

Fact Sheet: Hydrologic Ensemble Forecast Service (HEFS)

Short-range Probabilistic Forecast Hydrograph

The National Weather Service can now provide Short-range Probabilistic Forecasts for river levels.

To find out if there is a current Probabilistic Forecast for a river near you, start by visiting our webpage at: www.weather.gov/bis

Click on the tab that says "Rivers and Lakes".

The screenshot shows the National Weather Service website for Bismarck, ND. The page includes a navigation bar with links for HOME, FORECAST, PAST WEATHER, SAFETY, INFORMATION, EDUCATION, NEWS, SEARCH, and ABOUT. A local forecast for Bismarck, ND is displayed, showing an overcast sky and a temperature of 29°F (-2°C). A green arrow points to the "Rivers and Lakes" tab in the navigation menu. A map of North Dakota is shown, with a legend for various weather warnings and advisories. A yellow banner at the top right indicates a "HIGH IMPACT WINTER STORM TO IMPACT THE REGION".

NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HOME FORECAST PAST WEATHER SAFETY INFORMATION EDUCATION NEWS SEARCH ABOUT

Local forecast by "City, St" or ZIP code
Enter location ... Go
[Location Help](#)

News Headlines

- [Dickinson Skywarn Session POSTPONED - will NOT be held this evening \(Monday, April 3\)](#)
- [NWS is in your Neighborhood - 2023 Skywarn Sessions Calendar - check back for updates](#)

MY FORECAST
Bismarck ND

Overcast
29°F
-2°C
Get Detailed Info

Tonight
30%
Cloudy then Chance Wintry Mix
Low: 17°F

Tuesday
90% 100%
Wintry Mix and Blowing Snow
High: 24°F
[change location](#)

NWS Forecast Office Bismarck, ND
[Weather.gov](#) > Bismarck, ND

Bismarck, ND
Weather Forecast Office

Current Hazards Current Conditions Radar Forecasts **Rivers and Lakes** Climate and Past Weather Local Programs

Click a location below for detailed forecast

Watches, Warnings & Advisories

- Blizzard Warning
- Winter Storm Warning
- Winter Weather Advisory
- Winter Storm Watch
- Special Weather Statement
- Hazardous Weather Outlook

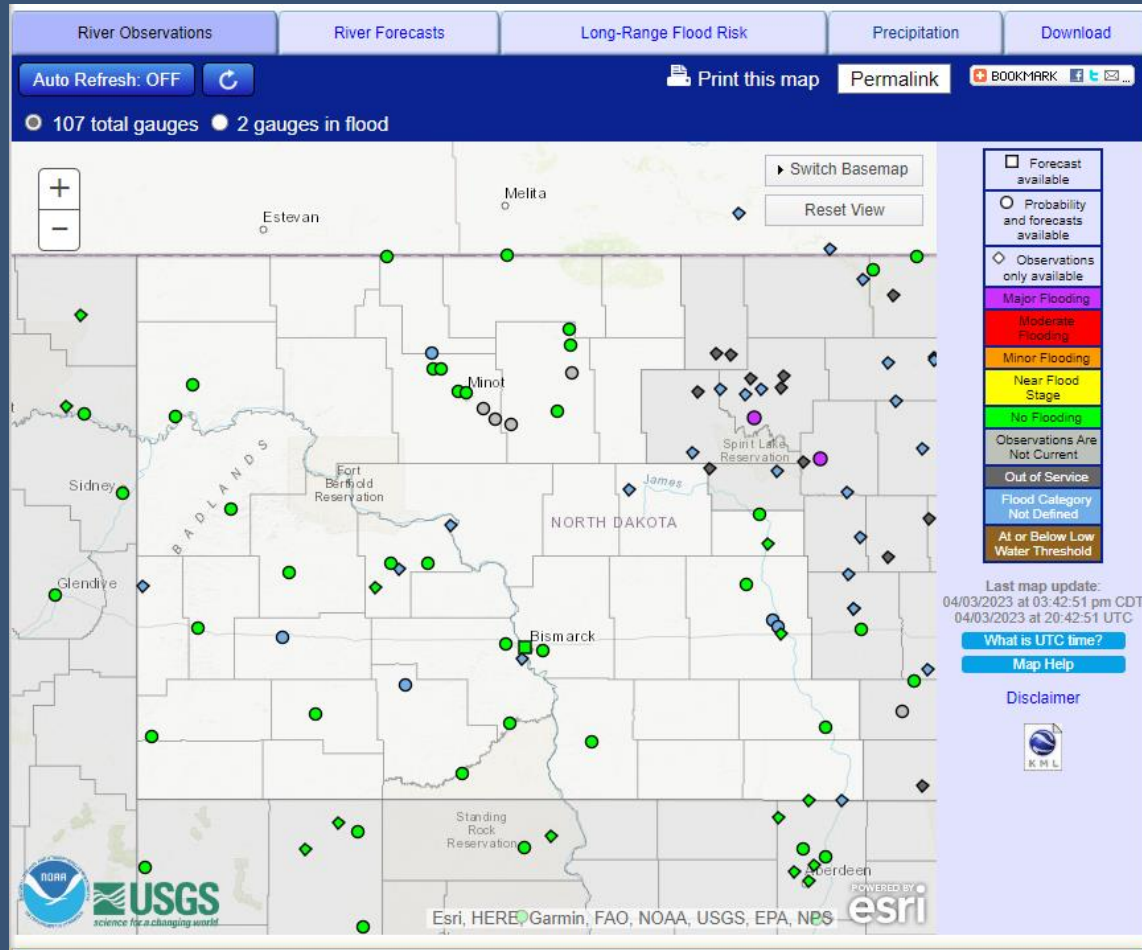
Last Map Update: Mon, Apr. 3, 2023 at 11:55:11 am CDT

How To Find HEFS

This is our AHPS page. On here you see locations where the NWS monitors a river. They are the blue diamonds.

Green circles are forecast locations on rivers. We also offer runoff volume forecasts to dam owners for some reservoirs, they are the blue circles.

Lone green square is a forecast location for unusual circumstances.



To reach the locations Hydrograph page, simply use your mouse to click on it.

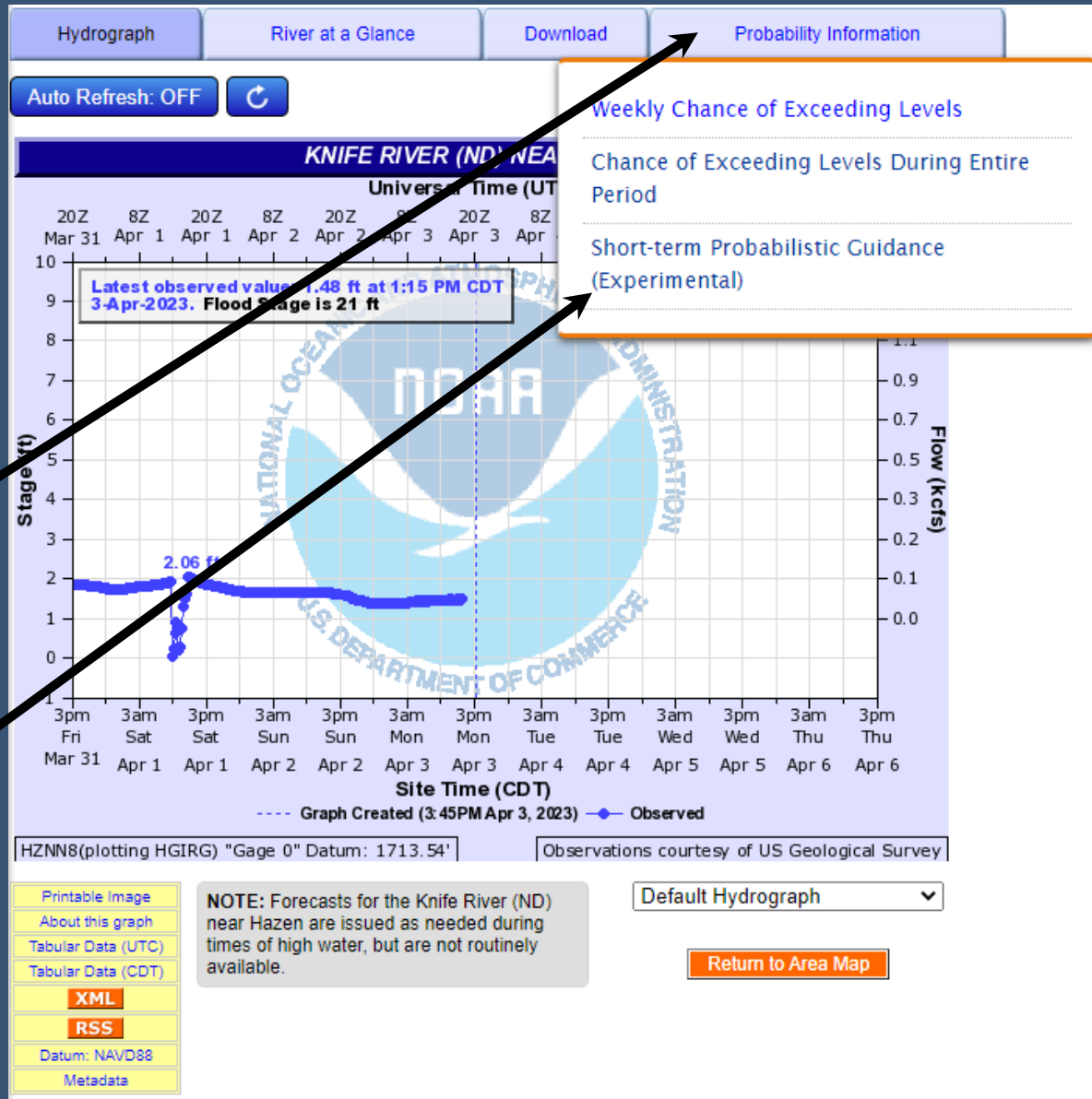
How To Find HEFS

This is an example of what is called the Hydrograph Page. On here you can see the current water level for your site of interest, along with a host of other information.

To find the HEFS graphic, hover your mouse over the tab in the upper right labeled Probability Information.

Now slide your cursor down to the Short-term Probabilistic Guidance option, and click on it.

You have now successfully found a treasure trove of information in the form of HEFS!



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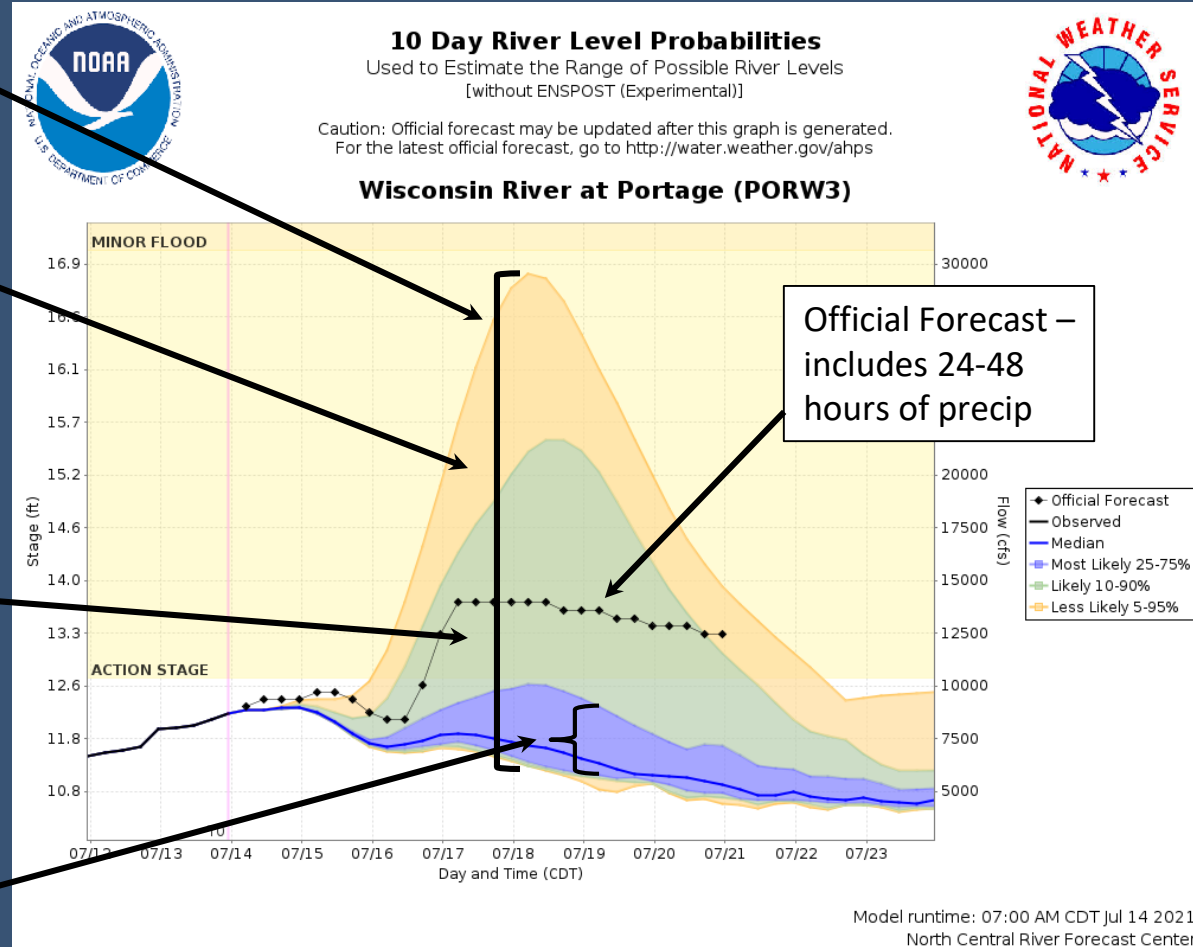
Short-range Probabilistic Forecast Hydrograph

Shaded area shows the range of possible river levels over the next 10 days. There is a small chance the level could exceed this range.

~90% of river level forecasts are within the blue, green, and tan range. ~5% of forecasts are above the tan shaded range.

~80% of river level forecasts are within the blue and green range. ~10% of forecasts are above the green shaded range.

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

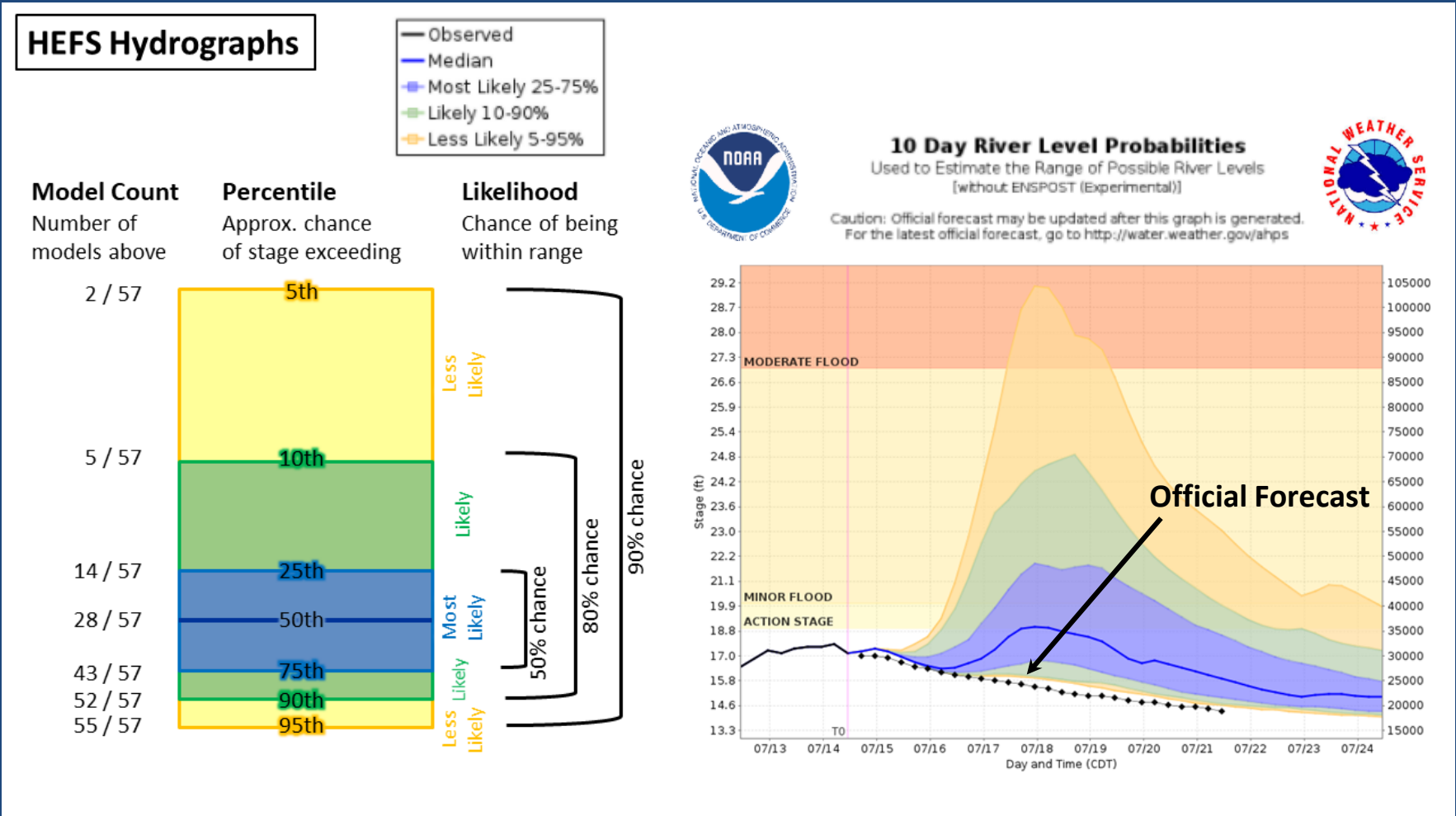


The HEFS hydrograph is based on **10 days** of precipitation and temperature forecasts (including snow melt) applied to river forecast models. The official forecast includes 24-48 hours of precipitation.

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Short-range Probabilistic Forecast Hydrograph

Shaded area shows the range of possible river levels using QPF from the GEFS. There is a small chance the level could exceed this range.



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