Joint Fire Science Program
FIREHouse
The Northwest and Alaska Fire Research Clearinghouse
www.fs.fed.us/pnw/fera/firehouse
Fire and Environmental Research Applications Team
Pacific Wildland Fire Sciences Laboratory

Effects of Fuels Reduction Treatments on Native Plant Communities

Introduction

Brush mastication site (foreground), Butte Falls Resource Area.

This project is designed to assess and predict the rate of plant community changes after fuel reduction treatments and the resulting maintenance requirements. Studies are both retrospective, working in areas that have already been treated, and prospective, working in areas that have not yet been treated but that are slated for treatment.

Plot locations are being permanently marked using GPS, steel reinforcing bars, and on maps so that effects of treatments can be monitored over the long term. Data from these plots will also provide valuable baseline information for assessing subsequent fire effects and behavior if wild or prescribed fires later affect plot areas. In addition, plot locations and plant community data will be made available to others who wish to study additional responses to treatments, such as those of birds, mammals, insects, or soil conditions; or the behavior of subsequent fires, establishing a framework and baseline data with which future studies can be integrated. This work is being undertaken in the Butte Falls Resource Area of the Bureau of Land Management's Medford, OR District.

Research Objectives

The primary objectives of this project are to:

- Assess relatively short-term consequences of two fuel reduction techniques: 1) manual thinning, piling, and burning; and 2) brush mastication, with or without subsequent burning for native plant communities of oak woodlands and shrub lands. Particular attention will be paid to special status plants included in treated areas.

- Document relatively short-term influences of fuel reduction methods on invasion by non-native plants.

- Establish permanently-marked monitoring plots in which longer term consequences of fuels and seeding treatments can be monitored, and which will constitute a baseline network of plots in which monitoring of species and responses other than plants (such as birds, mammals, soils, fuel models) can occur.

Expected Outcomes

This information will enable fire managers to use fuel reduction methods that best accomplish restoration of native plant communities, minimize invasion and spread of exotic species, and lead to desirable fuel conditions.

For More Information on the Effects of Fuels Reduction Treatments on Native Plant Communities

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Manual thinning, piling and burning site with untreated area in background, Butte Falls Resource Area.

About FIREHouse

FIREHouse is a collaboration between the Fire and Environmental Research Applications Team (FERA) of the USDA Forest Service Pacific Northwest Research Station, Pacific Wildland Fire Sciences Laboratory; the University of Washington; the National Park Service; the Bureau of Land Management – Alaska Fire Service; the US Fish and Wildlife Service; and the National Biological Information Infrastructure (NBII). Funding for FIREHouse has been provided by the Joint Fire Science Program (JFSP) and NBII. FIREHouse is coordinating efforts with the Fire Research and Management Exchange System (FRAMES) project team. Content on FIREHouse will provide substantial contributions to the FRAMES Northwest and Alaska Geo Portals.

For More Information about the FIREHouse Project

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