Fire Learning Network

Notes from the Field

Collaborative, Iterative Development of Prescribed Fire Objectives for the Ashland Forest Resiliency Project

Ashland, Oregon
Spring 2016

Ashland Forest Resiliency (AFR) partners embarked on collaborative planning for prescribed under-burning in the Ashland Watershed in 2013. Project partners, including the Rogue River-Siskiyou National Forest (Forest Service), City of Ashland (COA), The Nature Conservancy (TNC) and Lomakatsi Restoration Project (LRP), held several discussions in the office and in the field. Learning about the Composite Burn Index monitoring from McRee Anderson of the FLN in Arkansas, Darren Borgias arranged for McRee to visit and work with the partners. This helped partners find common ground and arrive at an interim agreement for project-level prescribed fire objectives that represented the ecological, silvicultural and fuel management goals of AFR.

In the spring of 2016, Darren Borgias, Kerry Metlen and Keith Perchemlides of TNC led several discussions and field reviews with partners to check in on the process, consider feedback on the interim objectives, and strengthen the adaptive link between objectives and fire monitoring. These efforts culminated in an approved set of AFR-wide prescribed burn objectives that were informed by the Record of Decision, inclusive partner review, linked to fire effects monitoring, and incorporated into active burn plans guiding prescribed fire on the ground and monitoring.

By developing these standardized project-level objectives, partners realize efficiencies in planning, implementing, monitoring and reporting on burns. Key lessons learned during the process were:

1. Avoid unnecessary complexity—keep objectives simple, clear, specific and few.
2. Limit objectives to conditions directly resulting from fire on the ground.
3. Objectives should promote—but not include—longer-term secondary ecological outcomes.
4. Write objectives to inform the burn boss and guide ignitions and holding.
5. Make sure objectives are internally consistent relative to fire severity.
6. Phrase objective targets as an acceptable range to allow for variation in conditions.
7. Link objectives to monitoring of directly measurable first-order fire effects.
8. Consult directly with relevant specialists in setting targets and thresholds.

This process benefited from multi-year FLN funding that supported taking the time to gather and integrate information from a range of relevant sources, and an openness to learn and adapt through multiple rounds of review.

McRee Anderson and Kerry Metlen consider burn objectives in a successful Rogue River-Siskiyou National Forest prescribed burn in the mixed conifer forests of southern Oregon

AFR 2016 Revised Prescribed Fire Objectives:

Fuels	1. Reduce litter and light surface fuels (1 to 100 hour) by 30 - 80%
Vegetation	2. Reduce understory trees (< 5” dbh) and shrubs by 30 - 80%
	3. Limit mortality of intermediate trees (5-12” dbh) to < 40%
	4. Retain > 90% dominant/ codominant trees (> 12” dbh)
	5. Minimize mortality of legacy* trees * large, old (> 150 years) trees with complex form, large branches, open structure, wide bark plates, and providing important habitat features and aesthetic value
Soils	6. Retain the following overall effective ground cover for the unit based on soil erosion hazard level: > 85% for very high - very severe, > 70% for high to severe, > 60% for low to moderate
Wildlife	7. Retain approximately 90% large down logs or snags (>20” diameter)
	8. Minimize fire intensity in leave areas

Timeline for AFR Revised Prescribed Fire Objectives

November 2013 AFR partners draft a proposal for controlled under-burning that includes initial plans for goals, burn objectives, and monitoring.

January 2014 FLN and AFR partners host an ecological burn objectives training exchange focused on burn objectives and monitoring. McRee Anderson presents information on the Composite Burn Index (CBI) as a rapid monitoring tool. Anderson's outside perspective and ability to kick the dirt and communicate helped AFR partners see common ground and come together to re-draft prescribed fire objectives and related resource objectives for fuels, vegetation, soils and wildlife, reflecting CBI in part.

January 2015 The Forest Service applies draft AFR objectives in a burn plan for Unit 12.

April 2015 AFR partners, under Forest Service leadership, burn 30 acres of Unit 12.

July 2015 TNC hosts a field discussion of burn monitoring in Unit 12 and the CBI monitoring method, attended by leads and fire staff from the Forest Service, BLM, COA and LRP. The discussion ranged over monitoring methods, the function of burn objectives, and the adaptive management link between the two. Jena Volpe, Medford BLM Fire Ecologist, added her local experience applying CBI on BLM burns.

September 2015 TNC completes post-burn monitoring of Unit 12, applying the CBI method, advised by LRP and BLM.

February 2016 TNC Unit 12 Fire Effects Monitoring (FEMO) report points out misalignment between the AFR objectives and CBI indicators and measures, opening further review.

March 2016 TNC proposes revised AFR burn objectives with a rationale of adopting a streamlined and standardized AFR monitoring method directly linked to objectives (informed by CBI measures, strata and severity indicators).

April 2016 Partner specialists in fire, wildlife and soils provide multiple rounds of review, comment and edits. Partners approve a final set of objectives.

May 2016 The revised AFR objectives are used in a new Forest Service burn plan covering more than 450 acres in six burn units. Participants in the 2016 Ashland Fire Training Exchange (TREX) burn one of these units, Unit 14b (35 acres), following the new objectives. TNC leads FEMO monitoring of the burn and objectives, applying the new monitoring protocol.

Taking a hard look with partners, we were able to combine or eliminate burn objectives, making it easier for the folks on the ground to accomplish the burn, and still get the desired results.

Fire Management Officer
Siskiyou Mountains Ranger District

From top: A prescribed fire burns at the White Rabbit trailhead in the Rogue River-Siskiyou National Forest as part of the Ashland Prescribed Fire Training Exchange (TREX).

The author (TNC FEMO and field ecologist) and the Forest Service Region 6 Smoke Manager discuss burn objectives and monitoring during the TREX at a cross-boundary private tract on the Ashland Forest All-lands Restoration Project.

TREX leaders pause while checking out fuels and values at risk for a planned burn on the Ashland Forest Resiliency project on the Rogue River-Siskiyou National Forest near Ashland.

Staff from the Lomakatsi Restoration Project and Medford District BLM confer on burn objectives, implementation and monitoring during the Ashland TREX.

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The Fire Learning Network (FLN) is part of *Promoting Ecosystem Resilience and Fire Adapted Communities Together*, a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior.

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