NOUS41 KWBC 251620 AAB
PNSWSH

Public Information Statement 23-55 Updated
National Weather Service Headquarters Silver Spring MD
1220 PM EDT Wed Sep 25 2024

To: Subscribers:
-NOAA Weather Wire Service
-Emergency Managers Weather Information Network
-NOAAPort
Other NWS Partners, Users and Employees

From: Mark Glaudemans, Chief
Water Resources Services Branch

Subject: Updated: Soliciting Comments on Experimental Flood Inundation Mapping (FIM) Services through September 30, 2025

Updated to extend the comment period and to expand the areas for which these services are available.

Through September 30,2025, the NWS is seeking user feedback on experimental Flood Inundation Mapping (FIM) visualizations and services. These new services were introduced in September 2023 for portions of the United States comprising roughly ten percent of the United States population. This update incorporates a significant expansion to include over thirty percent of the United States population.

FIM visualizations and services will be available on or about September 24, 2024 for areas covered by the County Warning Areas (CWA) of the following National Weather Service (NWS) Weather Forecast Offices (WFOs):

New availability for these WFO CWAs:

Birmingham, AL
Huntsville, AL
Mobile, AL
Little Rock, AR
Tallahassee, FL
Lincoln, IL
Indianapolis, IN
Jackson, KY
Louisville, KY
Paducah, KY
New Orleans/Baton Rouge, LA
Baltimore/Washington DC, MD
Kansas City, MO
Springfield, MO
St. Louis, MO
Jackson, MS
Buffalo, NY
Cleveland, OH
Wilmington, OH

Tulsa, OK
Pendleton, OR
Portland, OR
Philadelphia, PA
San Juan, PR
Memphis, TN
Morristown, TN
Nashville, TN
Blacksburg, VA
Seattle, WA
Spokane, WA
Charleston, WV

Continued available for these WFO CWAs:

Houston/Galveston, TX
Corpus Christi, TX
Austin/San Antonio, TX
Fort Worth/Dallas, TX
Shreveport, LA
Lake Charles, LA
State College, PA
Pittsburgh, PA
Binghamton, NY
Albany, NY

The experimental FIM provided by the NWS depicts the spatial extent of inundation areas at a 10-meter horizontal resolution for flood events. For this experimental period, inundation depth will not be provided.

The FIM services provided include three distinct products provided in near-real-time, representing the analysis of the latest inundation extent and forecasts of maximum inundation over the subsequent 5-day period. For Puerto Rico, forecasts for maximum inundation are over the subsequent 48-hour period. The National Water Model(NWM)will provide the discharge information from which the inundation extent will be derived for the analysis FIM and for one of the forecast FIM products. The NWS River Forecast Center (RFC) models will provide the discharge information for the other forecast FIM product. Inundation extent is determined for each river or stream reach defined in the NWM river network, which is derived from the National Hydrography Dataset Plus(NHDPlus)for river and stream topology. In summary, the following three experimental products will be available:

Inundation extent mapping for CONUS as derived for the:

1) Latest Analysis from the NWM Analysis and Assimilation (AnA) run, executed every hour.
2) 5-Day Maximum from the NWM Medium Range Forecast (MRF) run, executed every 6 hours. The maximum value for each river reach through the next 5-day period is used to determine inundation extent. Note that the meteorological forcings for this product will change from the latest Global Forecast System (GFS) model to the NWS National Blend of Models (NBM).

3) 5-Day Maximum from the RFC Forecast. FIM is updated within two hours of any RFC issued forecast. The maximum value for each river reach for a time period up to the next 5 days is used to determine inundation extent.

Inundation extent mapping for Puerto Rico and the U.S. Virgin Islands as derived for the:

1) Latest Analysis from the NWM Analysis and Assimilation (AnA) run, executed every hour.

2) 48-Hour Maximum from the NWM Short Range Forecast (SRF) run, executed every 12 hours (06Z and 18Z). The maximum value for each river reach through the next 48-hour period is used to determine inundation extent.

In addition to the real-time (dynamic) products above, static "Categorical" FIM (CatFIM) maps will be available for select NWS River Forecast Points within the FIM domain. CatFIM is a method developed by the National Water Center (NWC) to create a static inundation extent mapping library for the official NWS flood stage category thresholds [Action, Minor, Moderate, Major, and Record].

These FIM services are available for viewing within the National Water Prediction Service (NWPS) website and the web-based NWS Geographic Information System (GIS) National Viewer (dynamic FIM products), a national geospatial viewer that provides access to the experimental FIM services.

NWPS is the new NWS hydrologic web page for access to river forecasts, output from the National Water Model and other water related products. It is accessible here:

https://water.noaa.gov

The NWS GIS Viewer presents visualizations of many operational products supporting the NWS water resources program and other NWS service programs. The GIS Viewer water resources information, including FIM, is accessible here:

https://viewer.weather.noaa.gov/water

The dynamic FIM services are also available as REST (Representational State Transfer) services through the NWS Office of Water Prediction's cloud based dissemination system known as HydroVIS. This system allows user clients to access a REST service via an Application Programming Interface (API) for the desired inundation service and to subsequently use and display the FIM in their own GIS system.

https://maps.water.noaa.gov/server/rest/services

This deployment of FIM services is the second year of a planned four year phased approach to deploying FIM services across the United States and Territories. A description of the concept of FIM services, product

examples, and requirements explanation can be found in the Services Description Document (SDD)at the following link:

https://nsdesk.servicenowservices.com/api/g_noa/nwspc/res2/5163c11597909a108881bb7de053af94

Feedback on the experimental FIM services is being sought from the users of this information. Comments can be provided by users outside of those areas with the new services.

https://www.surveymonkey.com/r/ExpFIMServices_2024

There will be additional opportunities for comment and review as experimental FIM services are expanded to other parts of the United States.

Any questions, comments, or requests regarding this implementation should be directed to the contact below.

Mark Glaudemans
Chief, Water Resources Services Branch
Analyze, Forecast and Support Office
National Weather Service
Silver Spring, MD
nws.fim@noaa.gov

National Public Information Statements are online at:

https://www.weather.gov/notification/

NNNN