



February 29, 2024
10:00 AM

Southern Wisconsin Spring Flood Outlook - 2nd of 3

2/29/2024



National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Wisconsin



Key Messages

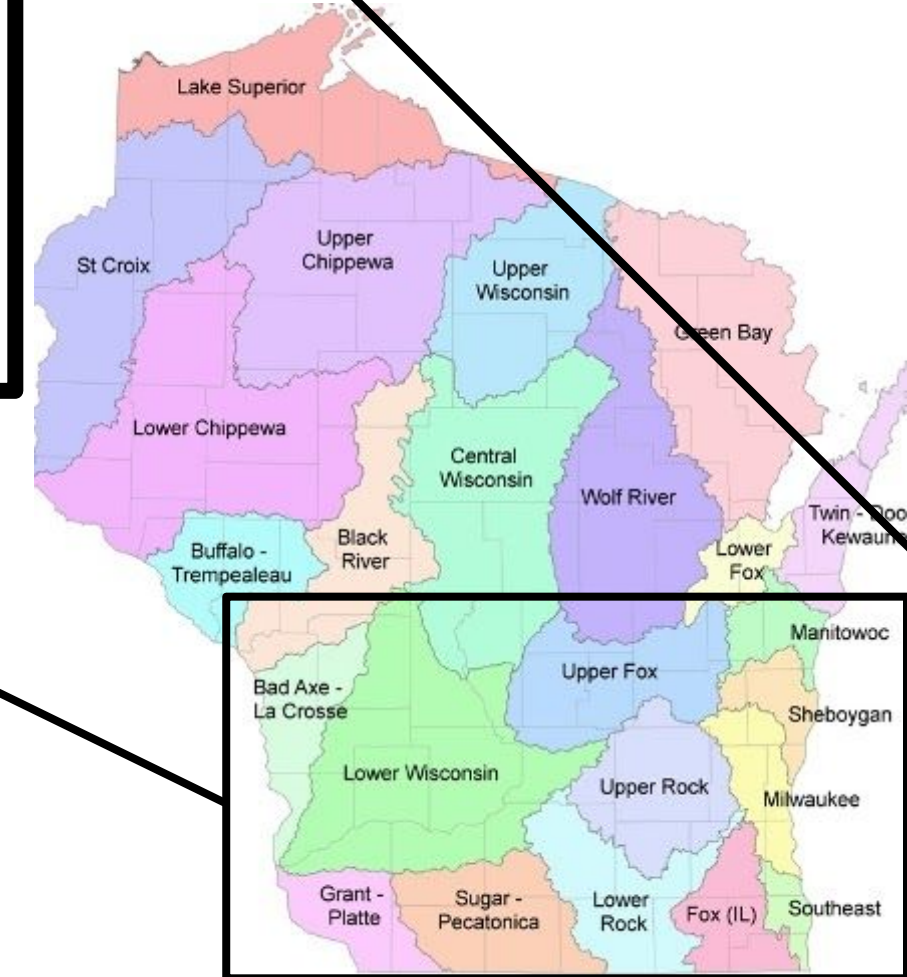
- Spring flood risk is below average
- Flooding is still possible, the underlying risk is not elevated at this time
- The greatest risk will be tied to heavy rain



Flood Risk by Basin

February 29, 2024
10:00 AM

River	Flood Risk
Lower Wisconsin	Below Average
Baraboo	Below Average
Pecatonica	Below Average
Sugar	Below Average
Sheboygan	Below Average
Upper Fox	Below Average
Crawfish/Rock/Turtle	Below Average
Lower Fox	Below Average
Root, Cedar Creek, Milwaukee	Below Average





Flood Risk Factors

February 29, 2024
10:00 AM

Flood Risk Factor	Status	Risk
Snowpack	Below Average	Lowers Risk
Soil Moisture	Average to Below Average	Lowers Risk
Frost Depth	Below Average	Lowers Risk
River Levels	Average	Average Risk
Spring Precipitation	?	
Spring Temperature	Mild ?	

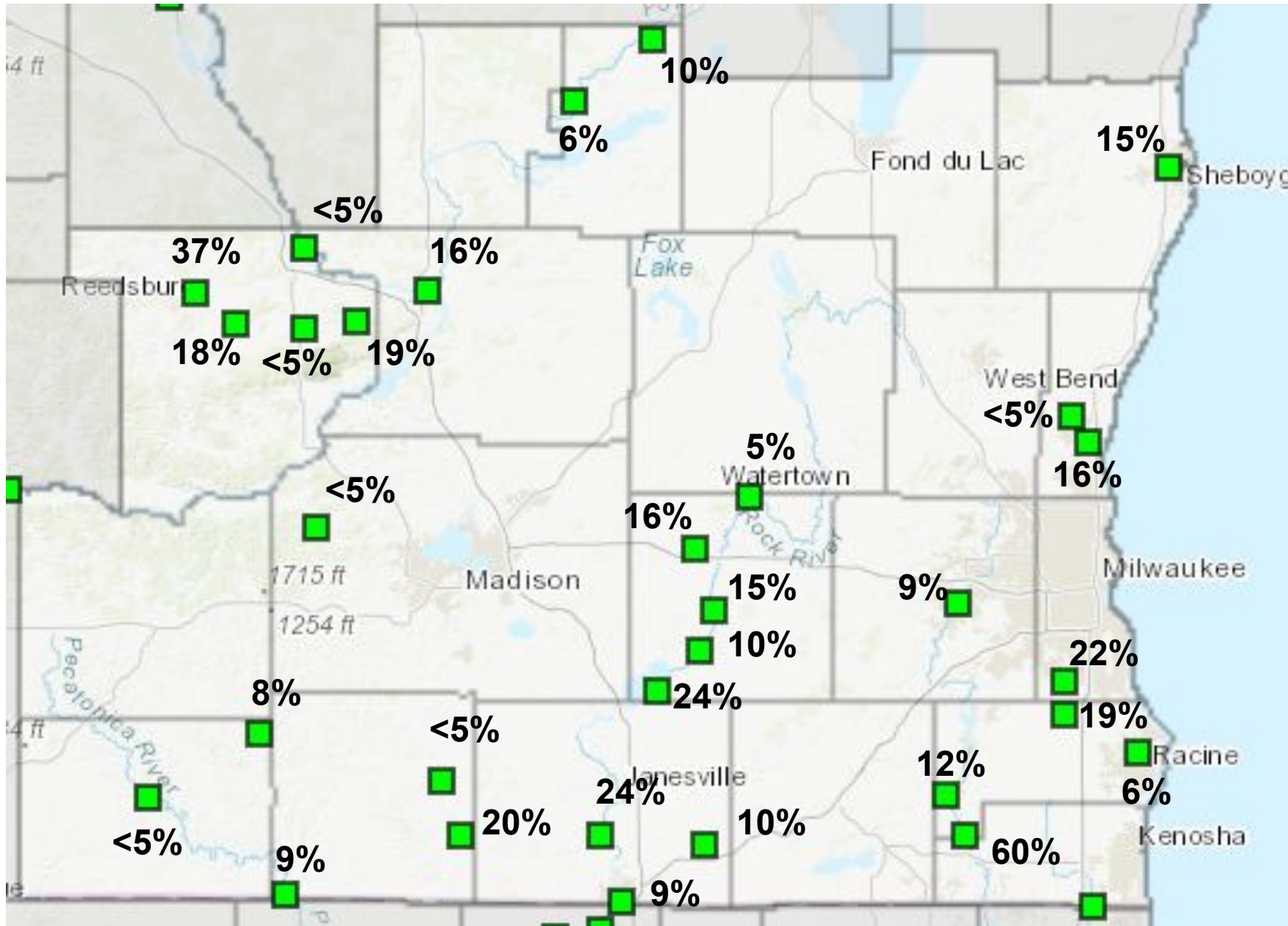




Flood Risk by Forecast Point

February 29, 2024
10:00 AM

Chance of Exceeding Flood Stage March 4 - June 2



- Probabilities are lower this year than average



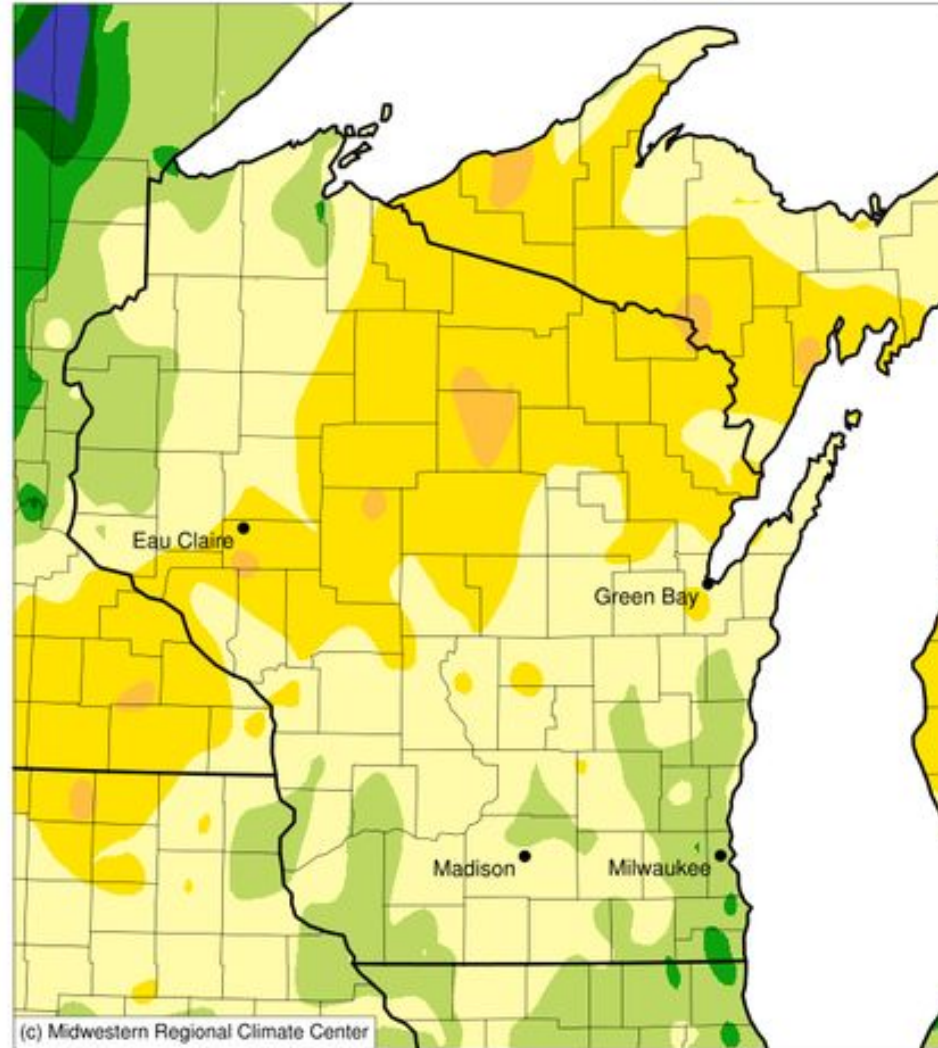


Precipitation

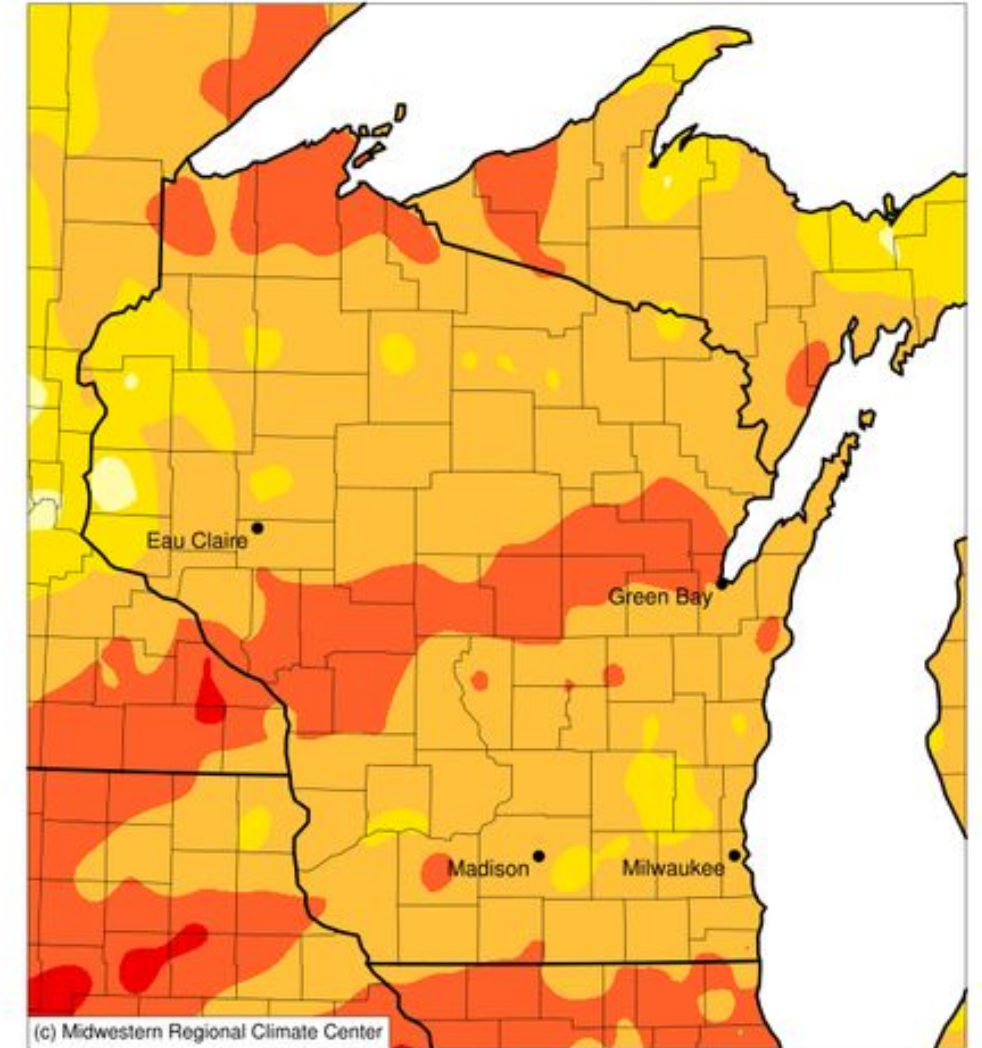
February 29, 2024
10:00 AM

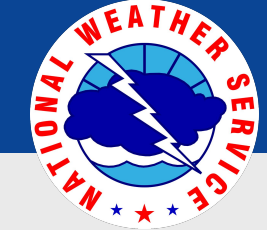
- Precipitation was 75-125% of normal for the winter season
- February was 25-50% of normal. Precipitation totals (liquid and snow) for the month were 0.5 to 1 inch, with only 1 to 3 inches of snow.

Accumulated Precipitation (in): Percent of 1991-2020 Normals
December 01, 2023 to February 28, 2024



Accumulated Precipitation (in): Percent of 1991-2020 Normals
February 01, 2024 to February 28, 2024



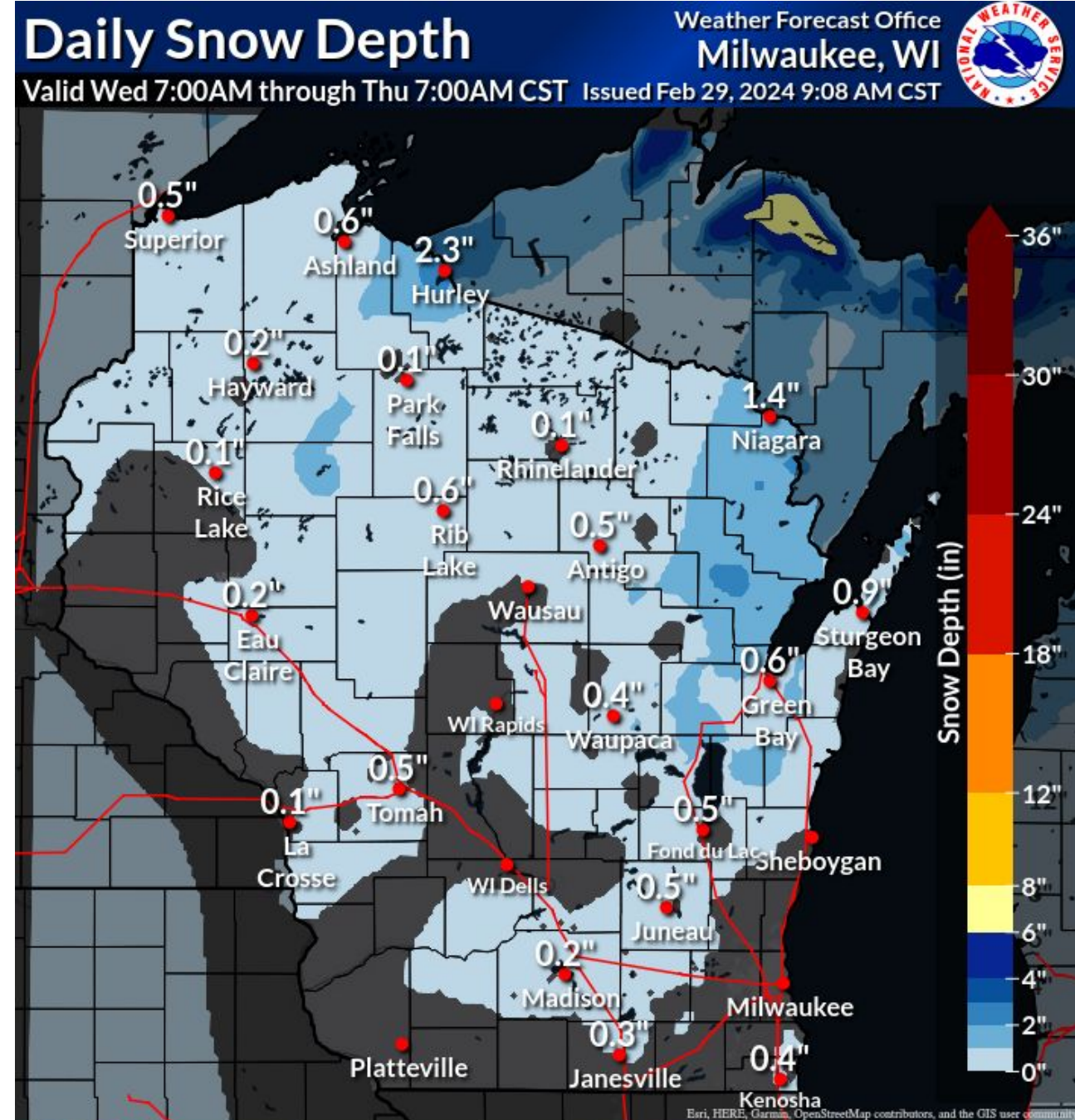
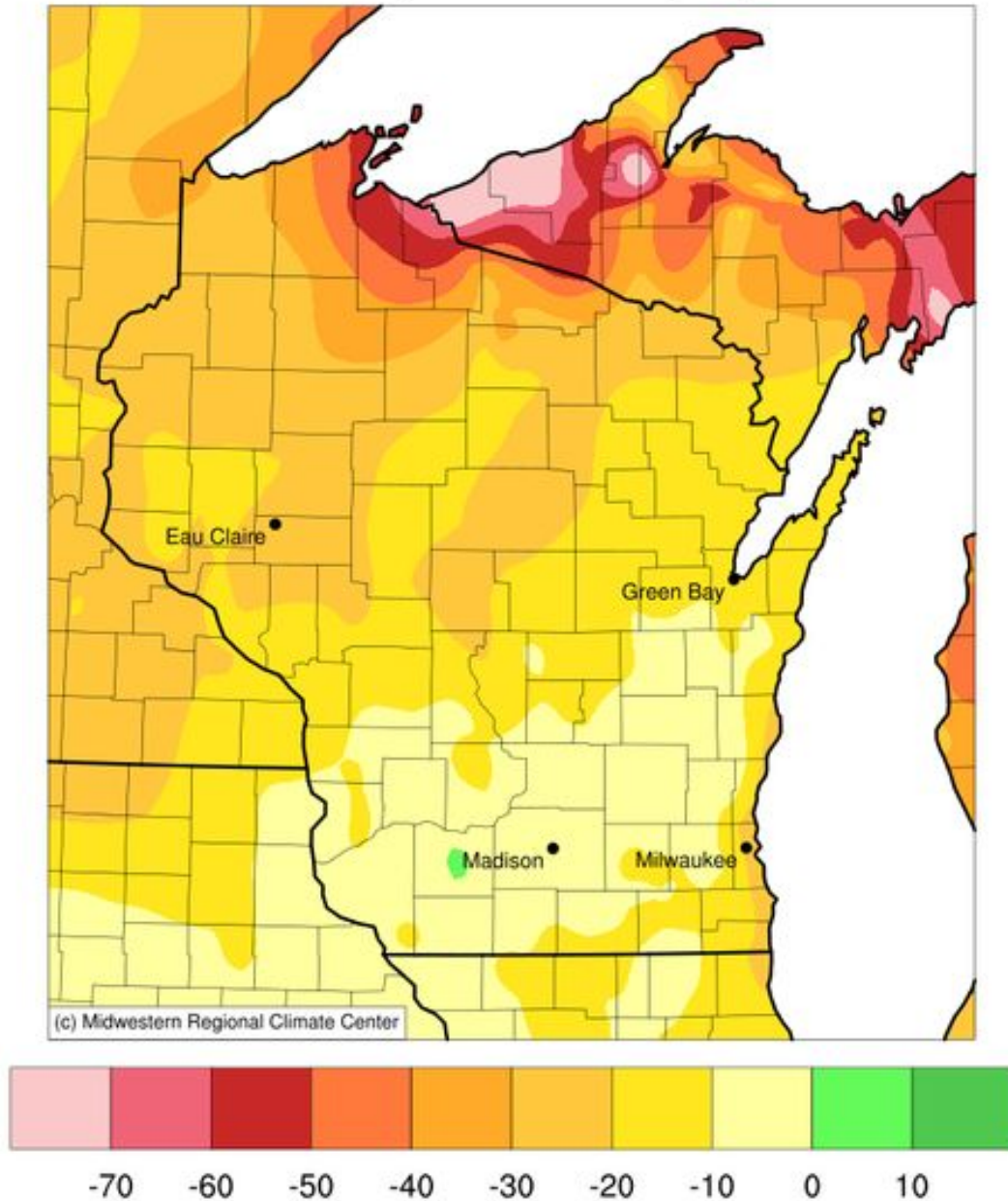


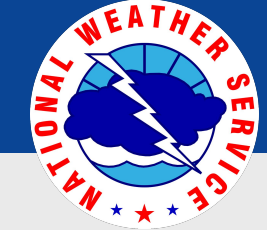
Snowfall

February 29, 2024
10:00 AM

Accumulated Snowfall (in): Departure from 1991-2020 Normals
December 01, 2023 to February 28, 2024

- Winter snowfall was 10 to 20 inches below average across southeast Wisconsin and close to average elsewhere across southern Wisconsin.
- Snowfall deficits of 20 to 30 inches across the upper and central Wisconsin River Basin.





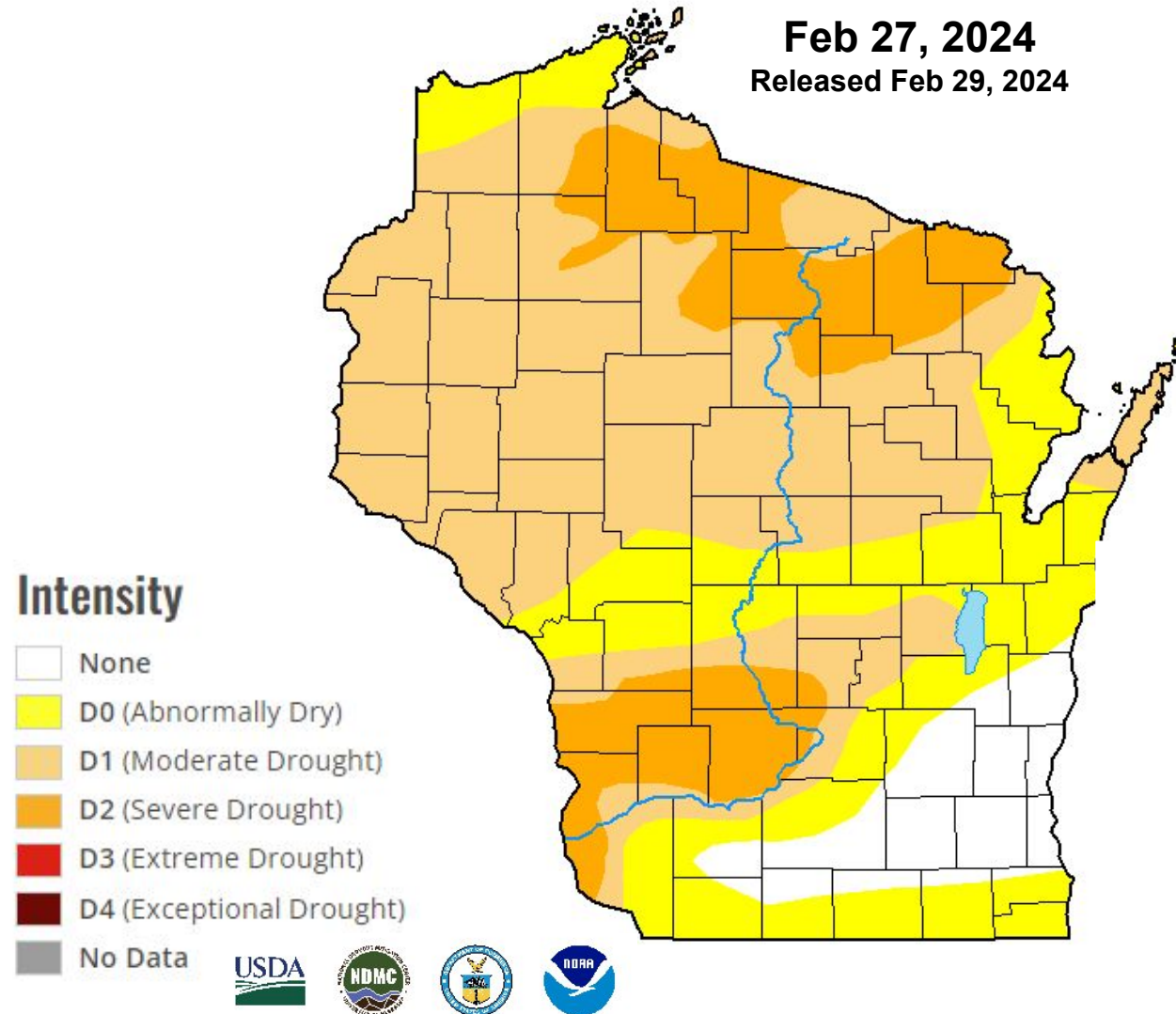
Current Conditions

February 29, 2024
10:00 AM

- Moderate to severe drought southwest and south-central Wisconsin
- Drought conditions are due to precipitation deficits of 6 to 15 inches since last June and not over the past 3 months

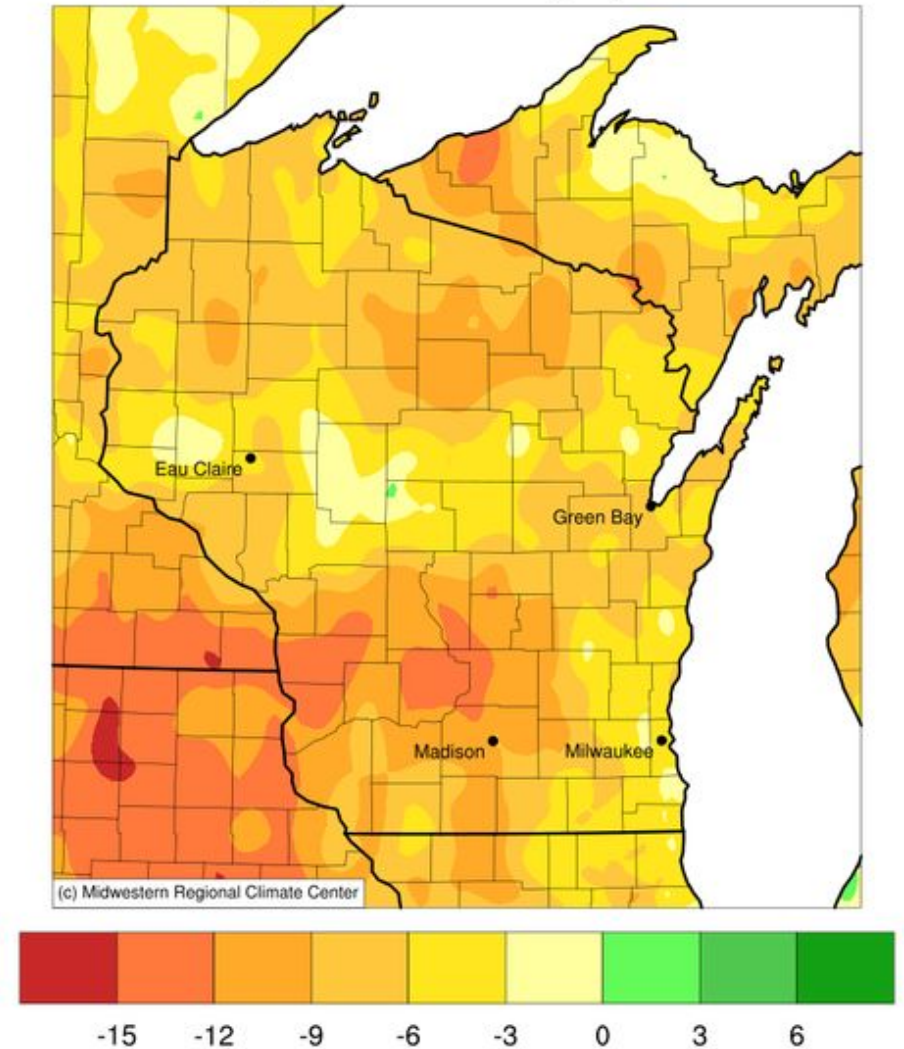
U.S. Drought Monitor Wisconsin

Feb 27, 2024
Released Feb 29, 2024



droughtmonitor.unl.edu

Accumulated Precipitation (in): Departure from 1991-2020 Normals
May 01, 2023 to February 29, 2024

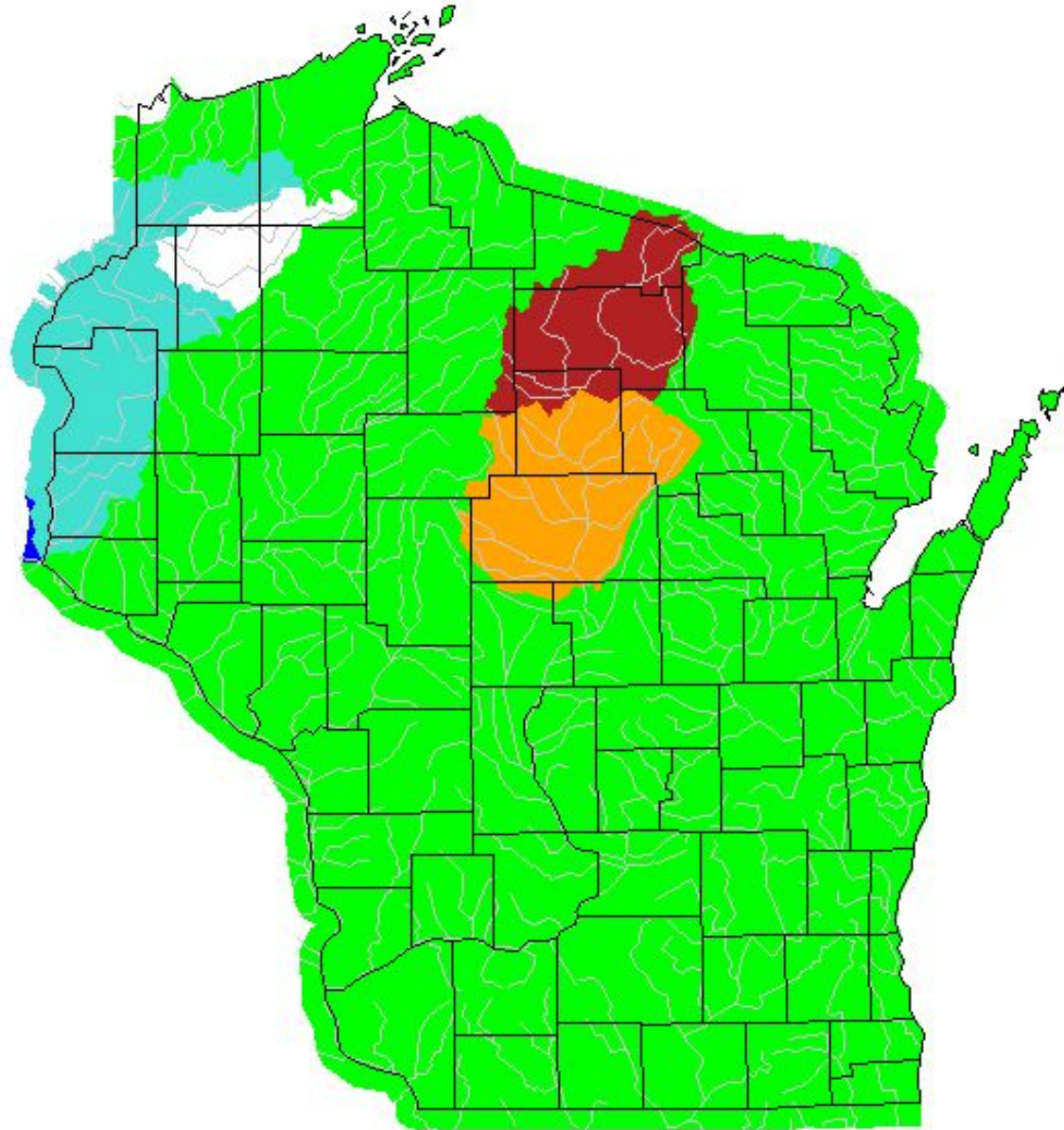




Current Conditions

February 29, 2024
10:00 AM

Wednesday, February 28, 2024



14 Day Streamflow

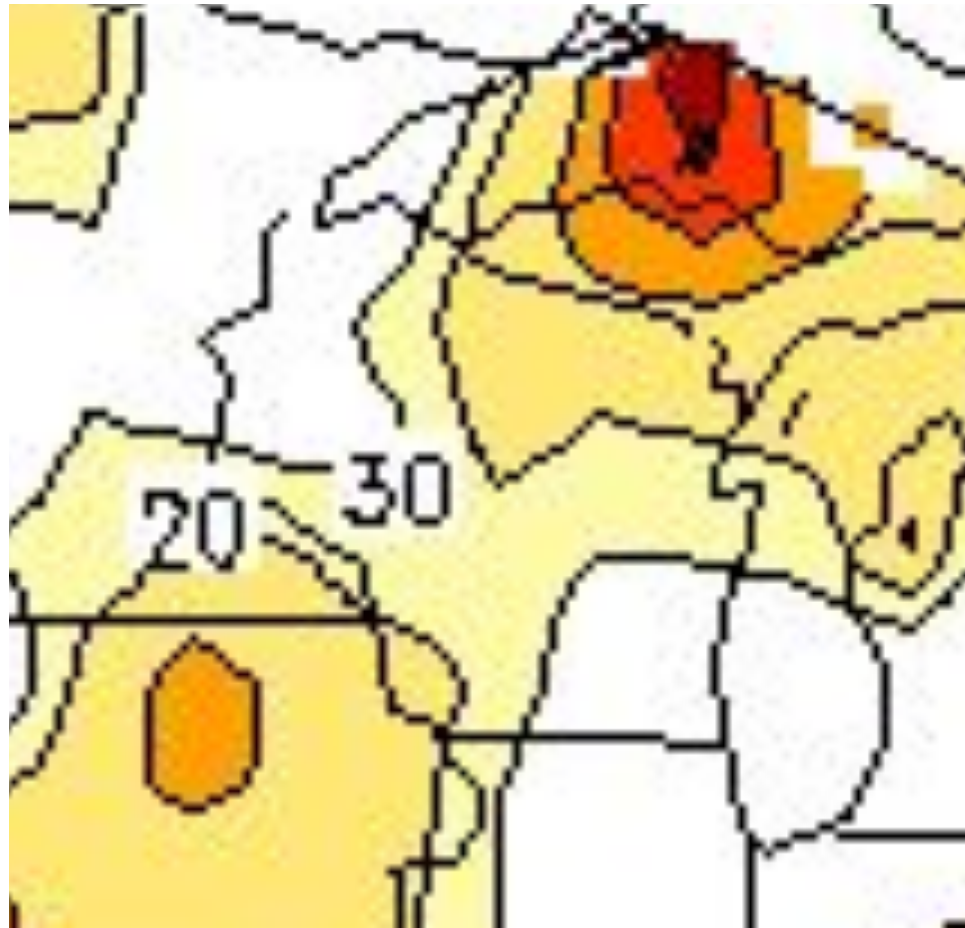
Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

- Streamflow values are in the 25-75th percentile in most areas
- Streamflow varies across the Wisconsin River Basin but it is close to normal for a basin average

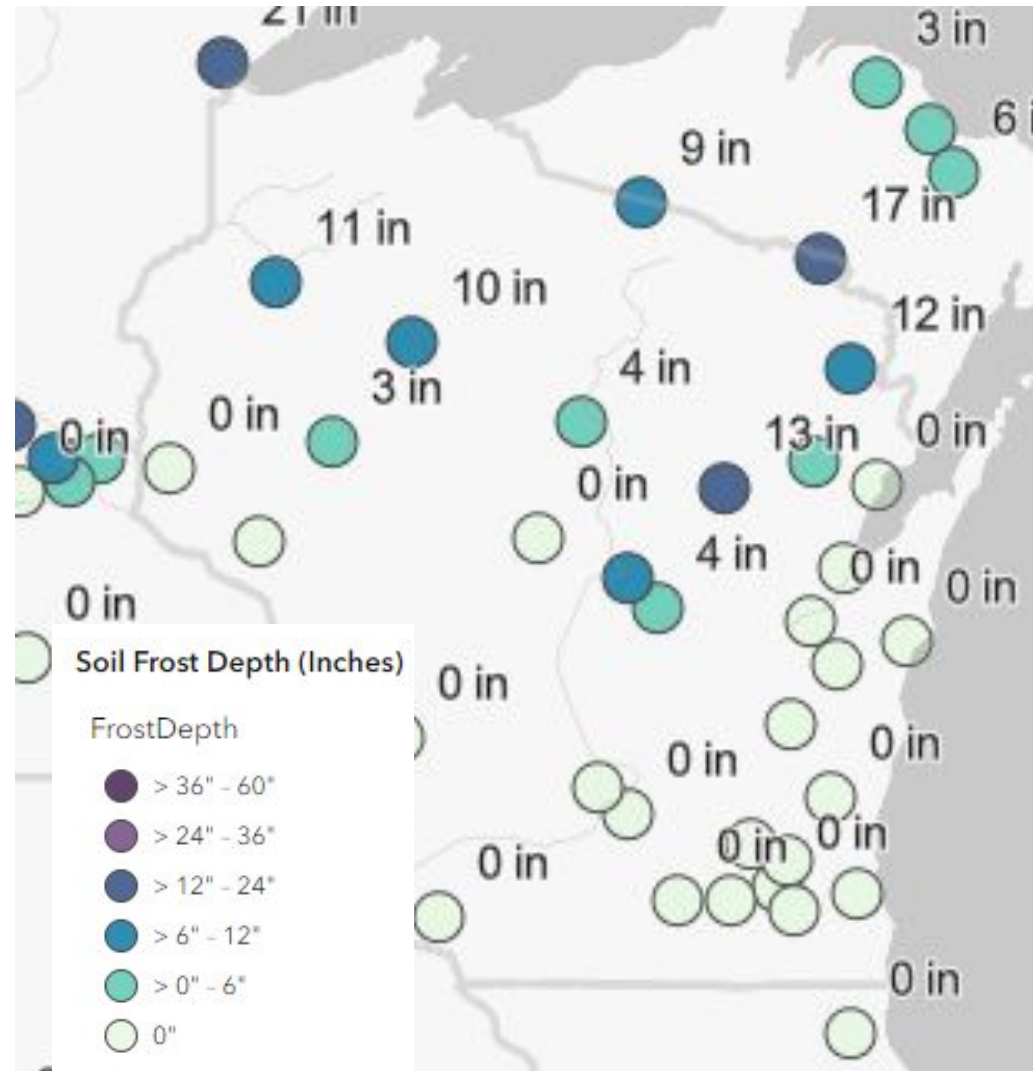




CPC Calculated Soil Moisture - 2/27/24



Frost Depth - 2/27/24

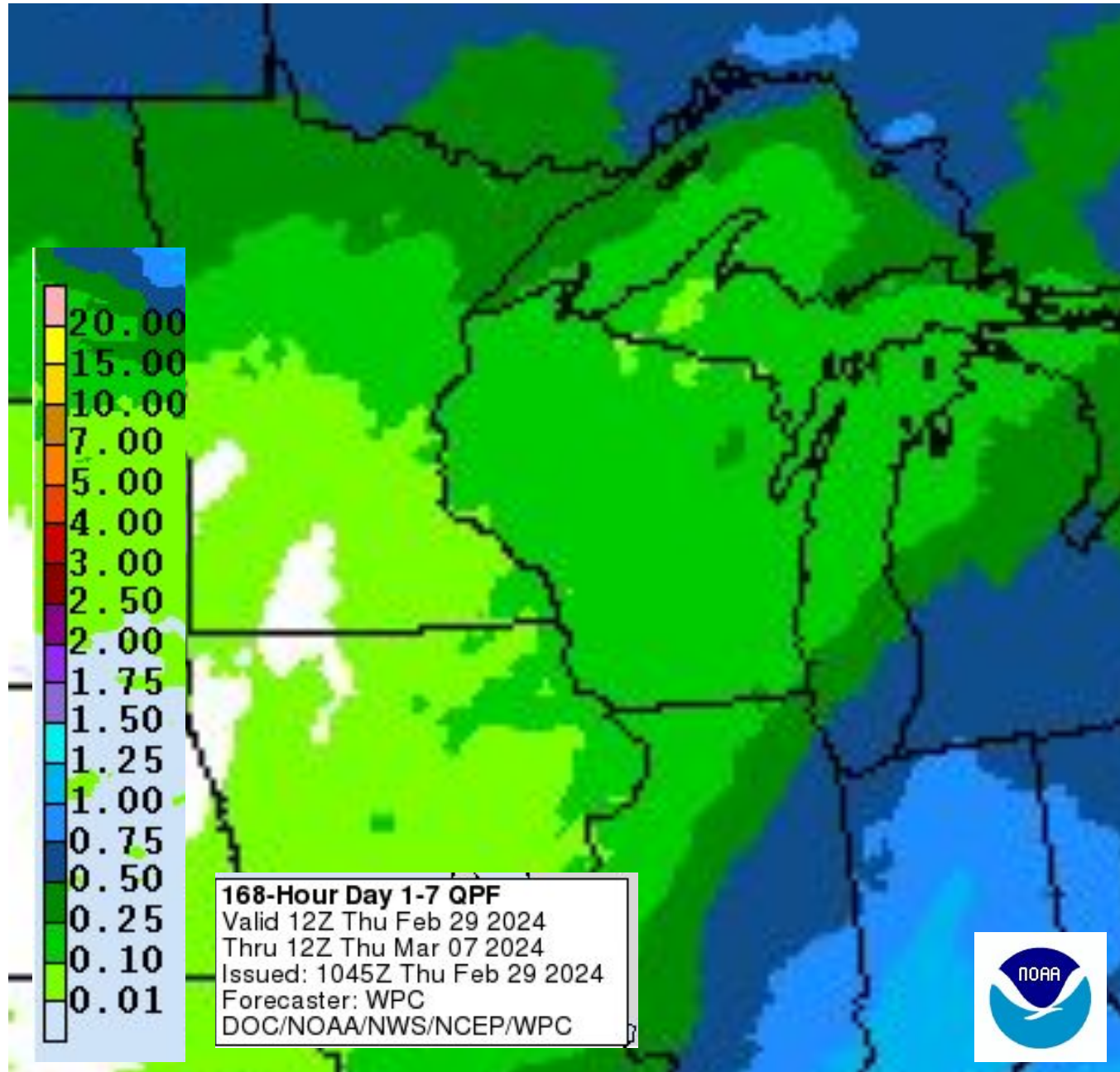


- Soil moisture is in the 20-70th percentile (near to below average)
- Little to no frost. Ground will be able to absorb some moisture.



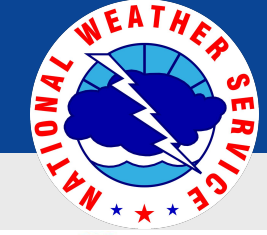
7 Day Outlook

February 29, 2024
10:00 AM



- Little precipitation is expected over the next week





Week 2 Outlook

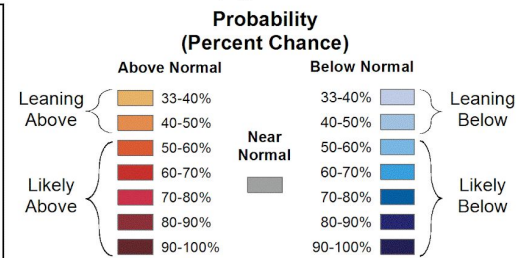
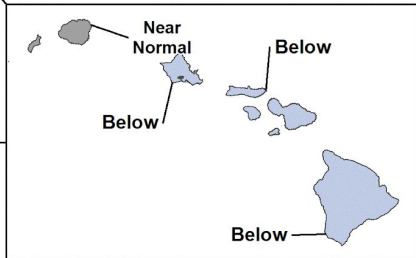
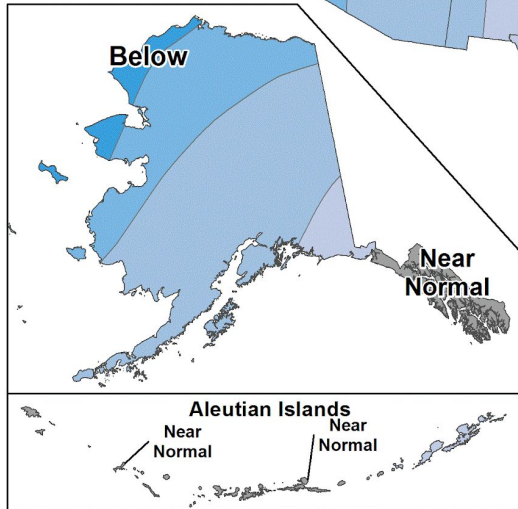
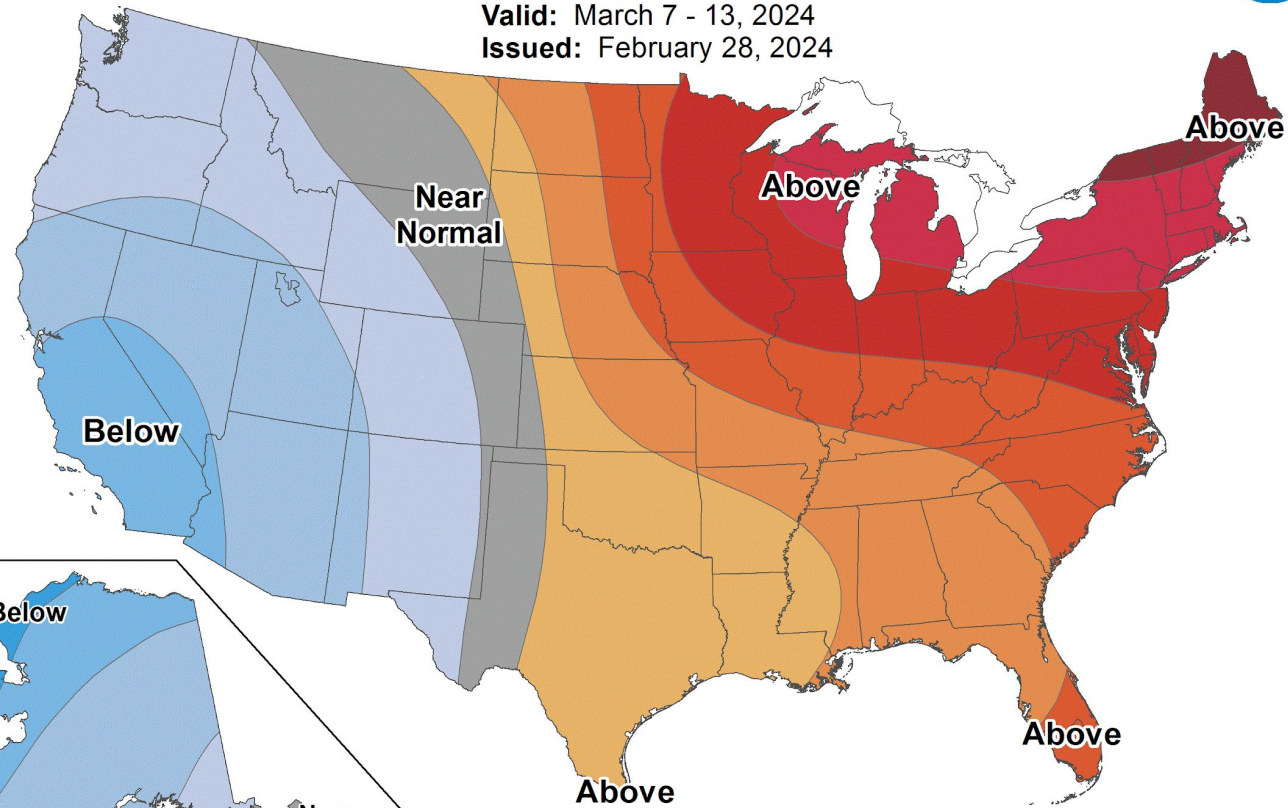
February 29, 2024
10:00 AM



8-14 Day Temperature Outlook



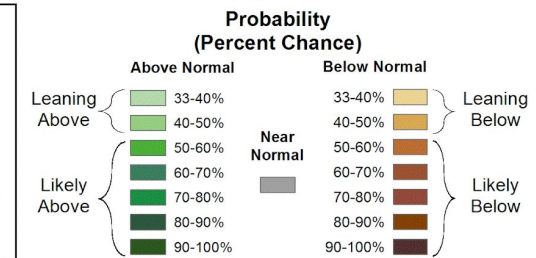
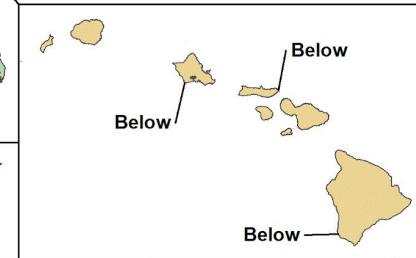
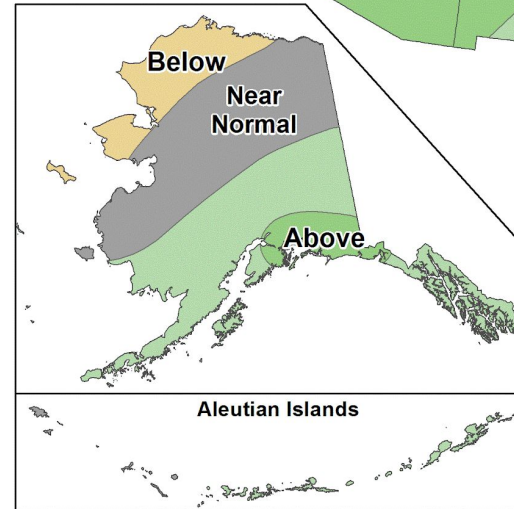
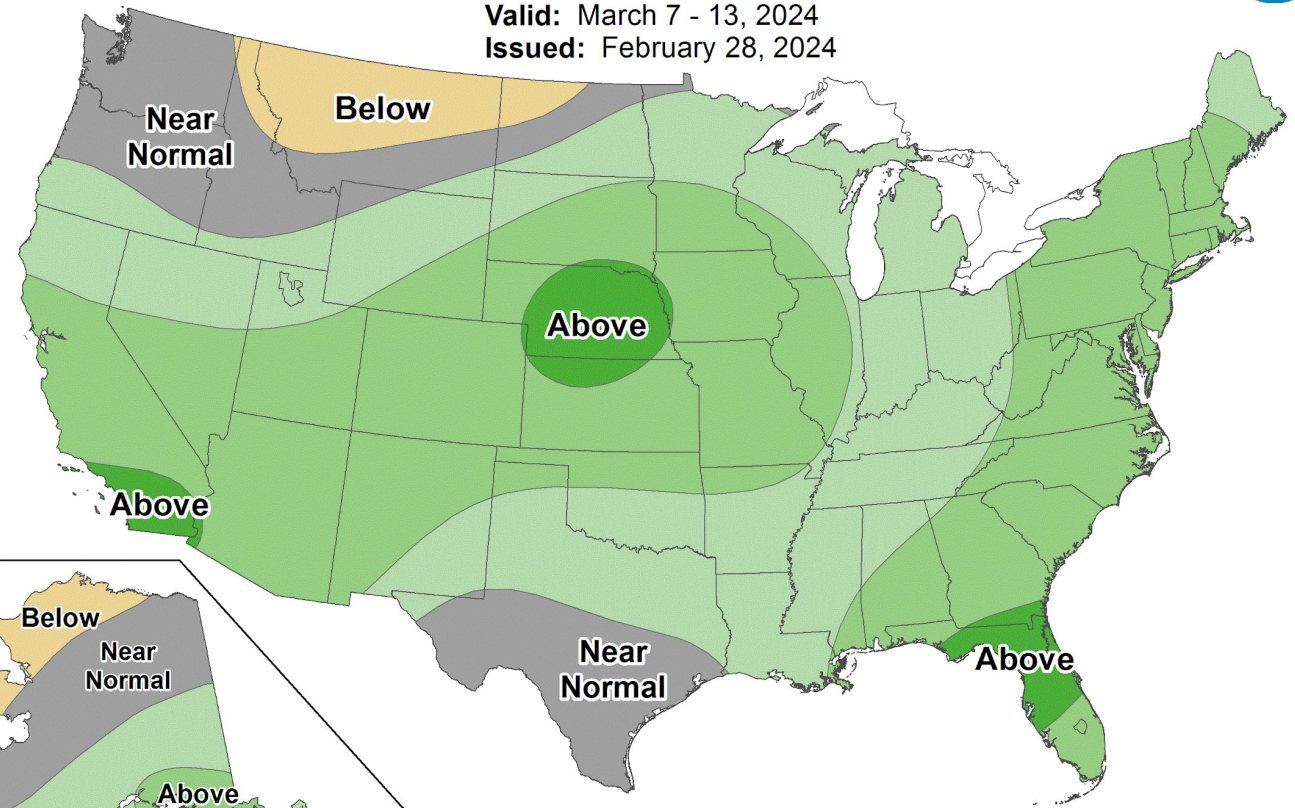
Valid: March 7 - 13, 2024
Issued: February 28, 2024



8-14 Day Precipitation Outlook



Valid: March 7 - 13, 2024
Issued: February 28, 2024



- Enhanced odds for above average temperature and above average precipitation





Extended Outlook

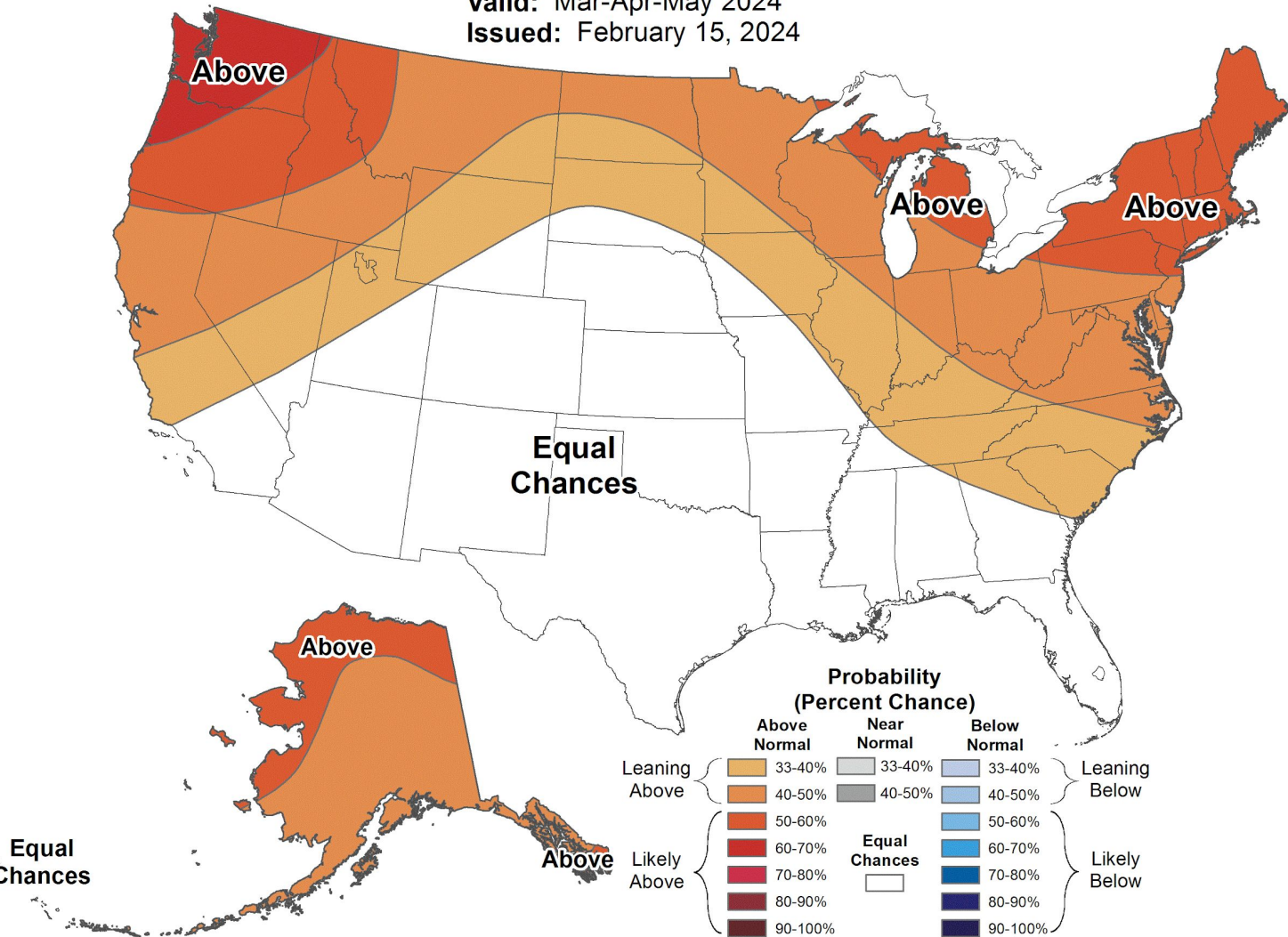
February 29, 2024
10:00 AM



Seasonal Temperature Outlook



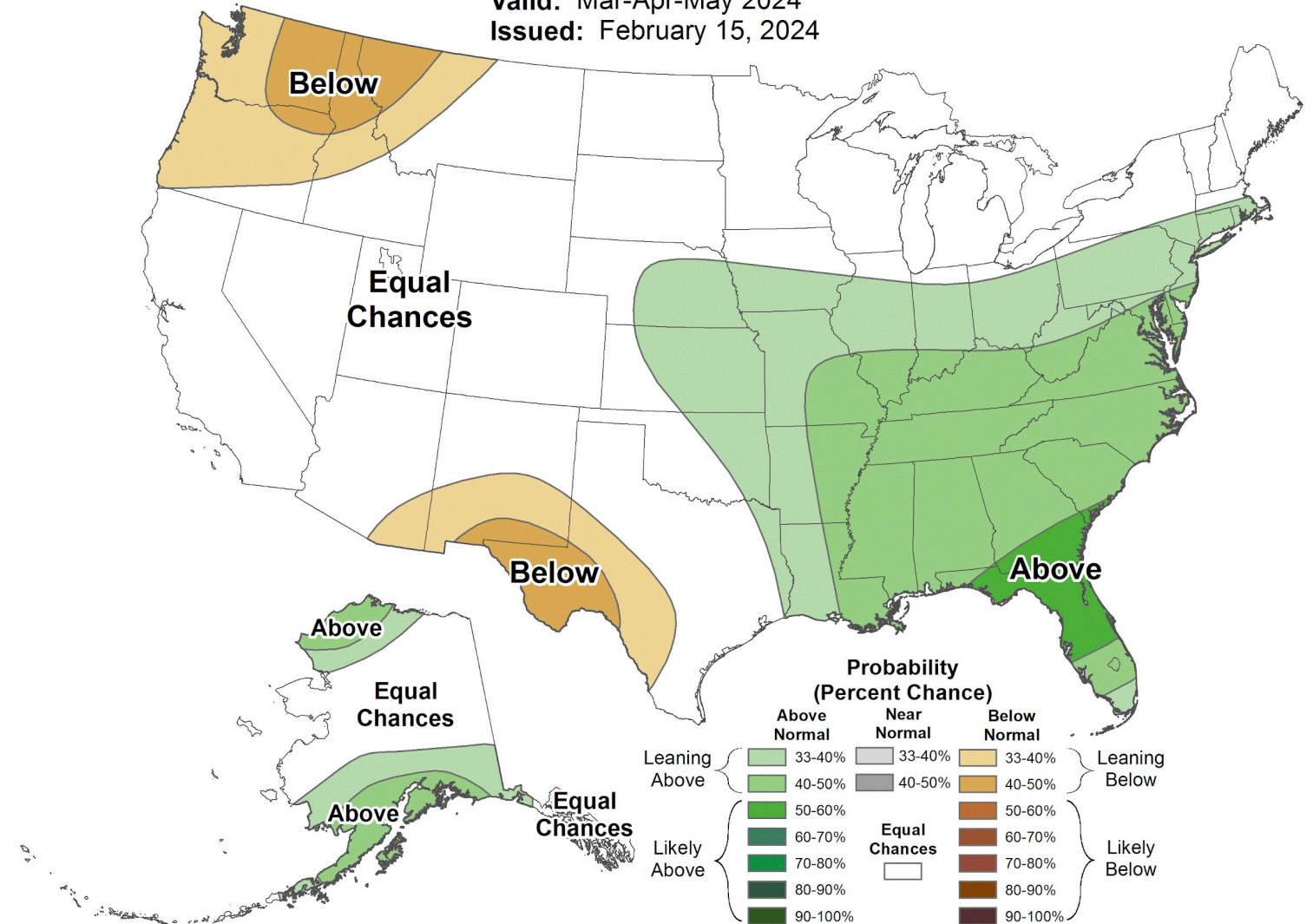
Valid: Mar-Apr-May 2024
Issued: February 15, 2024



Seasonal Precipitation Outlook



Valid: Mar-Apr-May 2024
Issued: February 15, 2024



- Enhanced odds for above average temperature and equal chances of above, near and below normal precipitation





Interpreting the Probability Graphics

February 29, 2024
10:00 AM

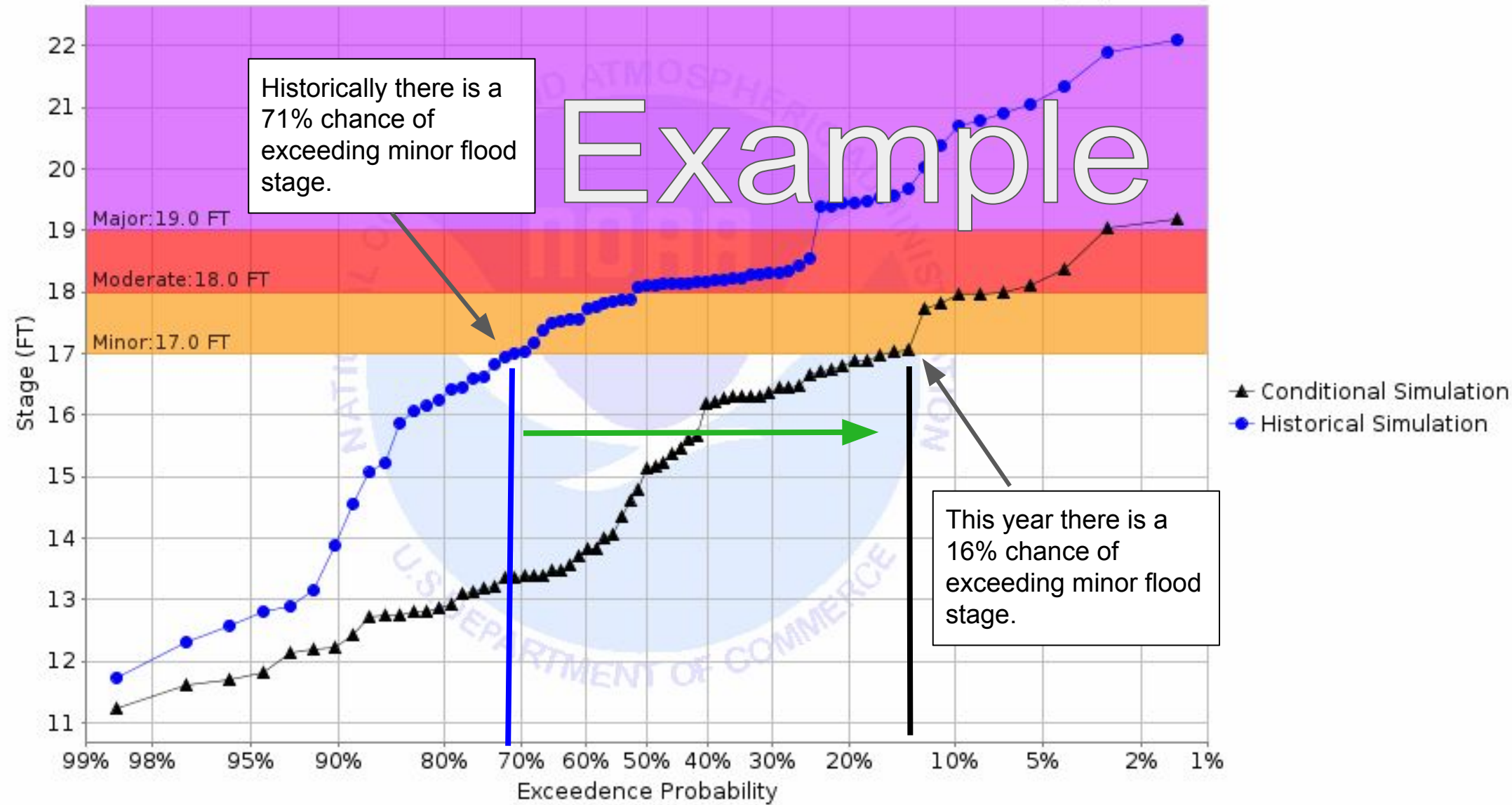
The outlook is for a 3 Month time period.

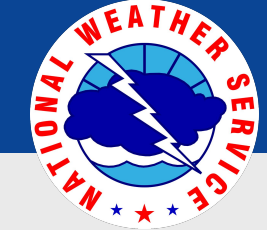
Black line is the current forecast, based on current environmental conditions and forecast temperature and precipitation.

Blue line is the historical (average) probabilities.

When the black line is above, or to the left of the blue line, the chances this season are greater. When the black line is below, or to the right of the blue line, the chances this season are lower.

Chance of Exceeding River Stage at Wisconsin River at Portage (PORW3)
Forecast for the period 03/04/2024 - 06/02/2024
This is a conditional simulation based on the conditions as of 02/26/2024





Interpreting the Probability Graphics

February 29, 2024
10:00 AM

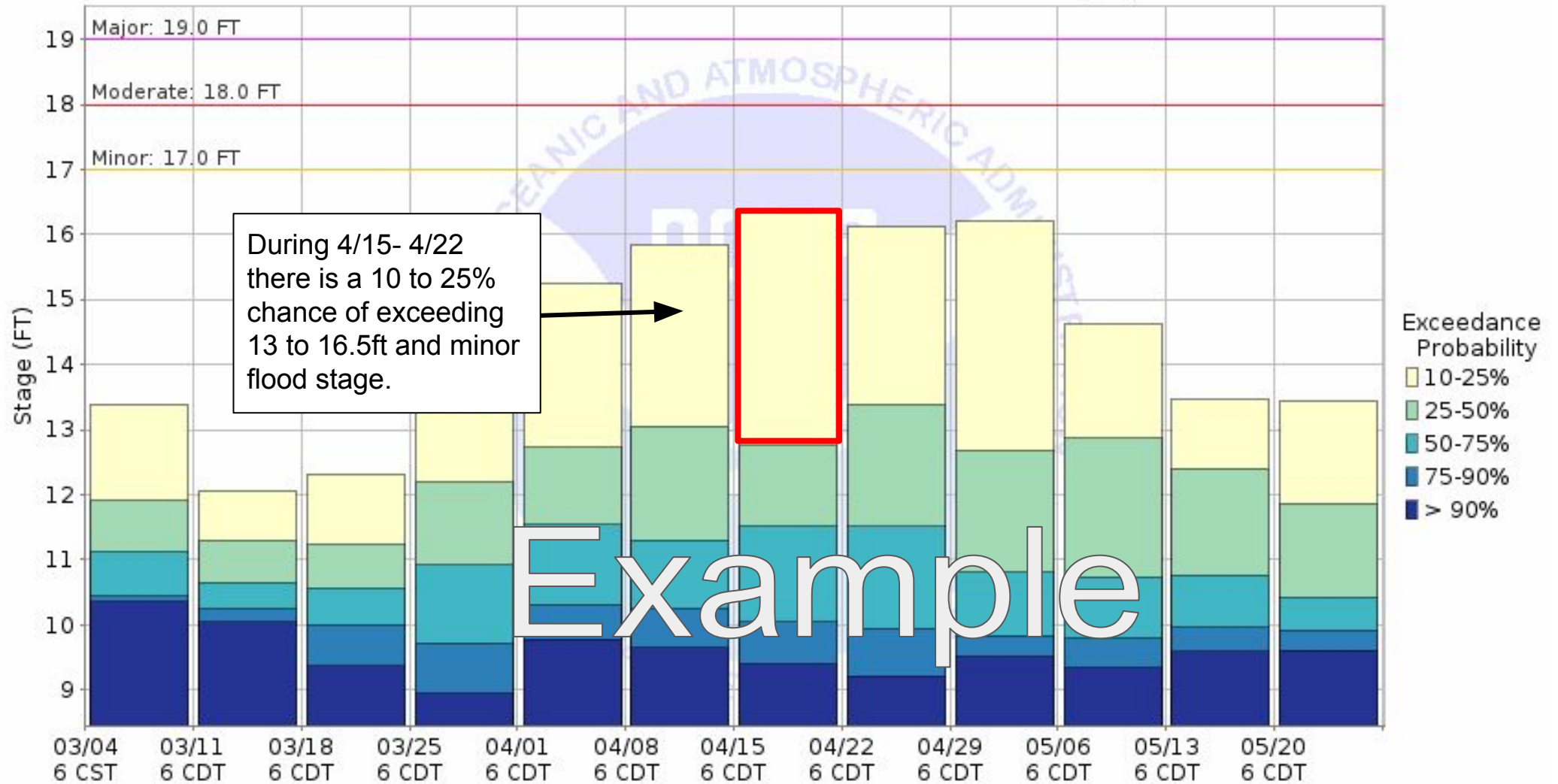
The outlook is for weekly time periods.

Colored boxes show the probability of exceeding each threshold.

Probability increases as colors become more blue.

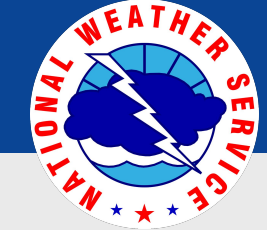
Tallest boxes show the time frame with the highest probability of exceeding higher river levels.

Weekly Chance of Exceeding River Stage at Wisconsin River at Portage (PORW3)
Forecast for the period 03/04/2024 - 06/02/2024
This is a conditional simulation based on the conditions as of 02/26/2024



Example

Date
Time frame with the highest probabilities



Interpreting the Probability Graphics

February 29, 2024
10:00 AM



HEFS - 10 Day River Level Probabilities

Based on Hydrologic Ensemble Forecast Service Model Simulations
Used to Estimate the Range of Possible River Levels

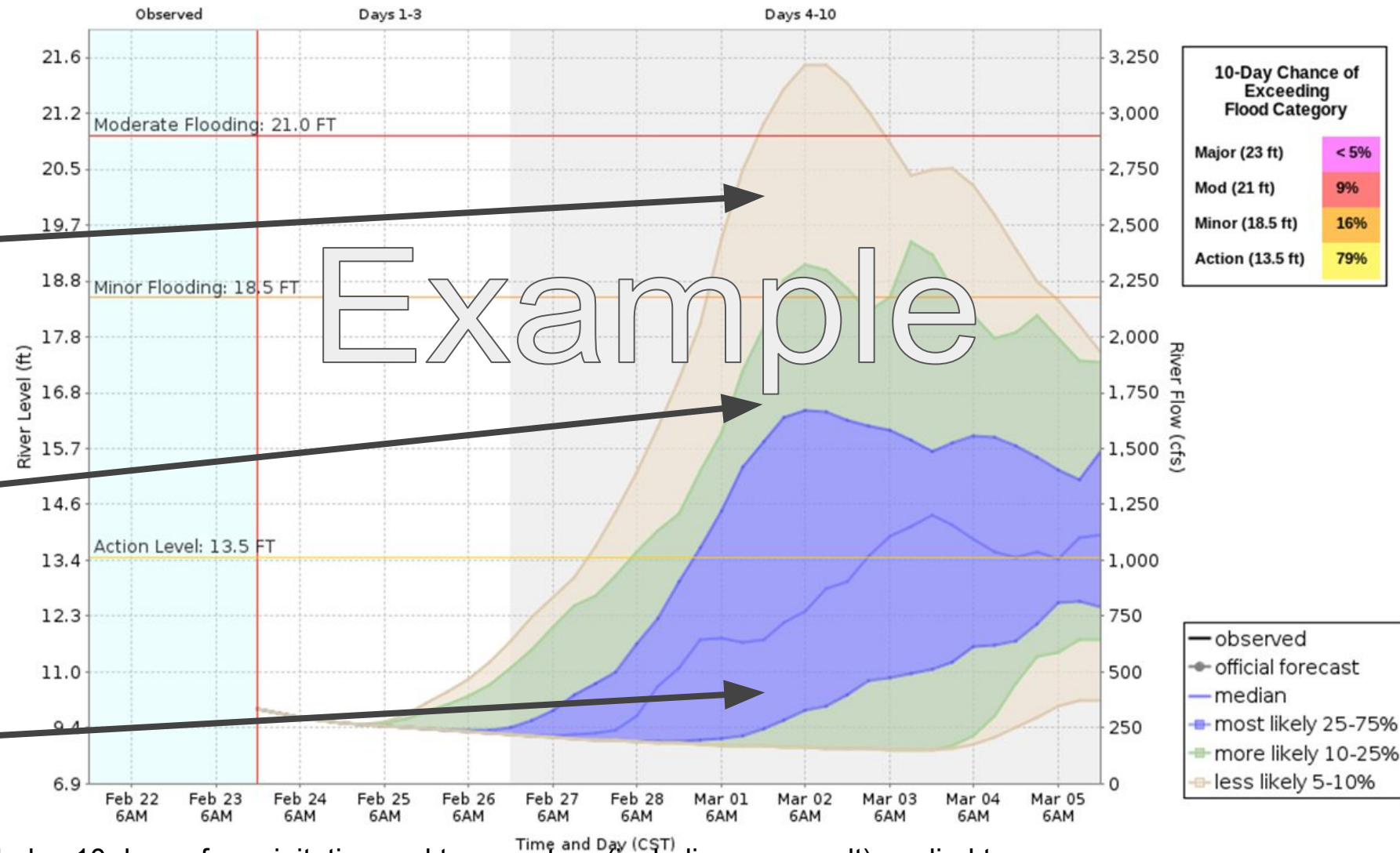
Feb 24 - Mar 06, 2023
Baraboo River at Rock Springs (RSPW3)

Shaded area shows the range of possible river levels. There is a small chance the level could end up outside this range.

~90% of forecasts are within the blue, green, and tan ranges. ~5% forecasts are above and ~5% are below the tan range.

~80% of forecasts are within the blue and green ranges. ~10% of forecasts are above and ~10% are below the green range.

~50% of forecasts are within the blue shaded range. ~25% of forecasts are above and ~25% are below the blue range.



Includes 10 days of precipitation and temperature (including snowmelt) applied to river forecast models. The official forecast includes 24-48 hours of precipitation.

Model runtime: 06:00 PM CST Feb 23 2023
North Central River Forecast Center



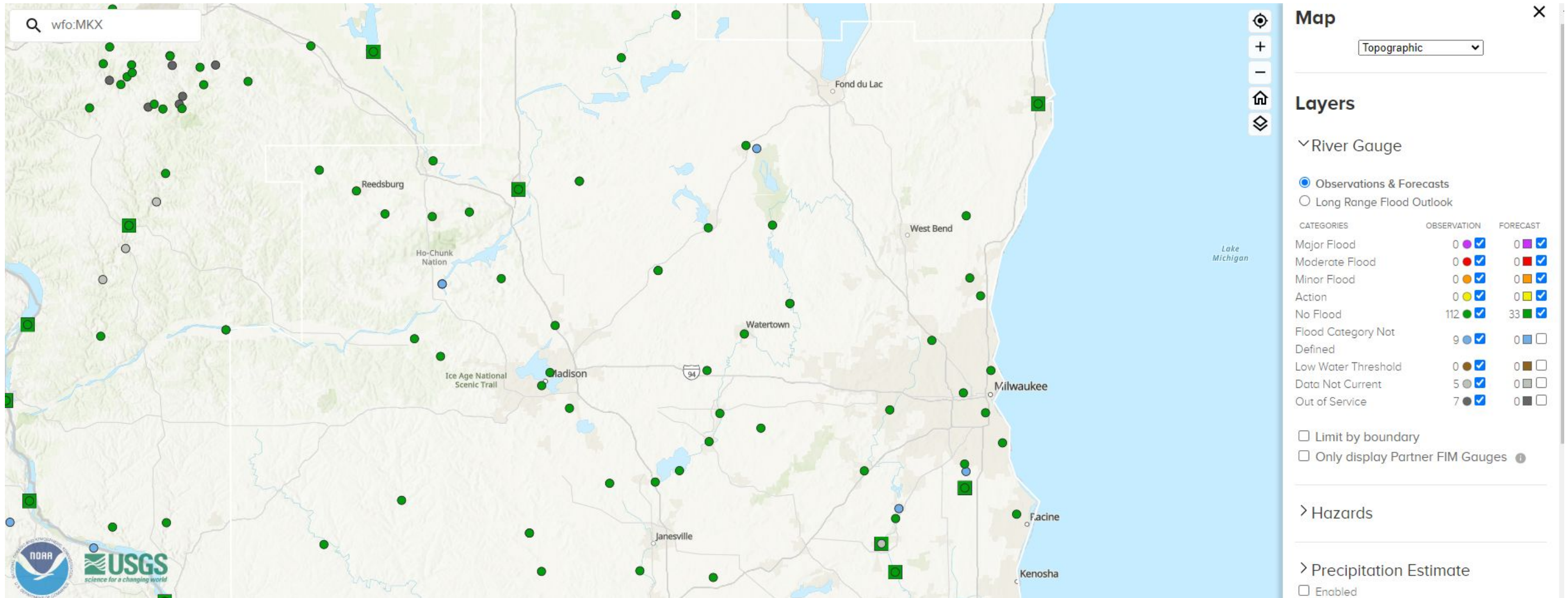


New River Forecast Website

February 29, 2024
10:00 AM

Coming March 27, 2024

preview.water.noaa.gov/wfo/mkx



- Customizable layers
- Mobile friendly

- Interactive hydrograph
- All forecast guidance on one page





New River Forecast Website

February 29, 2024
10:00 AM

Coming March 27, 2024

preview.water.noaa.gov/wfo/mkx

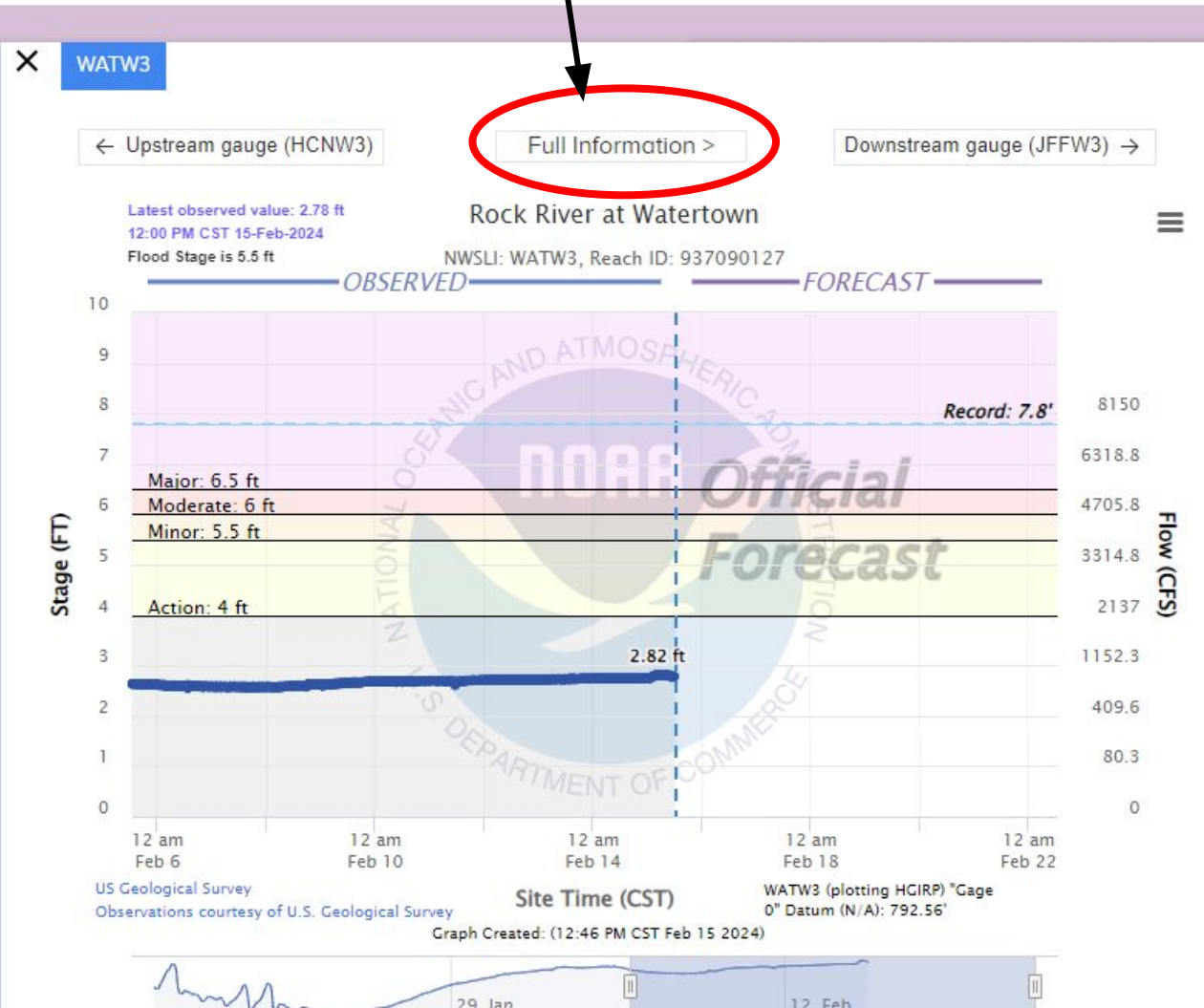
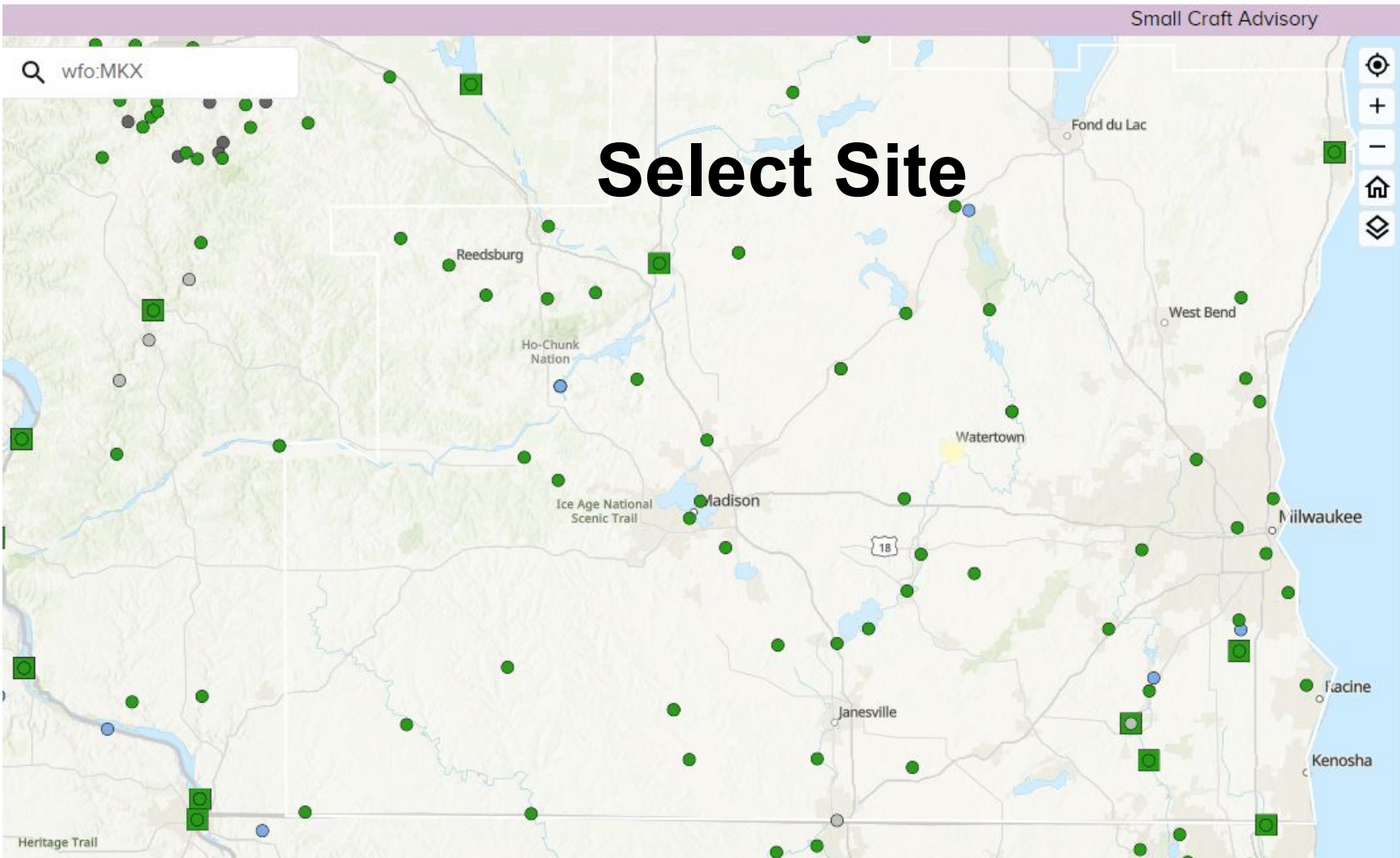


Home NWC Operations More Water Information About Explore NWS Weather



National Observations / Milwaukee/Sullivan, WI

Select Full Information





Informational Links

- [Current and Forecast River Levels](#)
- [Long Range Flood Risk by River Point](#)
- [New Website for River Forecasts and Long Range Flood Risk](#)
- [NWS Milwaukee Spring Flood Outlook Website](#)
- [Spring Flood Outlook Text Information](#)

NEW

Please reach out to sarah.marquardt@noaa.gov with any questions or comments.

Next update: Thursday March 14