

Eastern Area

Fuels and Fire Behavior Advisory

October 1, 2012

Subject: Fuel conditions/elevated significant fire potential across the majority Minnesota, far western Wisconsin, and portions of Iowa.

Discussion: Medium to long range drought is predicted to persist across much of Minnesota, far western Wisconsin, and portions of Iowa into the middle of the fall season of 2012. The occurrence of negative soil moisture and precipitation anomalies is expected to persist into the mid-fall season over these areas. Fuel moistures across the areas of concern were at record low levels in early October caused by the lack of rain.

At this point in the fall season grasses and fine fuels across the areas of concern are very receptive to ignition. Fires which have occurred in the areas of concern are burning intensely and mop up is also more extensive with some fires burning deep into the duff and organic soil layers. Crowning within conifer stands have occurred with moderate wind speeds. NFDRS energy release components were well above the 97th percentile at the RAWS across the areas of concern. These conditions have created above normal fire potential during periods of above normal temperatures, low relative humidity, and gusty winds.

100 and 1000 hour fuel moistures dropped to well below average levels at the majority of the RAWS across much of Minnesota and portions of Iowa. Elevated fire potential and problematic fire behavior should be expected and planned for, since the abnormally dry conditions are predicted to persist through October.

Outlook: Below normal precipitation trends are forecast to persist through October 2012 across the areas of concern. Frequent, widespread precipitation events are needed to alleviate the severe drought in place over these areas. Any periods of dry and windy weather will lead to increased significant fire potential until indices drop down closer to normal levels and medium to large fuel moistures increase.

Concerns to Firefighters and the Public:

- Anticipate any ignition in flashy fine fuels to burn readily and move rapidly during periods of dry and windy weather conditions.
- 100 and 1000 hour fuels have the potential to become involved with any ignitions across the area of concern. Under certain circumstances fire crews may be required to utilize tactics not normally used in their local area, such as; an increased use of hose lays, indirect fire line/ burn out, as well as prolonged mop-up operations.

Mitigation Measures:

- Make certain firefighters have good anchor points and keep one foot in the black.
- Ensure LCES is in place on every fire before engaging. Firefighters should have a good understanding of the effects of weather changes and topography on fire behavior.
- Become familiar with local fuel conditions and current fire danger indices, and their implications for fire behavior.

Area of Concern: The majority of Minnesota, far western Wisconsin, and portions of Iowa.