

# Red Flag Event Summary – NWS Duluth

2015 May 2<sup>nd</sup>

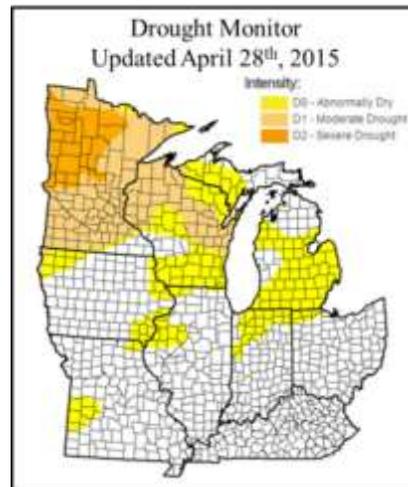
Amanda Graning, Fire Weather Program Leader

Bill Leatham, Fire Weather Team

## Synopsis:

In coordination with the MN Department of Natural Resources, the NWS office in Duluth, MN issued a Fire Weather Watch for four zones in north-central Minnesota the afternoon of April 30<sup>th</sup>. The watch area was upgraded to a Red Flag Warning on the morning of Saturday May 2<sup>nd</sup>. The warning was issued for a combination of near-record temperatures, critically low relative humidity, and gusty southwest winds.

The Drought Monitor updated on April 28<sup>th</sup>, shows that majority of Minnesota in Moderate drought status, with the northwest quarter of the state upgraded to Severe Drought. The area experiencing severe drought conditions also coincides with a region Very High to Extreme Fire Danger as depicted by the MN DNR.



## Weather:

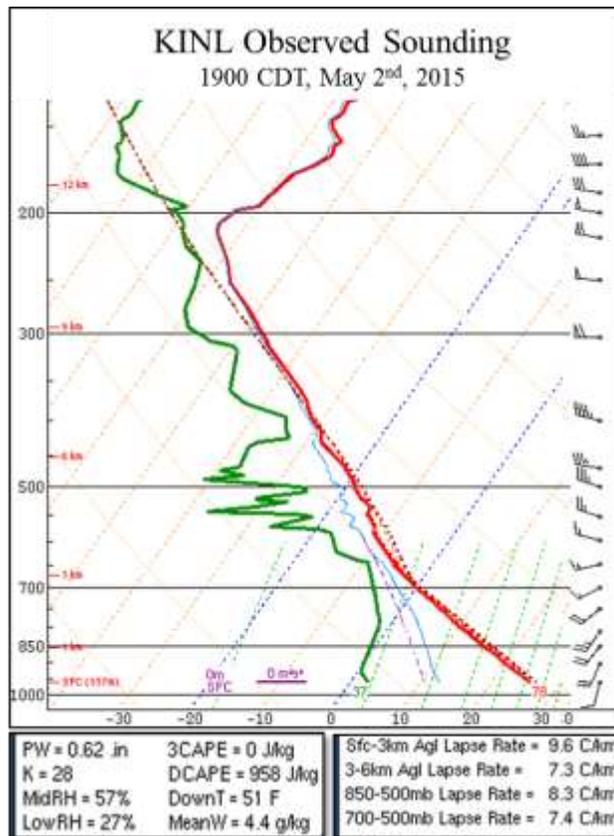
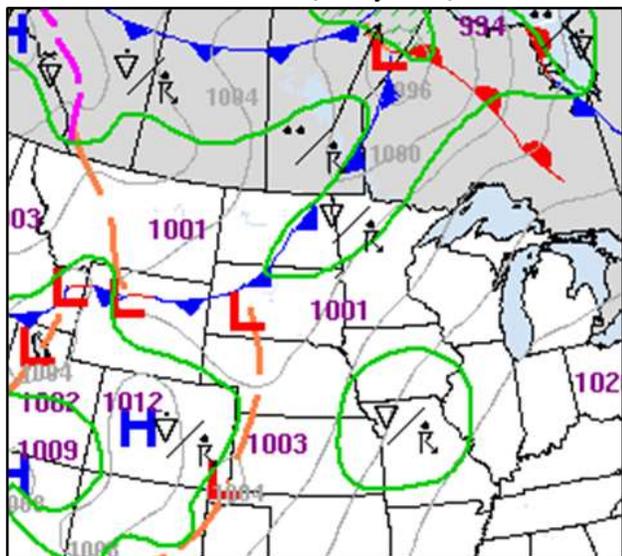
The previous morning, on May 1<sup>st</sup>, a cold front brought light rain to the western half of Minnesota. Rainfall amounts were generally on the order of 0.10 to 0.20 inches. There was a corridor of higher amounts around 0.30 inches located along a line from Fargo east to Bemidji and Brainerd. However, this rainfall was followed by afternoon RH values around 20% and was not enough precipitation to impact the fuels or fire danger.



On May 2<sup>nd</sup>, the region was situated ahead of a cold front in North Dakota. This air mass brought gusty southerly winds around 25 mph, near record temperatures in the 80s and RH values in the upper teens to around 20%. The front pushed into northwest Minnesota during the evening of May 2<sup>nd</sup>, triggering showers and thunderstorms. The intensity and coverage of the thunderstorms diminished as they tracked east into North-Central Minnesota overnight.

The observed evening sounding at International Falls, MN depicts the mixing layer height reached near 8000 ft (700 mb), promoting a very dry near-surface mixed layer.

**Surface Map**  
Valid 1900 CDT, May 2nd, 2015



**NWS Services:**

- Critical Fire Weather conditions were highlighted in the Hazardous Weather Outlook, Fire Weather Planning Forecast, and on Social Media.
- A Fire Danger Monitoring Webpage was linked in the Top News of the Day Section on the Duluth NWS Home Page.
- None of the DLH CWA was in the elevated category of the morning issuance of the SPC Day 1 Fire Weather Outlook. Used 12Panet Chat to let SPC know the watch would be upgraded to a Red Flag Warning. They replied they would pass the information along to the next shift.
- Issued 3 SPOTs for Wildfires. One in the Red Flag Warning Area. (River Fire)

**Fires:**

The MN DNR reported more than 30 wildfires in the state Saturday. The most active area was near Littlefork, in Koochiching County.

**Red Flag Warning, Weather Verification:**

<b>May 2<sup>nd</sup>, 2015</b>	
# of Warnings Issued:	4
# of Warning Verified:	4
# of Misses (Yellow):	2
POD:	67%
FAR:	0%
Ave Lead Time:	10hrs

May 2nd	05/01 1509	10	05/02 0446	10	1300-2000	1308	8:22	LITM5	19%	80	12 G26	82	17%	13	27
	05/01 1509	18	05/02 0446	18	1300-2000	1507	10:21	EFFM5	18%	79	16 G25	80	18%	16	27
	05/01 1509	25	05/02 0446	25	1300-2000	1501	10:15	CASM5	20%	81	10 G26	81	18%	16	26
	05/01 1509	26	05/02 0446	26	1300-2000	1715	12:29	KGPZ	22%	77	15 G25	79	22%	18	25
			19		19		1504	0:00	ELOM5	23%	77	13 G25	78	23%	13
		34		34		1606	0:00	BIRM5	19%	80	12 G25	80	19%	13	25