

# **Fuels and Fire Behavior Advisory**

## **Eastern New Mexico, Western Texas, Western Oklahoma, Southeastern Colorado and Western Kansas**

*Date Advisory takes affect – April 4, 2018*

**Subject:** Exceptional fine fuel loading and persisting drought have combined to create dangerous fire behavior conditions across eastern New Mexico, western Texas, western Oklahoma, southeastern Colorado, and western Kansas. Extreme fire behavior has been observed under moderate fire weather conditions, and fires have shown a complete resistance to control during critical fire weather events.

**Discussion:** Above normal rainfall during the 2017 growing season has produced an abundance of fine fuel loading across the grass dominant fuelscape of the southern Plains. This exceptional crop of grass is supporting above normal significant fire occurrence and fires that are highly resistant to control. The current fire effective weather pattern has produced drying that has pushed ERC values above the 90<sup>th</sup> percentile. This same fire effective weather pattern produces frequent critical and at times extreme fire weather in the pre frontal and post frontal environments. The fire environment described here can produce fast moving fires that quickly out pace suppression efforts and are capable of threatening communities.

**Difference from normal conditions:** Fine fuels loadings are 130-150%+ of normal, with 2-4 foot tall grass observed in some areas. The above normal grass loading can effectively lower fire weather and fuel dryness thresholds for significant fire occurrence or fires highly resistant to control. These grass fuel beds will support rate of spread from 2-4 mph with critical fire weather present. Extreme fire weather will produce rate of spread up to 6-7 mph. Portions of the advisory area have received less than 25% of normal precipitation over the past 90 days. The March 15th County Line Fire north of Amarillo Texas produced rate of spread up to 6 mph in heavy load range grasses. The March 15th Gravel Pit fire shown here produced 15 foot flame heights in heavy load range grass.



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

- Extreme to unprecedented fire growth and intensity is to be expected with any new or ongoing fires, especially under critical fire weather conditions. This is to be expected on all areas of fire perimeters, including the normally less active flanks and heel.
- Typical barriers to fire spread and behavior cannot be depended on, including roadways and areas burned earlier in the year.
- Fire spread and behavior may not abate substantially during cooler, more humid periods as they typically do...including the overnight hours.
- The public will need to be advised to avoid areas in the vicinity of ongoing fires, monitor the media, and heed evacuation notices should fires occur near their homes or places of employment.

### **Mitigation Measures:**

- Fire managers should be prepared to support periods of more frequent fire occurrence as well as complex, longer duration wildfire incidents; Firefighters should expect to construct wider control lines than typical in all fuel types; Dozers and maintainers will be best utilized in tandem; Wet-lines in fine fuels will require frequent patrol and intensive mop-up; Contained fires will require longer periods of patrol to prevent escape.

**Area of Concern:** Eastern New Mexico, western Texas, western Oklahoma, southeastern Colorado and western Kansas.

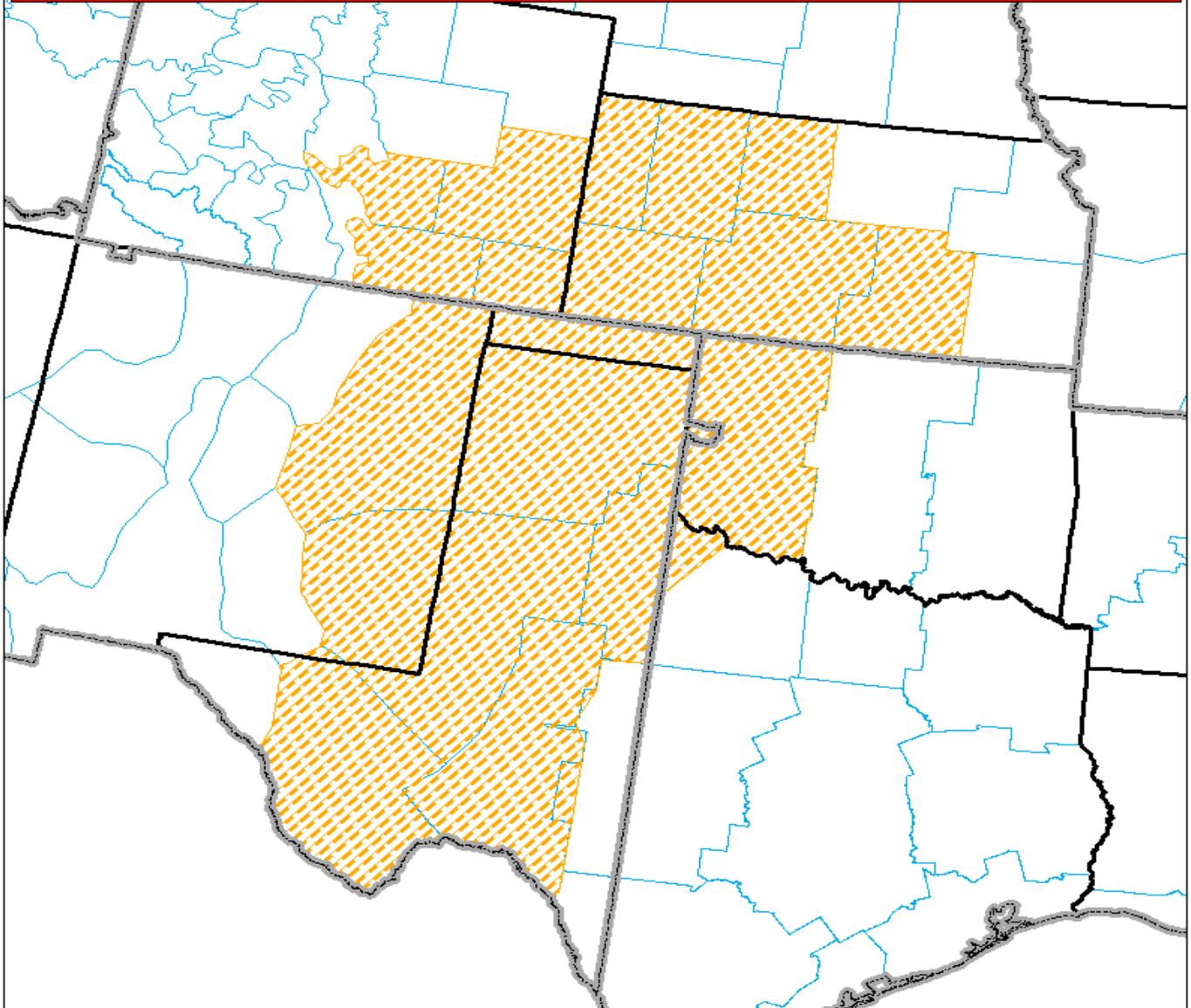
**Issued By:** Allan Hepworth, R8 USFS, with all-hands interagency coordination between wildland fire experts from the SW, RM, and SA Geographic Areas.

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 Geographic Areas

 Fuels and Fire Behavior Advisory Area

 Predictive Service Areas

0 60 120 240 360 480 Miles

