

Reforestation at the Landscape Scale Involving Multiple Landowners

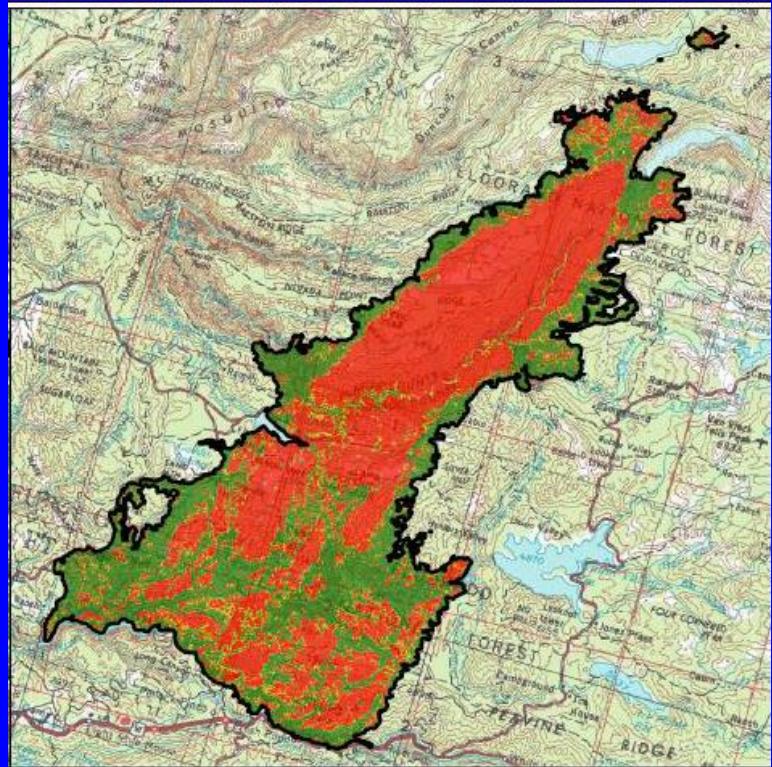
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Presentation Outline

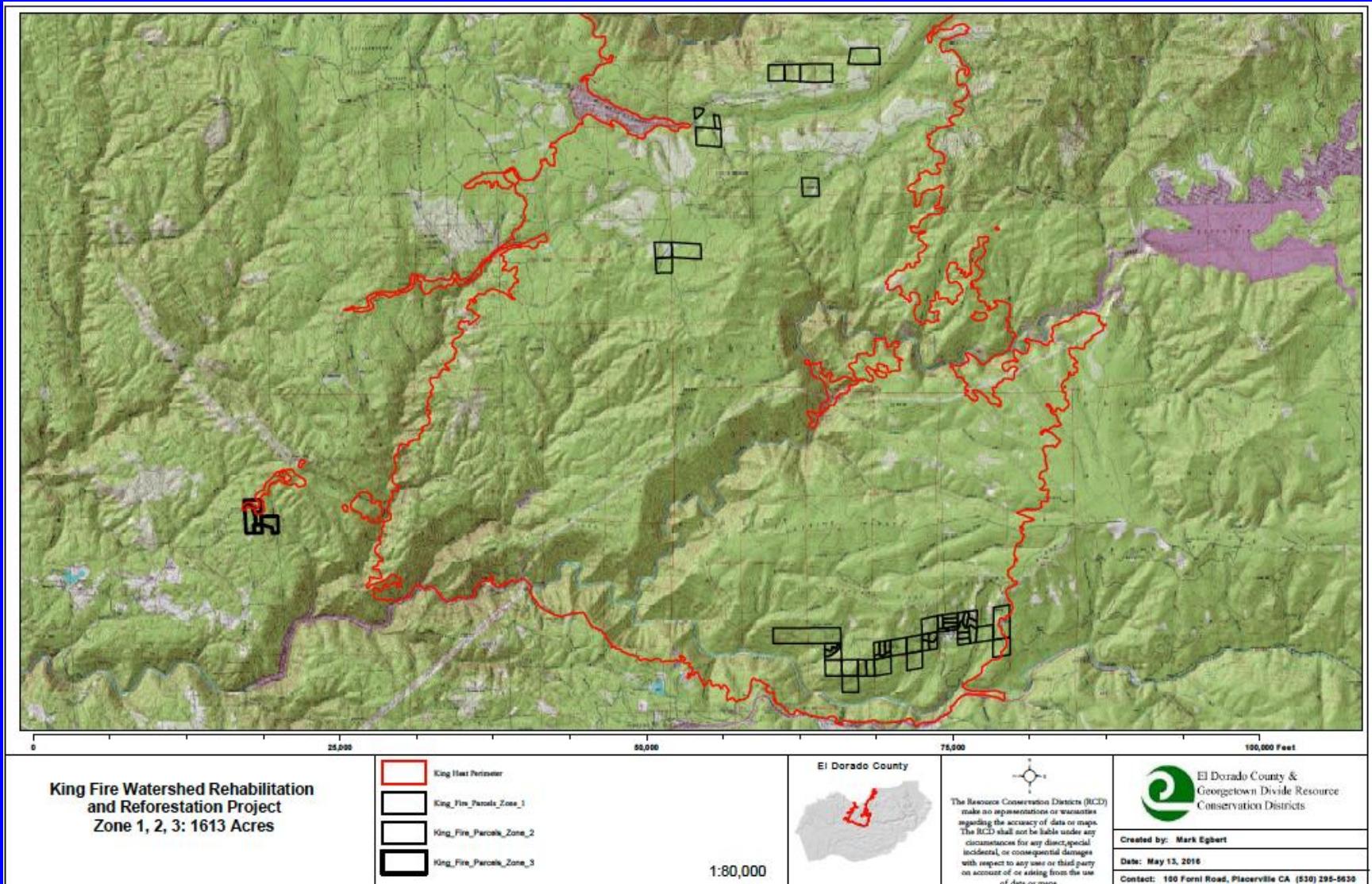
- Background
- Reforestation Target Area
- Pre-Project Conditions
- Importance of a Management Plan
- Incorporating Landowner Preferences into Prescriptions
- Implementation
- Lessons Learned

Background

- The King Fire in El Dorado County burned over 97,000 acres in 2014
- Over 34,000 acres of private land including 12 residences and 68 outbuildings burned
- Seventy five non-industrial landowners owning about 2500 acres were affected by the fire
- A grant was received from the CAL FIRE Greenhouse Gas Reduction Fund to reforest up to 1500 acres



Reforestation Target Area



Target Area (cont.)

- Sixty parcels ranging in size from <10 acres to 160 acres
- Over 50 individual landowners
- Existing uses include primary and secondary residences, recreation and timber production



Pre-Project Conditions

- Most properties were salvage logged after the fire with the timber going to export sales in many cases
- Un-merchantable trees were left standing on most properties
- Downed wood and slash, including un-burned piles were common
- PG&E dropped numerous trees along their powerline rights of way and left the logs behind
- In summary, “the place was a mess”



This picture illustrates a common situation where PG&E felled trees in ROW and left them on the ground. Site preparation included removing downed and standing dead trees. Potential for utilization was slim to none.



Standing dead trees and downed trees created a potential future fire hazard. Site preparation required removal and disposal to facilitate planting and reduce fuel loads.



Another illustration of the wide-spread condition of large amounts of fallen trees and residual dead un-merchantable trees that needed to be cleared.



Some owners chose to include slash disposal/site preparation in their logging contracts at additional cost. Many others did not.



An example of a salvage operation where complete slash disposal was done. This site was ready to plant. Limited snags and downed wood were retained. Note burn pile.



Another example of a salvaged area where complete slash disposal was required. Note residual live trees.



Salvaged area with streamside management area. Note adjacent unlogged area that represents a potential wildfire threat to any plantation on this land.



Areas dominated by brush prior to the fire regenerated to brush. Former forest sites were also captured by brush almost immediately.



Brush encroachment was particularly severe at the lower elevation sites. Treatments included herbicide spraying and mastication.

Importance of a Management Plan

- An overall management plan for the entire area was prepared
- The plan is a roadmap for the project, a tool for educating landowners and potentially a portal to obtain future management funding

California Cooperative Forest Management Plan King Fire Restoration and Reforestation Project

Location

Township: 12N, Range 13E, Sections 4, 7, 8, 9, 17, 18. USGS Quadrangle: Devil Peak.

Township: 11N, Range 12E, Sections 12, 1. USGS Quadrangle: Slate Mountain.

Township: 11N, Range 14E, Section 23. USGS Quadrangle: Riverton.

Township: 12N, Range 12E, Sections 24, 25. USGS Quadrangle: Pollock Pines.

Township: 12N, Range 13E, Sections 19-23. USGS Quadrangle: Pollock Pines.

Base Meridian: MDM County: El Dorado.

Township: 11N, Range 11E, Sections 12, 13. USGS Quadrangle: Slate Mountain.

Base Meridian: MDM County: El Dorado.

The project area consists of over 1600 acres of private land located within the perimeter of the King Fire that burned in August 2014. See Attachment 1.

Assessors Parcels

See Resource Management Unit Information.

Prepared By

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Signatures and Approvals

CALFIRE CFIP Management Plan Certification

California Registered Professional Forester (RPF) Certification: I certify that I, or my supervised designee, personally inspected this California Forest Improvement Program (CFIP) plan area, and that the plan fully complies with the CFIP and Professional Foresters Law, and meets Federal Forest Stewardship Management Plan Standards. I further certify that this plan is based upon the best available site and landowner information, and if followed, will not be detrimental to the productivity of the natural resources associated with this property.

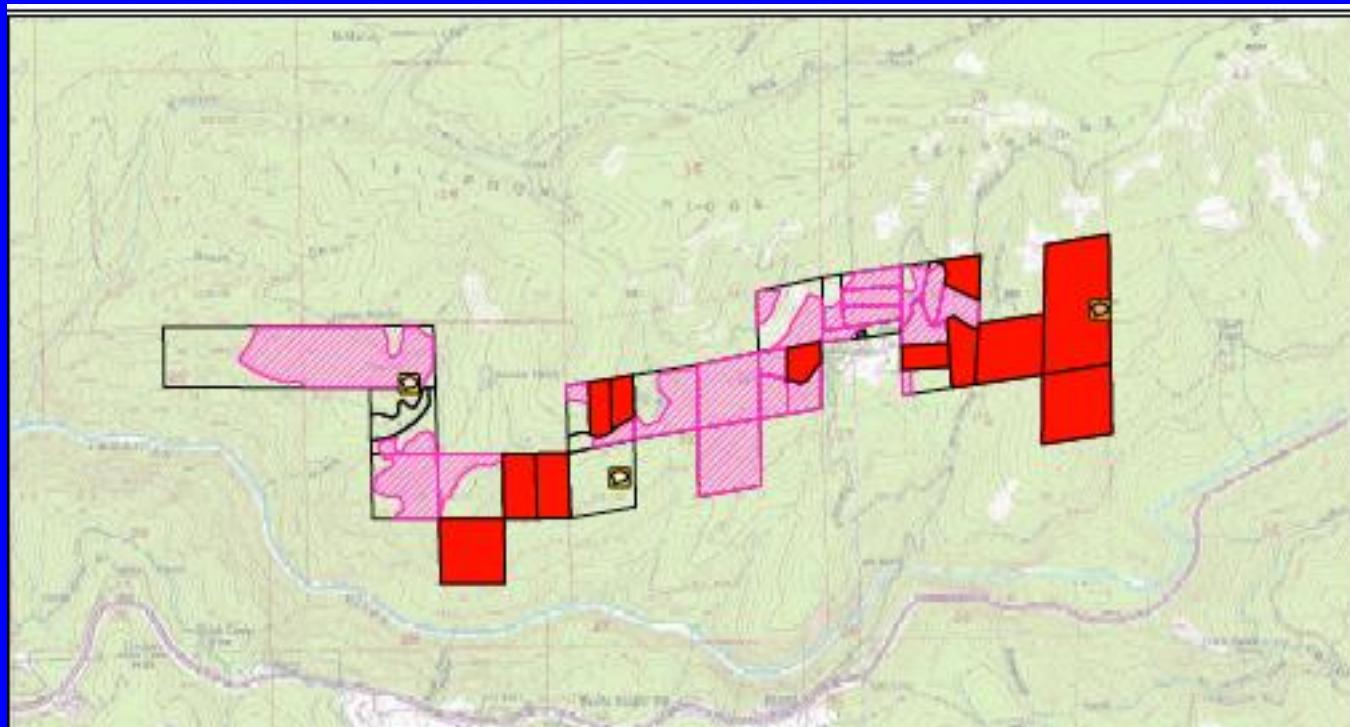
Signature

Date

RPF Number

Incorporating Landowner Preferences into Prescriptions

- Initial group meetings were held to recruit landowners
- Ultimately 34 landowners with roughly 1300 gross acres signed on to participate in the project



Incorporating Landowner Preferences (cont.)

- The proposed program was conventional but individual preferences such as exclusions of specific existing and future use areas and environmental constraints reduced the “treatable area” from 1300 acres to roughly 800 acres
- Additional preferences were incorporated into specific prescriptions
- These included restrictions on use of herbicides, preferences for certain tree species and alternatives to “straight line” planting



Gross parcel boundaries in red,
treatable area cross-hatched

Implementation

- Site preparation began in the fall of 2016 at higher elevations
- Winter came upon us and operations had to stop
- Operations re-started at lower elevations when soil conditions were acceptable
- All site preparation work was completed by the fall of 2017.



Before and after site preparation



Site Preparation Alternatives



Brush Rake/Mastication



Brush Rake/Deep Rip



Brush Rake/Deep Rip/Retain LWD

Implementation (cont.)

- The persistent winter conditions in 2016-17 created insurmountable obstacles to completing site preparation
- The initial schedule for the project anticipated completion of site preparation in 2016 with planting occurring in the spring of 2017
- About 120 acres were planted in the spring of 2017.
- All planting will be completed by spring of 2018.



Lessons Learned

- Not all landowners affected by catastrophic tree mortality are willing to participate in reforestation projects, even if there is no or limited cost to them.
- Many landowners who will participate are not particularly interested in timber production.
- The principles of reforestation are not widely known and landowners need to be educated about what is involved. Some practices, particularly involving chemicals are not acceptable even if their value is easily demonstrated.
- Even though a project may be landscape scale, the treatment of individual parcels must be site specific.
- Nature doesn't always cooperate. Delays due to weather pushed the project forward a year and caused several logistic and costly consequences.

Questions?