Fuels and Fire Behavior Advisory

Central/Southern Great Plains

March 10, 2017

Subject: Exceptional fine fuel loading and ongoing drought have combined to create dangerous fire behavior conditions across portions of the central and southern Great Plains. 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: Vigorous fine fuels growth during the 2016 growing season and drought that developed and worsened through the winter of 2016/2017 have combined to create an abundance of fuels which are readily available for combustion. This environment has already fostered unprecedented fire growth and intensity, with fast-moving fires fully consuming all available fuels and defying control efforts during critical fire weather events. Extreme fire behavior has also been observed during moderate weather conditions. The potential for dangerous fire behavior is expected to remain until there is a significant change in fuels conditions, which is not anticipated through the end of March.

Difference from normal conditions: Fine fuels loadings are 130-150%+ of average, with 2-4 foot tall grass observed in some areas. Heavier dead and live fuels, mainly across central and eastern Oklahoma, have also been reported as being unusually dry. Firewhirls and spotting have been noted under relatively low wind conditions in what is typically a wind driven fire regime. Spotting under high wind conditions has been unusually profuse, and has rendered normal barriers to fire spread ineffective. A few fires showed growth of 40-60 miles over one or two burning periods. *(Picture to right: Right flank fire intensity on Perryton Fire in TX Panhandle – March 6, 2017 at 1800)*

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, larger duration wildfire incidents.
- Firefighters should expect to construct wider control lines then 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 plains of Colorado and New Mexico, the northwest portion of Texas, the western two thirds of Kansas, and all of Oklahoma.

Please reference the map posted on the National Fuels Advisories page:
https://www.predictiveservices.nifc.gov/fuels_fire-danger/fuels_advisories.htm