



March 14, 2024
4:00 PM

Southern Wisconsin Spring Flood Outlook - 3rd of 3

3/14/2024



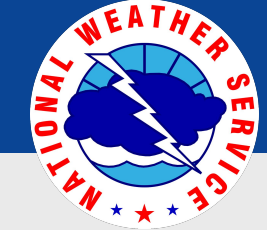
National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Wisconsin



Key Messages

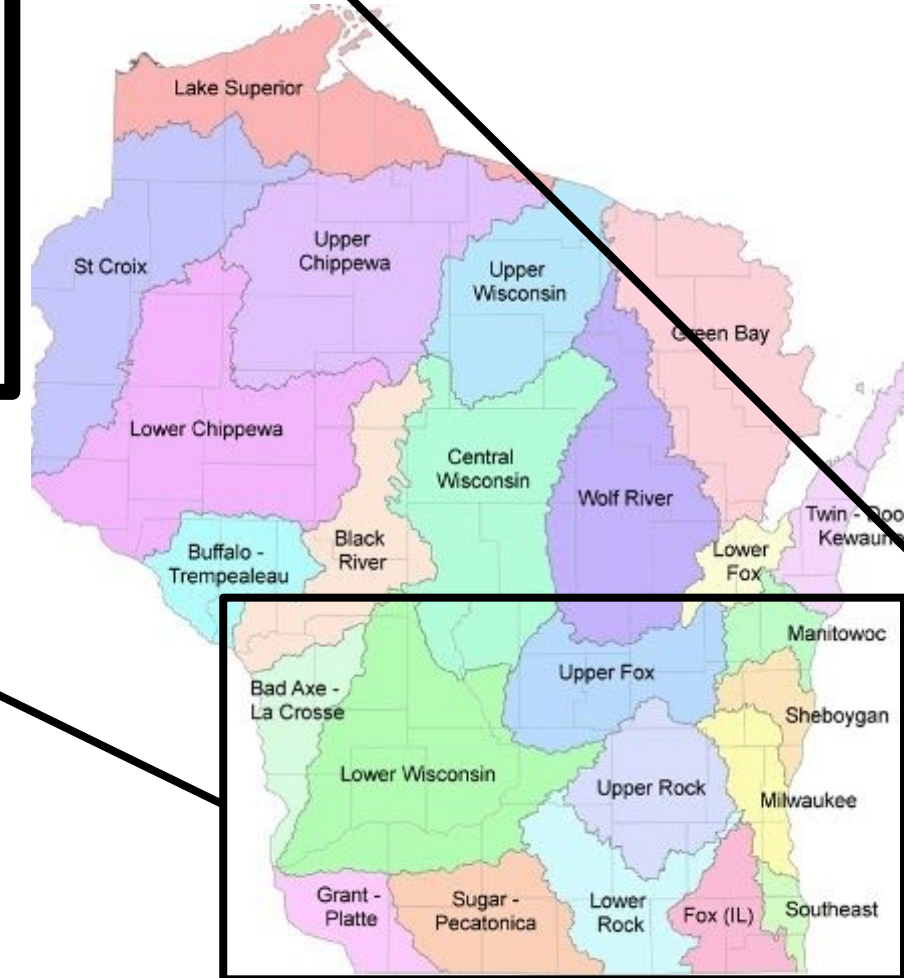
- Spring flood risk is below average
- Flooding is still possible, the underlying risk is not elevated at this time
- The greatest risk will be tied to heavy rain

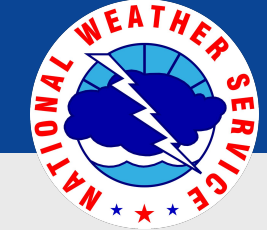


Flood Risk by Basin

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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



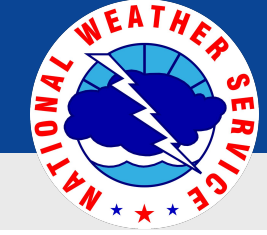


Flood Risk Factors

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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 ?	

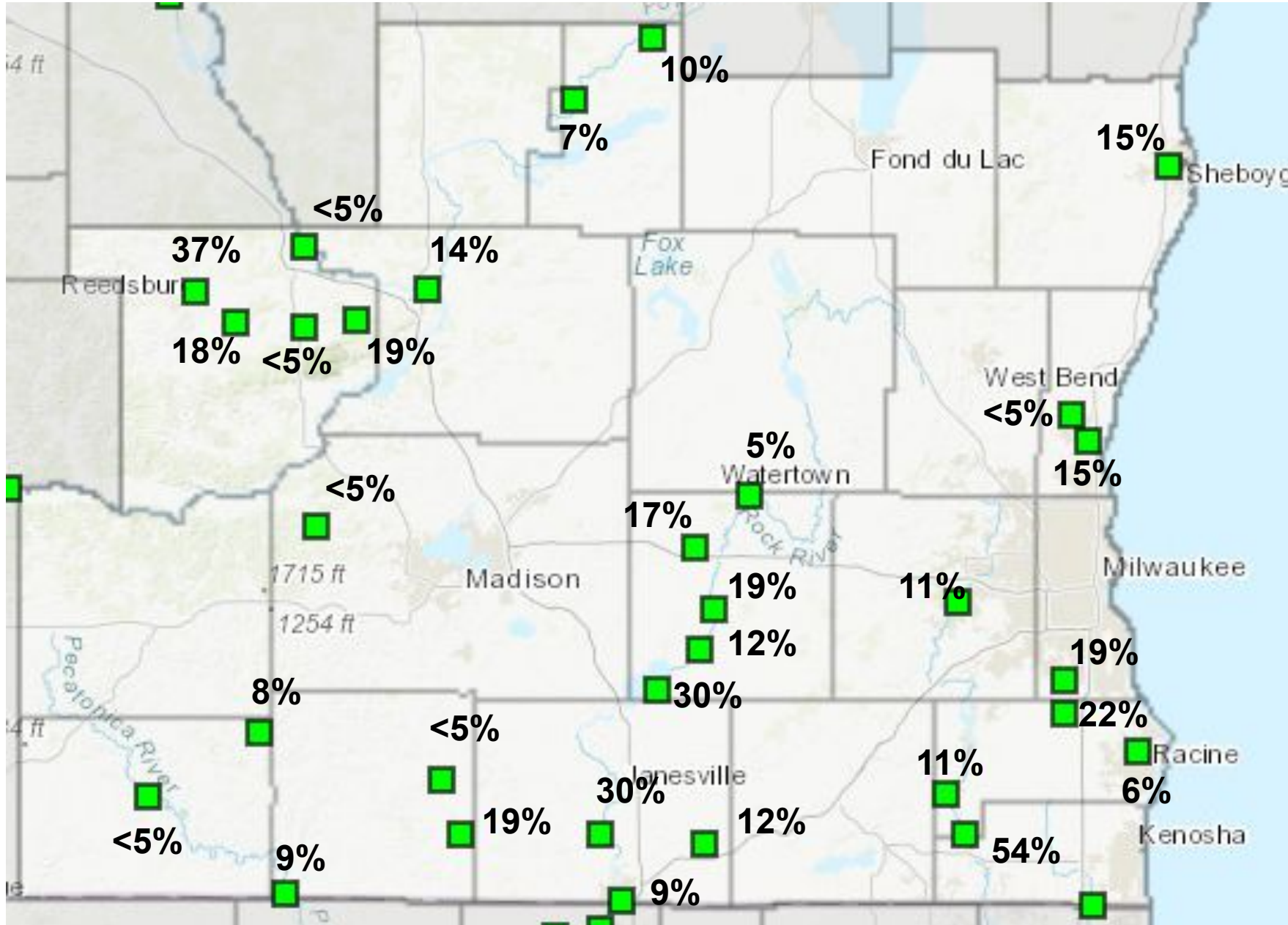




Flood Risk by Forecast Point

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Chance of Exceeding Flood Stage March 18 - June 16, 2024



- Probabilities are lower this year than average





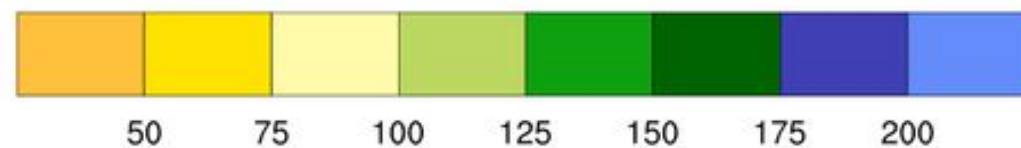
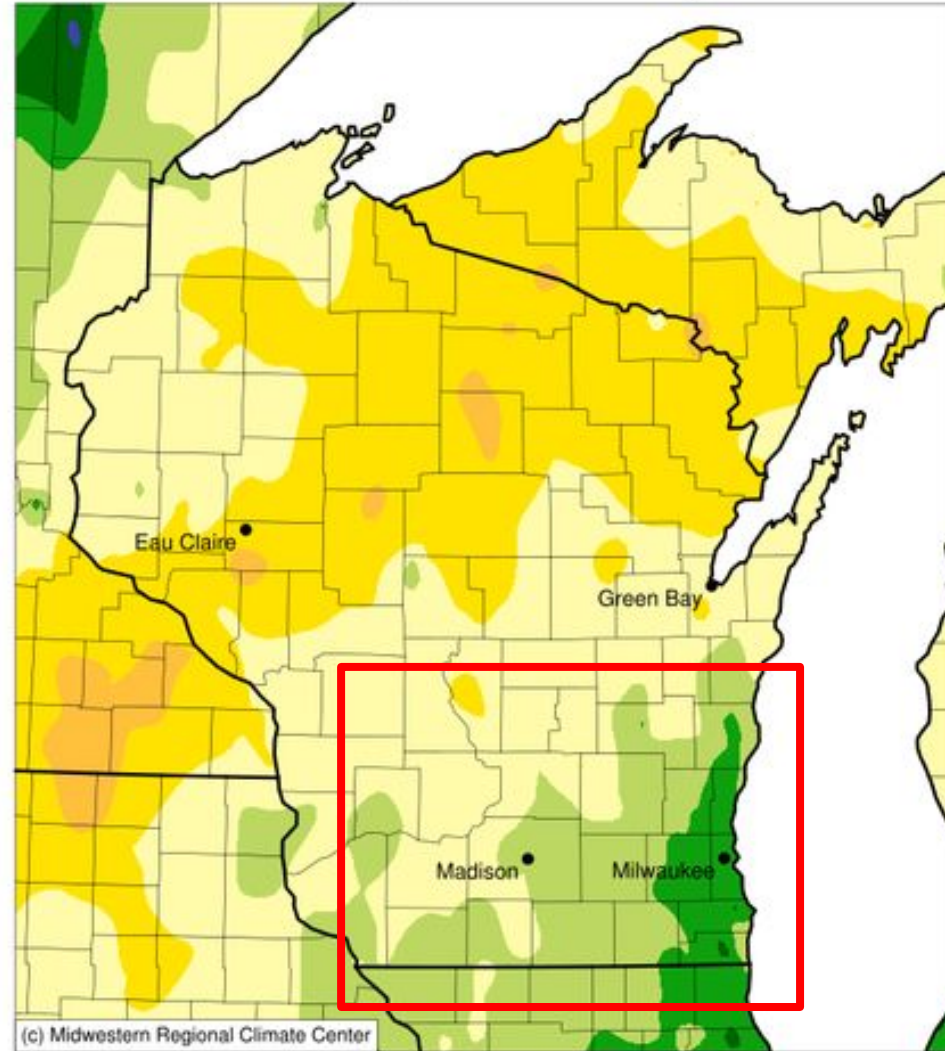
Precipitation

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- Precipitation was 75%-150% of normal for the winter season
- The past 30 days were 50%-175% of normal.

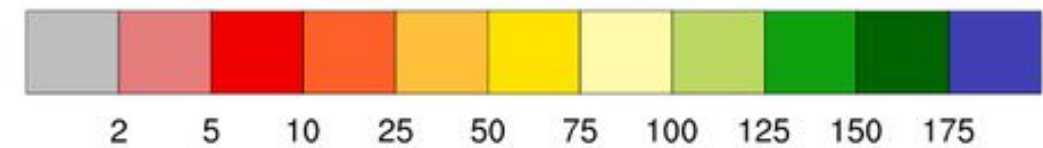
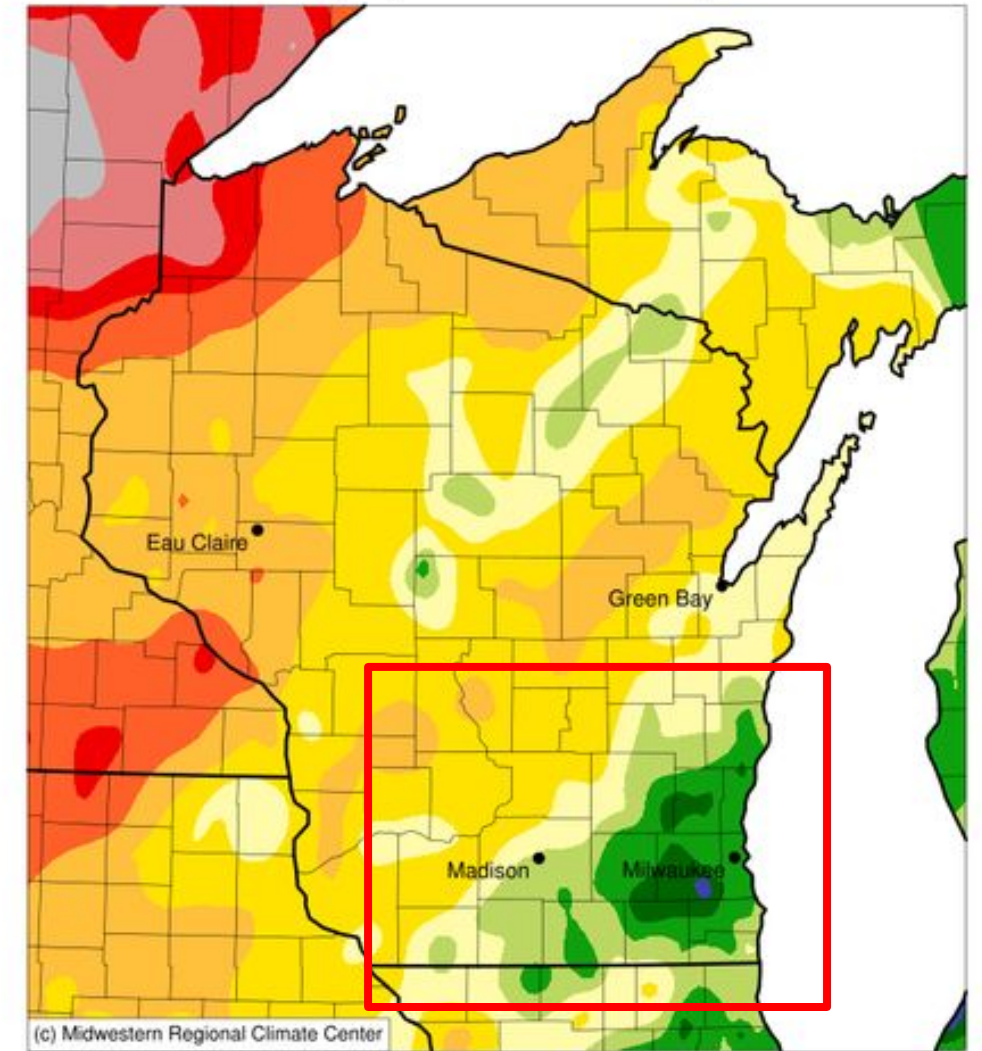
Accumulated Precipitation (in): Percent of 1991-2020 Normals

December 01, 2023 to March 12, 2024



Accumulated Precipitation (in): Percent of 1991-2020 Normals

February 12, 2024 to March 12, 2024





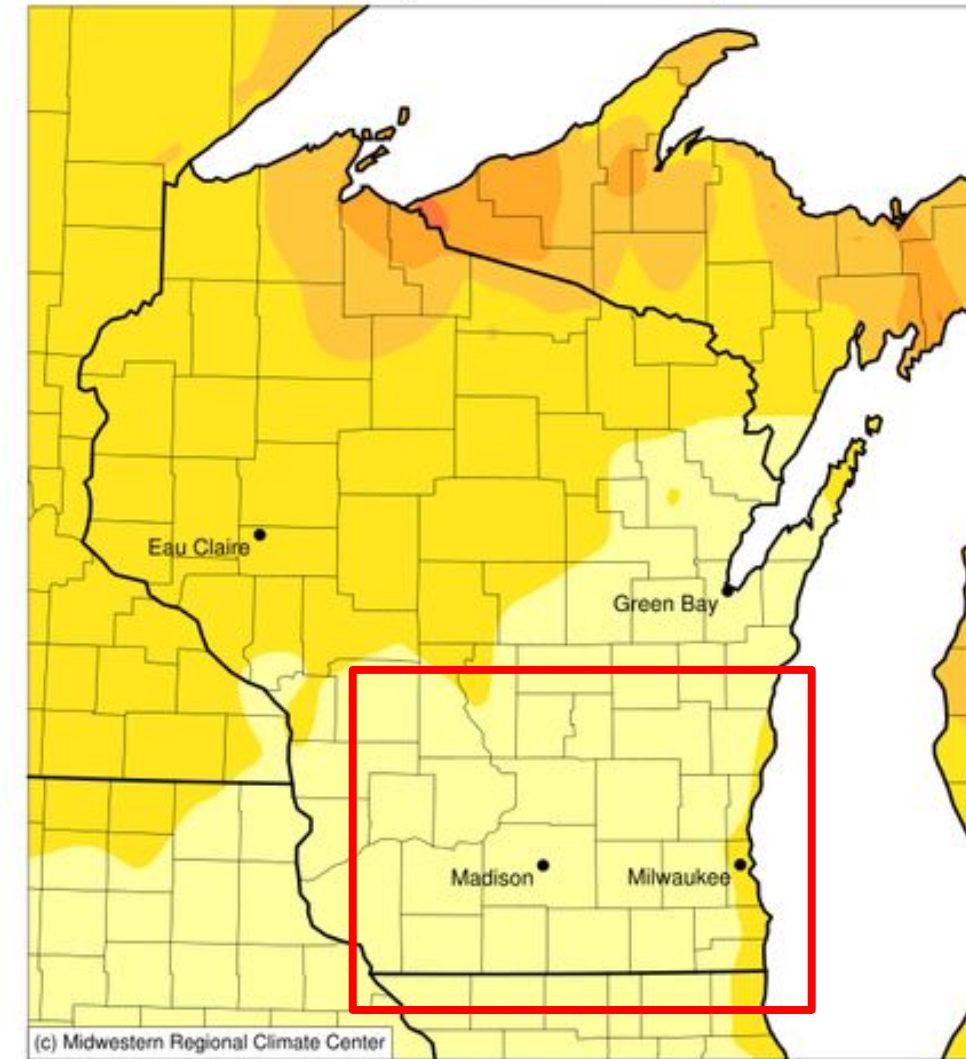
Snowfall

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- Winter snowfall was 20 to 30 inches below average in far southeast Wisconsin and 0 to 20 inches below average across the remainder of southern Wisconsin.
- Snowfall deficits are 20 to 40 inches across the upper and central Wisconsin River Basin.
- Currently there is no snow across most of the state.

Accumulated Snowfall (in): Departure from 1991-2020 Normals

December 01, 2023 to March 12, 2024



(c) Midwestern Regional Climate Center





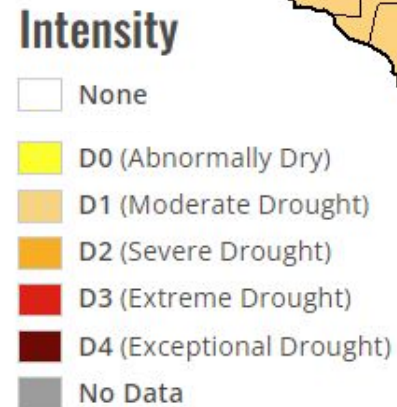
Current Conditions

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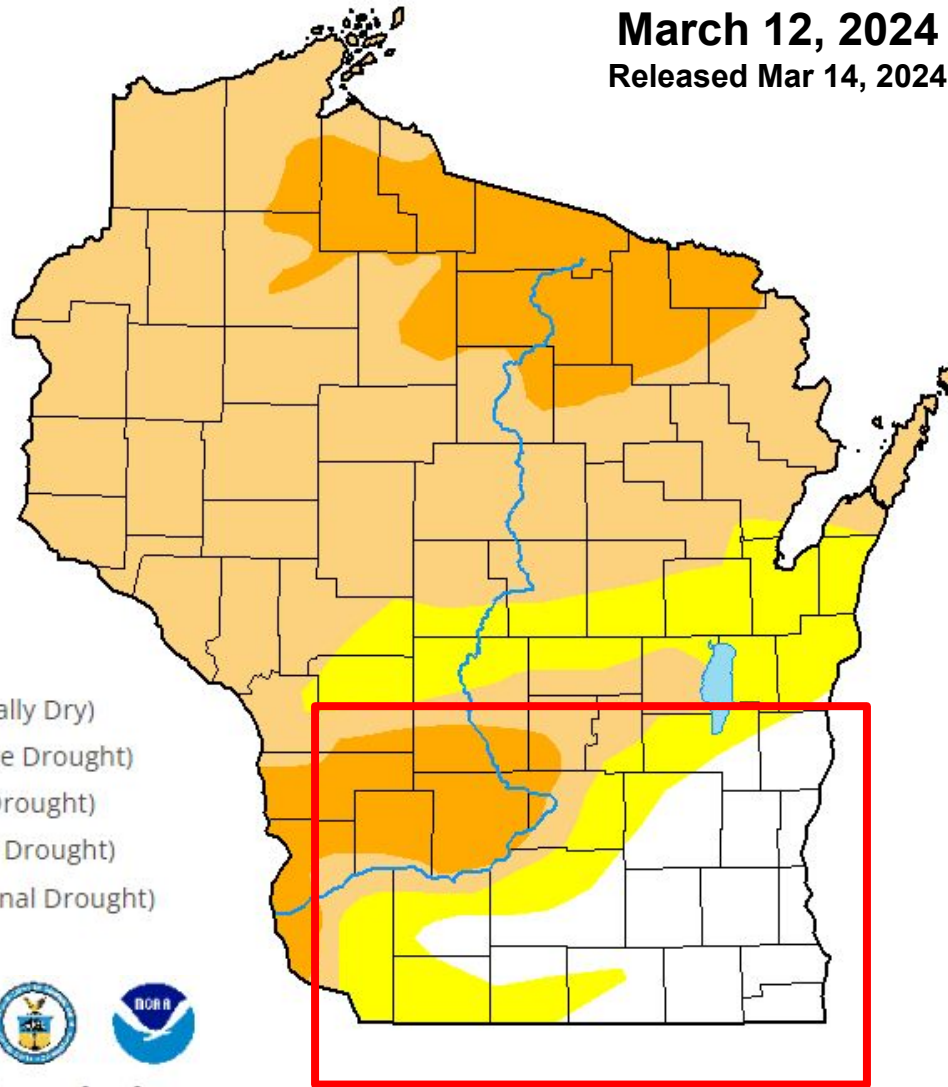
- Moderate to severe drought in parts of southwest and south-central Wisconsin
- Drought conditions are due to precipitation deficits of 6 to 12 inches since June 2023

U.S. Drought Monitor Wisconsin

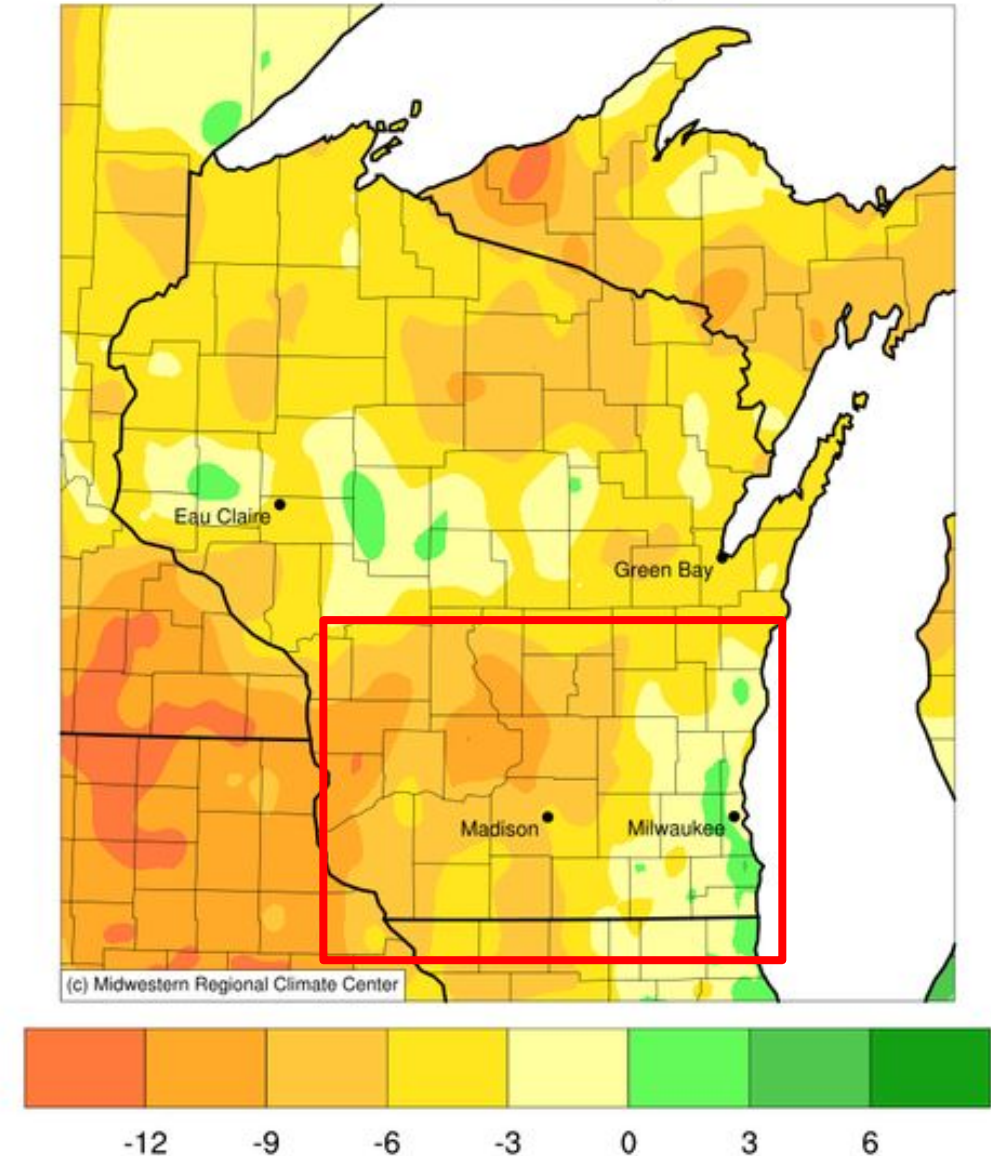
March 12, 2024
Released Mar 14, 2024



droughtmonitor.unl.edu



Accumulated Precipitation (in): Departure from 1991-2020 Normals
June 01, 2023 to March 12, 2024

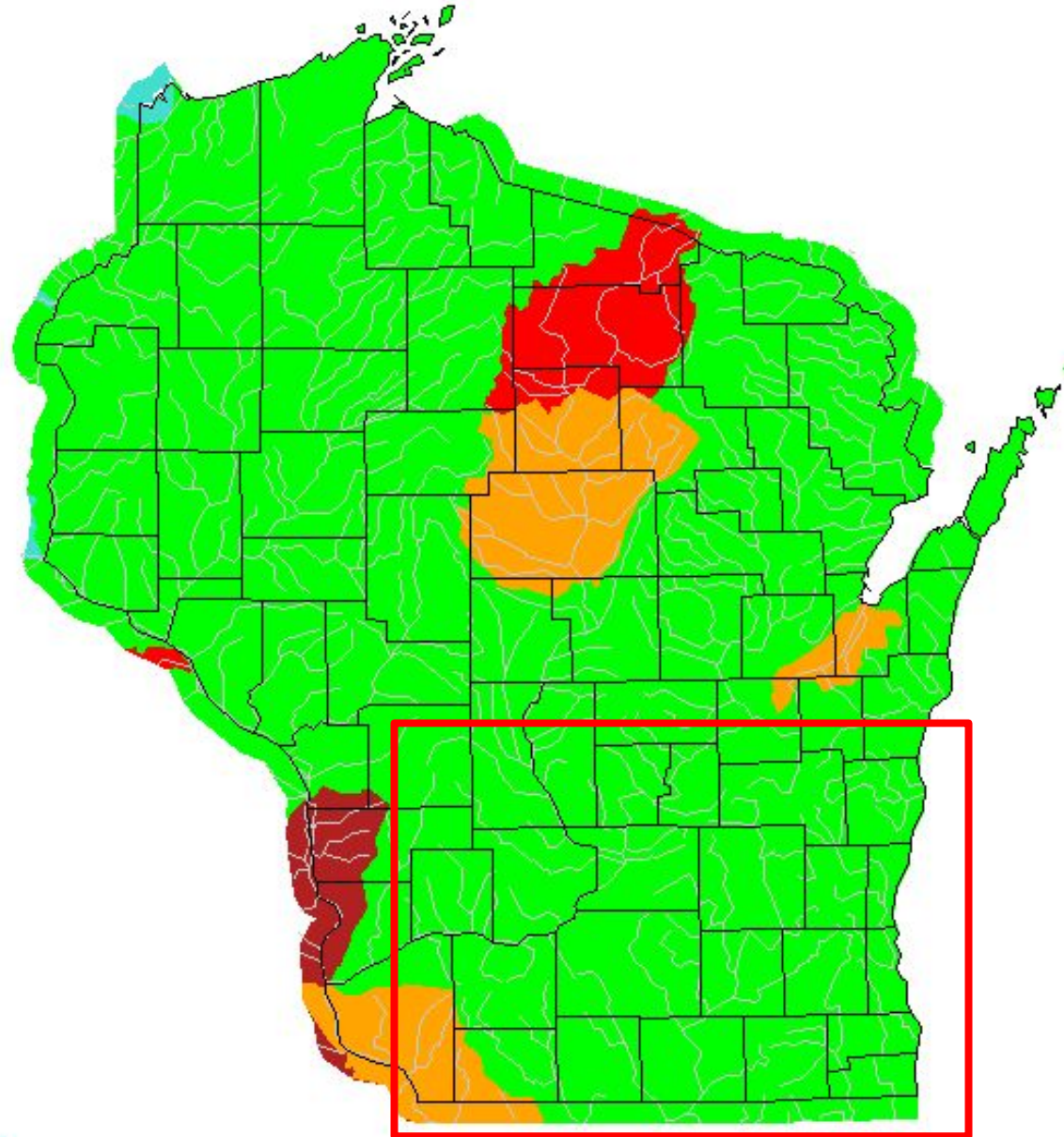




Current Conditions

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Wednesday, March 13, 2024



28 Day Streamflow

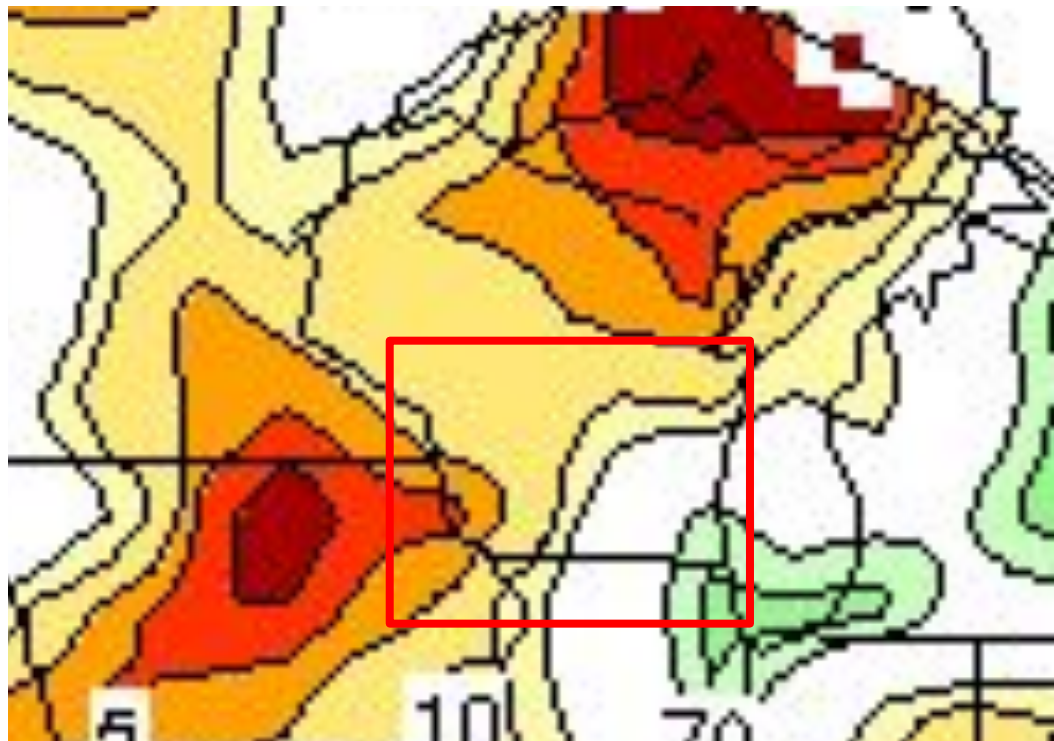
Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

- Streamflow values are in the 25-75th percentile
- Streamflow is in the 10th - 24th percentile in the northern portion of the Wisconsin River Basin

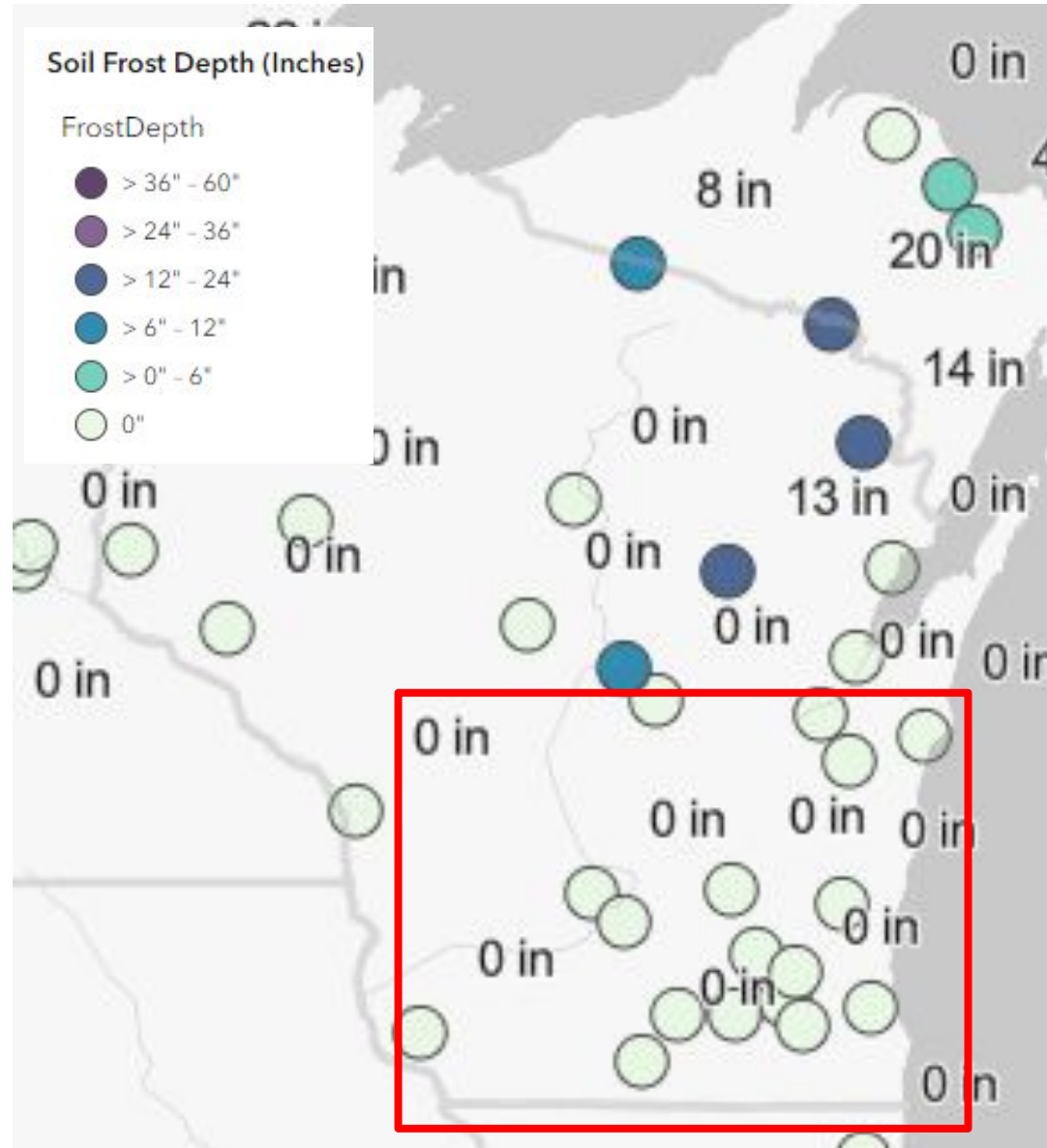




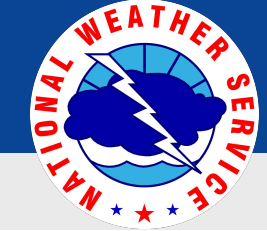
CPC Calculated Soil Moisture - 3/12/24



Frost Depth - 3/12/24



- Soil moisture is in the 10-30th percentile in southwest WI and the 30-70th percentile across south-central and southeast WI.
- No frost in southern WI. Ground will be able to absorb some moisture.



Week 2 Outlook

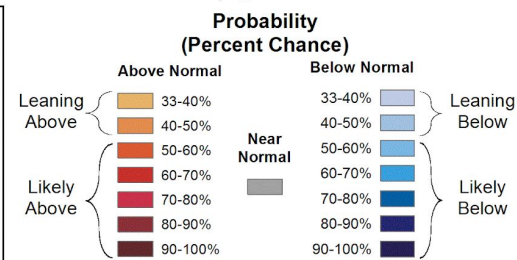
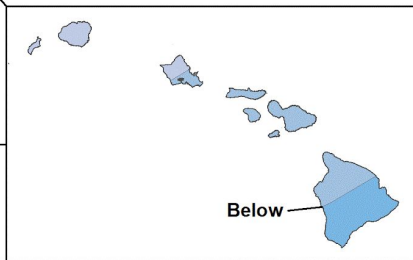
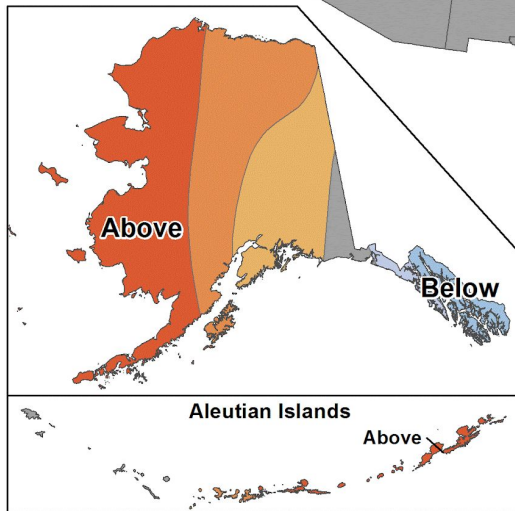
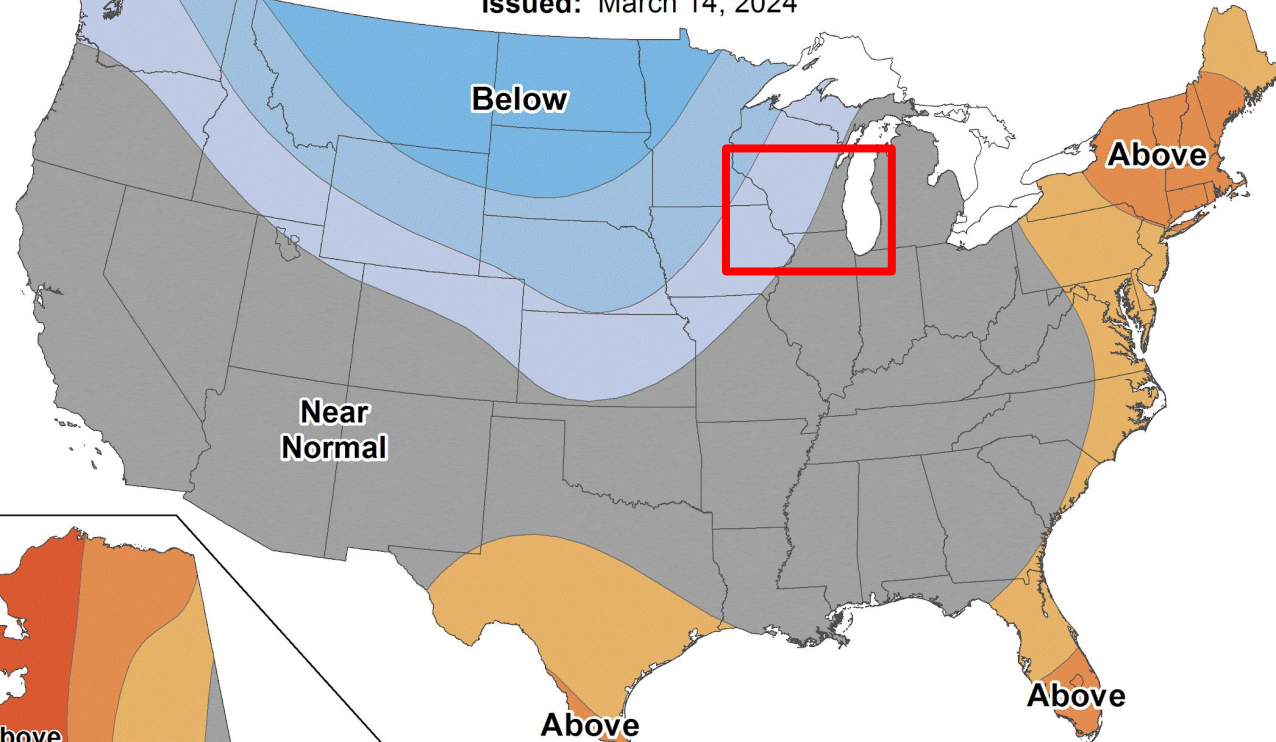
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8-14 Day Temperature Outlook



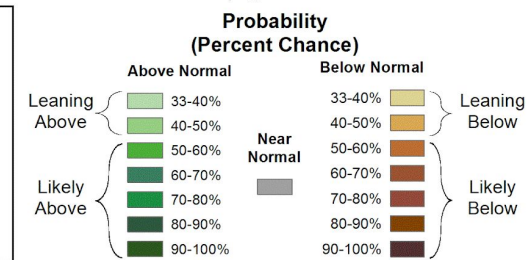
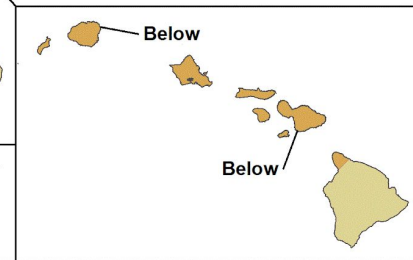
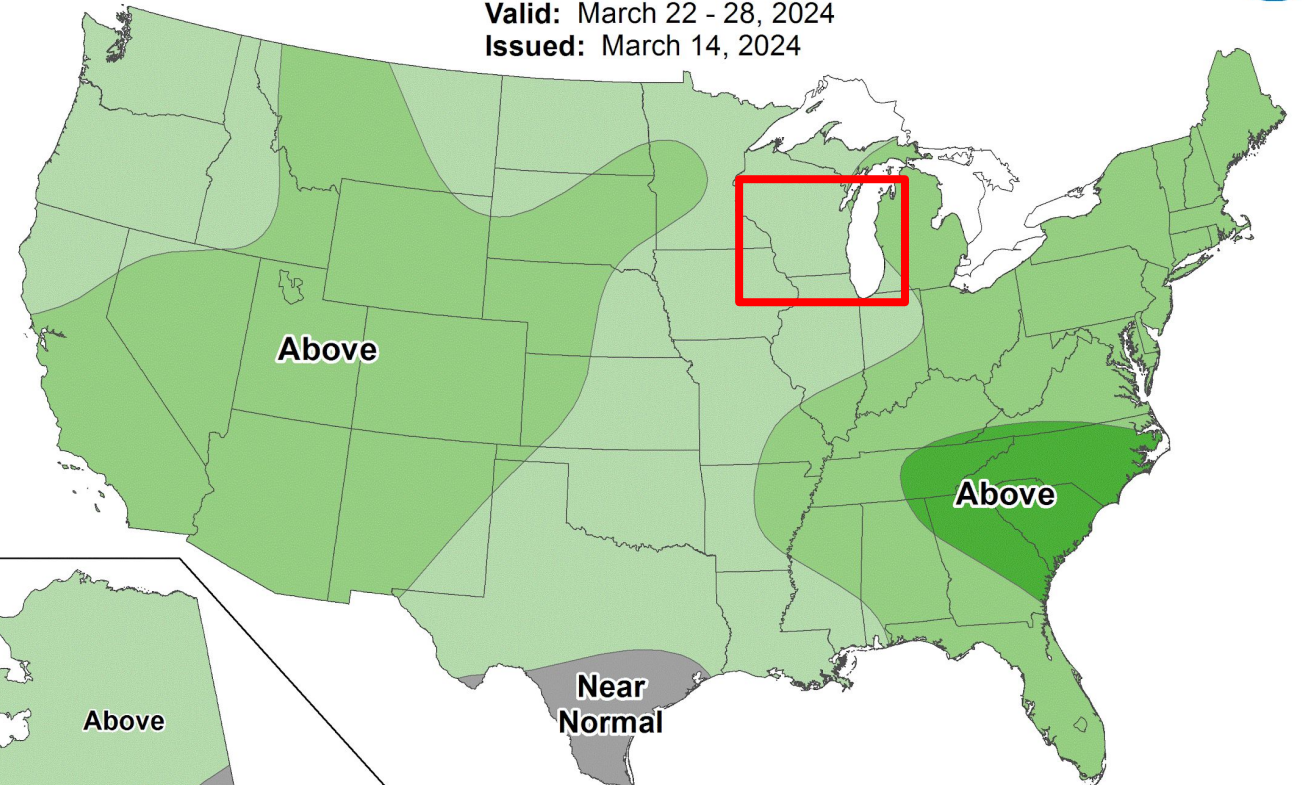
Valid: March 22 - 28, 2024
Issued: March 14, 2024



8-14 Day Precipitation Outlook



Valid: March 22 - 28, 2024
Issued: March 14, 2024



- Enhanced odds for near average temperature and above average precipitation





Extended Outlook

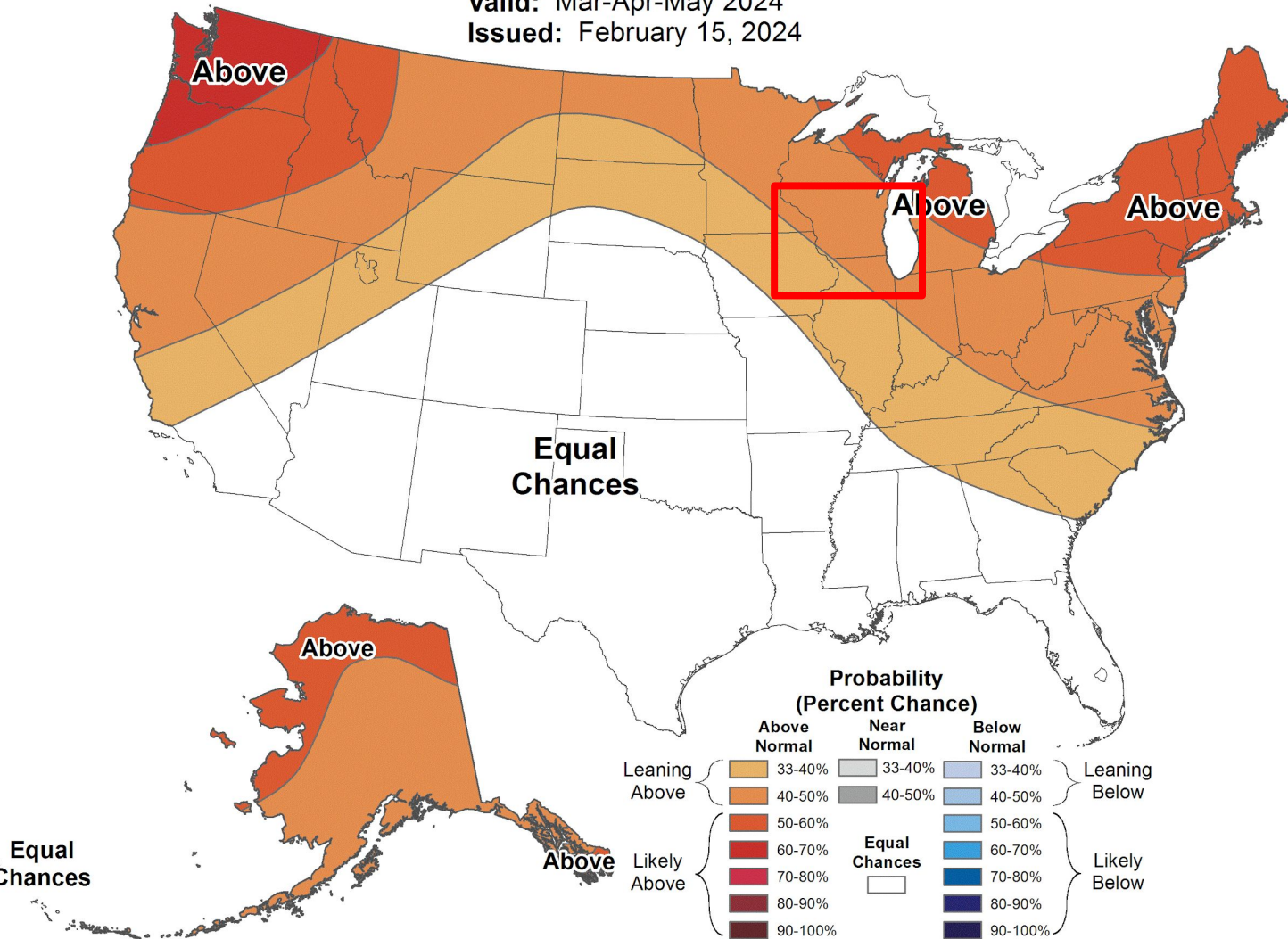
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Seasonal Temperature Outlook



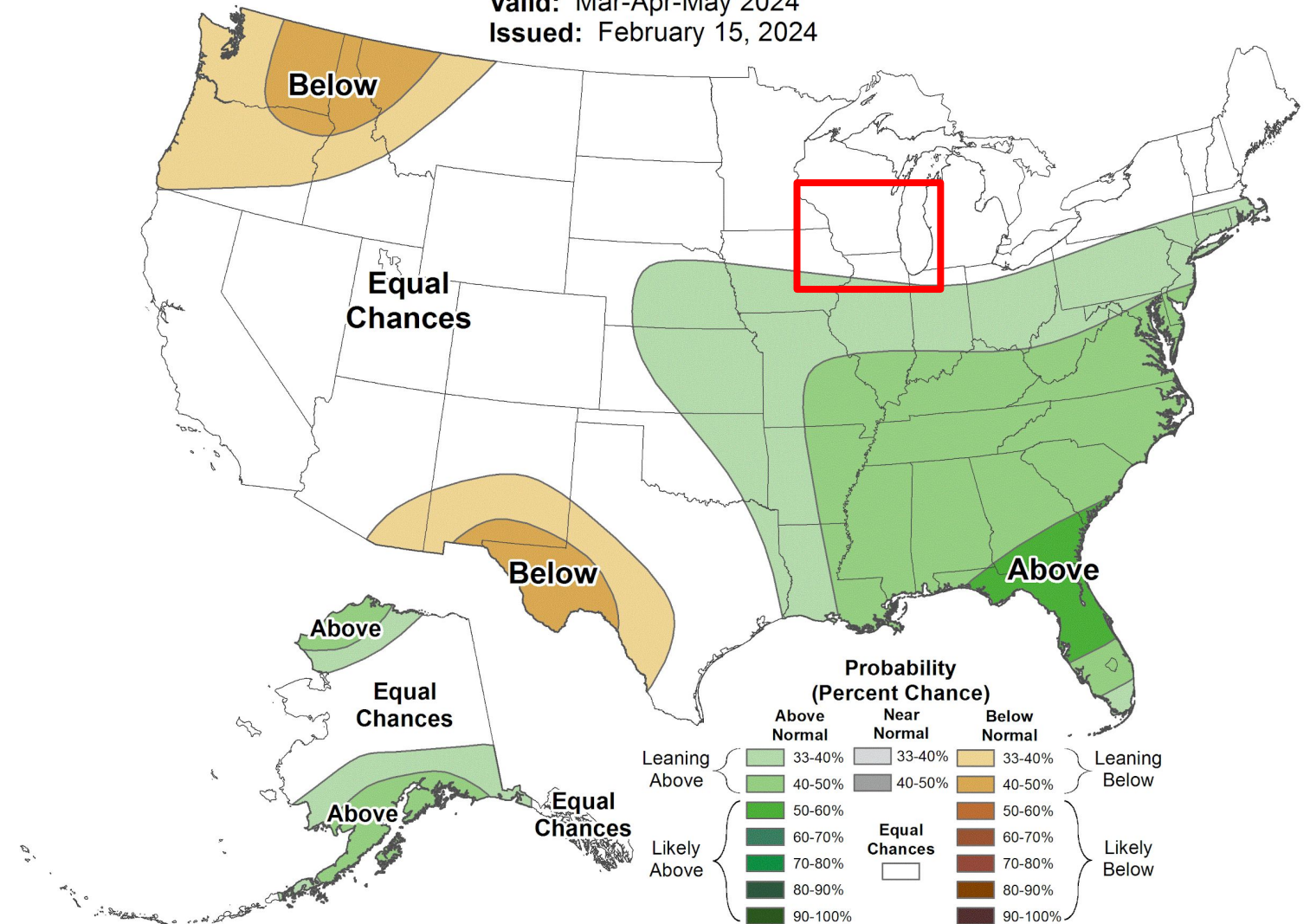
Valid: Mar-Apr-May 2024
Issued: February 15, 2024



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

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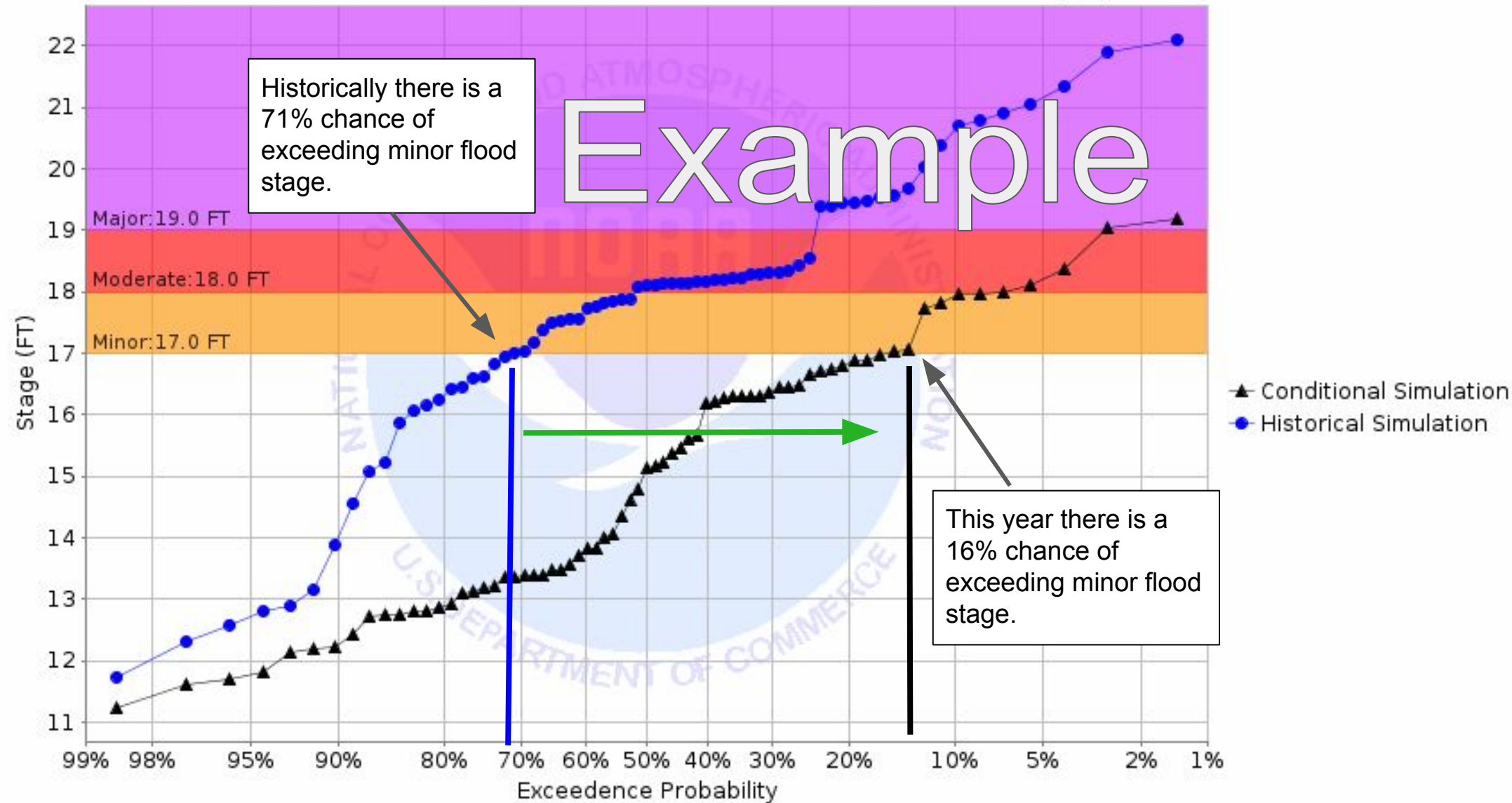
The outlook is for a 3 Month time period.

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

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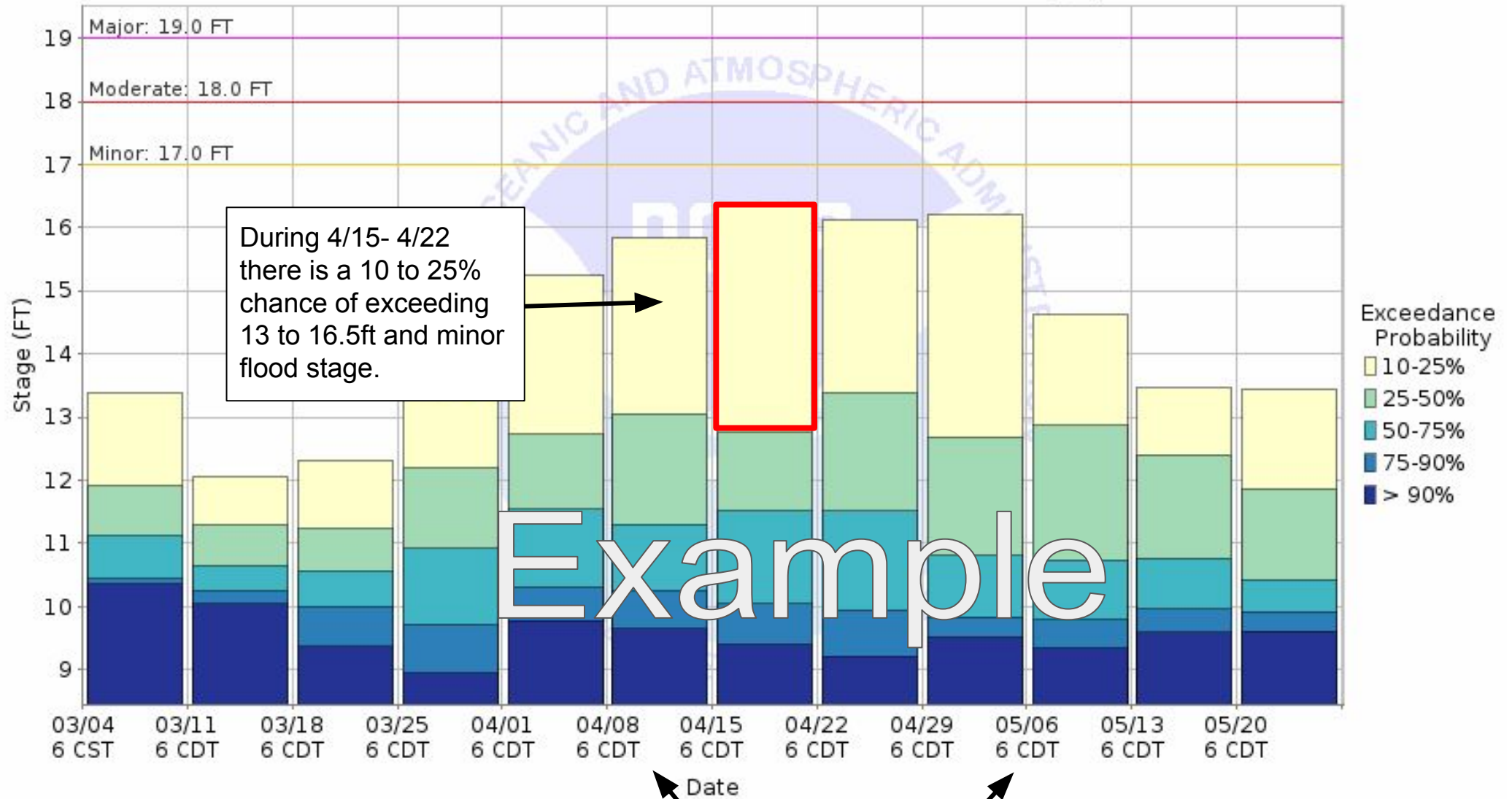
The outlook is for weekly time periods.

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

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HEFS - 10 Day River Level Probabilities

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

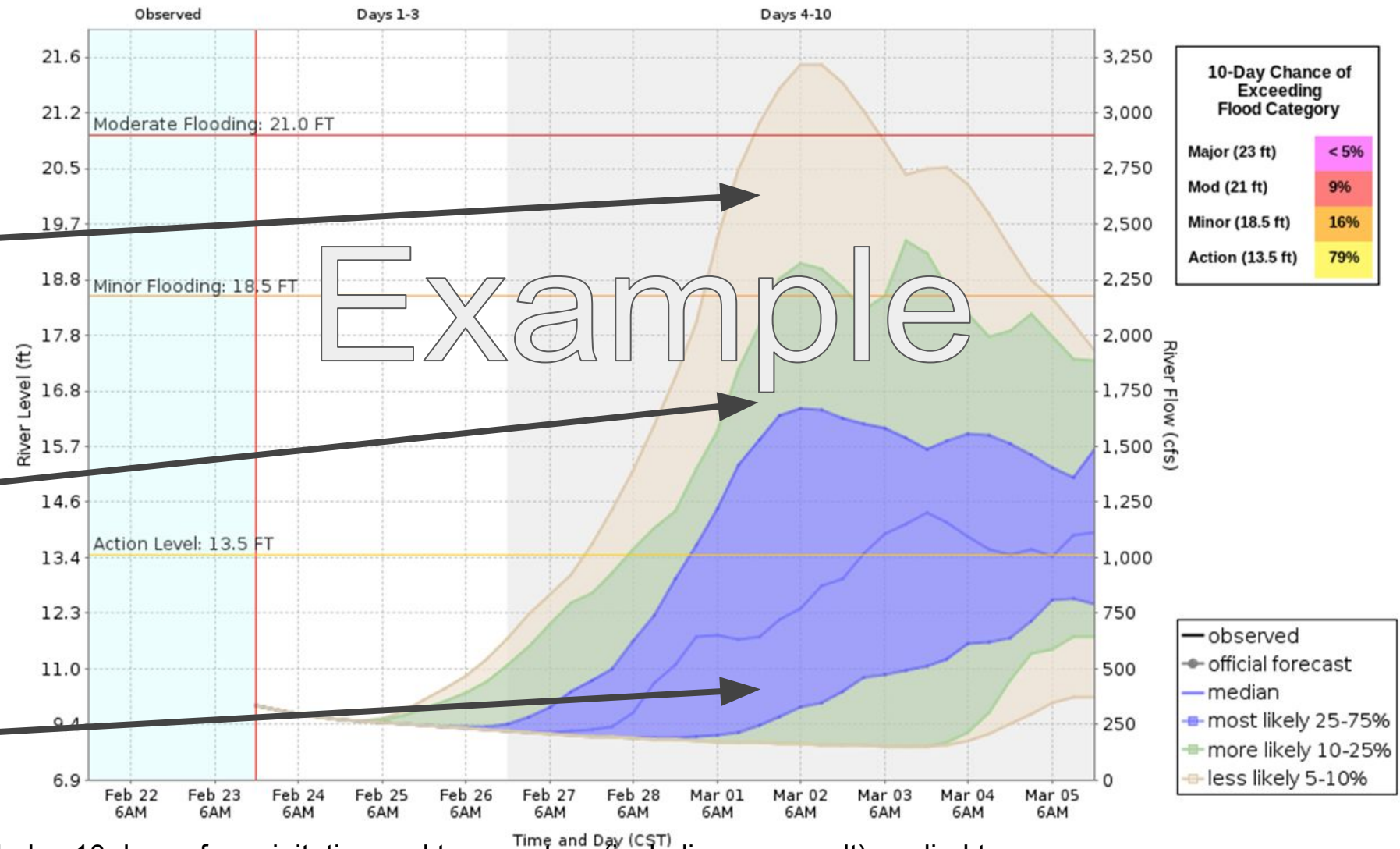
Feb 24 - Mar 06, 2023
Baraboo River at Rock Springs (RSPW3)

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



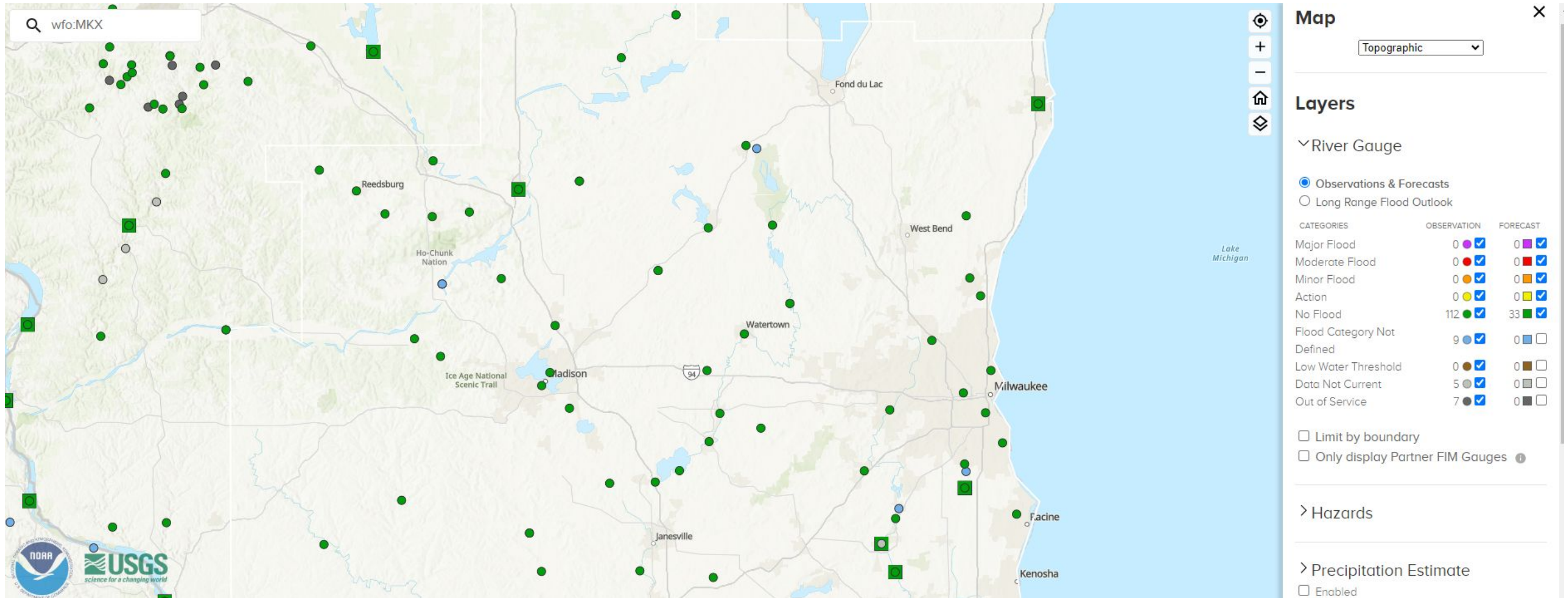


New River Forecast Website

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Coming March 27, 2024

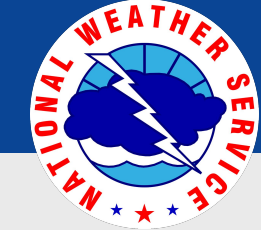
preview.water.noaa.gov/wfo/mkx



- Customizable layers
- Mobile friendly

- Interactive hydrograph
- All forecast guidance on one page



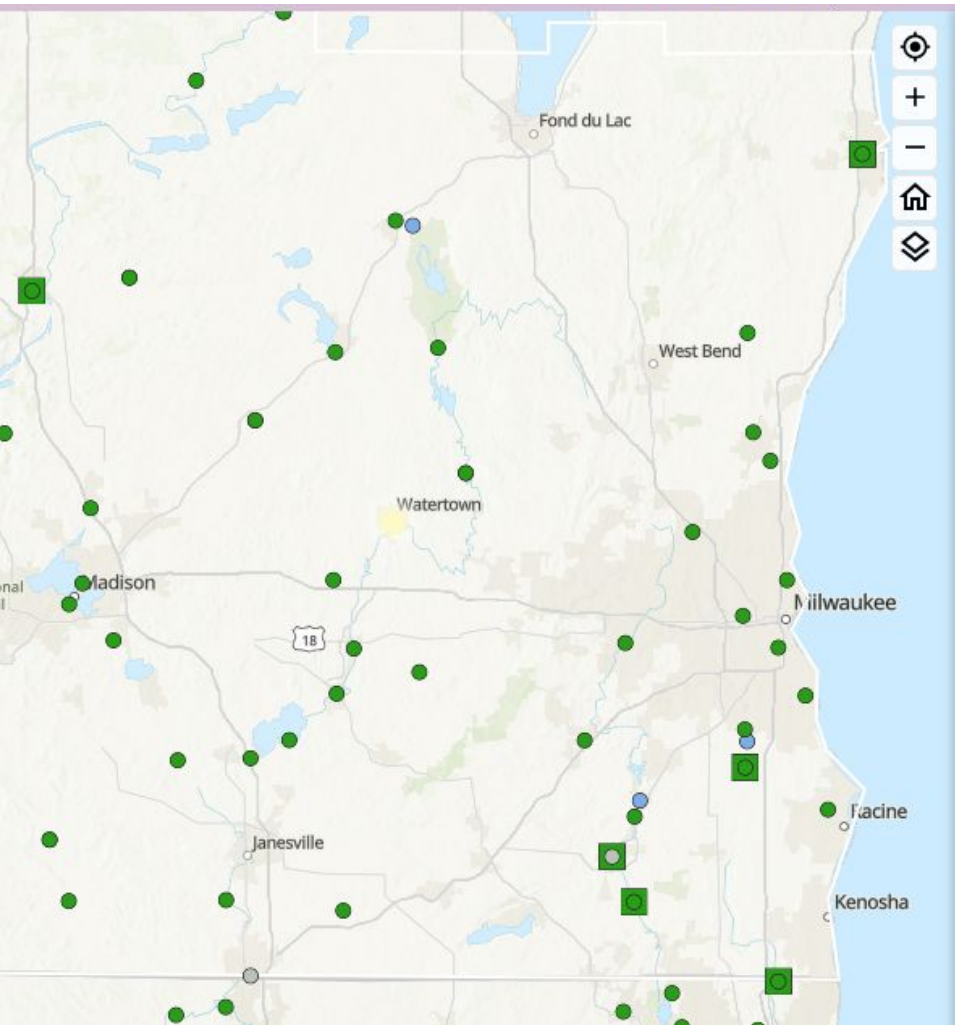


New River Forecast Website

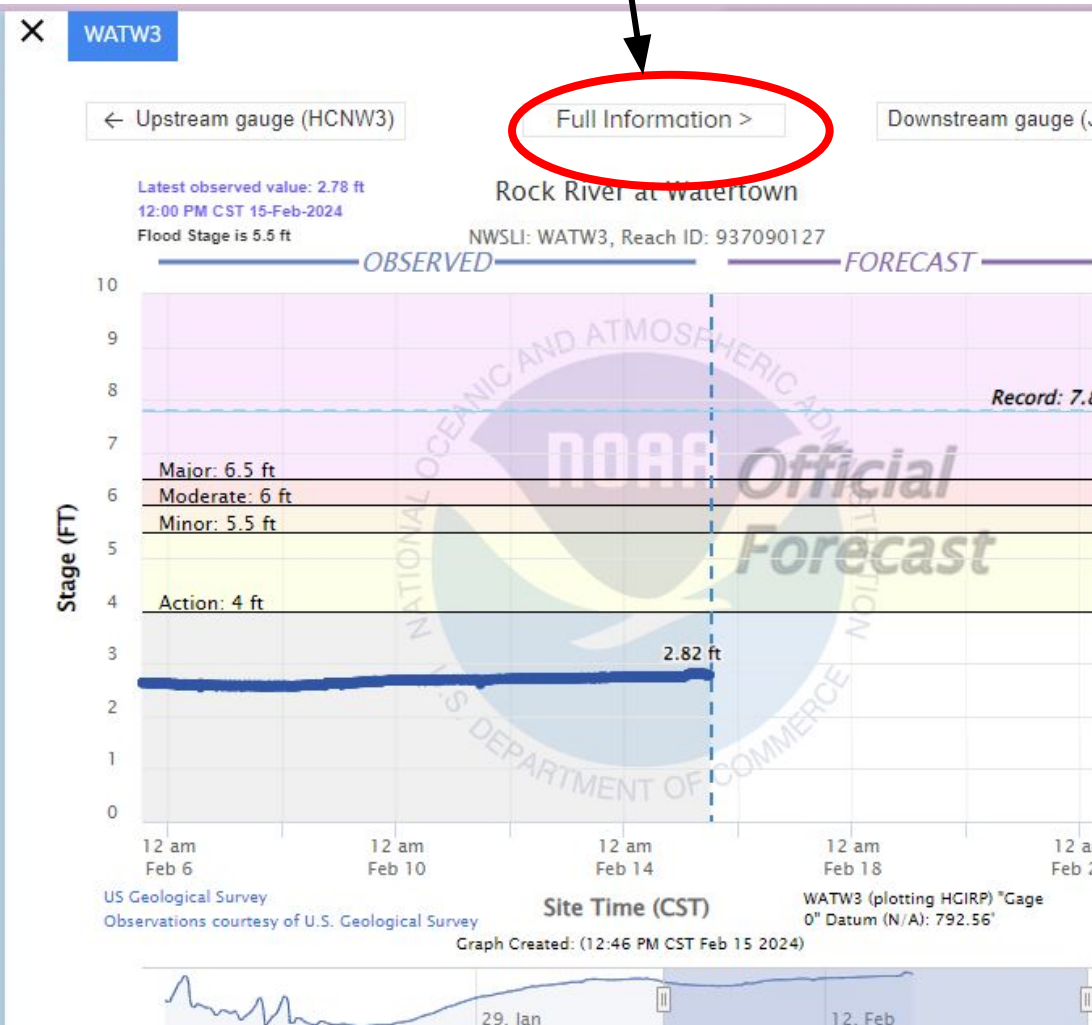
Coming March 27, 2024

preview.water.noaa.gov/wfo/mkx

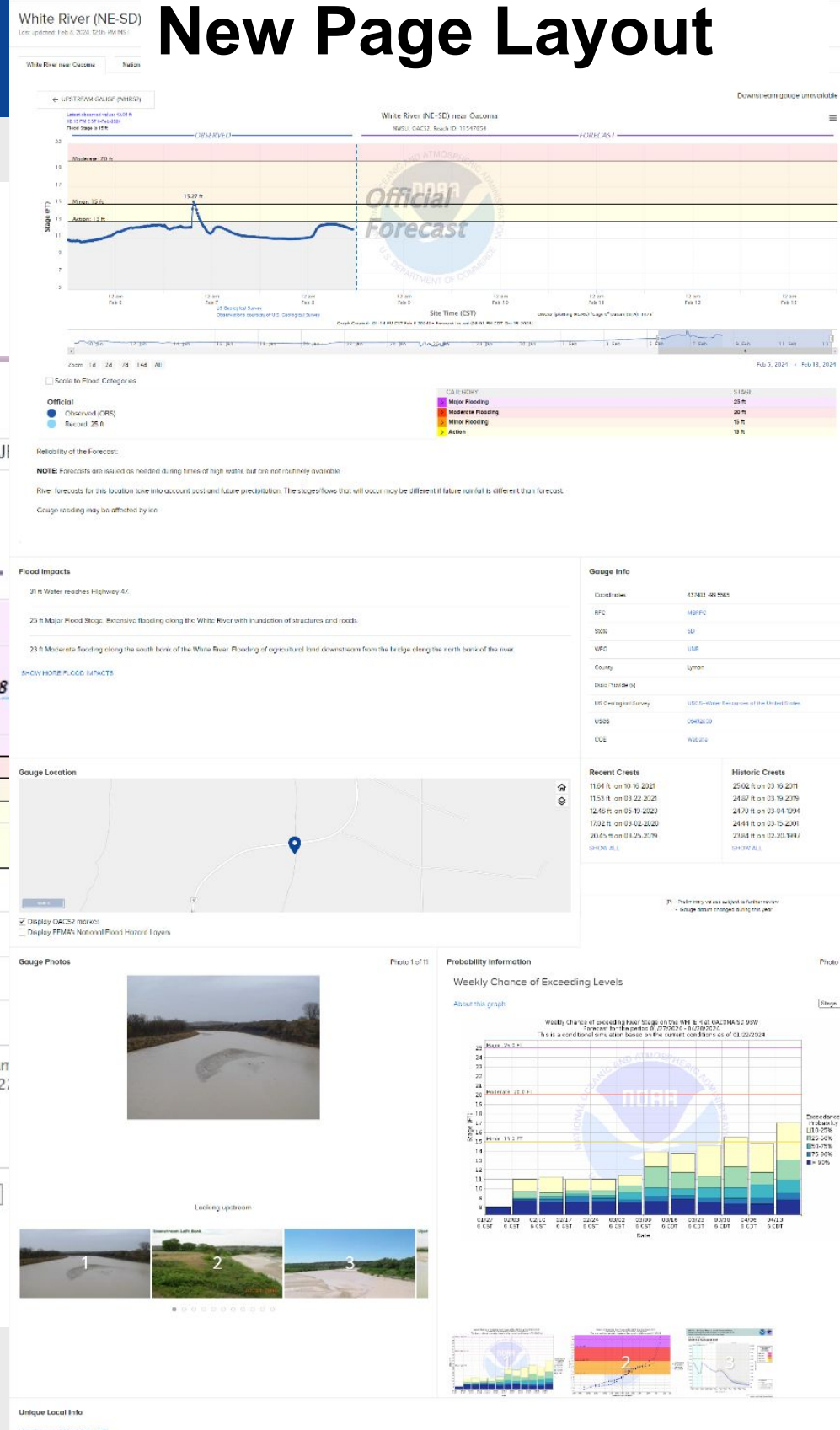
Select Site on Map



Select Full Information



New Page Layout



National Oceanic and Atmospheric Administration

U.S. Department of Commerce



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.

This is the final spring flood outlook for this season.