

# FIRE ENVIRONMENT FORECAST

FORECAST NUMBER: 6

TYPE OF FIRE: Initial Attack

FIRE NAME: MNICS Statewide Forecast

OPERATIONAL PERIOD: 03/11 – 3/12

DATE ISSUED: 03/11

TIME ISSUED: 0900

UNIT: MN-MNCC

SIGNED: Travis Verdegan

Typed/printed: Travis Verdegan

## INPUTS

### WEATHER SUMMARY:

#### Red Flag Warnings over the SW corner of the state today.

Precip deficits continue to stack up with more dry days over the weekend. Parts of the state have seen zero to trace amounts over the last thirty days or more.

Mostly sunny skies should dominate the state today and tomorrow.

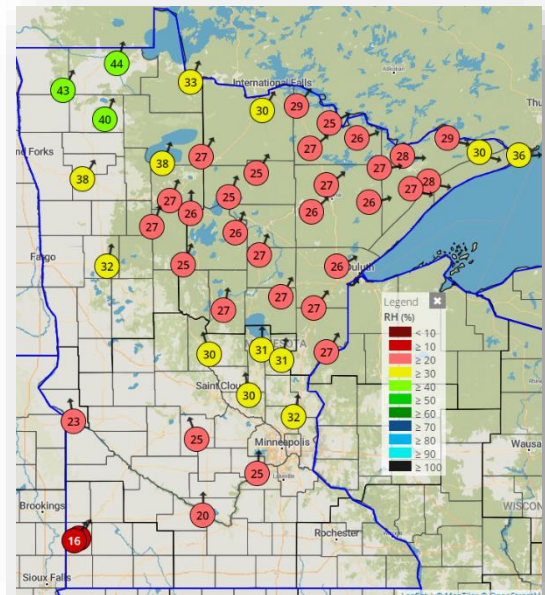
Seasonably warm temps are expected today, 50s and 60s, before dropping off some tomorrow, 40s and 50s

Winds from the south over most of the state today range from 8 – 13 mph while the SW could see 20 mph gusting over 25. A switch to the west tomorrow comes with similar speeds.

RH values drop critically low today with teens possible and 20s likely over most of the state.

The rest of the week should remain mostly dry although some chances for light precip are building in the forecast for the middle of the week.

Figure 1 - Forecasted 1600 RH 03/11/24.



**Hot-Dry-Windy Index** – Variable from Well Above Normal to Above Normal

## OUTPUTS

### FIRE ENVIRONMENT

#### GENERAL:

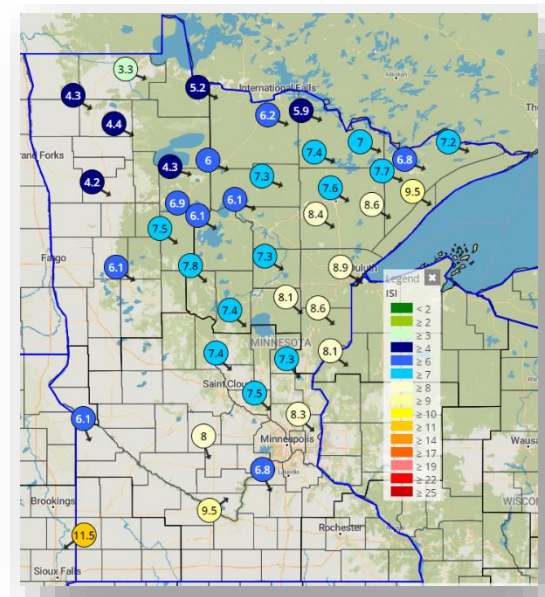
Critically dry air over most of the state yesterday resulted in our biggest fire day by occurrence this year, at the time of this writing 28 fires were reported for the day. Size was somewhat limited by moderate winds.

Another day of critically dry air today should keep fire number up and keep may IA resources busy running fire to fire. By tomorrow more of the state may be impacted by slightly stronger winds allowing for spread rates to challenge IA resources in fine grassy fuels.

Please report and observed fire behavior or fuels conditions. Photos are great. Please note the source of the photo if you do send some, it's important for us to know if we can share them.

**Fine Dead Fuel Moisture:** 5% Unshaded – 8% Shaded  
Prob. of Ignition: 65% Unshaded – 40% Shaded

Figure 2 - Forecasted Daily ISI 03/11/24.



**SPECIFIC FIRE BEHAVIOR:**

MN FFMC:88.5 BUI:2 WS:11 Effective ISI: 8.4	Flame Length	Rate of Spread (ft/min ≈ ch/hr)	Fire Type	60 Minute Spread Size (acres)
Grass (100% cured – 3 tons/acre)	12 – 13	70 – 75	Surface	83
Lowland Grass (100% cured – 5 tons/acre)	16 – 17	70 – 75	Surface	83
Young Jack Pine & Boreal Spruce (120% FMC)	5 – 6	20 – 25	Surface	15
Pine Pltn. & Mat. JP	2 – 3	5 – 7	Surface	1
Mixdwood (25% Fir) & Red & White Pine Timber	4 – 5	8 – 10	Surface	2
Hardwood/Aspen	2 – 3	4 – 6	Surface	<1

**Outlook:**

With a continuation of drought conditions across much of the state and ever-increasing day lengths, big picture fire potential continues to be on the rise and increasingly susceptible to daily weather patterns. More and more we should expect to see very busy days across the state with the potential for the sheer number of fires alone to stress local IA resources. Add in strong winds and we are likely to see large fire potential. Aggressively burning fires in timbered fuels have not been reported yet, however they should not be too far off if we continue to stay dry.

The CPC 6 – 10 and 8 – 14 day outlooks have made a big switch to some better chances for cooler temps and remain with below normal to normal indications for precip.

The latest release of the drought monitor saw marginal increases in the moderate drought category other wise we continue to see the entire state being represented by at least abnormally dry conditions with the majority at least at marginal drought.

*Figure 3 - Weekly  
Summary Forecast for  
Northwestern MN Issued  
by NWS Grand Forks*

<b>Goodridge, MN Weekly Summary</b>	Mon Mar 11	Tue Mar 12	Wed Mar 13	Thu Mar 14	Fri Mar 15	Sat Mar 16	Sun Mar 17	Mon Mar 18
Max Temp, °F	57	47	44	39	43	36	29	30
Min Temp, °F	30	29	30	28	26	26	21	16
Max RH, %	92	98	93	100	87	91	85	79
Min RH, %	44	59	65	59	61	60	56	47
Max Dewpoint, °F	37	33	33	30	32	29	20	15
Min Dewpoint, °F	27	28	28	24	22	20	13	10
Max Wind, mph	14	10	10	13	20	22	20	14
Min Wind, mph	2	6	8	9	7	17	14	12
Max Wind Gust, time/dir.	3 PM ↗	2 PM ↘	8 PM ↘	2 PM ↘	10 PM ↘	2 PM ↘	12 AM ↘	12 AM ↘
Max Wind Gust, mph	21	15	16	20	29	33	29	20
Min Wind Gust, mph	6	10	12	13	12	28	22	16
Max Cloud Cover, %	76	86	92	73	65	84	80	64
Min Cloud Cover, %	38	30	56	36	39	71	60	57
Max Prob. of Precip., %	1	1	11	11	43	43	21	7

*Figure 4 – Weekly  
Summary Forecast for  
Northeastern MN Issued  
by the NWS Duluth*

<b>Nett Lake, MN Weekly Summary</b>	Mon Mar 11	Tue Mar 12	Wed Mar 13	Thu Mar 14	Fri Mar 15	Sat Mar 16	Sun Mar 17	Mon Mar 18
Max Temp, °F	60	53	47	43	43	39	32	30
Min Temp, °F	28	31	27	25	23	27	21	15
Max RH, %	62	96	100	100	92	88	84	84
Min RH, %	23	38	47	45	45	48	45	37
Max Dewpoint, °F	30	31	28	28	27	27	21	12
Min Dewpoint, °F	12	28	27	23	21	21	12	7
Max Wind, mph	7	12	8	10	16	20	17	13
Min Wind, mph	2	5	5	7	7	15	14	12
Max Wind Gust, time/dir.	10 PM ↗	3 PM ↗	5 PM ↘	12 PM ↘	11 PM ↘	2 PM ↘	12 AM ↘	12 AM ↘
Max Wind Gust, mph	12	16	10	16	24	29	25	20
Min Wind Gust, mph	5	8	7	9	10	23	20	17
Max Cloud Cover, %	67	75	76	64	63	82	80	73
Min Cloud Cover, %	20	21	51	32	33	65	58	51
Max Prob. of Precip., %	0	0	1	4	43	47	22	6

*Figure 5 – Weekly  
Summary Forecast for  
Southern MN Issued by  
NWS Chanhassen*

<b>Avon, MN Weekly Summary</b>	Mon Mar 11	Tue Mar 12	Wed Mar 13	Thu Mar 14	Fri Mar 15	Sat Mar 16	Sun Mar 17	Mon Mar 18
Max Temp, °F	63	60	52	46	48	43	38	36
Min Temp, °F	31	35	34	33	27	31	25	19
Max RH, %	71	87	86	87	88	77	73	72
Min RH, %	28	29	48	53	46	51	47	37
Max Dewpoint, °F	33	34	34	31	29	29	21	14
Min Dewpoint, °F	22	27	30	27	24	21	15	11
Max Wind, mph	7	8	12	16	15	22	18	15
Min Wind, mph	1	5	7	12	8	15	15	12
Max Wind Gust, time/dir.	4 PM ↗	3 AM ↗	10 PM ↘	6 AM ↘	4 PM ↘	2 PM ↘	9 AM ↘	12 AM ↘
Max Wind Gust, mph	12	13	18	24	24	33	28	22
Min Wind Gust, mph	3	8	10	17	13	24	23	18
Max Cloud Cover, %	56	65	80	77	48	73	72	46
Min Cloud Cover, %	17	9	69	35	22	41	47	30
Max Prob. of Precip., %	0	0	13	17	25	26	10	4

## References

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13. MN DNR, Forestry In: Wildfire Information Center. Available at: HYPERLINK "[https://mndnr.gov/forestry/fire/wildfirereports\\_tools.html](https://mndnr.gov/forestry/fire/wildfirereports_tools.html)" | "[indexes](https://mndnr.gov/forestry/fire/wildfirereports_tools.html#indexes)"