Squires Fire

Observations of fire behavior in the Applegate Valley hazardous fuels reduction project area

Bureau of Land Management
Medford District

Oregon Department of Forestry
Southwest Oregon District

Squires Fire & Fuels Treatment

Overview

The Squires fire began Saturday, July 13 with a lightening strike on Squires Peak. The fire is managed by Oregon Department of Forestry (ODF) and has burned approximately 2,800 acres of public and private land. The fire has burned through a mosaic of oak woodlands, brush fields and forested areas. Under the National Fire Plan (NFP), the Bureau of Land Management (BLM) had previously managed some of these areas to reduce the high fire hazard that built up over decades of fire exclusion. Fuel hazard reduction activities included mechanical and manual brush removal, precommercial and commercial thinning of trees, and prescribed burning. Initial observations on the effect of these treatments on fire behavior have shown significant positive results:

- **Fire Behavior** - Fire Behavior was significantly altered upon entering areas that had been managed to reduce fuels. In treated areas, the fire was more likely to remain on the ground as the ladder fuels that help the fire climb into treetops were no longer available.

- **Safety** - Treated areas created safety zones for firefighters who were able to directly attack ground fires. By using direct attack on the edge of the fire, the potential size of the fire was greatly reduced. The initial worst-case estimate for the Squires Fire potential was 25,000 acres.

- **Suppression Effectiveness** - ODF Firefighters were able to quickly stop many spot fires in treated areas that may otherwise have rapidly consumed large numbers of acres.

- **Fire Effects** - Overall tree mortality was greatly reduced in many treated stands. Mortality was not eliminated. Weather, topography, and time of day continue to have a tremendous effect on fire behavior and can elevate fire activity in these stands. The fuel conditions in adjacent untreated stands can also reduce the effectiveness of fuels treatment.

National Fire Plan

- **Communities At Risk** - Southwestern Oregon has 26 designated Communities at Risk. BLM has accomplished fuel treatments in or adjacent to 23 of these communities. ODF has established a cost share fuels treatment program to assisted landowner in 18 communities to date.

- **Hazardous Fuels Treatments** - Medford BLM received $8.6 Million in NFP funds in 2002, which will complete over 23,000 acres of fuel treatments. In addition, an aggressive commercial thinning program is in progress to reduce stand density in commercial forest stands.

- **NFP Community Assistance Grants** - Since 2001, 19 communities and non-profit organizations in Southwestern Oregon have received 29 grants for a total of $4.3 million. ODF has received nine grants for a total of $2.25 Million. ODF has used these funds to assist over 640 individual landowners in creating defensible space and fire safe access around homes and schools in 18 communities. This cost share program is very active in the Applegate Valley, with one highlight being a community led Applegate Strategic Fire Plan.

- **ODF & BLM** - The two agencies work collaboratively in planning locations and coordinate implementation of fuels treatments to create maximum treatment effectiveness in high priority wildland-urban interface lands.

The Fire stays on the ground in an area that was previously managed with a commercial thin and followed with a prescribed underburn.

The fire crowns in a nearby unmanaged stand. High tree density and the presence of ladder fuels make it easy for the fire to climb up the trees.

A ground fire in a managed stand makes it possible for firefighters to directly attack and stop the fire with construction of a fire line.

This oak woodland had been thinned, but handpiles hand not yet been burned. Although fire behavior was greater due to existing handpiles, fire crews were able to use direct attack and construct dozer line through the treated stand.

The crowns of trees remain healthy after the passage of the wildfire. This stand of timber was commercially thinned, ladder fuels reduced and handpile burned prior to the passage of the fire.

This untreated timber stand experienced a stand replacement fire. This timber is located on the same ridgeline as the timber shown above, but on the backside. Due to the extreme fire behavior in this stand, spotting occurred onto private property over ½ mile in front of the main fire.