Fuels and Fire Behavior Advisory

Northern Half of Nevada

July 25th - August 8th, 2024

Subject: Recent above normal temperatures preceded by prolonged exceptional heat in early July rapidly dried out fuels in Nevada. Recent moisture has lowered fire danger temporarily in the dead fuels in localized areas, but upcoming dry weather and breezy winds will quickly reverse those effects in northern and western Nevada. Fine fuel loading is also well above normal and fully cured in northern Nevada, adding to rapid fire spread potential. These fuel conditions are rapidly increasing fire behavior, especially with increasing wind or lightning.

Discussion: The following conditions are being experienced/observed:

- Dry and breezy conditions returning to Nevada with relative humidity 7-12% and poor overnight recovery.
- Well above normal fine fuel loading, continuity, and tall grass across northern Nevada.
- Extreme critical Sagebrush live fuel moisture values below 80%.
- ERCs 80th 90th percentile in some areas, but on the rise.
- 100 and 1000-hr time lag fuels rapidly decreasing.
- Reports of sagebrush die off and matted tumbleweed in northern Nevada drainages increasing fire spread.

Difference from normal conditions: Live and dead fuel moistures dried out weeks ahead of schedule due to very hot and dry conditions in June which were amplified by exceptional heat and dryness in early July. Live sagebrush fuel moisture is well below normal, and in some areas at record lows. 100-hr and 1000-hr fuel moisture has increased due to recent moisture but is rapidly decreasing again due to dry and breezy weather. Above normal fine fuels are also widespread over northern Nevada. (See Img 2 below) Significant periods of hot and dry weather recently have also worsened the short-term drought conditions and allowed large fire activity to increase. Extreme fuel driven fire behavior has been observed on the Wilder Fire in Northwest Nevada and on the Whisky Canyon Fire in Northern Nevada in the lower elevations where fine fuels are abundant. Large fire activity has increased rapidly in recent days.

Concerns to Firefighters and the Public:

- Anticipate flashy fine fuels, sagebrush, and pinyon-juniper, to ignite easily and exhibit advanced rates of spread, elongated flaming fronts and increasing fire brands; expect more long-range spotting, even in absence of slope and wind. You can't out run it!
- Anticipate dust devils and fire whirls to develop in hot, dry and unstable conditions, especially in fine flashy fuels, that may jeopardize control lines and contribute to erratic fire behavior.
- Expect longer burn periods at mid to higher elevations.
- Fine fuel loadings in northern Nevada are dense and continuous and will support extreme rates of spread regardless of fuel heights.

Mitigation Measures:

- Modify tactics to account for potential high rapid rates of spread and high resistance to control.
- Communicate retardant drop effectiveness and modify as necessary; higher coverage levels or altered tactics may be required.
- Park all vehicles in clean, cold black; avoid driving or parking in unburned fuels.
- Ensure solid anchor points keep one foot in the black.
- Constantly re-evaluate LCES Lookouts Communications Escape Routes Safety Zones.
- Consult the latest weather and fire danger information at http://gacc.nifc.gov/gbcc/

Area of Concern: Northern Half of Nevada.

Issued By: Great Basin Coordination Center Predictive Services, Gina Palma (Meteorologist)

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All of Nevada

July 10, 2024

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