

Fuels and Fire Behavior Advisory

Central Kansas and Nebraska

April 11, 2022 - Advisory Expiration Date (14 Days)

Subject: Critically dry conditions and delayed green up have created a volatile landscape for extreme fire behavior in portions of central Kansas and Nebraska.

Discussion: Much above normal temperatures over winter combined with below normal precipitation rapidly developed drought. These dry conditions have persisted into April and have intensified over the last few weeks. As a result, green up has been slow to progress. Central Plains SIG ERC is at 95th percentile with numerous locations in the 97th percentile or higher.

Recent wildfires have exhibited extreme fire behavior and significant suppression issues. Grass is the primary fuel in the region. Flame lengths have been observed exceeding 5-7' in ungrazed, and 3-4' in grazed. Typically effective barriers of timber/leaf litter are consuming efficiently. These are no longer an aid to firefighters and are exhibiting aggressive behavior leading to spotting, rekindles, and extended attack. Cedar group torching has been observed across the region. Recent fire behavior has resulted in injuries and a fatality.

Difference from normal conditions: Spring is the climatological maximum in wildfire season in both Kansas/Nebraska. However, thus far in 2022, the region has observed an increase in wildfire occurrence/severity.

- Moderate to Exceptional Drought exists across the region.
- Mesonet soil moisture profiles rank in the 20th percentile.
- Burning index has exceeded record high values multiple times in the last week.
- Growing season index is at/below record low values for the time of year.
- Timely precipitation in 2021 yielded normal to above normal fine fuel loading for much of the region.

Concerns to Firefighters and the Public:

- Fires will grow exponentially fast if not suppressed quickly.
- Any increase in wind will result in extreme fire behavior, even if below typical thresholds of concern.
- Rekindles and holdovers are expected from previous wildland or prescribed fire.
- Typically effective barriers to spread including crop stubble, timber, and leaf litter are carrying fire.

Potential Fire Behavior:

- Anticipate extreme fire growth if ignition occurs in non-grazed/mowed grasses.
- Expect long distance spotting across roads, wheat fields, rivers, and other barriers.
- Cedar will effectively torch/crown under moderate winds with increased spotting potential.
- Complete consumption of heavier fuels.
- In light wind scenarios, fire behavior is erratic and unpredictable.

Mitigation Measures:

- Request mutual aid quickly and anticipate limited resources.
- Plan for indirect attack and potential life/property risk well in advance of the fire.
- Anticipate extended attack and resources required for the next operational period.
- Increase public awareness of preceding weather on days with heavy prescribed fire.
- Anticipate and understand Southern Great Plains Wildfire Outbreaks and their potential.
- Be aware of mental and physical stresses of a prolonged and active fire season.

Area of Concern: Central Kansas and Nebraska with extensions into northeast Kansas and southwest Nebraska.

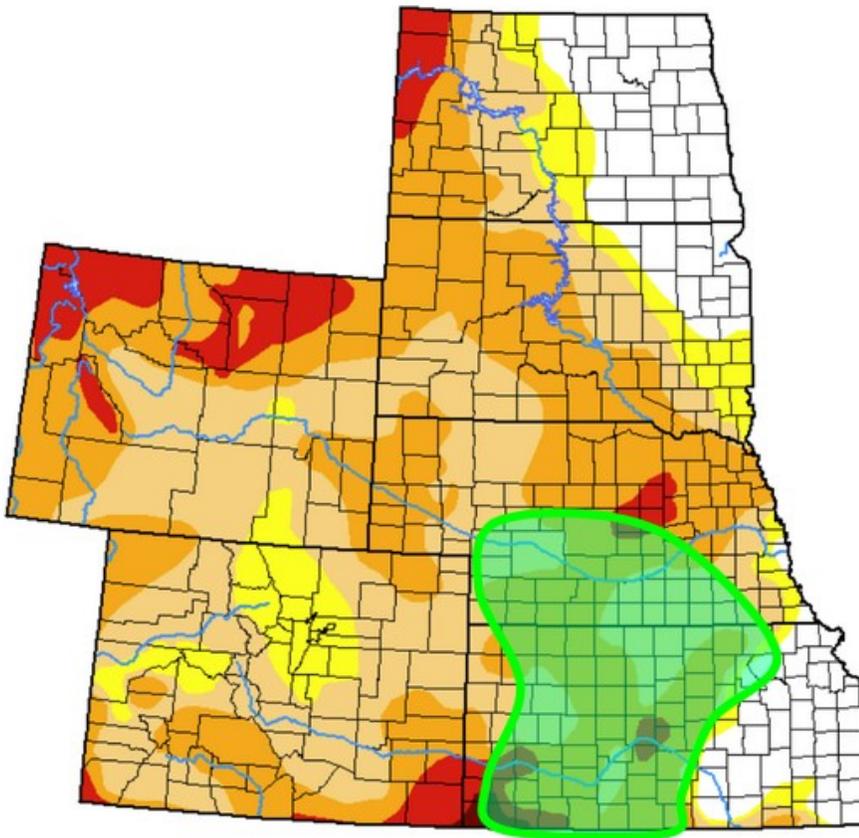
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U.S. Drought Monitor
High Plains

April 5, 2022
(Released Thursday, Apr. 7, 2022)
Valid 8 a.m. EDT



Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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