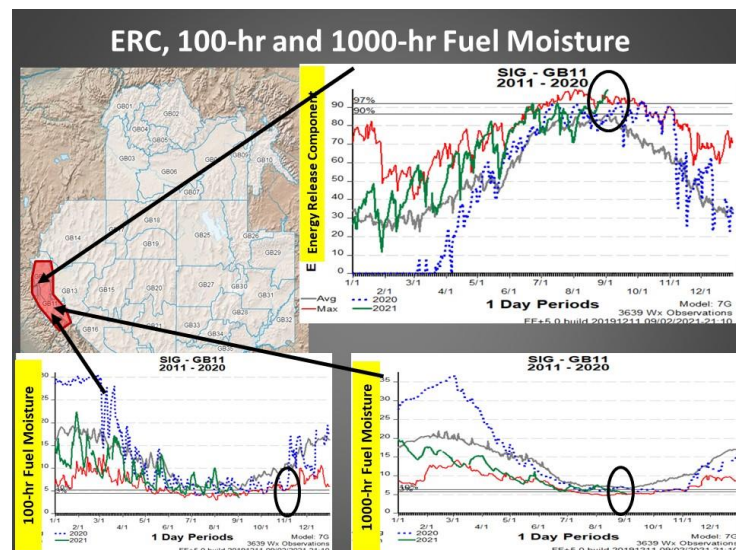


Fuels and Fire Behavior Advisory

Sierra Front – Above 5,500 Feet

Valid September 4th – 18th, 2021

Subject: RECORD LOW 1000-hr fuel moisture, 100-hr fuel moisture and Sagebrush fuel moisture, and **RECORD HIGH** ERCs continue along the Sierra Front above 5,500 feet. Fuel conditions will remain exceptionally dry through mid-September with continued hot, dry, and breezy weather and will significantly increase fire behavior, especially with increases in wind.



Discussion: Extreme fire behavior was observed on the Tamarack Fire in late July. Higher relative humidity recovery at night and light precipitation did not alter exceptional fire behavior. It took longer term wetting rains over several days to eventually lower fire behavior. The fire remained active throughout the day and overnight and experienced group tree torching, crowning, running, and spotting. Manzanita burned quickly like a fine fuel grass.

Extreme fire behavior has also been observed on the Dixie Fire and the Caldor Fire in Northern California. The rates of spread have been higher than normal in the absence of wind, and the fires have exhibited long range spotting and high resistance to control.

Difference from normal conditions: Fuel moisture has dropped to record levels the last two weeks due to hot and dry conditions, and the lack of precipitation. **1000-hr, 100-hr and live fuel moisture along the Sierra Front dropped to RECORD LOWS**, while ERCs increased to **RECORD HIGHS**. The exceptionally dry Sagebrush and Pinyon-Juniper will continue to be a significant contributor to fire spread. **Prolonged periods of warm and dry weather with periods of breezy winds are expected in September will keep fuel moisture exceptionally low. Near RECORD HEAT and dry conditions are also expected over the Labor Day holiday weekend.**

Concerns to Firefighters and the Public:

- Anticipate fire behavior activity picking up earlier in the day and extending well into the evening and overnight.
- Short and mid-range spotting should be expected with long-range spotting greater than ½ mile or more in all fuel types and a probability of ignition generally over 80% based on current conditions.
- Under the right atmospheric conditions or favorable alignment of fuels and slope, expect potential development of large plume dominated fires.
- Fires more likely exceeding initial attack unless significant allocation of aerial and ground resources is used.
- Anticipate all fuel types to ignite easily and exhibit advanced to extreme fire behavior.
- Commonly used terrain features or natural barriers (such as meadows, sparse fuels, etc.) used as a fire line may not be as successful in containment.

Mitigation Measures:

- Additional resources will be required for successful initial attack.
- Ensure you are planning well ahead of the fire.
- Retardant and/or bucket drops are NOT effective unless immediately followed up with firefighters.
- Establish trigger points in anticipation of expected fire behavior and adhere to them.
- Consult the latest weather and fire danger information at <http://gacc.nifc.gov/gbcc/>.

Area of Concern: The Sierra Front above 5,500 feet.

Issued By: Great Basin Coordination Center Predictive Services.

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