Southern Wisconsin Spring Flood Outlook - 3rd of 3

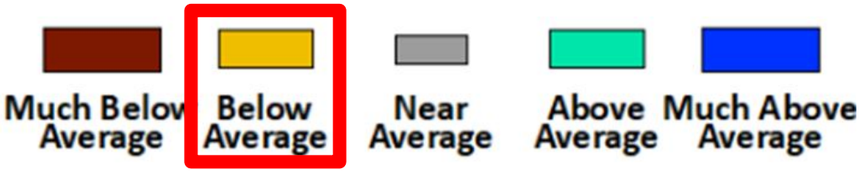
3 / 13 / 2025

Southern Wisconsin Spring Flood Outlook

March 13, 2025
11:00 AM

Outlook Time Period March 17 - June 15, 2025

Key Messages



- Spring flood risk is below average across southern Wisconsin.
- Flooding is still possible, the underlying risk is not elevated at this time. Risk of flooding with individual weather events may be greater.
- The greatest risk will be tied to heavy rain, especially while the ground is still frozen and vegetation is dormant.

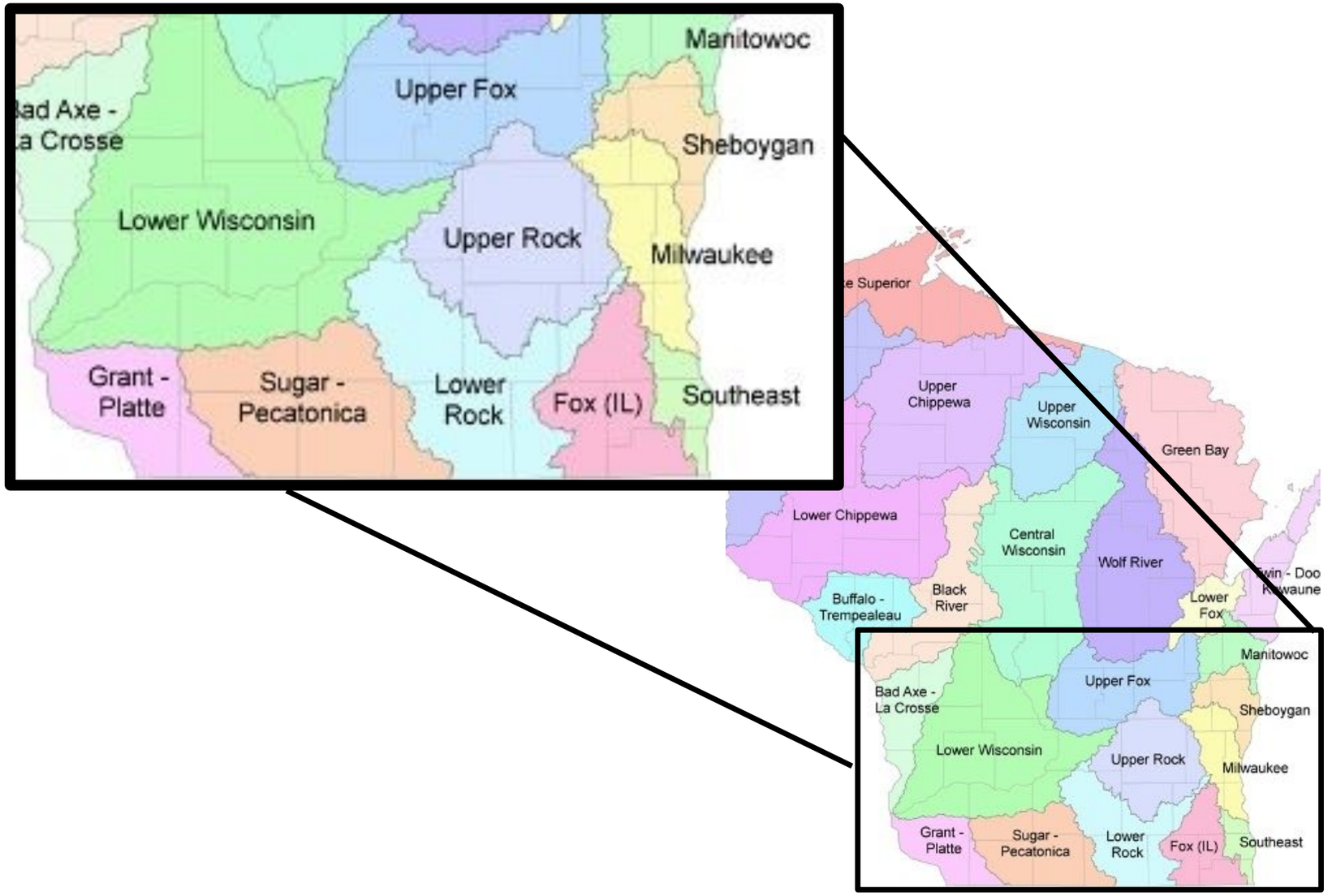
What Has Changed

- All snow has melted
- Frost depth has decreased and the top layer is thawing. Some areas are totally thawed.
- River ice has melted, however many lakes remain frozen

Southern Wisconsin Spring Flood Risk by Basin

March 13, 2025
11:00 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



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

National Weather Service
Wisconsin

Flood Risk Factors

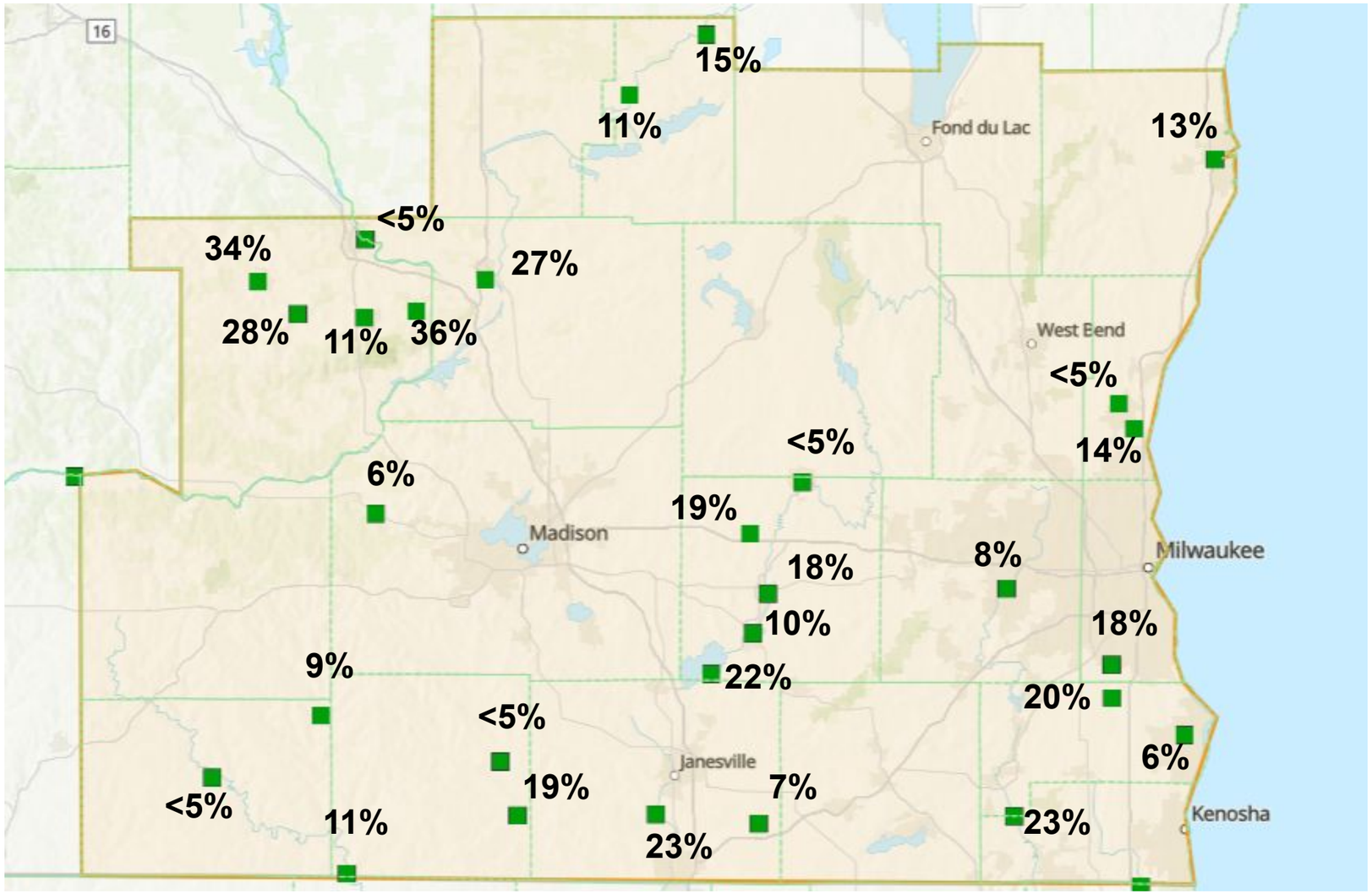
March 13, 2025
11:00 AM

Flood Risk Factor	Status	Risk
Snowpack	Average	Neutral
River Levels	Average	Neutral
Soil Moisture	Average to Below Average	Lowers Risk
Frost Depth	Average to Above Average	Increases Risk
Spring Precipitation	Wet ?	
Spring Temperature	?	

Flood Risk by Forecast Point

March 13, 2025
11:00 AM

Chance of Exceeding Flood Stage March 17 - June 15, 2025



- Probabilities are lower this year than average

Flood Risk by Forecast Point

March 13, 2025
11:00 AM

Chance of Exceeding Flood Stage March 17 - June 15, 2025

Location	Chance of Exceeding Minor Flood Stage / Historical Values	Chance of Exceeding Moderate Flood Stage / Historical Values
Wis River - Wis Dells	<5 / 25	<5 / 13
Wis River - Portage	27 / 70	12 / 51
Baraboo - Reedsburg	34 / 38	24 / 22
Baraboo - Rock Springs	28 / 38	20 / 23
Baraboo - West Baraboo	11 / 16	8 / 8
Baraboo - Baraboo	36 / 42	7 / 8
Black Earth Creek	6 / <5	5 / <5
Fox River - Princeton	11 / 20	<5 / <5
Fox River - Berlin	15 / 24	<5 / <5

Flood Risk by Forecast Point

March 13, 2025
11:00 AM

Chance of Exceeding Flood Stage March 17 - June 15, 2025

Location	Chance of Exceeding Minor Flood Stage / Historical Values	Chance of Exceeding Moderate Flood Stage / Historical Values
Rock River - Watertown	<5 / 16	<5 / 11
Rock River - Jefferson	18 / 39	11 / 28
Rock River - Fort Atkinson	10 / 20	<5 / 9
Rock River - Lake Koshkonong	22 / 45	14 / 33
Rock River - Afton	23 / 44	8 / 18
Crawfish River - Milford	19 / 39	5 / 11
Turtle Creek - Clinton	7 / 13	<5 / <5
Pecatonica River - Darlington	<5 / <5	<5 / <5
Pecatonica River - Blanchardville	9 / 13	<5 / <5
Pecatonica River - Martintown	11 / 23	<5 / <5
Sugar River - Albany	<5 / <5	<5 / <5
Sugar River - Brodhead	19 / 31	5 / 9

Flood Risk by Forecast Point

March 13, 2025
11:00 AM

Chance of Exceeding Flood Stage March 17 - June 15, 2025

Location	Chance of Exceeding Minor Flood Stage / Historical Values	Chance of Exceeding Moderate Flood Stage / Historical Values
Sheboygan River - Sheboygan	13 / 28	8 / 10
Cedar Creek - Cedarburg	<5 / 6	<5 / <5
Milwaukee River - Cedarburg	14 / 36	5 / 10
Root River - Franklin	18 / 24	<5 / <5
Root River Canal	20 / 24	5 / 7
Root River - Racine	6 / 9	<5 / 5
Fox River - Waukesha	8 / 16	<5 / 9
Fox River - New Munster	23 / 50	10 / 22

Precipitation

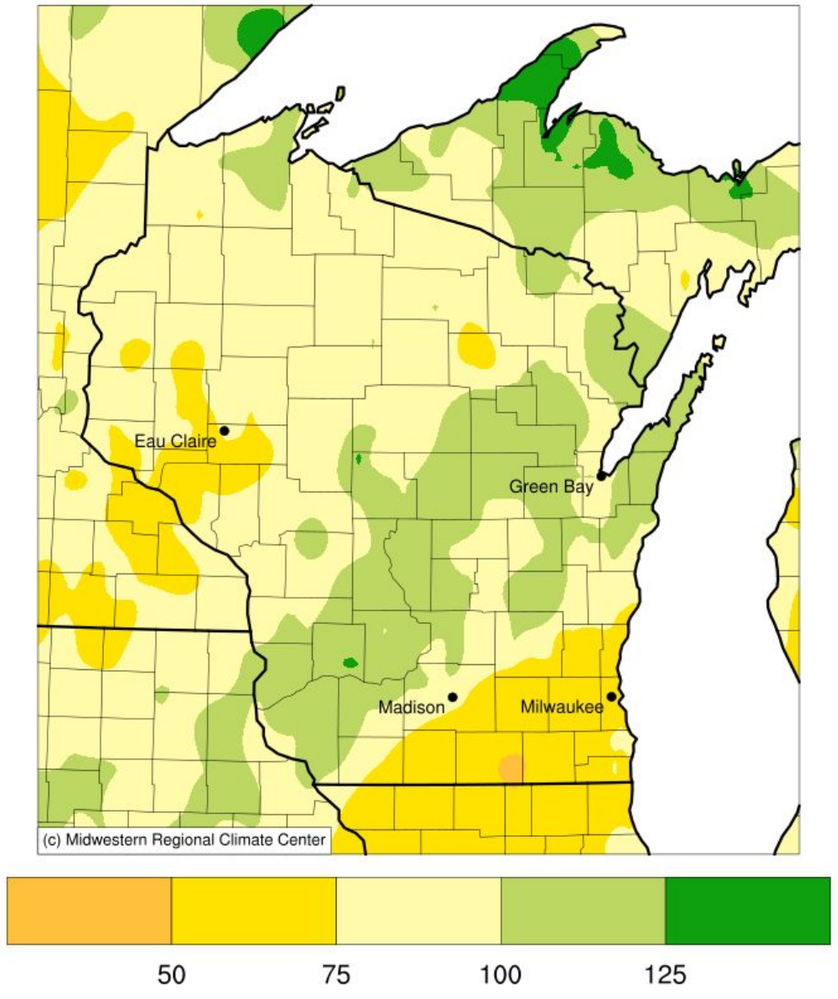
March 13, 2025
11:00 AM

- Since Oct 1, precipitation is 75-125% of normal southwest and north of Madison and 50 to 75% of normal south and east of Madison.

- Since Dec 1, precipitation is 50-75% of normal across much of southern WI, which is 1.5 to 3.5 inches below normal.

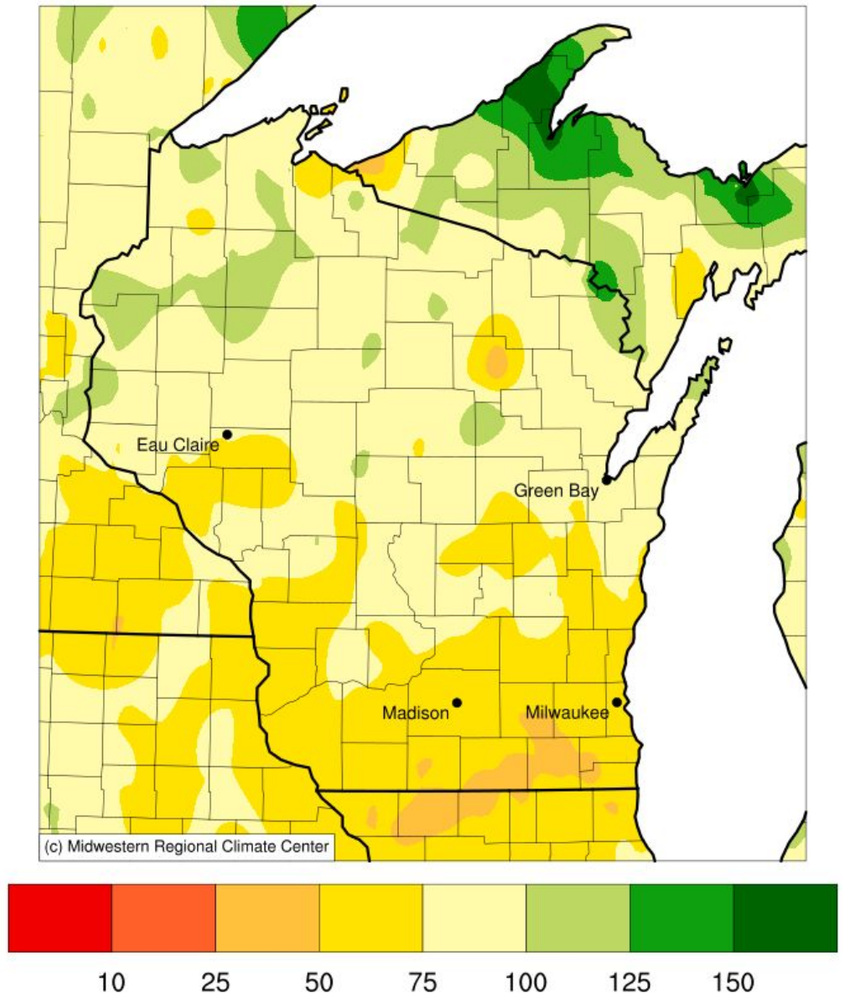
Accumulated Precipitation (in): Percent of 1991-2020 Normals

October 01, 2024 to March 12, 2025



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

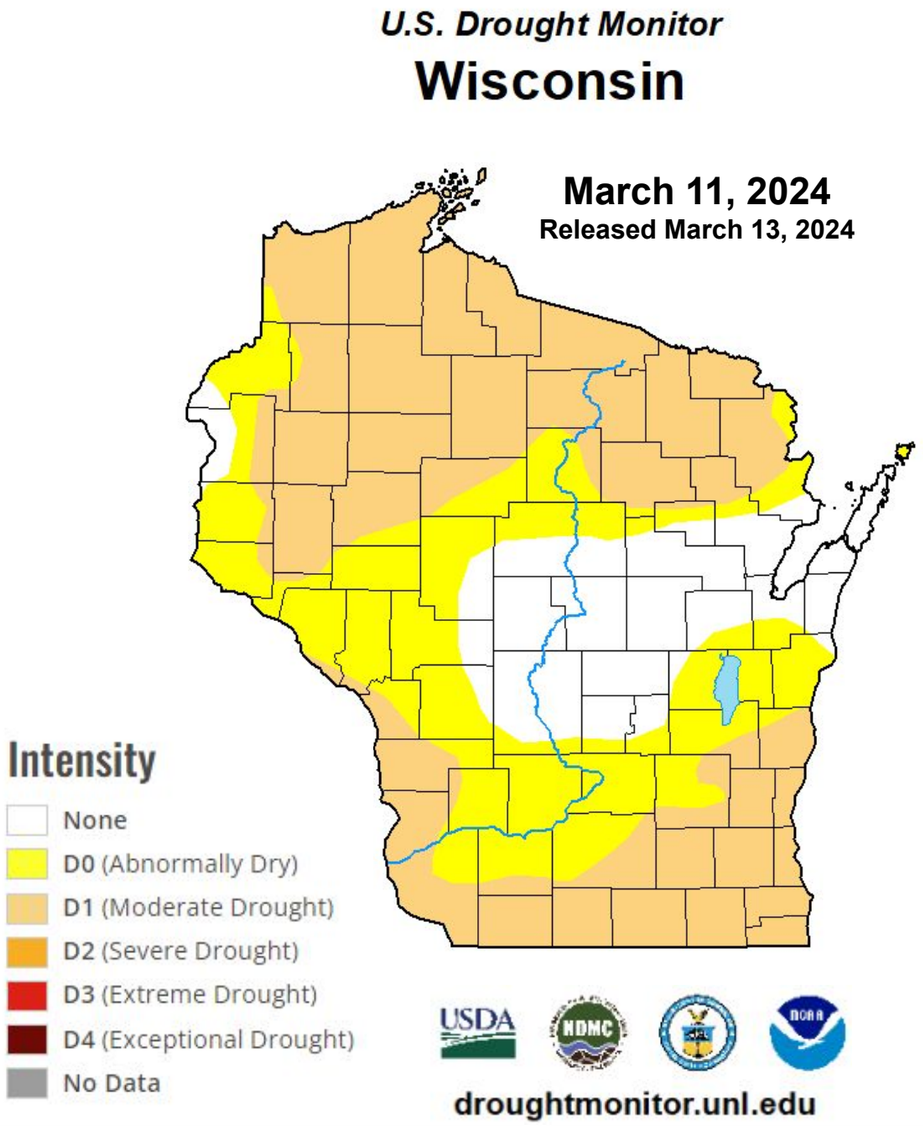
December 01, 2024 to March 12, 2025

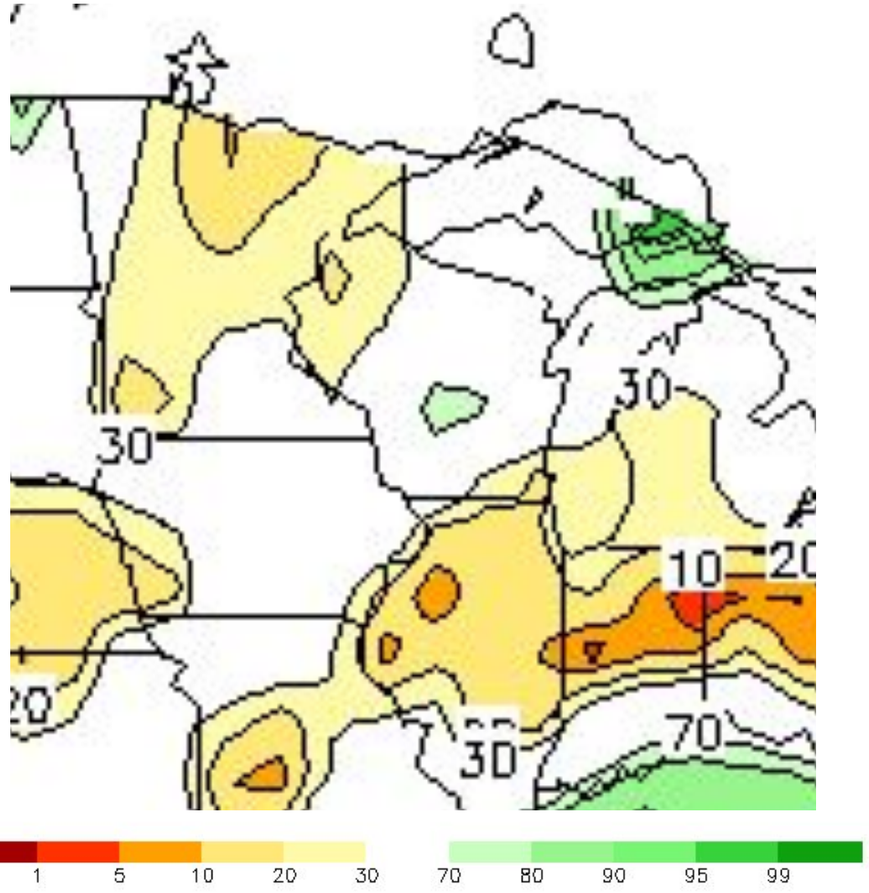


Current Conditions

March 13, 2025
11:00 AM

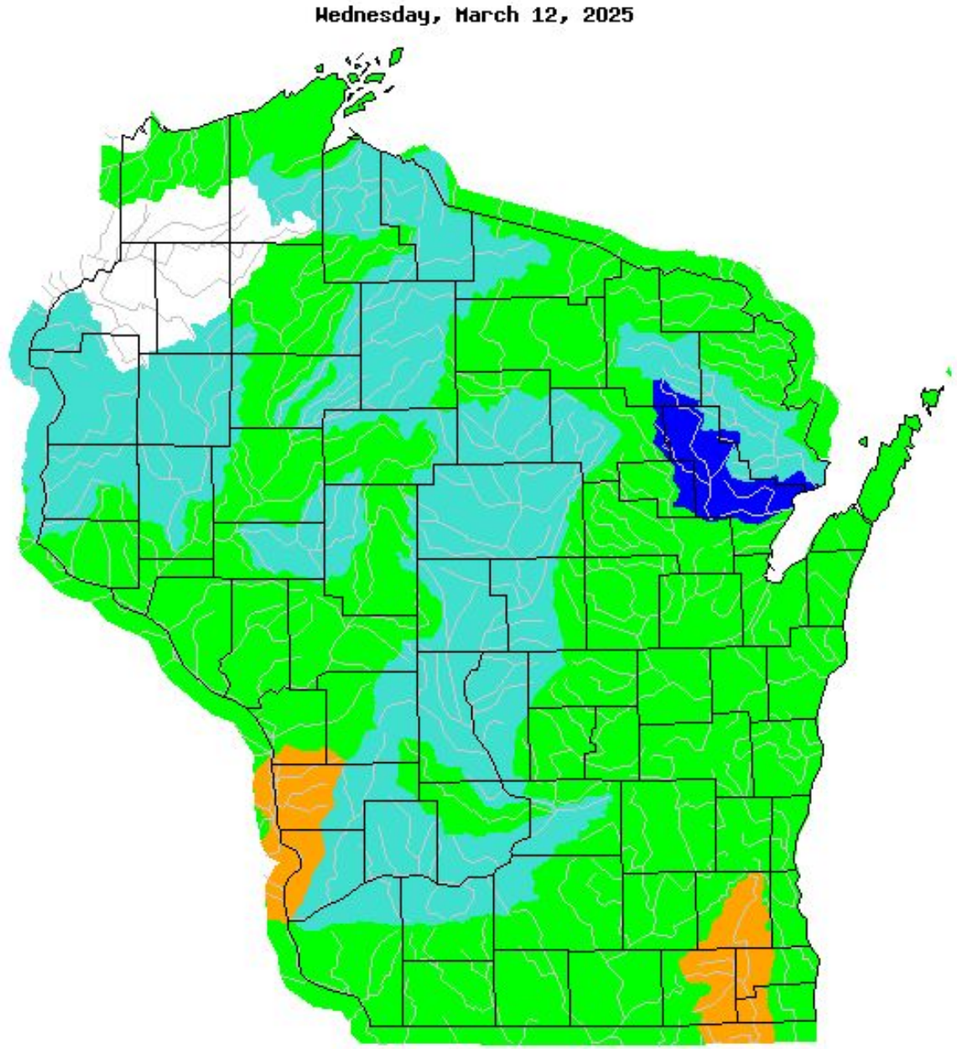
- Moderate drought in far south-central and southeast Wisconsin
- Drought conditions are due to precipitation deficits of 4 to 7 inches since September (not shown)
- Soil moisture in the 20-30th percentile in southeast Wisconsin and 30-70th (near normal) elsewhere across southern WI
- Some room in the soils to absorb moisture





Current Conditions

March 13, 2025
11:00 AM



USGS

14 Day Streamflow

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

- Streamflow values are in the 10-24th percentile in parts of southeast WI, in the 76-90th percentile in the lower Wisconsin River and the 25-75th percentile across the rest of southern Wisconsin
- Some room in the rivers to contain additional rainfall
- Rivers are mostly ice free

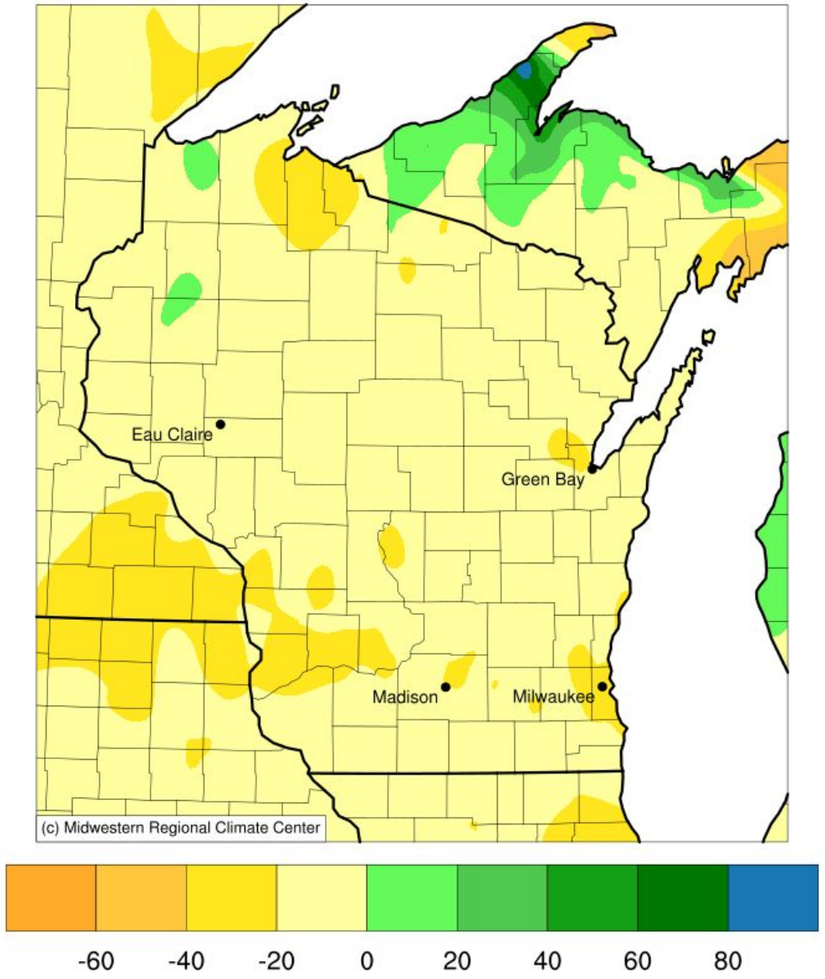
Snowfall

March 13, 2025
11:00 AM

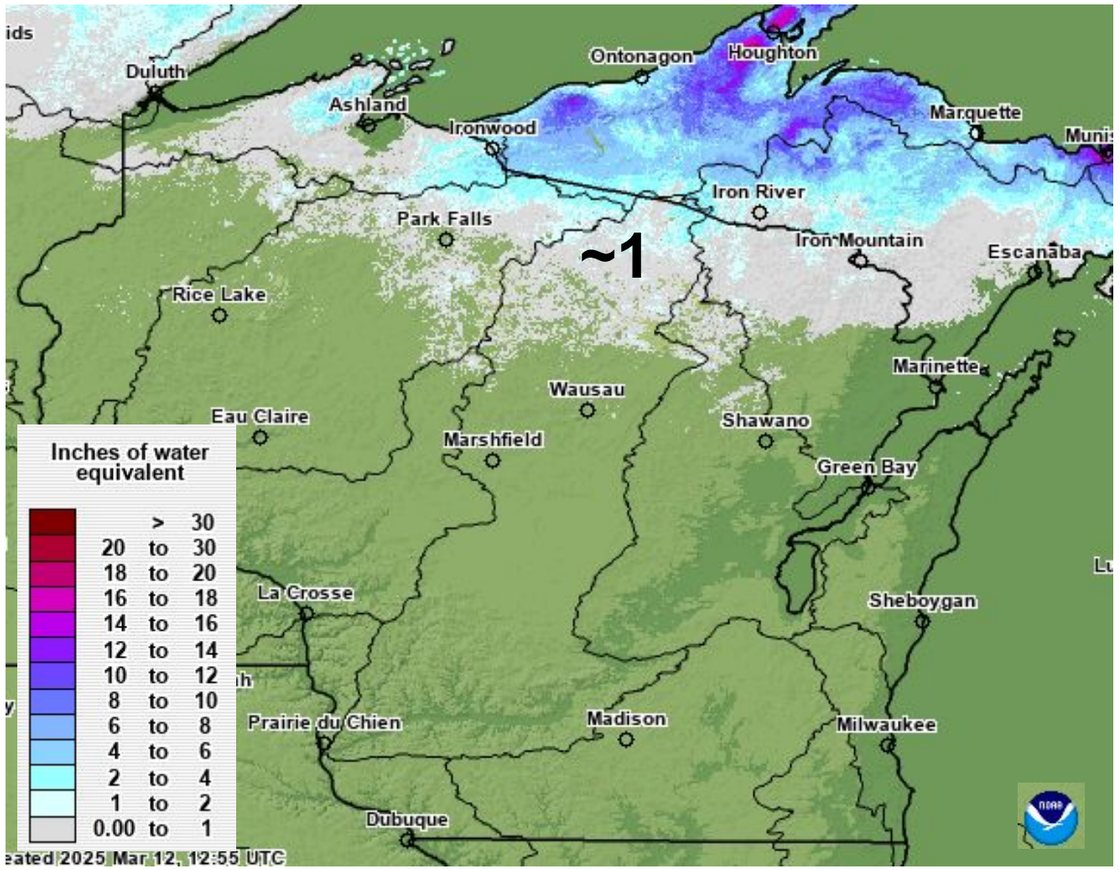
- Winter snowfall is ~20 inches below average across southern Wisconsin.
- Currently there is no snow in southern Wisconsin, reducing the flood risk.
- Snow water content is about 1 inch in the headwaters of the Wisconsin River, which is about half of normal for this time of year, leading to less runoff into the Wisconsin River due to melting snow.

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

December 01, 2024 to March 12, 2025



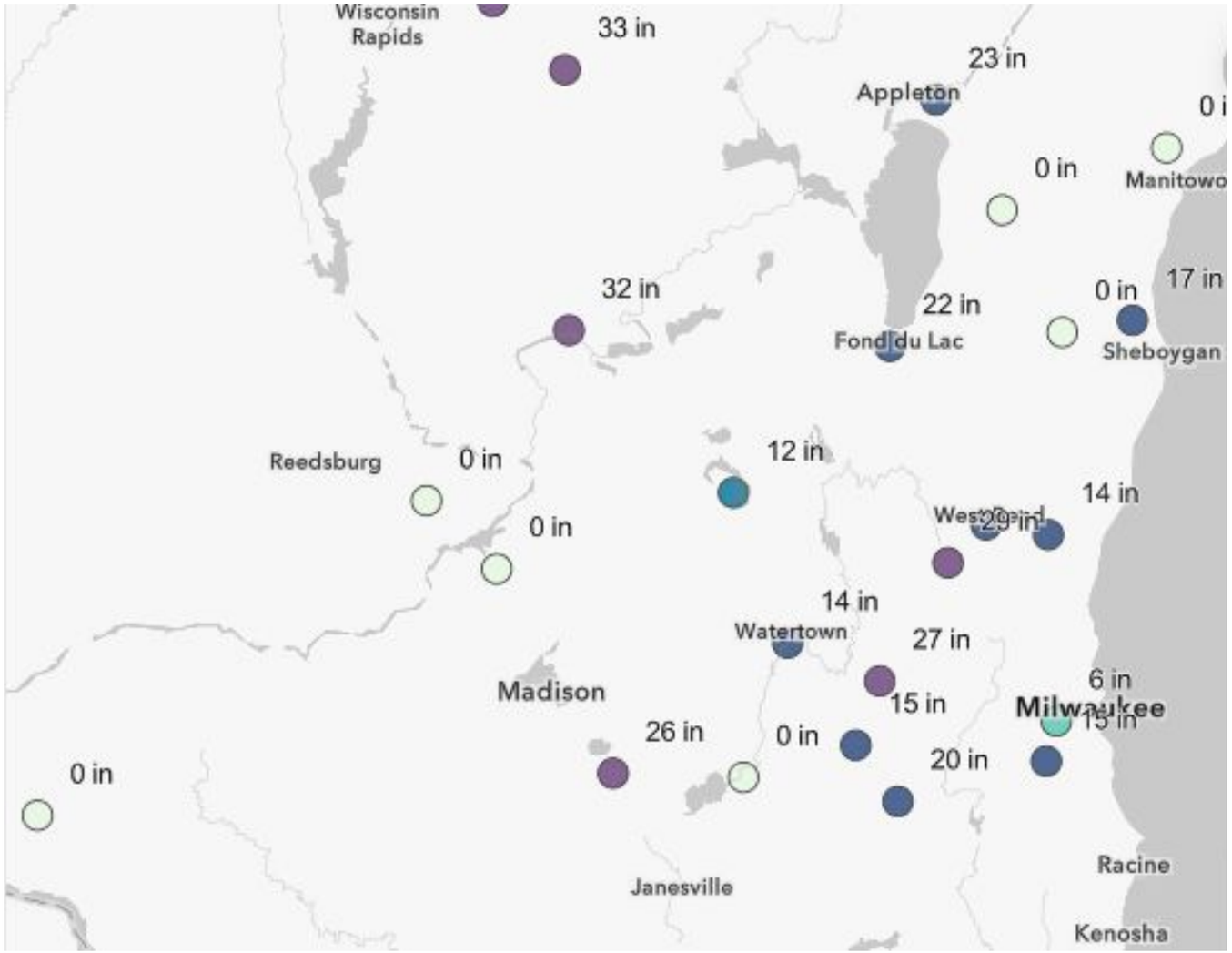
Snow Water Equivalent (inches) 3/12/25



Current Conditions

March 13, 2025
11:00 AM

Frost Depth - 3/13/25



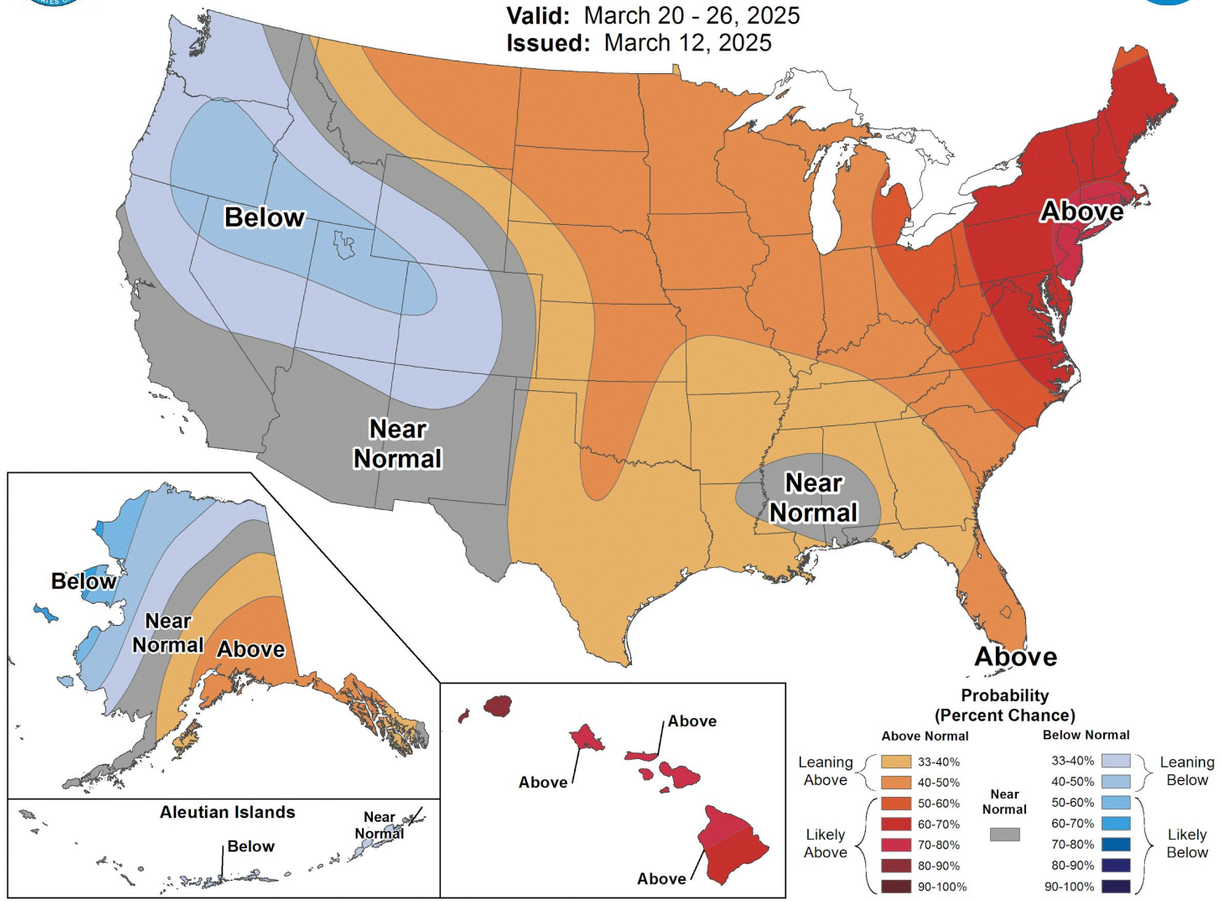
- Frost depth of 0 to 32 inches. Differences are a result of sun exposure and soil type
- Some areas are completely thawed and can absorb rainfall, helping to mitigate flooding
- Some areas remain deeper than average, increasing the flood risk because with frozen ground there will be less infiltration into soil. However, in many of these areas the top few inches is thawed.

Week 2 Outlook

March 13, 2025
11:00 AM

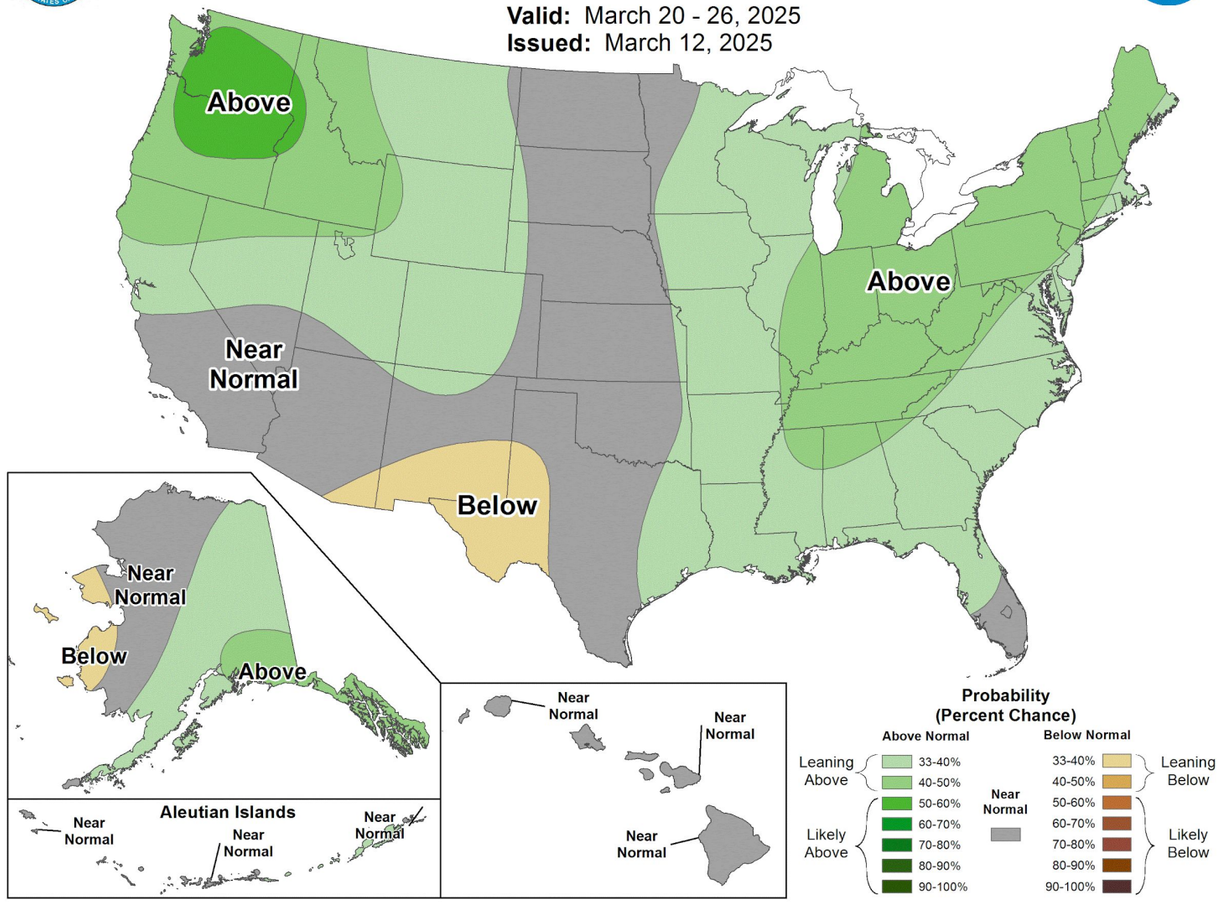
8-14 Day Temperature Outlook

Valid: March 20 - 26, 2025
Issued: March 12, 2025



8-14 Day Precipitation Outlook

Valid: March 20 - 26, 2025
Issued: March 12, 2025



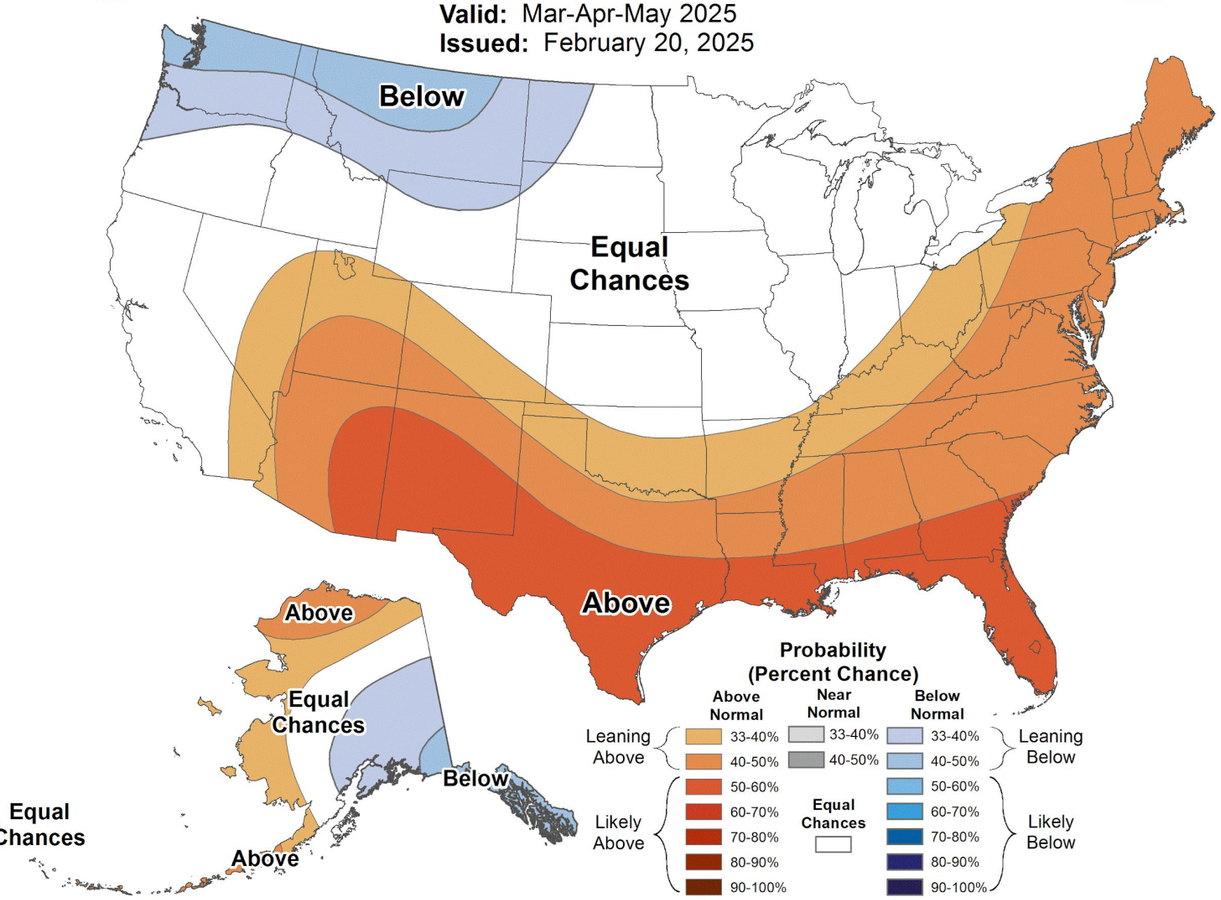
- Enhanced odds for above average temperature and above average precipitation during late March.

Extended Outlook

March 13, 2025
11:00 AM

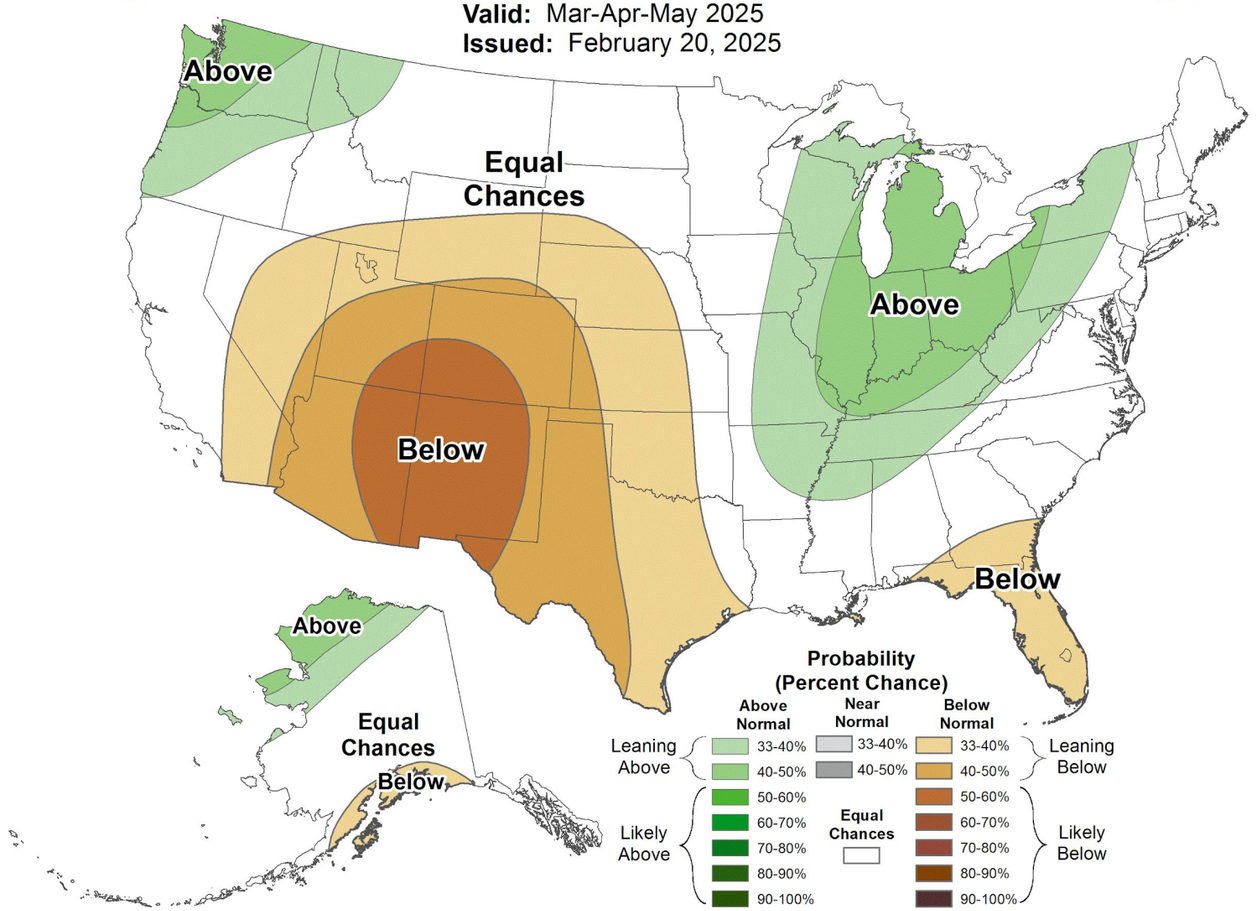
Seasonal Temperature Outlook

Valid: Mar-Apr-May 2025
Issued: February 20, 2025



Seasonal Precipitation Outlook

Valid: Mar-Apr-May 2025
Issued: February 20, 2025



- Equal chances of above, near, and below normal temperature and enhanced odds for above average precipitation for the March, April, May season.

River Forecast Website

March 13, 2025
11:00 AM

water.noaa.gov/wfo/mkx

National Water Prediction Service
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

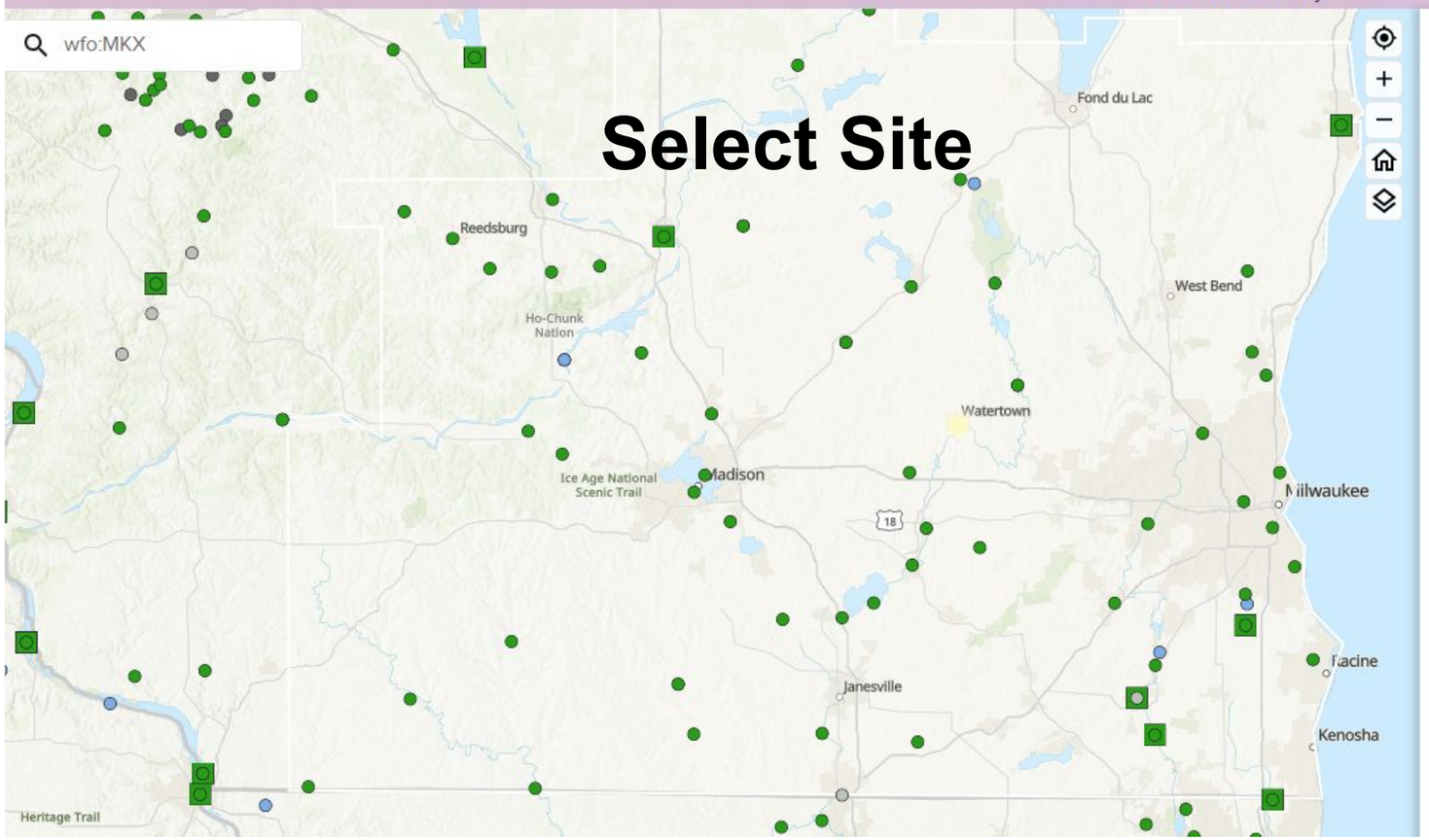
Home | NWC Operations | More Water Information | About | Explore NWS Weather

National Observations / Milwaukee/Sullivan, WI

Small Craft Advisory

wfo:MKX

Select Site



Select Full Information

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

National Weather Service
Wisconsin

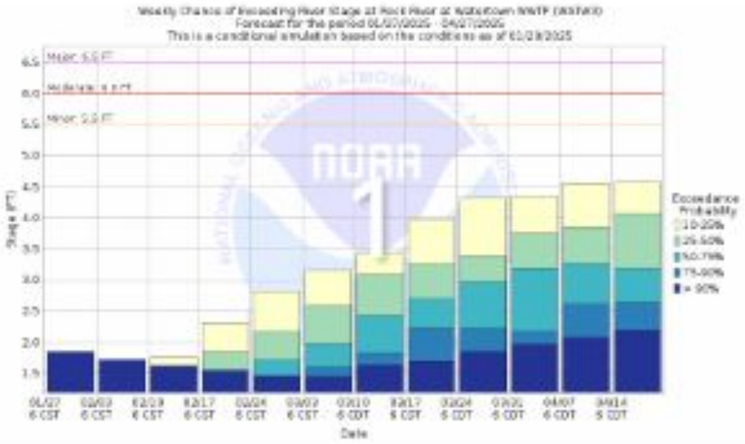
River Forecast Website

March 13, 2025
11:00 AM

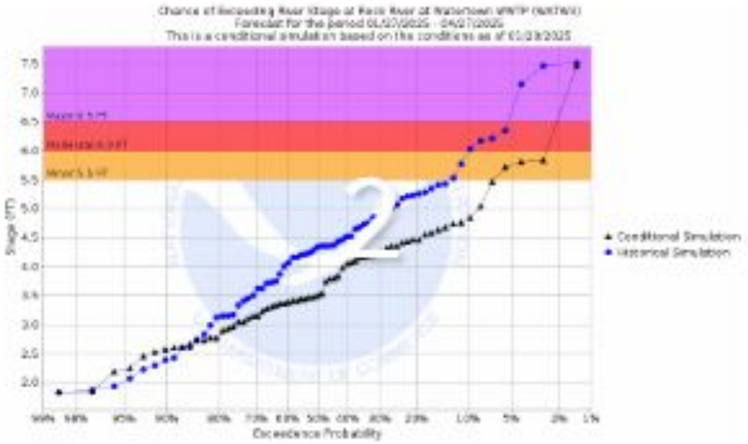
water.noaa.gov/wfo/mkx

Scroll down to section titled Probability Information

Weekly Probability of Exceeding River Stage



Chance of Exceeding River Stage over a 3 Month Period



10 Day River Level Probabilities

Interpreting the Probability Graphics

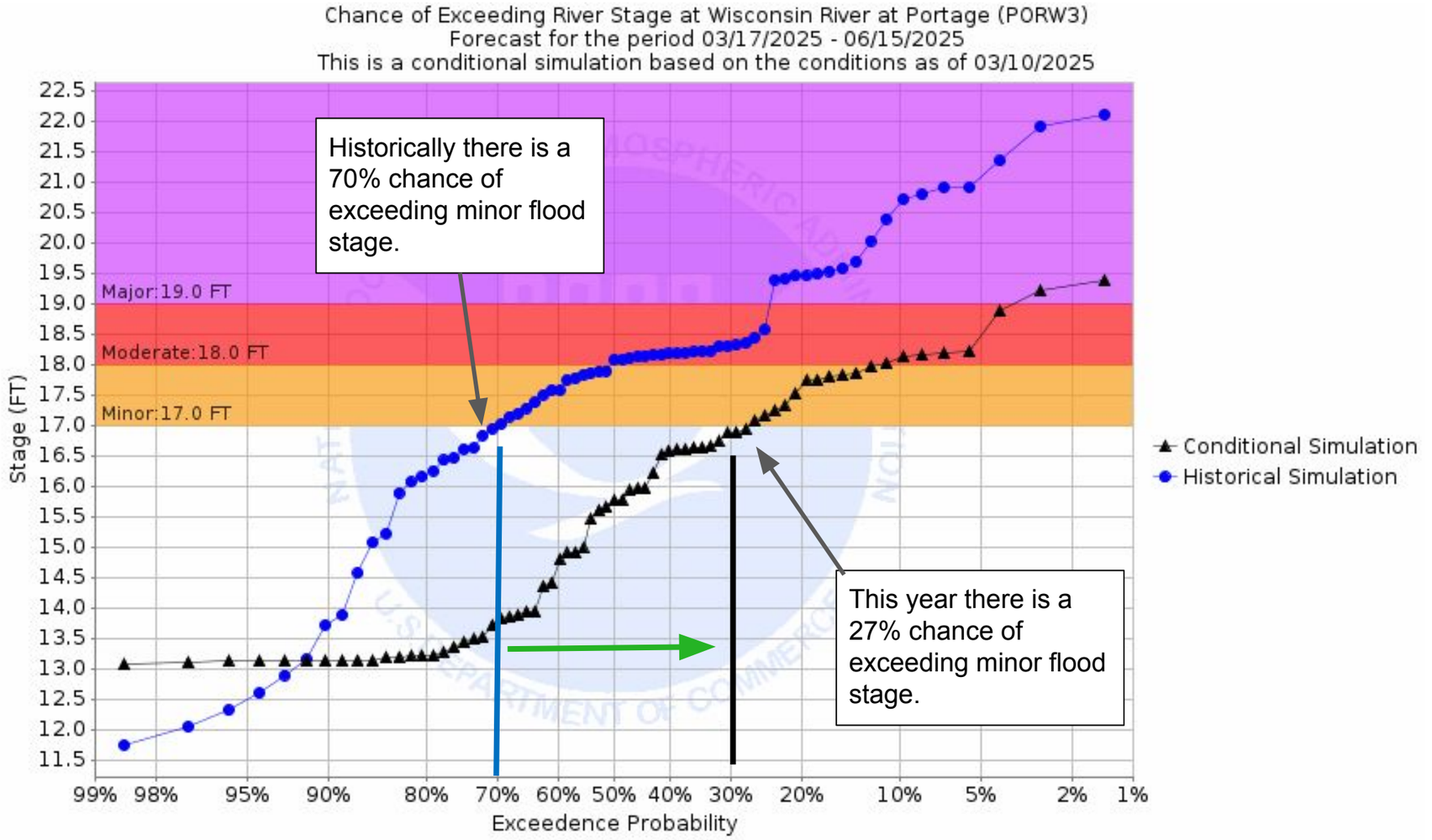
March 13, 2025
11:00 AM

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.



Interpreting the Probability Graphics

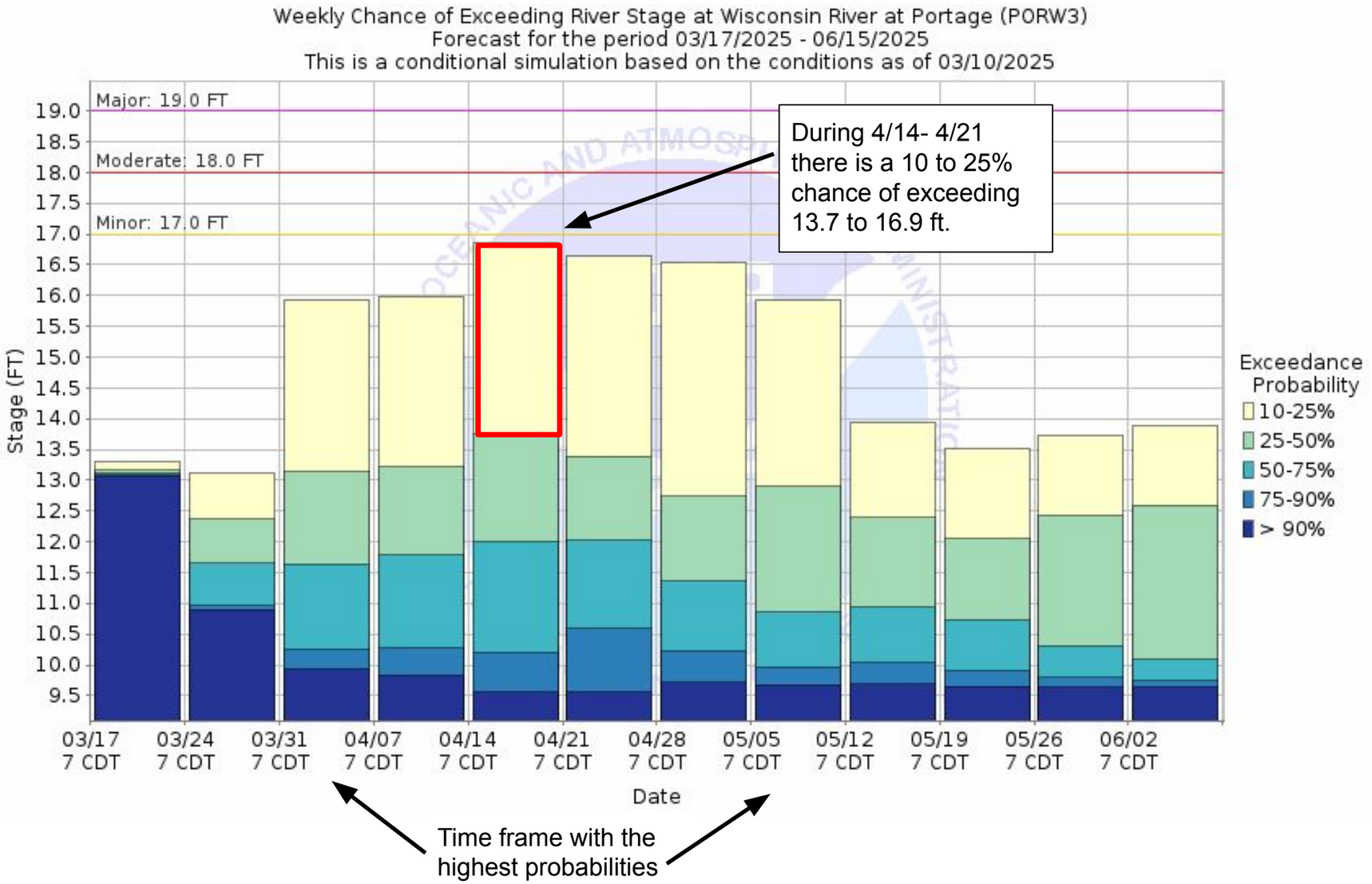
March 13, 2025
11:00 AM

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.



Interpreting the Probability Graphics

March 13, 2025
11:00 AM

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

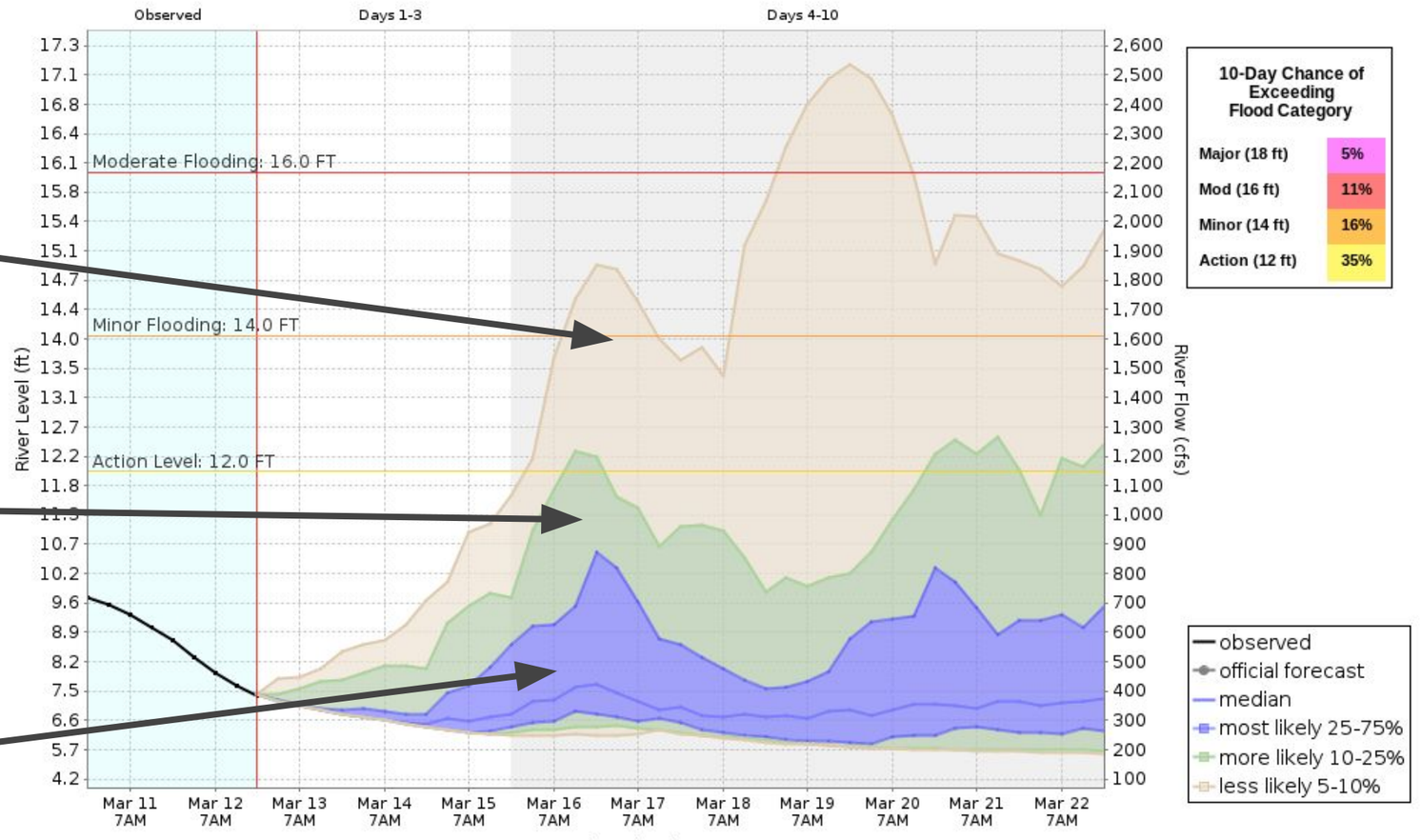
~90% of forecasts are within the blue, green, and tan ranges. ~5% forecasts are above and ~5% are below the tan range.

~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.

HEFS - 10 Day River Level Probabilities
Based on Hydrologic Ensemble Forecast Service Model Simulations
Used to Estimate the Range of Possible River Levels

Mar 13 - Mar 23, 2025
Baraboo River at Reedsburg (RBGW3)



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: 07:00 PM CDT Mar 12 2025
North Central River Forecast Center

Informational Links

- Current and Forecast River Levels
- Long Range Flood Risk by River Point
- NWS Milwaukee Spring Flood Outlook Website
- Spring Flood Outlook Text Information

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