

Fuel-reduction treatments: treatment types and a landscape strategy to achieve restoration and a fire-safe landscape in the Applegate valley of southwest Oregon

The authors gratefully acknowledge Joint Fire Science Research Grant entitled "Fuels Reduction in Oak Woodlands, Shrub Lands, and Grasslands of SW Oregon: Consequences for Native Plants and Invasion by Non-native Species" (JFSP Project Number: 03-3-3-36) for enabling work contributing to this poster.

Greg Chandler, Paul Hosten, Al Mason, Jerry Serabia,
Ashland Field Office, Medford District -Bureau of
Land Management, Medford, OREGON





Applegate Valley, SW Oregon

Introduction

The Ashland BLM Field Office has actively pursued fuel reduction since 1996. Treatment types include handpile and burn (HPB), mechanical mastication, and prescribed fire. Planning and developing Watershed/Landscape Level Management plans provides the opportunity to strategically identify areas for treatment and achieve multiple objectives. These objectives can include fuel hazard reduction, forest health, fish and wildlife habitat enhancement, restoration (grass, shrub, and oak woodland communities), and commercial thinning. Funding and priority areas are identified and coordinated with federal, state, local agencies, private organizations and landowners to effectively treat hazardous fuels in the wildland urban interface (WUI).

The Ashland Field Office has completed 12 landscape level projects in watersheds typically larger than 10,000 acres each. This poster describes some of the processes and tools utilized to achieve fuel hazard reduction objectives on the landscape and within the WUI.

Planning

Steps to take:

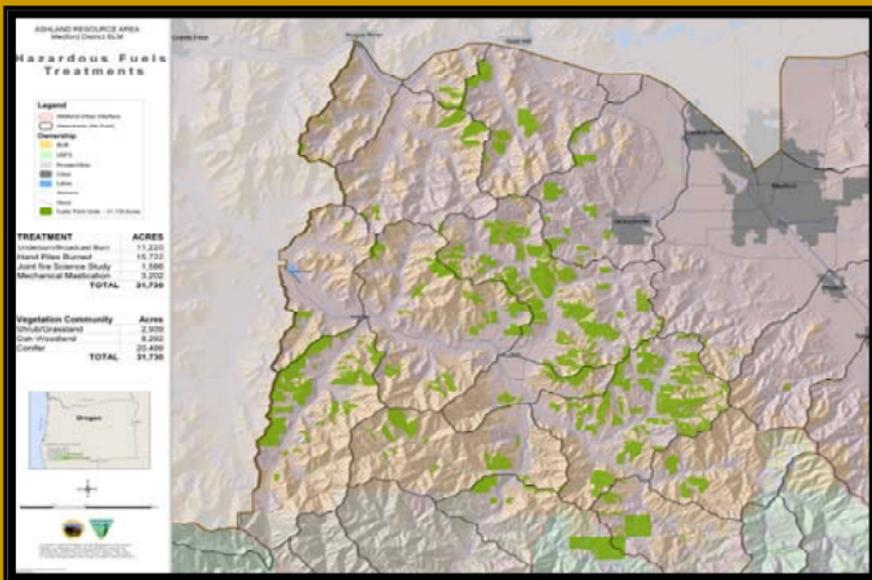
- Establish a multi-disciplinary team with management and natural resource experts.
- Develop stand and landscape level objectives for multiple disciplines.
- Complete required surveys which provides the necessary data to plan management actions necessary to meet these objectives.
- Complete interdisciplinary project planning (includes collaboration with state, local and private).
- Coordinate with or develop a community wildfire protection plan (CWPP). The Applegate Fire Plan was completed in 2002.

Implementation

More than 99% of the on-the-ground work is accomplished through the use of contracting. Contracts are used to accomplish fuel hazard reduction, surveys, timber sales, biomass utilization, and stewardship.

Fuel hazard reduction work is mainly accomplished with a 5 year, 20 million dollar Fuels Management Services, Indefinite Delivery Indefinite Quantity (IDIQ) contract. This allows all phases of implementation to be completed by the contractor. E.g. Burn plan preparation, manual or mechanical treatment, and prescribed fire. The contractor supplies the skilled personnel and specialized equipment. Contractors often work across ownership boundaries and continue a public lands project on to private lands.

Timber sale contracts can meet commercial thinning needs while generating funding to do the fuel hazard reduction work in commercial timber stands. This allows other funding to be focused on high priority non-commercial WUI areas. Commercial thinning can also reduce fire hazard by reducing crown bulk density and ladder fuels.



Applegate Valley Fuel Types



Mixed conifer and hardwood



Mixed conifer/shrubland



Shrubland



Mixed conifer (over stocked stand)

Slash, Handpile and burn



Cons:

- Relatively high cost per acre (\$700 - \$1200/acre)
- Labor intensive

Pros:

- Reduced risk of escape in wet season
- Reduced smoke issues in wet season
- Can reduce fuel loading without damage to residual stand



Commercial Thinning



Pros:

- Ensures multi-discipline landscape level treatments occur
- Helps to fund initial survey and planning costs
- May offset fuel hazard reduction costs
- Reduces crown bulk density and ladder fuels by reducing commercial timber greater than 7 inch DBH

Cons:

- Subject to more protest and litigation
- Requires higher level of NEPA clearance (e.g. EA vs. CE)

Prescribed Broadcast/Underburn



Pros:

- Relatively low cost per acre (\$50 - \$250/acre)
- Removes surface fuels
- Mimics natural disturbance
- Cons:
 - Chance of escaped burn (potential consequences in WUI)
 - Short window to accomplish
 - Smoke management constraints
 - Cannot always be used as initial treatment (potential damage to stand)



Machine Mastication



Pros:

- Relatively low cost per acre (\$400/acre)
- Can treat large area quickly
- No smoke issues
- Mulch layer can suppress dormant seed



Cons:

- Less natural disturbance
- Potential soil impacts
- Fuel still on the site (i.e. only changed arrangement from fuel model 4 to fuel model 11)

