

Southern Area

Fuels and Fire Behavior Advisory

Subject: Potential for Extreme Fire Behavior, Potential for Long Term Burning and resistance to control

Discussion:

Areas of Arkansas and Oklahoma (See map) are experiencing an exceptional to extreme drought. The lack of moisture has dried all fuel size classes to record or near record levels for this time of year. Live fuels have begun to move into dormancy due to drought which will add significantly to the available fuel loads. Wind reduction under hardwood canopies will be lost as leaf fall occurs, hardwood litter will be “fluffy” rather than compacted, and solar radiation will impact the forest floor to a greater extent. These factors will all work together to greatly increase rates of spread and fire intensities.

NFDRS energy release components are at or above the 97th percentile at most of the RAWS across the areas of concern. These fuels conditions along with above normal temperatures, low relative humidity, and gusty winds are creating problematic fire behavior on all fires.

1000 hour fuel moistures are currently setting new record lows for most of the stations in the area of concern. All stations are currently below the 3rd percentile. Ground water levels throughout the area are also at critically low levels.

Elevated fire potential and problematic fire behavior should be expected and planned for, since the abnormally dry conditions are predicted to persist.

Concerns to Firefighters and the Public:

- Anticipate fire to creep under wetlines and retardant lines. **Do not trust a fireline that is not constructed down to mineral soil!**
- Wind reduction influence of hardwood forest canopy is being lost due to early leaf drop. Expect fires to become increasingly difficult to control as this trend continues.
- Anticipate fires to exhibit rapid spread rates, elongated flaming fronts, and increasing fire brands; **spotting of up to ½ mile has been observed in timber litter models.**
- Expect long term burning of large fuels, stumps, and organic soils where they are present.

Mitigation Measures:

- Indirect tactics may have to be used.
- Ensure firefighters have good anchor points - keeping one foot in the black.
- Order aerial resources early. Utilize ATGS or other spotter aircraft to serve as an aerial lookout for firefighters.
- Insure that LCES is in place before engaging an initial attack fire.
- Maintain situational awareness at all times! Communications with other firefighters and aerial resources is vital to staying safe.
- Fires will have to be monitored and patrolled for much longer than normal to insure that fires remain contained.

Area of Concern: Arkansas and Oklahoma