

# Fuels and Fire Behavior Advisory

## Northcentral Texas

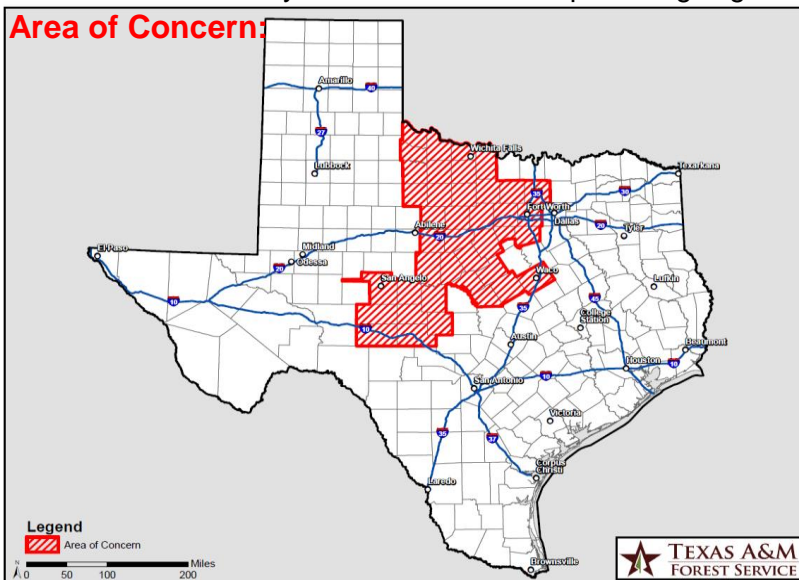
July 16<sup>th</sup> 2018

**Subject:** Below normal rainfall in late May and June across portions of the Hill Country, eastern Rolling Plains, Cross Timbers, and North Texas has produced underlying dryness. Scattered rainfall over the past 14-days has improved fuel moisture conditions for part, but not all of the area of concern. High drying potential is forecast this week. This extended drying will increase fuels dryness to critical levels. Critical fuel dryness will support significant fire activity in high risk fuels when fire weather thresholds are present.

**Discussion:** A mosaic pattern of herbaceous fuels exists across the area of concern from a scattered rainfall pattern over the past 14-days. Over the next 7-10 days, a strong drying period will wilt or cure herbaceous fuels. Dead fuel moisture levels are trending down and expanding in coverage. 1000-Hr fuel moistures in the area of concern are generally between the 11<sup>th</sup> -50<sup>th</sup> percentile. Heavy dead fuels will likely hold heat through multiple burn periods requiring extensive mop up and patrol commitments. Live fuel canopy moistures in Juniper, Live Oak, and Mesquite are trending below normal. Single tree and group torching in these species with only moderate surface fire intensities has occurred on fires early in July. Active crown fire has been observed in high risk Juniper/Oak brush fuel types when fire weather thresholds (*Temp: ~105° F, RH: ≤20%, Winds: 8-12 mph*) and fuel dryness (ERC near 90<sup>th</sup> percentile) are aligned. Short range spotting in Juniper from group tree and active crown fire has increased difficulty of control to a high level. ERC in the area of concern will likely trend above the 75<sup>th</sup> percentile through the week with some areas approaching or exceeding the 90<sup>th</sup> percentile.

### Concerns to Firefighters:

- Recent greenness in herbaceous fuels will wilt and cure. Dead surface fuels will reach critical dryness. Resistance to control will increase.
- Fire weather thresholds will be met multiple days over the next 7-days.
- Active crown fire can occur in high risk closed canopy Juniper brush producing flame lengths of 60-80 feet.
- Low fuel moistures in heavy dead fuels will hold heat through multiple burn periods. Heat can also hibernate in the heavy dead fuels and stumps through light rain events.



!A / POCKET CARDS / FUELS GUI

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