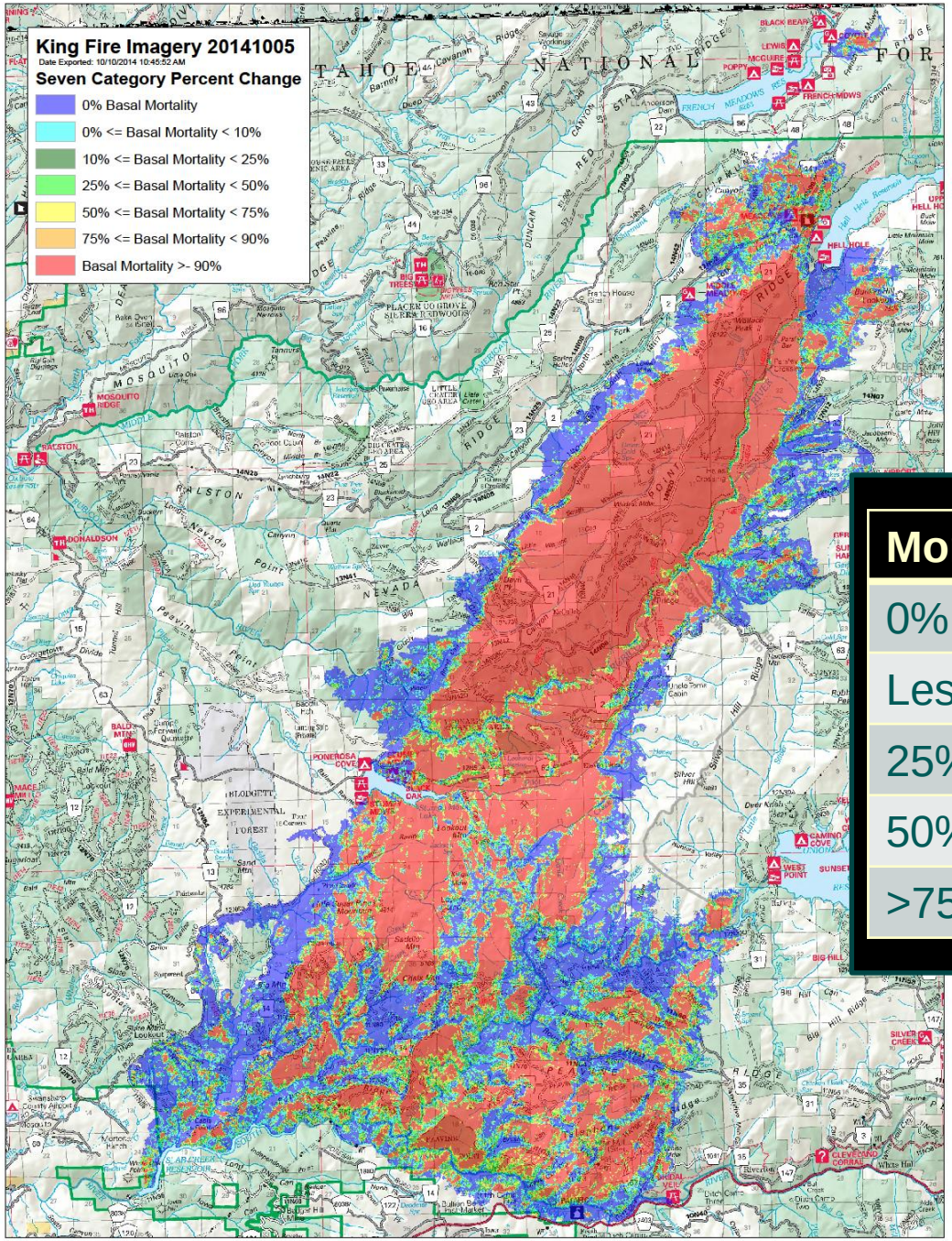
Eldorado National Forest
King Fire Restoration Project

King Fire Background

- Fire began September 13, 2014
- Wind-driven fire spread 50,000 acres on Sept. 17
- Fire contained October 9, 2014 at 97,717 acres
- About 63,000 acres on Eldorado National Forest land

Fire Severity



Tree Mortality in the King Fire Burned Area

Mortality	Acreage	% of Total
0%	25130	26
Less than 25%	13987	15
25% to 50%	5000	5
50%-75%	4623	4
>75%	48526	50

An estimated 1.1 Billion Board Feet of timber burned on National Forest Land (220,000 log trucks)

Environmental Impact Statement

- Assign Interdisciplinary Team -- *forester, hydrologist, soil scientist, biologists, botanist, ecologist, fuels/fire specialist, road engineer*
- Develop purpose and need for the project: the *Why*
- Develop a proposed action: the *What, Where, and How*
- Receive public comment on proposed action, identify issues and concerns
- Develop alternatives based on significant issues, *including No Action*
- Prepare Draft Environmental Impact Statement: *Disclose impacts/effects*
- Receive public comment on Draft EIS
- Prepare Final EIS
- Objection Period
- Decision: *Select the proposed action or an alternative*

Timeline

EIS Milestones	Standard EIS Dates	With Emergency Situation Determination (ESD)	With ESD and Council for Environmental Quality Alternative Arrangements*
Scoping Period	December 24, 2014 to January 23, 2015	December 24, 2014 to January 23, 2015	December 24, 2014 to January 23, 2015
Draft EIS	Mid-late March 2015	Mid-late March 2015	Mid-late March 2015
DEIS Comment Period	45 days – Mid-late March to May 2015	45 days – Mid-late March to May 2015	30 days – Mid-late March to May 2015
Final EIS	End of June 2015	End of June 2015	Mid June 2015
Objection Period	July through mid-August 2015	N/A	N/A
Objection Resolution Period	Mid-August through end of September 2015	N/A	N/A
Decision	End of September 2015	30 days from FEIS – End of July 2015	End of June 2015
Begin Implementation	October 2015	August 2015	July 2015

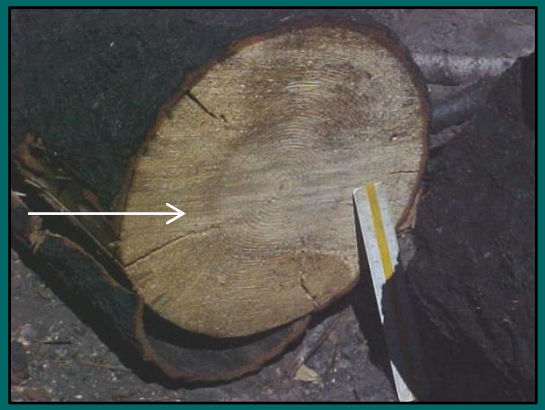
Purpose and Need for Action

- Reduce the safety and property damage risk from falling dead, dying, and defective trees.
- Reduce accumulation of fuel over the long term in strategic fire management areas for the purpose of improving the ability to manage and control future fires.

Purpose and Need

- Recover timber value commensurate with available markets to help offset the cost of restoration activities and contribute to societal needs for wood products

- Restore diverse vegetation including conifer forests and lay the foundation for resiliency into the future



1 Year Dead
cracks,
worm holes

Purpose and Need

- Reduce soil movement and sedimentation to streams, and reduce fuel accumulation in sensitive areas

- Take advantage of research opportunities

Soldier Creek

Development of the Proposed Action

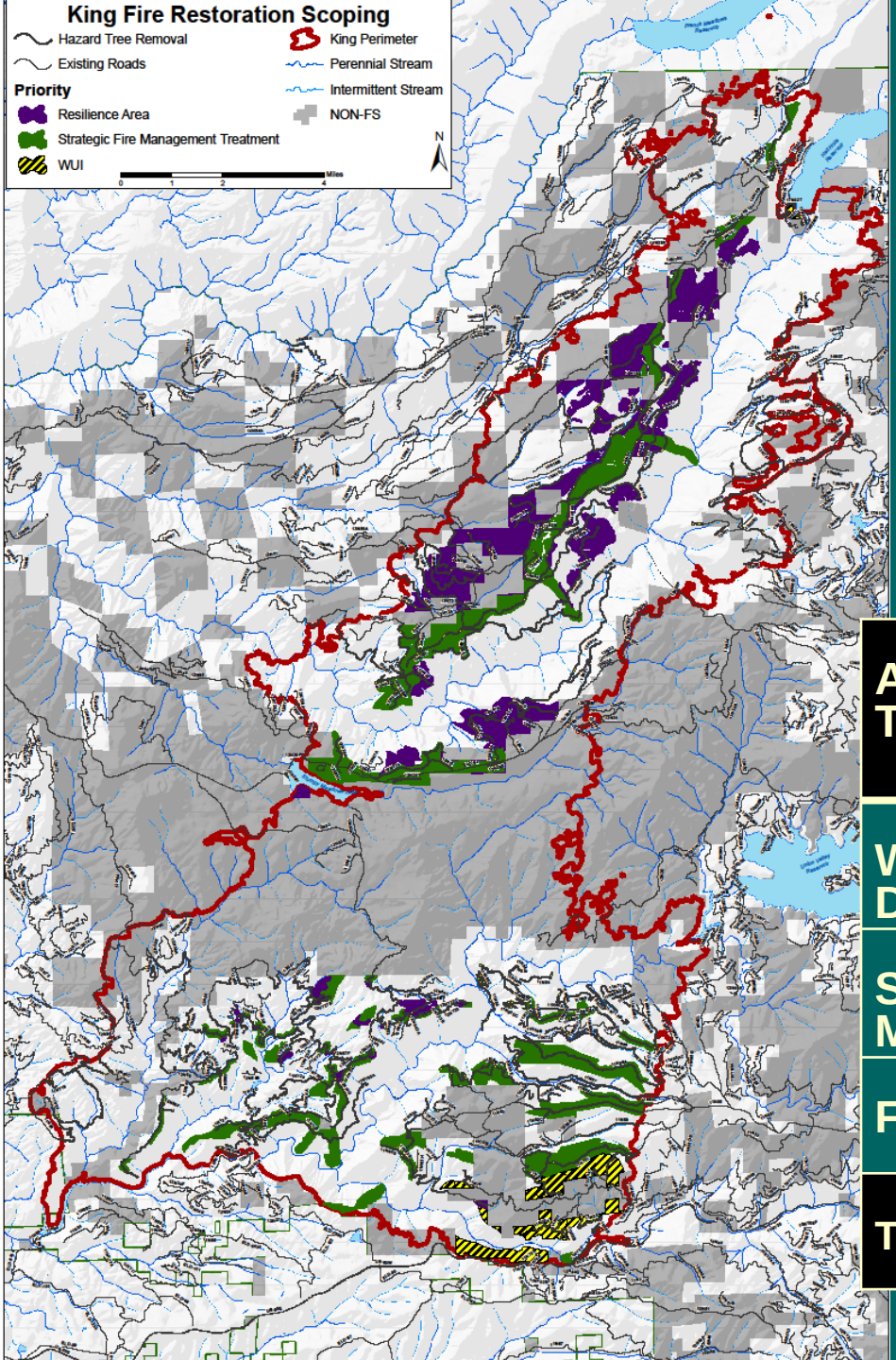
Use expertise, maps, models, spatial data, field evaluation and collaboration

- Focus on high severity areas outside of natural range of variation
- Focus on areas unlikely to naturally regenerate due to distance to seed source
- Focus on slopes <35% to reduce cost of treatment and safety concerns
- Identify and provide for black backed woodpecker and other fire obligate species habitat
- Maximize California spotted owl persistence in and adjacent to fire
- Provide for a mosaic of habitats: shrub, forb, trees, snags
- Identify strategic areas to treat dead fuels: ridgetop fuelbreaks, WUI defense zones, areas of reforestation
- Identify areas to reduce safety hazards and risk to property & sensitive resources: roadside hazards, private residences, cultural resources
- Identify sediment sources and risk to watersheds: alleviate compaction and sediment sources, road repair and improvement

Proposed Action

Remove hazard trees along Forest Service system roads open to the public and roads needed for access to treatment areas, along private residential property, adjacent to structures, and in specific cultural resource sites identified by the archeologist

Road Maintenance Level	Road Mileage Within Fire Area to be Considered for Hazard Tree Removal[1]
1- Basic Custodial Care (Closed to Public Use)	30
2- High Clearance Vehicles	296
3 – Suitable for Passenger Cars	37
4 – Moderate Degree of User Comfort	33
TOTAL	429



Remove dead conifer trees in excess of soil cover needs and wildlife snag retention levels in WUI Defense Zones, Strategic Fuels Management Zones, and Forest Resiliency Areas

Area Proposed for Treatment	Approximate Acreage[1]
Wildland Urban Interface Defense Zones	1,160
Strategic Fire Management Zones	7,270
Forest Resiliency Areas	5,510
TOTAL	13,940

[1]Acreage may be adjusted subject to field verification

Methods

Methods	Approximate Acres [1]
Mechanical or Ground Based Logging	11,720
Aerial Logging	720
Hand Treatments	670
Mastication or Piling without Logging	120
Tree Planting/release without Logging	710
TOTAL	13,940

[1]Acreage may be adjusted subject to field verification

Additional fuel treatment where needed: cutting small dead trees and scattering to within 18 inches of the ground, cutting and left in place, hand piling, mastication or chipping with a track mounted masticator or chipper; and/or cutting trees and piling using tractors or rubber tired machinery with brush rakes or grapples. Piles would be burned.

Reforestation

- Planting of seedlings would occur on approximately 13,940 acres of conifer forest types where a forested community is the desired condition
- At the time of planting, the planted seedlings would be released from competing vegetation by hand scraping a radius of 2 to 5 feet around the seedlings
- Follow-up manual and herbicide release of seedlings from competing vegetation would occur where competing vegetation is expected to reduce seedling survival or growth below an acceptable level

Watershed Sensitive Areas and Roads

- Treatments include increasing groundcover using onsite or imported material (e.g. mastication, lop and scatter, mulching), obliteration of existing disturbances, and removal of excess woody material.

- Improve existing road conditions to reduce erosion and facilitate forest product removal

Research

- **Effect of varying salvage and re-planting intensities on the landscape** – to compare the fuel complex and native/ non-native species abundance over time; and improve understanding of the longevity of snags, and the effect of salvage on fuel loading and understory development.
- **Forest resilience after high-severity wildfire** -- the effect of snag density, distribution, physical features, and distance to seed source on the abundance & diversity of plants & animals
- **Long Term Soil Productivity Study** – continuation and facilitation of a national soil study

Design Criteria

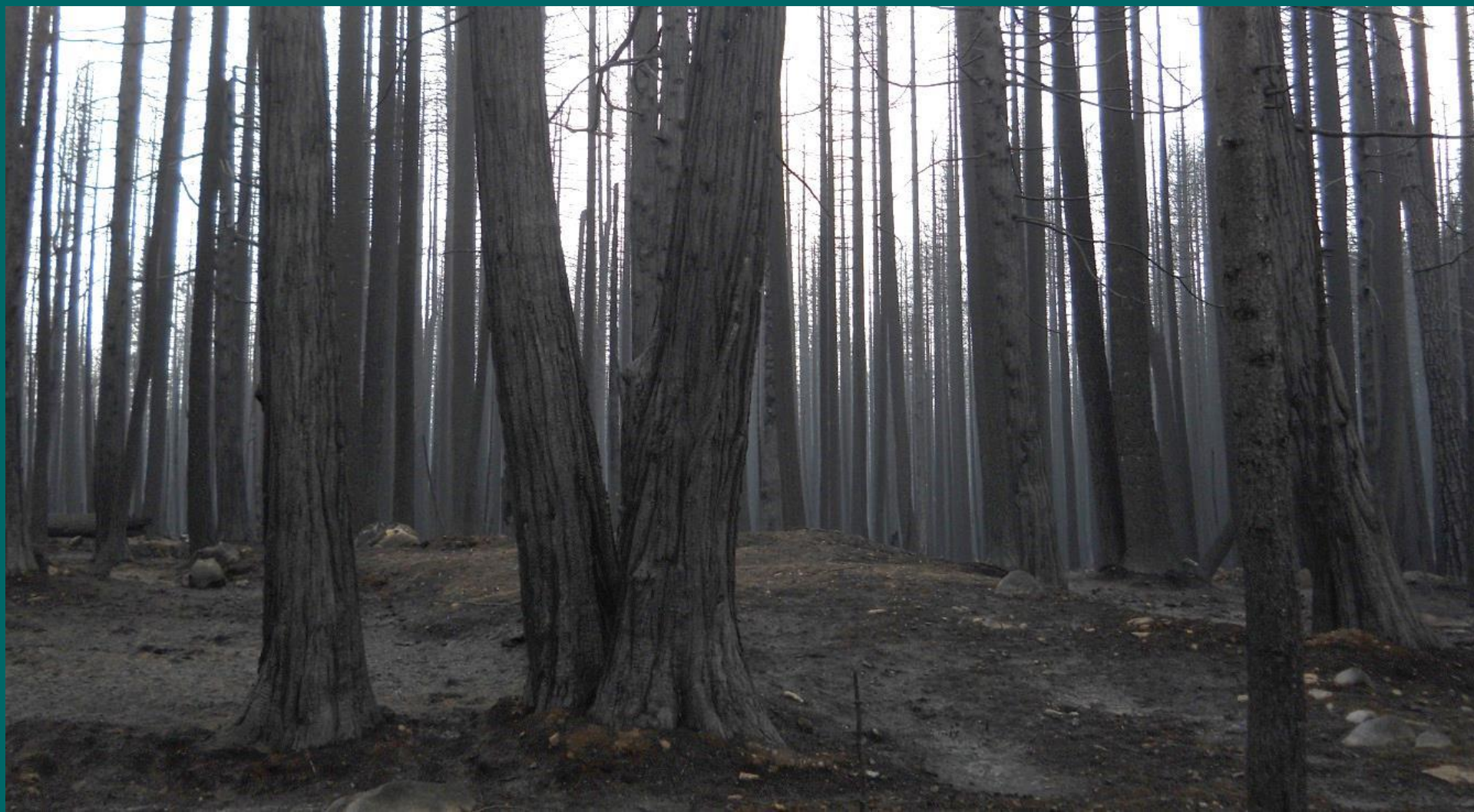
- Protect aquatic species & habitat: ie: Sierra Nevada yellow legged frog; CA red legged frog
- Minimize impacts to sensitive wildlife species
- Water quality and streamcourse protection
- Soil compaction & erosion mitigations
- Protection of sensitive and watch list plants
- Minimize infestation of invasive plants
- Protect cultural resources

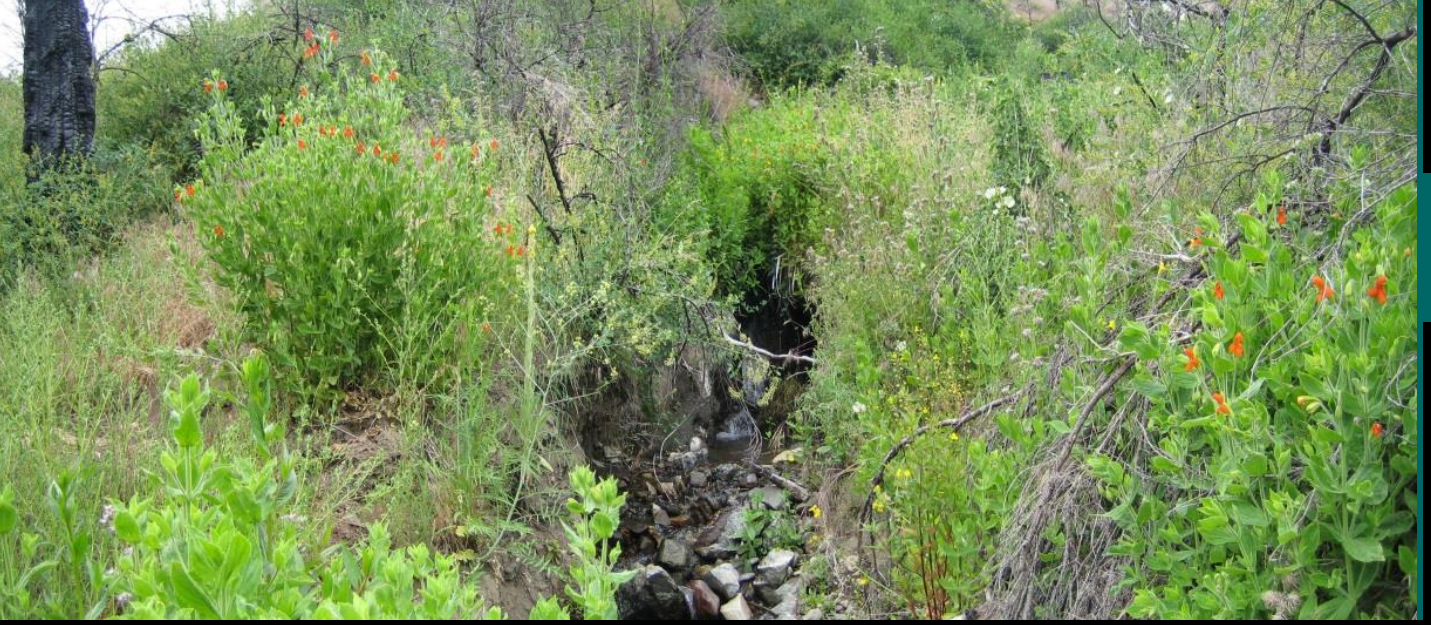
Infrastructure and Mill Capacity

- Logging and sawmill capacity affected by substantial salvage from private lands and Rim Fire
- Costs increase as haul distance increases
- Lack of cost effective biomass infrastructure

With the closure of the Camino sawmill in 2009,
Mill capacity was severely reduced, and costs increased

Despite challenges, the goal is to restore this…





...to this

Fred's Fire Riparian Area

Star Fire 3 years Post Fire

Cleveland Fire at 16 years old

Scoping Period

- **Comments due Friday, January 23**

- *Merits? Errors? Environmental concerns?*
- *What information would you like us to include and why?*
- *What concerns do you have regarding the proposed action and why?*
- *What changes should we consider in our project design and why?*

Comments on specific locations and methods of treatment are especially helpful.