

# Increasing Transparency and Building Trust: Multiparty Monitoring in the Ashland Forest Resiliency Stewardship Project

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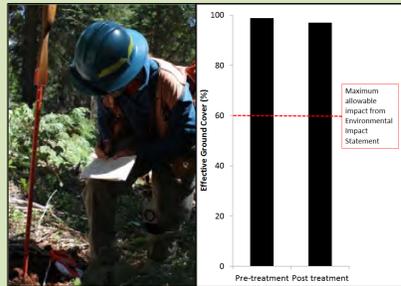


## Implementation Monitoring

Multiparty implementation monitoring evaluates adherence to the overarching project design, guidelines, and prescriptions. While primary responsibility resides with the Forest Service, collaborators have added oversight, critical for establishing trust and allowing widespread public support. At its most basic implementation monitoring keeps track of the number of acres treated by treatment type and location. Quantification of changes due to treatment may involve a walk through, professional opinion, and/or data collection, often with multi-organizational crews. Example marking has been utilized on all subunits where trees >8 inches in diameter at breast height (4.5 feet) are to be harvested commercially. This greatly facilitates review among AFRSP Partners, with the Implementation Review Team, and with the general public. To-date 22 public tours have evaluated proposed and implemented treatments.



Commercial treatments were implemented using skidder yarding on 349 acres where slopes were < 20% and using a helicopter to yard on 355 acres with steeper slopes. Extensive review of proposed and implemented actions has resulted in successful outcomes.



### Implementation Monitoring

Indicators:

- Acres treated by treatment type
- Basal area/acre
- Canopy cover and Northern Spotted Owl habitat
- Snag and coarse wood abundance
- Change in fuel model
- Detrimental soil disturbance and effective ground cover
- Distribution and abundance of sensitive or invasive plants
- Large old tree retention

Preliminary results:

Good adherence to prescription targets and minimal detrimental impacts. Pretreatment data have been collected but in most instances treatments are just now being completed.

Working together FS specialists and monitoring partners have focused soils monitoring in ground based yarding units.



### Social Monitoring and Public Learning

Indicators:

- Survey respondent project support
- Survey respondent understanding of forest issues
- Feedback from the Implementation Review Team

Preliminary results:

Surveys conducted by Southern Oregon University indicate strong support for fuel reduction and protection of water and wildlife habitat. The Implementation Review Team has successfully helped the AFRSP avoid conflict surrounding treatment of dwarf mistletoe in Douglas-fir.



Photo points are located at 690 permanent vegetation plots across the Ashland watershed. Here you can see a typical treatment with a thinning, primarily from below, that releases the old growth pine (white arrows) and favors sun loving species. Surface and ladder fuels are then piled and burned.

## Collaboratively Based Fuel Reduction and Restoration

The Ashland Forest Resiliency Stewardship Project (AFRSP) was developed by the Forest Service (FS) with substantial input from stakeholders including the City of Ashland (COA), concerned local citizens, and The Nature Conservancy (TNC). The FS planning process incorporated key design elements generated by local stakeholders as a "community alternative". Primary objectives are to protect values at risk, reduce hazardous fuels, reduce crown fire potential, and to create forest conditions that are more resilient to wildland fires. All work will be completed through a Master Stewardship Agreement with the FS, COA, TNC, and Lomakatsi Restoration Project working together as partners.

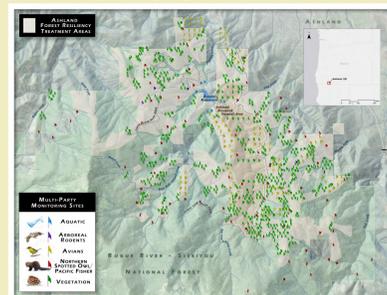
The project area includes 7,600 acres of mixed conifer/hardwood forest ranging from oak and manzanita at 2,200 feet to true fir stands at 6,300 feet above sea level. Current ARRA funding will accomplish 1,300 acres of commercial thinning, 1,700 acres of non-commercial thinning, and associated pile burning to consume activity fuels. To-date surface and ladder fuels have been treated on 1,658 acres and commercial thinning on 704 acres.

The project area includes the Ashland Research Natural Area, late successional reserve, and the Ashland municipal watershed. Given the sensitive issues involved, multiparty monitoring is critical, with additional review by a Monitoring Advisory Committee (MAC). The MAC is engaged stakeholders that directly contributed to the prioritization of monitoring questions and collaboratively developed the Monitoring Plan.

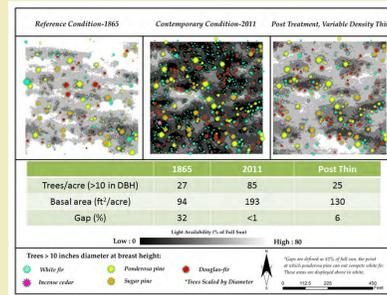
The Nature Conservancy has also convened an Implementation Review Team (IRT) composed of representatives from three organizations deeply involved in local forest management issues. The IRT meets periodically as implementation plans are prepared by the AFRSP Partners and then reviews the work after treatments are implemented. The role of the IRT is to provide technical advice to the AFRSP cooperators on proposed and completed treatments and activities. The practice of the IRT is to review unit maps, boundaries, prescriptions, marking, operations plans, mitigation provisions, and monitoring results with a particular eye to how community members will perceive the project.



The Implementation Review Team evaluates proposed treatments and the corresponding results from an external perspective.



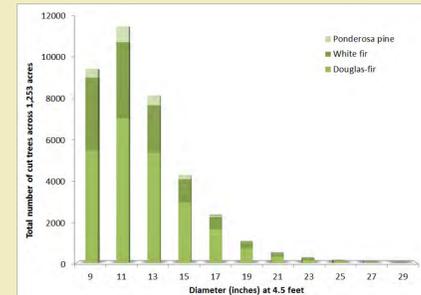
Permanent monitoring stations are located across the 7,600 acre project area, including the Ashland watershed, as part of multiparty monitoring.



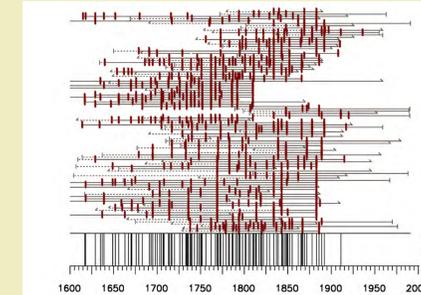
Forest reconstructions by TNC show that historically these forests were quite open with more gaps where sun loving plants would have flourished. Treatments such as those implemented in AFRSP leave more trees that are more evenly spaced than historically and will favor more shade loving species.

Sixty eight commercial thinning subunits received unique prescriptions, written to retain large old trees and wildlife habitat, reduce fuels, and increase forest resiliency. Values are the project mean (range).

| Trees per acre |            | Basal area ft <sup>2</sup> /ac |             |
|----------------|------------|--------------------------------|-------------|
| Target         | Reduction  | Target                         | Reduction   |
| 199 (67-415)   | 50 (6-79)% | 144 (87-255)                   | 29 (10-46)% |



Partners participate in the commercial mark and tally all trees to be cut. These data have been critical for public trust and community buy-in.



161 fires have been identified between 1600 and 1920. Historically a fire was recorded in the 16,000 acre watershed every 3 years with median site fire return intervals of 12-14 years. 44% of fires scarred >3 sites. Samples were collected by TNC and crossdated by the Pacific Southwest Research Station. Forest history research is funded by the Northwest Conservation Fund.

## Effectiveness Monitoring

Effectiveness monitoring evaluates how well treatments succeed in accomplishing objectives such as preserving large old trees and restoring plant and bird communities. Effectiveness monitoring is not a typical component of Forest Service projects and Partners bring a great deal to the table. The questions investigated are solely developed through stakeholder interest. In addition, monitoring partners contribute funding and significant intellectual and material resources beyond that funded by the project. These activities engage research professionals from many organizations, as well as public and students.



### Water Quality and Aquatic Habitat

Indicators:

- Residual pool depth
- Substrate embeddedness
- Macroinvertebrate communities
- Water turbidity
- Sediment accumulation in Reeder Reservoir

Preliminary results:

Baseline data have been collected since 2010 and the streams of the Ashland watershed are healthy.



### Large Tree Retention and Survival

Indicators:

- Cut-tree size distribution
- Legacy tree patch identification
- Legacy tree vigor response and retention

Preliminary results:

Large old trees are being retained. A sampling protocol has been developed that will track 30 treated and 15 untreated old growth ponderosa pine, Douglas-fir, sugar pine, black oak, and pacific madrone. Helicopter yarding resulted in very little top damage to residual trees.



### Songbird Community Composition and Abundance

Indicators:

- Landbird community composition
- Individual bird species utilizing specific habitats

Preliminary results:

The Klamath Bird Observatory has been monitoring in the Ashland Watershed since 2005 and baseline results show a diverse coniferous forest bird community. In 2012, a point count study design was initiated to evaluate avian community responses to commercial fuel and thinning treatments.



### Late Successional Wildlife Habitat

Indicators:

- Vegetation structures before and after project completion
- Population dynamics and habitat use of Northern Spotted Owl, flying squirrels and pacific fisher

Preliminary results:

80% of Northern Spotted Owl nests are in dwarf mistletoe brooms. Pacific fisher use black oak and ponderosa pine for denning but all recorded rest sites are in Douglas-fir with dwarf mistletoe (Dave Clayton, unpublished data). 16 pacific fishers have been radio collared and tracked and may be tolerant of the implemented surface and ladder fuel treatments.



### Herbaceous Recovery and Response

Indicators:

- Herbaceous cover in vegetation plots

Preliminary results:

168 native and 22 exotic plant species were identified by The Nature Conservancy on 180 herbaceous permanent plots established in 2010.

