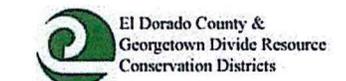
**King Fire Reforestation Project  
Area Map - Zone 1  
Pilot Creek -  
Stumpy Meadows**

- King Heat Perimeter
- Pilot Creek Watershed
- Private Parcels to be treated
- King Fire Public Lands
- Waterbodies
- Pilot Creek

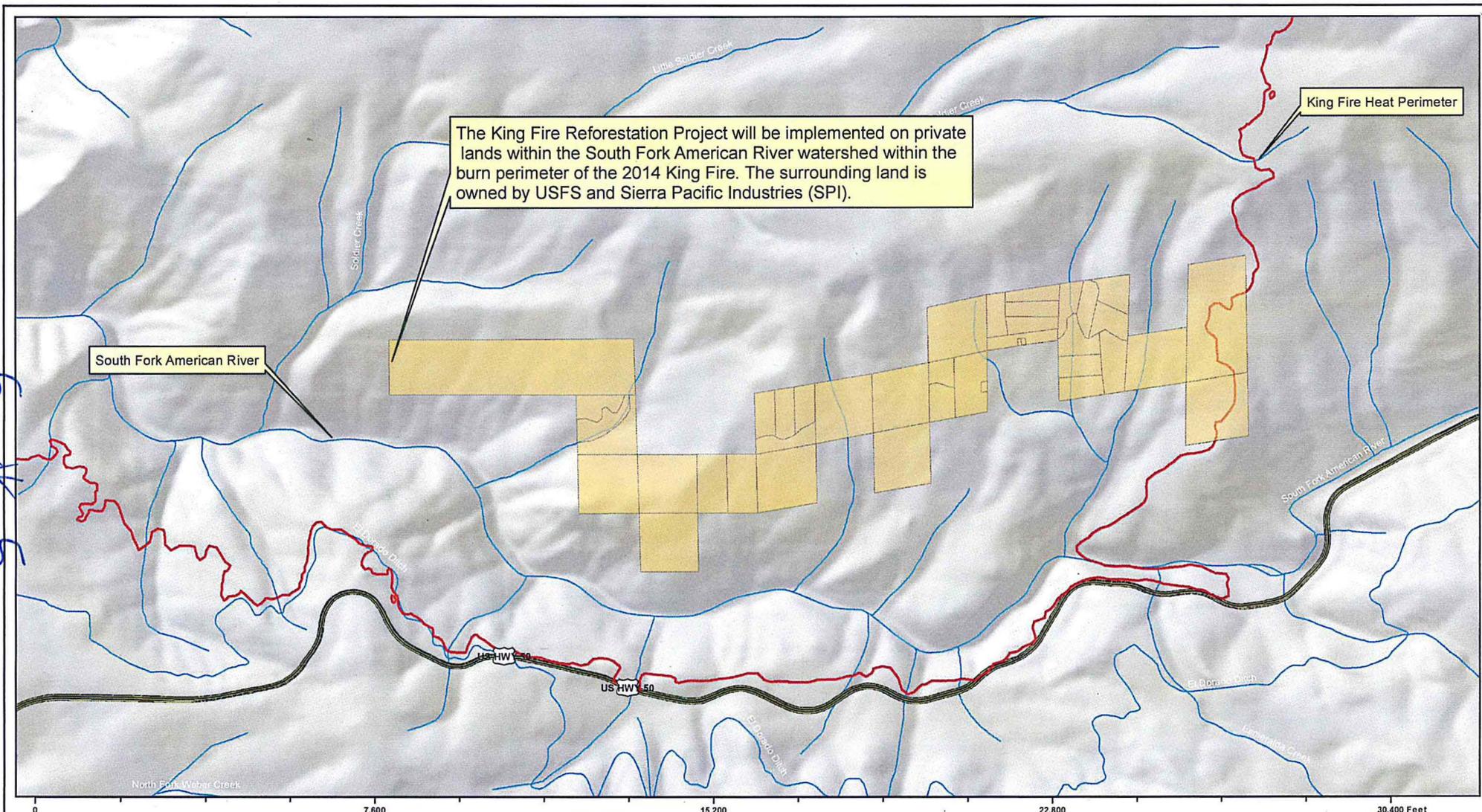
1:48,000



The Resource Conservation Districts (RCD) make no representations or warranties regarding the accuracy of data or maps. The RCD shall not be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any user or third party on account of or arising from the use of data or maps.



Created by: Mark Egbert  
Date: November 9, 2014  
Contact: 100 Forni Road, Placerville CA (530) 295-5630



South Fork American River

The King Fire Reforestation Project will be implemented on private lands within the South Fork American River watershed within the burn perimeter of the 2014 King Fire. The surrounding land is owned by USFS and Sierra Pacific Industries (SPI).

King Fire Heat Perimeter

**King Fire Reforestation Project  
Area Map - Zone 2**

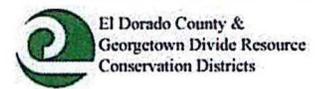
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- Private Parcels to be treated
- King Heat Perimeter
- US HWY 50
- Waterways

El Dorado County



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Demonstration State Forest Research, Forest Pest Control, Fuels Reduction
and Watershed Reforestation & Restoration

1. Project Name/Title Sand Fire Watershed Rehabilitation and Reforestation Project

2. County El Dorado

3. Organization El Dorado County Resource Conservation District

Organization Type Public Agencies If Other, Please specify N/A

Responsible Person to be Contacted Title District Manager

First Name Mark Last Name Egbert

Address 1 El Dorado County Resource Conservation District

Address 2 100 Forni Road, Suite A

City Placerville State California Zip Code 95667

Phone Number 530-295-5633 Secondary Phone Number 530-295-5630

Email Address Mark.Egbert@ca.usda.gov Fax Number 530-295-5635

4. From which Program(s) are funds being requested?

- Watershed Reforestation & Restoration
Fuels Reduction

5. Project Funding Requested \$585,750.00

6. Grant Period - Please provide the estimated start date and completion date for your project. Projects MUST be completed by December 31, 2019.

Project Start Date June 2015 Project Completion Date November 2019

7. Project Location: Please identify the Township, Range, Section(s), Base Meridian and County(s) covered in your project.

T8N R11E Sec. 3,4,5,6,7,8,9,10
State: California
County: El Dorado
Meridian: Mount Diablo

8. Approximate Acres to be treated 500

9. Is the project in an existing management plan (e.g. Unit Fire Plan, CWPP, THP)? No

**10. Project Description:** What are the components/parameters of the project? (Maximum 3000 characters, including spaces.)

This project will include the following actions: 1) preparation of management plans and reforestation project plans for up to 500 acres of private land affected by the Sand Fire; 2) fuel reduction activities including the yarding of dead trees not utilized for salvage and other debris created by the fire and disposal through appropriate means; 3) additional site preparation as needed to ready the properties for planting; 4) planting with species appropriate to the sites, with seedlings from the appropriate seed zone and at densities commensurate with site class and residual stand conditions; 5) competition control one year after planting; and 6) monitoring planting to assess survival and filing of post-project stocking reports.

The El Dorado County Resource Conservation District (District) has a contract with the U.S. Forest Service, Placerville Nursery to grow seedlings for reforestation. Because of this arrangement, the District is uniquely qualified to successfully plan and implement reforestation projects within the area of the Sand Fire. We have been informed that there is an adequate supply of suitable seed for all of the species that may be used for reforestation.

The District will work with willing landowners affected by the Sand Fire to develop management and reforestation plans for their properties to ensure a comprehensive and long-term framework is in place that includes reforestation, reduction of wildfire hazards and future management needs. The District will then coordinate the collection of orders for seedlings from each owner and deliver those orders to the Placerville Nursery. In 2015, the District and its consulting Registered Professional Forester will oversee the preparation of properties for planting. Preparation will include the treatment and/or removal of dead trees and/or other debris to reduce fuel loads and prepare sites for planting.

Planting will be conducted in the spring of 2016. The planting prescriptions will be developed for each property but will generally conform to Forest Practice Act stocking standards for the location and site class. Planting will be followed by stocking surveys over a period of two years to assess survival and evaluate any needs for re-planting.

**11. Project Objectives:** What are the project objectives? What is the project going to achieve? (Maximum 3000 characters, including spaces.)

In July and August of 2014 the Sand Fire burned 4240 acres of land. The burn area is completely comprised of private landowners who own parcels ranging in size from 10 acres to 400 acres. These owners suffered losses ranging from complete mortality of trees and destruction of homes and other structures to relatively minor losses of forest cover.

The District has conferred with 8 of the affected private landowners to discuss their needs for assistance with reforestation. Some affected properties have been inspected in the field. On October 24, the District and UC Cooperative Extension held a workshop for landowners affected by the Sand Fire. For many landowners, the expense of reforestation is prohibitive. Some have the potential to generate revenue through salvage logging but even if salvage logging is conducted, there are no assurances that the revenues will be adequate to offset reforestation costs.

The overall objective of this project is to begin the process of reversing the ecological, economic, environmental, aesthetic and social impacts of the Sand Fire. Specific objectives include: 1) treat private lands affected by the Sand Fire to reduce the potential for wild fire in the future; 2) conduct site preparation and planting to re-establish forest cover on the private lands; 3) increase potential carbon sequestration and achieve greenhouse gas emissions reduction through the reforestation of the burned area; 4) identify measures that may be required to protect watershed values and water quality in watersheds that are important sources of domestic water supply; and 5) utilize the project as an educational opportunity for informing others about community response to wild fire.

An objective that is implicit in the project is to rally landowners within the Sand Fire perimeter to the cause of reforestation by educating them about its benefits and providing them with the financial and logistical support to do it. As a Resource Conservation District, this is exactly what our mission is in a case like this.

12. Describe how the proposed project will reduce greenhouse gas (GHG) emissions or provide GHG emission reduction benefits. All projects must be designed to meet some or all of the GHG emission objectives of AB 32 and purposes listed in the appropriate Procedural Guidelines. Include an outline of the methodology to be used to calculate and quantify the GHG emission benefit resulting from the project. (Maximum 3000 characters, including spaces.)

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Quantifying the greenhouse gas reduction benefits of the project will require the use of approved protocol(s). It is our understanding that CAL FIRE is currently evaluating choices of quantification protocols for all the AB 32 project types. There are at least two choices: 1) the relatively simple modeling exemplified by the Carbon OnLine Estimator (COLE); or 2) a much more complex approach such as the one adopted by ARB for U.S. Forest Projects and documented in "Compliance Offset Protocol, U.S. Forest Projects, October 20, 2011". The guidelines for the grant program imply that the ARB protocol should be used. The ultimate approach adopted by CAL FIRE may be based on that protocol or may be different for different project types.

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13. Describe the co-benefits of the project, if any. (Maximum 3000 characters, including spaces.)

Landowners living on properties affected by the fire and engaged in reforestation will realize the benefits of seeing the recovery of their forests. For many affected landowners, the fire had devastating effects on their lifestyle and economic status. Seeing trees grow on their properties will provide at least partial relief from that tragedy. The landowners we have consulted with have all unequivocally expressed their desire to reforest their properties and move on with their lives.

A second benefit will be associated with the treatment of the project area to reduce the potential for future fire by reducing post fire fuel loads. That will provide benefits not only to the landowners involved in the project but to other landowners in the affected area.

The project will serve as a valuable lesson for communicating the benefits of reforestation after wild fire. In collaboration with our partners at UC Cooperative Extension, Northern California Society of American Foresters, El Dorado County, Nashville/ Sand Ridge Fire Safe Council, we would fully intend to deliver the lessons learned through workshops, webinars, newsletter articles and other means. The availability of the AB 32 grant programs and their prioritization of reforestation are definite incentives that did not formerly exist.

Finally, there will be co-benefits to the ecological community that was formerly associated with the mixed conifer forest burned by the Sand Fire. By re-establishing forest cover, the community will be put on a trajectory of recovery. Eventually, as the forest matures, the former wildlife community will be reinstated. Along with that maturation, there will be a realization of greenhouse gas reduction benefits.

14. Concept Proposal completed by:

Mark Egbert, District Manager

11/20/2014

Name, Title

Date

Print Form

Submit by Email

**Thank you for your Concept Proposal. Please save a copy and print a copy of the Concept Proposal for your records. Submit the Concept Proposal using the "Submit by Email" button above. You should receive a confirmation email shortly after submittal. You may also mail in the documents to the address below, however in order to evaluate your submittal in a timely fashion, it is highly recommended that your Concept Proposal be submitted via email.**

**Mailing Address:**

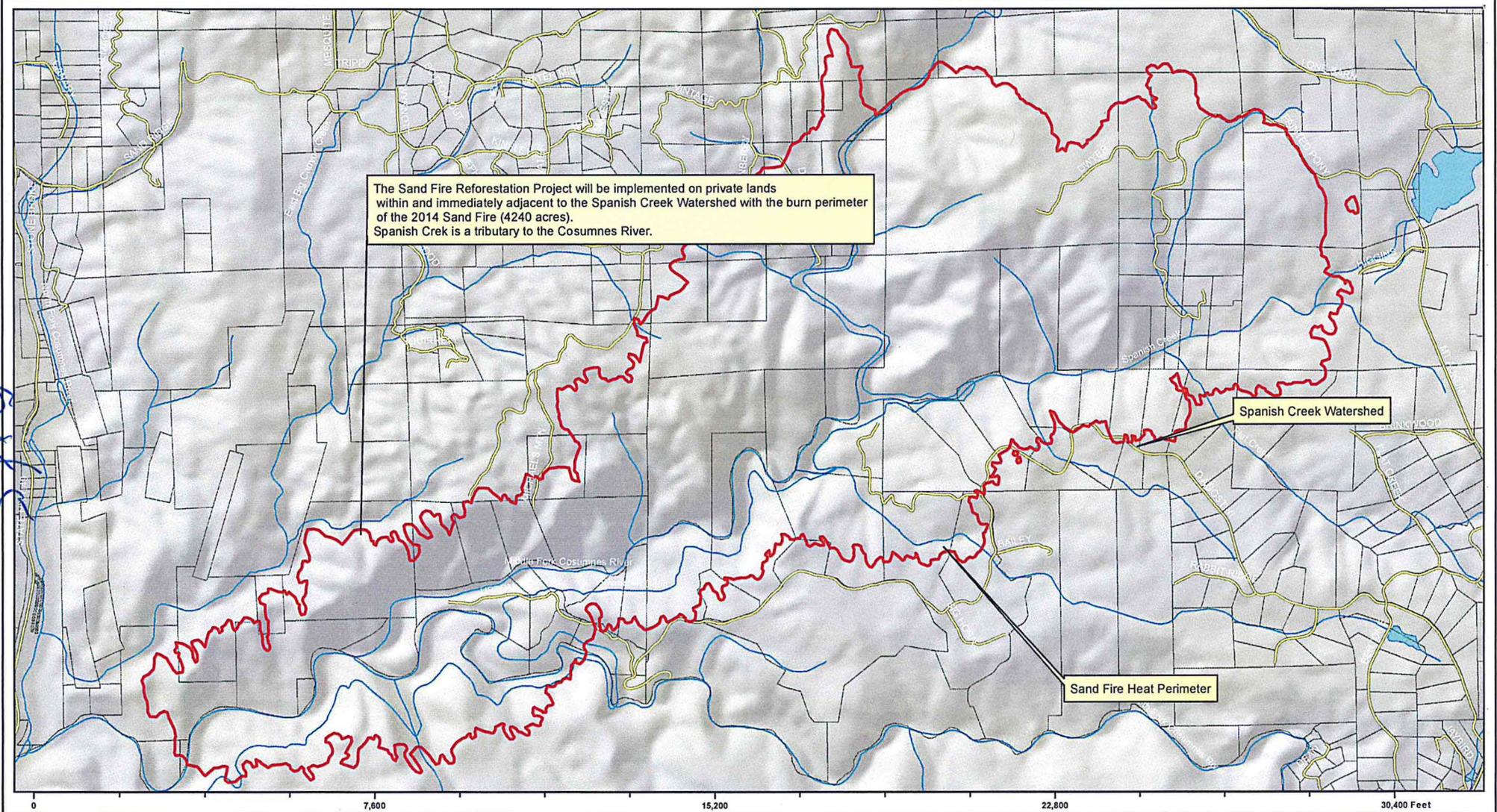
**CAL FIRE  
Grants Management Unit  
P.O. Box 944246  
Sacramento, CA 94244-2460**

The Sand Fire Reforestation Project will be implemented on private lands within and immediately adjacent to the Spanish Creek Watershed with the burn perimeter of the 2014 Sand Fire (4240 acres). Spanish Creek is a tributary to the Cosumnes River.

Spanish Creek Watershed

Sand Fire Heat Perimeter

588



### Sand Fire Reforestation Project Area Map

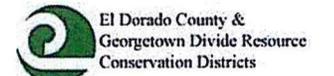
- Sand Fire Perimeter
- County Roads
- Parcel Map
- Waterbodies
- Waterways

1:24,000

El Dorado County



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 Date: November 17, 2014  
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