

# Great Basin Area Safety Alert

May 4, 2006

**Subject:** Heavy Fine Flashy Fuel Loadings and Potential for Extreme Fire Behavior

**Area of Concern:** Firefighter Safety

**Distribution:** STATEWIDE

**Discussion:** The 2006 wet winter throughout the Great Basin has again caused tremendous fine fuel growth in native, non-native and noxious weeds. Statewide fine fuel carryover is estimated around 70% to 90% from the 2005 fire season adding to the continuity of the fuel bed. Specifically, non-native and noxious weeds consisting of cheat grass (*Bromus tectorum*) and Red Brome (*Bromus rubens* L) have significantly increased the amount of fine flashy fuels.

Unusually heavy fuel loadings above 2500 pounds dry weight have been reported in southern Nevada and southern Utah in the Mojave Desert ecosystem. The wet spring is also causing unusual amounts of fine fuel growth in the northern half of the state. Fuel loadings are estimated to be above 1500 to 2500 pounds per acre. These values will be adjusted once the growth cycle is complete. Pinyon/Juniper live fuel moisture values are low; averaging around 100% to 105% for May.

The Davies fire in the Mormon Mountain area of the Ely Field Office reported the fire burned actively throughout the night in live GREEN and dead fine fuels approximately 6 inches high with a fuel loading of about 800 pounds per acre. Observed fire behavior conditions are more similar to July burning conditions with elongated flaming fronts and rapid rates of spread.

## **Fire Behavior Concerns to Firefighters and the Public:**

- Anticipate fire to creep under wetlines and retardant lines in areas where fine fuel matting is seen.
- Anticipate any ignition in flashy fine fuels to ignite easily and move rapidly. **You can't out run it!**
- Anticipate fire whirls because of a combination of fine flashy fuels, terrain, dry atmospheric conditions and strong surface instability.
- Anticipate large acres to be consumed in a short period of time.
- Fire Behavior will burn the fine flashy fuels leaving some shrub components until the live fuel moisture values drop to about 115% to 120%. **Watch out for re-burn situations!**
- Anticipate fires to exhibit extreme spread rates, elongated flaming fronts, and increasing fire brands; **expect more long range spotting.**
- Anticipate dependent and independent crown fires in insect infested conifer stands.

## **Tactics**

- Indirect tactics should be used earlier this year.
- Ensure firefighters have good anchor points - keeping one foot in the black.
- Have adequate numbers of Look Outs who understand the effects of weather changes, topography and can see the flaming front.
- Evaluate jumpspots and helispots on a worse case scenario basis and anticipate changing wind direction and windspeeds!