

### 2021 Fire Season Outlook

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MNICS Acres burned by Calendar Year 2011 through October 27, 2020





#### Average MNICS Fires per Month 1998-2020







# Live Fuel Moisture in Red & Jack Pine from Northern MN 2016-2020





- The snow always melts.
- The vegetation (fuel) is always fully cured in the spring and is widely available to burn.
- These two things mean there is always a spring fire season of some kind.
- Day to day weather patterns next spring, summer, and fall will be a significant driver in fire activity.
- Human activity will also contribute greatly to the level of activity we see next year.
- Long term dryness is consistently a precursor to large fire potential, more so in the summer and fall than the spring.



#### U.S. Drought Monitor Minnesota



#### December 29, 2020

(Released Thursday, Dec. 31, 2020) Valid 7 a.m. EST

#### Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.60	98.40	23.40	0.28	0.00	0.00
Last Week 12-22-2020	1.60	98.40	23.40	0.28	0.00	0.00
3 Month s Ago 09-29-2020	54.95	45.05	8.39	0.00	0.00	0.00
Start of Calendar Year 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-29-2020	54.95	45.05	8.39	0.00	0.00	0.00
One Year Ago 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00

#### Intensity:



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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- El Nino, La Nina, or Neutral Trends
- <u>https://www.cpc.ncep.noaa.gov/products/precip/CWlink/ENSO/box\_whiskers/inde\_x.php</u>

#### El Nino, La Nina, or Neutral Trends

<u>https://origin.cpc.ncep.no</u>
<u>aa.gov/products/analysis</u>
<u>monitoring/ensostuff/ONI</u>
<u>v5.php</u>







on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Drought remains but improves

Drought removal likely

Drought development likely



#### http://go.usa.gov/3eZGd



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Predictive Services Temperature and Precipitation Outlooks Temperature STRONG COLDER FEB JAN MAR APR RONG COLD MUCH ABV AVG **EPISODES** PERIODS Below Normal = Above Normal = Precipitation JAN APR MAR MOSAIC DRIEST ABV/BLO VERY WET POTENTIAL LIKELY BIASED DRIER VERY DRY VERY WET VERY DRY BUT AREA MIX OF DRIEST POTENTIAL POTENTIAL MOSTLY A WETTER BIAS. SOME DRY AREAS THOUGH ABOVE/BELOW Below Normal = Above Normal =



- Long term dryness trends are likely to remain in place through the winter, although they maybe somewhat masked by increased precipitation events through the winter.
- Other years with similar climatological trends produced dry summers in the following year.
- These two things indicate the potential to be scene through an increase in overall size of our largest fires.
- Spring fire season is showing signs of a high fire load, but will be heavily dependent on shorter term weather patterns.