## Reforestation

## **NDRC Project Information Sheet**

Submission Deadline; July 10, 2015, Project Information can be submitted on line at CA-NDRC@hcd.ca.gov or mailed to Tuolumne County Administrator's Office (2 South Green Street, Sonora, CA 95370)

1. Agency/Organization Project Sponsor:	2. Project Contact (Name, Email, Phone #):
Stanislaus NF	Marty Gmelin, mgmelin@fs.fed.us 209-532-3671
3. Scope of Proposed Project- Include Project Goals	and Objectives, Timeline and Tasks (Please submit as an attachment, 1 page max)
4. List all Agency/Organizations involved in Project a	and their Role:
Stanislaus NF: Lead	
Tuolumne County: Inmate Nursery; grow	ing some of the trees for reforestation effort
E List Magazura (a) of Draiget Accomplishments/Evo	acted Outcomes:
<ol> <li>List Measure(s) of Project Accomplishments/Expension</li> <li>Across of forost land established = 475</li> </ol>	ided Outcomes.
Acres of forest land prepared for planting = $15,430$	
Acres of forest land burned by prescribed fire to reduce	e fuel loading = 10,798 = 475
Acres monitored for seedling survival: 475	470
6. How does this Project meet the resilient recovery	objectives outlined in the NDRC grant application?:
The reforestation project will facilitate the transition to a sustainable for through restoration and stewardship of our natural forest systems and reforestation of the landscape to ensure trees for the future which will p will provide the need for landscape restoration skills, including forestry, community. The initial work (site preparation, planting and release) will thousands of acres proposed in this project. In addition, the USFS will	est economy in our rural communities. The program aims to support economic development rural communities watersheds. The project design integrates fuels reduction for the prevention of large scale catastrophic fire with provide forest products, landscape sustainability, recreation opportunities and critical wildlife habitat. This work, hydrology, and ecology as well as a long-term supply of wood products to support that infrastructure in our also provide hundreds of seasonal labor jobs as well as the need for heavy equipment operators to treat the need to hire up to 15 additional permanent full time employees to write, administer, and monitor contracts.
7. What is the target area for the project (i.e., where	is it located, who are beneficiaries, etc)?:
The project is located within the 2013 Rim thousands of visitors to this area will benef older plantations will also help protect com	Fire. The local communities, businesses, recreationists and it from the renewal of forests. Fuels reduction and thinning of the munities and private property owners and residence within the area.
8. Has this project undergone environmental review	17 If yes, what stage is it in?
Ongoing. The EIS process began back in January 2 are completed. The Draft EIS is due out in the fall of	2014 and will be in its final stages in 2016. Public scoping alternative development f 2015. Final EIS and Record of Decision completed summer 2016.
9. NDRC Application Budget Request (please attack detailed project budget):	<sup>h a</sup> \$12,263,296 (see attached)
10 What guarantees are in place to insure the succe	ess of implementing this project?
This project is critically important to the local economy and environment and ha reduction and other follow up treatments). Volunteers are participating in the in successfully accomplishing large scale reforestation and thinning projects. The competing vegetation presence. If the vegetation is identified to be interfering w	is tremendous local support. Money has been collected from timber receipts to pay for some of the proposed work (fuels plementation and will continue to support this effort for many years. The Stanislaus National Forest has decades of experience Forest Service also conducts 1st, 3rd and 5th year plantation survival surveys to assess conifer survival and growth along with vith conifer survival and growth, manual or chemical methods of vegetation removal will be implemented.
11. How will this project be sustainable after implement	entation?
The planting design across the landscape allows the us future. These future forests will provide timber products facilities. Fuels treatments are designed to be effective	e of commercial thinning to be utilized to maintain and protect these plantations into the s at several points over the forest's life time, supporting local timber mills and biomass for 10 to 15 years, until prescribed fire can be re-introduced into these landscapes.
NDRC Committee Use Only: EVALUATION CRITERIA: □ Meets National (	Objective   Eligible Activity  Meets Overall Benefit Requirement

□ Within Target Area □ Ties Back to Disaster D Meets Cost Benefit Analysis Objectives WORKING GROUP: 
Groest 
Infrastructure 
Public Facilities/Public Services

□ Incorporates Resilience

1

# NDRC Project Information Sheet – Attachment 1

Question 3. Scope of Proposed Project - Include Project Goals and Objectives, Timeline and Tasks

### **Rim Fire Reforestation Project**

The extent of the fire, the severity of the burn, the lack of surviving green trees that could produce seed and the vigorous sprouting brush that is returning to the area (some species over 6 feet tall less than 2 years after the fire), natural regeneration of this area could take hundreds of years. The Reforestation project includes analysis for fuels reduction and returning trees to about 25,000 acres of the landscape and thinning of 12,000 acres of existing older plantations that were burned through in the Rim Fire. The reforestation and thinning proposal covers less than 20% of the Forest Service land burned by the Rim Fire.

### **Goals and Objectives**

The overall goal is to create a fire resilient mixed conifer forest that contributes to an ecologically healthy and resilient landscape rich in biodiversity.

This landscape would have an increased capacity to adapt and survive natural disturbances, especially under changing and uncertain future environmental conditions, such as those driven by climate change and human use. This project looks at the short-term (up to 10 years), proposing activities that incrementally move toward these long-term (60 to 100 years) goals. Project objectives are:

1) Return Mixed Conifer Forest to the Landscape and promote the re-establishment and recovery of conifer and hardwood forests. Create diverse structure and composition to quickly meet future resource needs for wildlife, recreation, watershed and timber while taking into account potential pressures of a changing climate.

2) Restore Old Forest for Wildlife Habitat and Connectivity to provide critical habitat for sensitive wildlife species such as the California spotted owl, northern goshawk and fisher. This includes restoring habitat connectivity compromised in the Rim Fire that is essential for wildlife dispersal, migration, and use of suitable habitat across the landscape.

**3) Reduce Fuels for Future Fire Resiliency** by removing the standing dead trees and re-sprouting brush to manageable fuel levels. Re-establish open canopy forest stands to safely reintroduce fire into the landscape through fuels and vegetation management.

4) Enhance Deer Habitat by restoring forested conditions within critical winter deer range, providing thermal cover essential for over-wintering deer. 5) Eradicate Noxious Weeds and prevent new infestations.

#### **Timeline and Tasks**

Site preparation and thinning to reduce fuel loading and competing vegetation would start in summer 2016. Most activities would be completed by 2025 (this includes follow up monitoring and treatments). This proposal seeks funding for actions taken prior to 2018,

**Reforestation** treatments include: hand, mechanical and manual herbicide site preparation (Glyphosate); prescribed burning; planting a diversity of conifer tree species using various patterns and densities (trees per acre) across the landscape (up and down slopes, with fewer on ridges and more in drainage bottoms) to develop a resilient mixed conifer forest and enhance wildlife (including deer) habitat; and manual herbicide release (Glyphosate) when vegetation competition begins to inhibit survival and growth.

**Plantation Thinning** treatments include: hand and mechanical treatments for prescribed burning and thinning to achieve the desired forest structure and diversity to maximize heterogeneity and wildlife (including deer) habitat while creating more fire resilient stands.

**Monitoring:** Contract inspection during implementation as well as longer term review of desired outcomes and project goals. These include survival exams and watershed best practices review.

Treatment	2016: Acres	2016: Cost/Acre	2016 Costs	2017: Acres	2017: Cost/Acre	2017 Costs	<b>Total Acres</b>	Total Costs
Hand cut	. 839	750	\$629,250	722	775	\$559,550	1,561	\$1,188,800
Jackpot burn	839	650	\$545,350	674	670	\$451,243	1,513	\$996,593
Feller-buncher: bunch only	1,278	450	\$575,100	3,339	470	\$1,569,330	4,617	\$2,144,430
Masticate (shred)	88	650	\$57,200	264	670	\$176,748	352	\$233,948
Machine pile	1,495	. 430	\$642,850	826	450	\$371,700	2,321	\$1,014,550
Pile burn	3,248	200	\$649,600	6,037	225	\$1,358,325	9,285	\$2,007,925
Machine pile, and/or deep till and forest cultivater	475	550	\$261,250	1,872	575	\$1,076,400	2,347	\$1,337,650
Manually apply herbicide for site prep	0	450	\$0	4,232	475	\$2,010,200	4,232	\$2,010,200
Seed/Sow: per pound of seed NOT per acre	26 lbs	na na	\$6,500	304 lbs	na	\$76,000	330	\$82,500
Seedlings: NOT by acre	142,500	na	\$57,000	1,668,000	na	\$667,200	1,810,500	\$724,200
Plant	0	350	\$0	475	375	\$178,125	475	\$178,125
Manually apply herbicide for 1st-year release	0	450	\$0	475	475	\$225,625	475	\$225,625
Stake-Row survival exam, 1st year	0	225	\$0	475	250	\$118,750	475	\$118,750
Total	8,262		\$3,424,100	19,391	-	\$8,839,196	27,653	\$12,263,296

4







