

September 2023

On the Horizon: 2023 WRN Ambassadors of Excellence Campaign Launches in October

By: Douglas Hilderbrand, *Aware Editor*

For the past six years, the NWS has recognized Weather-Ready Nation (WRN) Ambassadors that have contributed innovative and impactful efforts to strengthen community resilience and help keep people safe from extreme weather. This year's campaign is scheduled for early October, with a posted StoryMap and social media posts throughout the two-week campaign. Beyond recognizing our WRN Ambassadors of Excellence, this campaign is an opportunity to highlight successes, share ideas, and show our appreciation for all of our WRN Ambassadors.

Check out past winners at:

https://www.weather.gov/wrn/ambassador_recognition



New Experimental Flood Inundation Maps Now Available for Portions of the United States

By: Charles Ross, *NWS Hydrologist*

Maps depicting the spatial extent of flood waters are among the most critical and sought-after information by emergency and water resource managers, and by local and state governments before, during, and after flooding events. By coupling river forecasts from the National Weather Service (NWS) [River Forecast Centers](#) and the [National Water Model \(NWM\)](#) with high-resolution hydrography datasets, the NWS now provides freshwater Flood Inundation Mapping (FIM) visualizations at the neighborhood level.

“Our Flood Inundation Maps are a new way for NWS forecasters to visualize and communicate flooding with emergency managers at the neighborhood level,” said Mark Glaudemans, NWS hydrologist.

“Forecasters will be able to discuss these public maps in near real-time with partners using tools like [NWS Chat 2.0](#), enhancing spatial awareness of responses and impacts before and during flood events.” (See Figure 1).

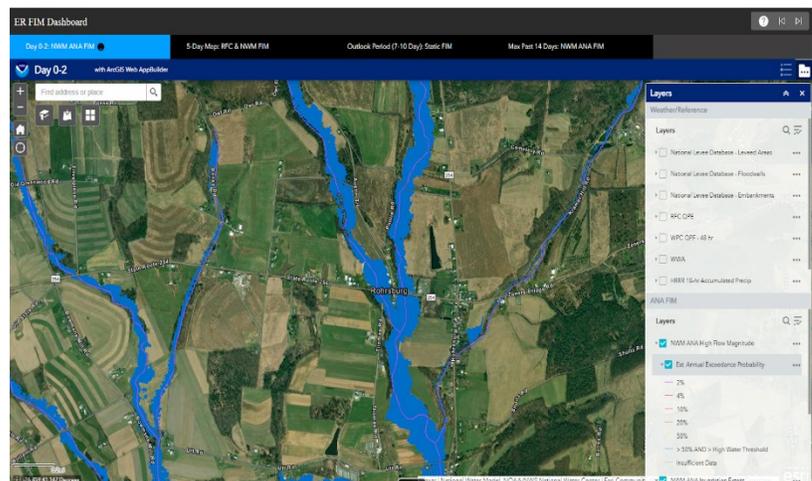


Figure 1: Image of possible flooding and inundation shared with local partners on NWSChat by NWS State College, PA in September 2023

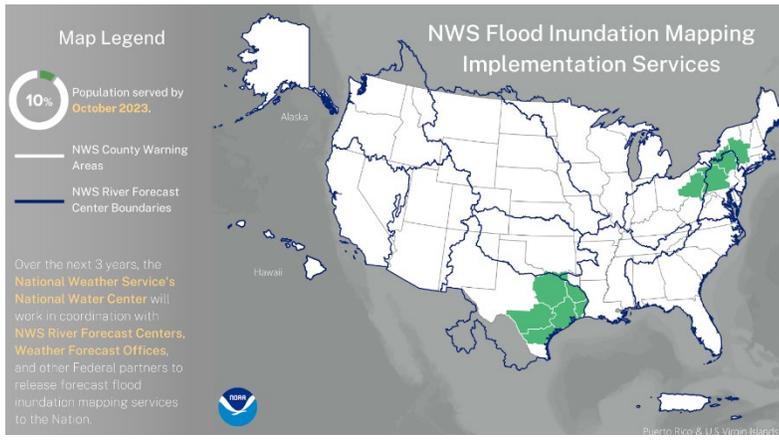


Figure 2: Areas shaded in green show the locations where the NWS's new experimental Flood Inundation Maps are now available.

For the first phase of a four-year implementation plan, the NWS is providing experimental flood inundation maps for 10% of the United States population, including much of east Texas, and parts of Pennsylvania and New York (see Figure 2). The maps present modeled inundation for all streams in the covered area, which includes approximately 195,000 waterway miles. This dense stream network ensures equitable and consistent inundation services.

The new services for 10% of the population became available on September 26, 2023, and include three products:

1. **[National Water Model Hourly Analysis](#)**
This shows the latest flood inundation extent based on the National Water Model hourly streamflow analysis, where modeled flows are at or above the high water threshold. The analysis model runs hourly, with the model output available approximately 55 minutes after runtime.
2. **[National Water Model 5-Day Maximum Flood Inundation Forecast](#)**
This shows the maximum inundation extent derived from the National Water Model streamflow forecast over the next five days. This service is only available where and when the National Water Model predicts flows that meet or exceed the high water threshold for a given river reach.
3. **[River Forecast Center 5-Day Maximum Flood Inundation Forecast](#)**
Based on the River Forecast Center streamflow predictions, this shows a forecast of the maximum flood inundation extent over the next five days. This forecast is generated anytime a forecast point location is predicted to reach or exceed the [action stage](#).

The NWS will expand Flood Inundation Mapping services to include 30% of the U.S. population in 2024, 60% in 2025, and nearly 100% in 2026. Additional inundation mapping products will be introduced in future releases. When fully deployed in 2026, flood inundation mapping will be available for 110,000 river miles near NWS River Forecast Center (RFC) forecast point locations and for 3.4 million river miles covered by National Water Model analyses and forecasts.

To develop the new maps, NOAA's National Water Center coordinated with the NWS's River Forecast Centers and Weather Forecast Offices along with Federal and other partners, including the academic community. These new flood inundation mapping services leverage the Height Above Nearest Drainage (HAND) method, a low-complexity, terrain-based approach for inundation mapping. It uses a "hydrofabric" derived using the U.S. Geological Survey's (USGS) 10-meter resolution land-surface elevation produced by the 3D Elevation Program (3DEP) combined with the stream network from the USGS NHDPlus Hydrography dataset.

These products are viewable through the [NWS National GIS Viewer](#) or can be accessed directly by users accessing public GIS API services, from which partners can download and integrate these products into third-party GIS applications. In Spring 2024, Flood Inundation Mapping products will also be available on the upcoming National Water Prediction Service (NWPS) webpage, an enhanced replacement to the Advanced Hydrologic Prediction Service (AHPS) webpage. Access and additional information on these services is provided at the <https://weather.gov/owp/operations> page.

WFO San Juan Holds Meeting to Improve Forecast Accessibility with the Blind Community

By: NWS Staff



On September 8, the staff of the San Juan Weather Forecast Office convened a meeting with representatives from the blind community. The primary focus of this gathering was to brainstorm enhanced approaches for delivering weather forecasts to individuals with visual impairments. Central to the discussion was the significance of providing weather information in an accessible format. The staff explored potential solutions, including converting forecasts into text-to-speech updates, optimizing weather apps to support screen readers, and implementing interactive voice response systems. The blind community contributed valuable insights,

underscoring their preferences and requirements, particularly emphasizing the necessity for real-time, localized weather updates. This collaborative initiative strives to ensure that the blind community receives timely and precise weather information through accessible means, thereby improving their daily lives and safety.

One of the ongoing projects WFO San Juan is engaged in involves revising the Braille hurricane map, which hasn't been updated in over a decade. Additionally, they are in the process of creating various tactile models that illustrate distinct weather phenomena, including hurricanes, tropical storms, tornadoes, and more.

This marks the inaugural meeting of several to come. The ultimate objective of WFO San Juan is to establish a robust line of communication with the blind community in order to enhance services to better meet their needs. Any enhanced methods of communicating or delivering forecasts and products to the blind community will be made available for comment/review prior to operational implementation.

WRN Ambassadors Visit NWS Paducah to Film RV Weather Safety Video

By: NWS Staff

Beth Barbaglia and Court Kane-Barbaglia live in a recreational vehicle (RV) full-time and have camped across the U.S. nonstop for over three years. They share their life on the road by creating content on their website, Life with Beth and Court. Recently, they realized they did not have a good idea of how to stay safe during dangerous weather while living in an RV and wanted to learn how. They also wanted to help other RV campers be safe during dangerous weather, so they became Weather-Ready Nation Ambassadors!

Beth and Court reached out to NWS Paducah meteorologist **Derrick Snyder** to help make a weather safety video aimed at the recreational vehicle community. Derrick was happy to help and spent an afternoon filming the video with them in April. The [video premiered on their YouTube page](#) in July and features a fun, quiz show-style game where Beth and Court test their knowledge of weather safety, followed by an in-depth discussion about how campers in recreational vehicles can stay weather-ready.

Derrick and the NWS Communications Safety Team also worked together to make a weather safety infographic for the RV camping community.



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