

JOINT FIRE SCIENCES PROGRAM: A COMPREHENSIVE FUELS TREATMENT PRACTICES GUIDE FOR PONDEROSA/JEFFREY PINE AND PONDEROSA/MIXED CONIFER FORESTS

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✘ The Joint Fire Sciences Program project *A Comprehensive Guide to Fuel Treatment Practices for Ponderosa Pine/Jeffrey Pine and Ponderosa Pine/Mixed Conifer Forests* is to be accomplished by reviewing existing literature, interviewing land managers, and conducting field meetings and synthesizing that information into the guide. Millions of acres of these forests need fuel management, however, few resources exist to help plan these treatments. Sufficient science exists, but our guide will be the first synthesis of the research information for managers. This guide is to be created using the applicable lessons researchers learned in creating *A Comprehensive Guide to Fuels Treatment Practices for Ponderosa Pine in the Black Hills, Colorado Front Range, and Southwest*. Our first task is to clearly define ponderosa pine/Jeffrey pine and ponderosa pine/mixed conifer forests since the forest type exists along a broad continuum of climatic zones and consists of many different assemblages of species. This synthesis (CSU Humboldt and UC Berkeley) focuses the Sierra Nevada, Cascade Range, Klamath Mountains, and Pacific Coast. In these areas we will cover mixed conifer forests where they mix with ponderosa and Jeffrey pine.

Proposed General Outline

- Introduction
- Fire and Fuels Issues –describes the different mixed conifer ecosystems. Each section identifies key ecological and silvicultural differences.
- Fuel Treatment Objectives – Objectives based on managers interviews.
- Fuel Treatment Techniques – Techniques and case studies of each.
- Fuel Treatment Requirements –Planning, thinning, prescribed fire, treatment combinations, and challenges.
- Fuel Treatment Impacts, Mitigation, and Monitoring :how to mitigate potential adverse impacts.
- Comprehensive Management Principles – integrates ideas, solutions, and data from earlier sections into larger principles that applies to day-to-day management.

Data sources

The key data for our project will come from two major resource areas: (1) Natural resource managers who have or are implementing treatments in Jeffrey pine and mixed conifer forests with a ponderosa pine component. (2) Existing literature on ponderosa/Jeffrey pine and ponderosa/mixed conifer forests. A comprehensive list of sources demonstrates that sufficient body of science warrants a thorough review:

<http://www.cnr.berkeley.edu/stephens-lab/JFSPSynthesis/JFSP2008.htm>

Interaction with land managers

Interviewing a wide range of land managers who manage mixed conifer forests is essential, focusing on ecological, economic, institutional, and social lessons learned from implementing fuel reductions treatments. We will re-contact the managers we interview for their feedback on the draft of the report. One of the central missions of this project is to share information with managers and answer their questions about forest stewardship. For outreach an array of methods and formats to share our results including web, hard copy, interactive media, and meetings to ensure that managers can take advantage of our research immediately.

Devil Creek Project Area, San Juan National Forest.

This is a stand of mixed conifer, the stand was still predominantly ponderosa pine with white fir beginning to get a hold. Some Doug-fir was also present. The area had been harvested in the past. The area was subject of mechanical thinning, then burned in the spring of 2005. Photos courtesy of Sara Brinton



Deliverables

Are the surrounding examples enough information to manage with? Results of research & interviews will be a publication in the format of a RMRS-GTR. This will provide managers with information directly applicable to implementation of fuel treatments. This will be written in clear language, well illustrated, and disbursed by as many means as possible (publication, web, DVD, etc.) Outreach to assure meeting the target goals will continue.

Cone Fire (2002). Lassen National Forest: treated portion on the left side of the photograph, untreated on the right. Photo: C. Weatherspoon, used by permission C.N. Skinner.



JFSP Fire and Fire Surrogate Study, Sierran Mixed Conifer, Blodgett Forest Research Station. Compartment 400. Part of a variety of treatments performed of fire-only, mechanical-only, and fire & mechanical fuels treatments. Photos courtesy Jason Moghaddas.

