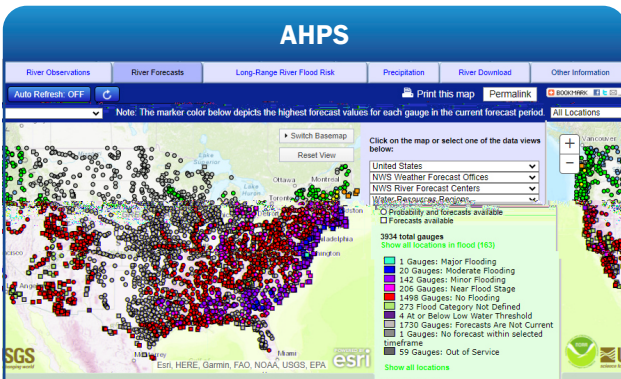


# INTRODUCING THE NATIONAL WATER PREDICTION SERVICE (NWPS)

## The Gateway to NWS Water Information

The National Weather Service (NWS) is introducing the new National Water Prediction Service (NWPS), transforming how water resources information and services are delivered, and providing a greatly improved user experience through enhanced displays.

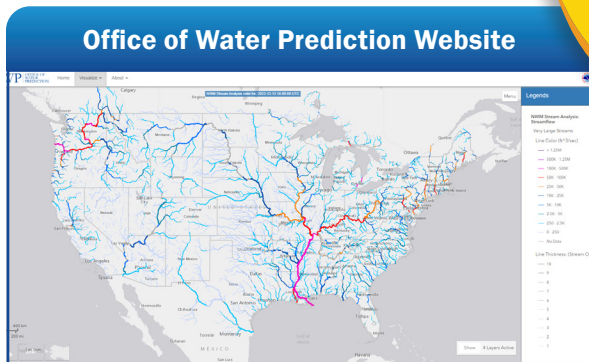
The NWS has hosted river forecast observations and forecast information on the Advanced Hydrologic Prediction Service (AHPS) web page since the late 1990s. AHPS provides near real-time river data and forecasts visualized through static maps and hydrographs, probabilistic information, static Flood Inundation Maps (FIMs) at select locations, and quantitative precipitation estimates that enable decision making. Building upon these core capabilities, dynamic and interactive hydrographs with a longer observation period, are now available via NWPS in addition to expanded mapping controls and content. NWPS includes new tools such as dynamic real-time flood inundation mapping (for an initial 10% of the U.S. population and growing to nearly 100% by 2026), greatly expanding the amount of information for making critical neighborhood scale water decisions. NWPS delivers enhanced visualization capabilities and an Application Programming Interface (API) which enables user applications to more efficiently access water resources data by leveraging modern web services.



### National Water Center Products and Services

2023 National Hydrologic Assessment

- Area Hydrologic Discussion**  
Experimental short range, episodic discussion and graphic which highlights locations across the nation that may be impacted by rapid-onset flooding, using National Water Model and other guidance.  
AHD Product Description Document  
Provide Feedback on AHD  
AHD One-Page
- Flood Hazard Outlook**  
High Level graphical depiction and key messages highlighting the potential threat of inland flood hazards (flash, urban, small stream and rivers) and their associated impacts (catastrophic, considerable, and limited) for the next seven days.  
FHO Product Description Document  
Provide Feedback on FHO  
FHO One-Page
- National Hydrologic Discussion**  
Experimental discussion of the current and forecast hydrologic conditions across the nation, including a variety of short and medium-range (1-30, 1-10, observed and
- Significant River Flood Outlook**  
Operational flood outlook intended to provide a general outlook for significant (moderate and above) river flooding. It is not intended to depict all areas of concern.



Website: <https://water.noaa.gov>

Email: [nwps.webmaster@noaa.gov](mailto:nwps.webmaster@noaa.gov)

Locations: Tuscaloosa, AL – Silver Spring, MD – Chanhassen, MN

## Features and Highlights

- **Map Display:** Gage location icons now have both observed and forecast (where available) status shown in relation to flood category.
- **Search:** Robust search and filter options; bookmarks can be saved so you always start your NWPS session with the information that is most relevant to you.
- **Legend:** Legend themes allow you to turn on/off items to create specific displays for situational awareness.
- **Hydrographs:** Dynamic and interactive hydrographs displaying river forecasts from complementary models and an extended observation period.
- **Watches and Warnings:** NWS hazard display for hydrologic and/or weather hazards are now integrated into the dynamic map display; text information available with a click.
- **National Water Model (NWM):** NWM river maps allow you to explore complementary NWM guidance for a range of time scales (i.e. hours to weeks ahead).
- **Flood Inundation Maps:** Forecast flood inundation maps derived from official River Forecast Center forecasts and NWM guidance offer a glimpse of the potential extent of flooding.
- **Application Programming Interface (API):** Streamlined data delivery as a service for downstream applications and decision support.

As documented in the [NWS Strategic Plan](#), the path to transforming the NWS includes modernizing IT infrastructure as well as building web interface and data service tools that deliver actionable hydrologic information across all time scales to address the growing risk of flooding, drought and water availability. With the implementation of NWPS, the NWS will not only expand and combine content and functions from multiple web pages to streamline service delivery but also use a combination of modern cloud and geospatial technology to greatly improve the display and delivery of water resources information before, during and after extreme water events.

For more detailed information on NWPS functionality, visit <https://weather.gov/owp/operations>.



**Check out NWPS Capabilities at <https://water.noaa.gov/>!**

The screenshot displays the NWPS web interface. The main map shows the United States with various data overlays. Three inset windows are visible:

- Quantitative Precipitation Estimates:** Shows a map of the United States with a color-coded legend for precipitation amounts (e.g., 0.0 to 0.5, 0.5 to 1.0, etc.).
- Dynamic Hydrographs:** Shows a line graph for the Sny-Lease River near Carleton, with observed data and a forecast. The forecast is labeled "Official Forecast".
- Flood Inundation Maps:** Shows a map of the United States with a legend for flood inundation levels (e.g., 100-year, 500-year, 1000-year).

The sidebar on the right contains a "Map" section with a "Topographic" dropdown menu. Below that is a "Layers" section with several expandable options:

- > River Gauge
- > Hazards
- > Precipitation Estimate
- Enabled
- > National Water Model
- > Flood Inundation
- > National Snow Analysis
- > Administrative Boundaries