



Viewing Flood Inundation Mapping on the National Water Prediction Service



The National Weather Service (NWS) Flood Inundation Mapping (FIM) products are available on the National Water Prediction Service (NWPS) website for portions of the United States at <https://water.noaa.gov/fim>. Note: Flood Inundation Layers are currently experimental and are not available for all areas. Learn more [here](#).

When "Flood Inundation" is enabled, users will see a list of viewing options. One of those being a drop down menu labeled "Guidance Options." The default guidance is "National Water Model (NWM) Max Forecast," however, there are **3 total FIM products** available as shown in Figure 1.

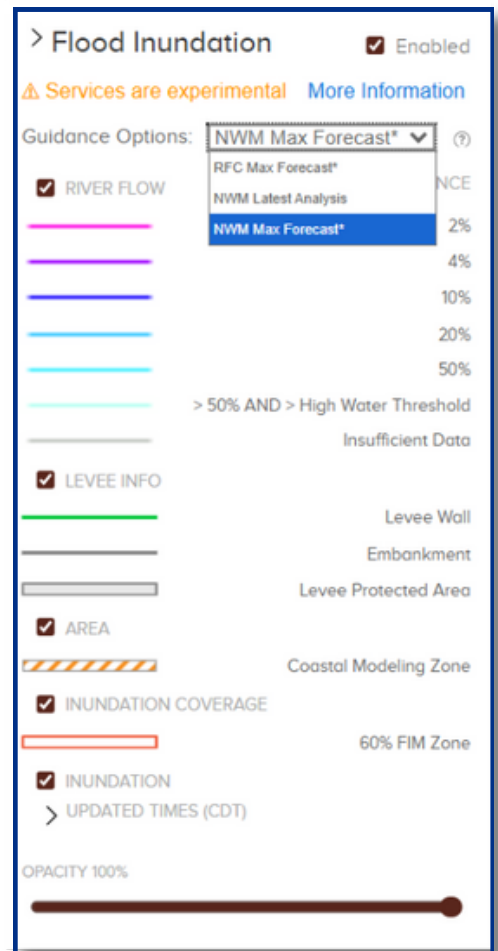


Figure 1: FIM Drop Down Guidance Options

1 River Forecast Center (RFC) Max Forecast FIM

- Based on up-to-5-day RFC forecasts
- To be used where and when a RFC forecast is available
- Generated when RFC forecast reaches "action stage."

2 National Water Model (NWM) Latest Analysis FIM

- Observation based
- To be used as a snapshot of the most recent modeled flooding
- Generated where NWM analysis indicates flows exceed the high flow threshold

3 National Water Model (NWM) Max Forecast FIM

- Based on 5-day weather forecast (48-hour for Puerto Rico, U.S. Virgin Islands, and Hawaii)
- To be used for rivers and streams not covered by an RFC forecast
- Generated only where NWM forecast indicates flows exceed the high water threshold

More details on these products can be found [here](#).

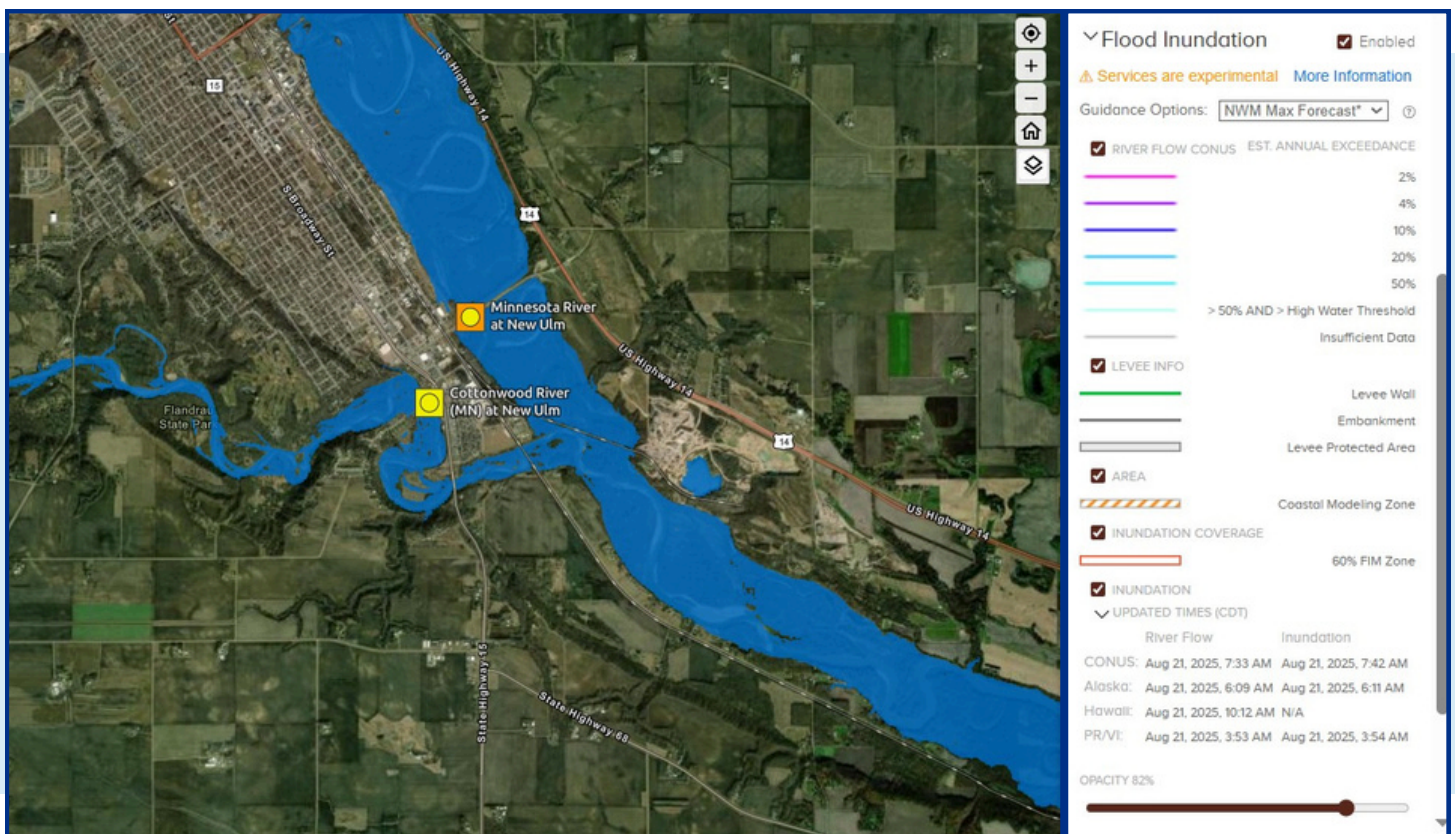


Figure 2: Screenshot of FIM extent on NWPS.

Displaying FIM from the NWPS Flood Inundation Menu:

Once the guidance option is selected, the user can choose to toggle off a number of FIM display options. To view the FIM, zoom in on a specified area of choice until the FIM extent begins to appear (Figure 2). Users may adjust opacity of the FIM extent using the slider at the bottom of the “Flood Inundation” menu.

- **River Flow:** Shows NWM Estimated Annual Exceedance Probability (AEP), indicating areas where the NWM streamflow forecast signals high water based on a [44-year retrospective simulation](#).
- **Levee Info:** Displays levee walls, embankments, and protected areas as defined in the U.S. Army Corps of Engineers [National Levee Database](#). Local levees are not shown.
- **Area/Coastal Modeling Zone:** Displays the 10-meter elevation contour above the NAVD88 datum, indicating areas where caution is needed in interpreting flood inundation due to coastal processes.
- **Inundation Coverage:** Displays regions in the U.S. that have experimental National Water Center FIM products available, including areas like the Ohio and Mississippi River valleys, the mid-Atlantic, the Pacific Northwest, Puerto Rico, and the Virgin Islands.
- **Inundation:** Allows users to toggle the selected guidance inundation layer on or off.
- **Updated Times:** Shows when the latest river flow and inundation model outputs were generated for each FIM region.