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From: David R. Vallee

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Subject: Updated: Soliciting Comments on Experimental Flood Inundation Mapping (FIM) Services through September 30, 2026

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

Through September 30, 2026, 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 sixty percent of the United States population.

FIM visualizations and services will be available on September 3, 2025 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: Anchorage, AK Eureka, CA Hanford, CA Los Angeles, CA Sacramento, CA San Diego, CA San Francisco, CA Atlanta, GA Tallahassee, FL Honolulu, HI Des Moines, IA Quad Cities, IA/IL Dodge City, KS Goodland, KS Topeka, KS Wichita, KS Minneapolis, MN Raleigh, NC Hastings, NE

Omaha, NE Albuquerque, NM El Paso, NM Reno, NV Cleveland, OH Norman, OK Medford, OR Columbia, SC Greer, SC Sioux Falls, SD Amarillo, TX Brownsville, TX Lubbock, TX Midland, TX San Angelo, TX Wakefield, VA Burlington, VT La Crosse, WI

Continued 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 Lake Charles, LA New Orleans/Baton Rouge, LA Shreveport, LA Baltimore/Washington DC, MD Kansas City, MO Springfield, MO St. Louis, MO Jackson, MS Buffalo, NY Binghamton, NY Albany, NY Wilmington, OH Tulsa, OK Pendleton, OR Portland, OR Philadelphia, PA Pittsburgh, PA State College, PA San Juan, PR Memphis, TN Morristown, TN Nashville, TN

Austin/San Antonio, TX

Corpus Christi, TX
Fort Worth/Dallas, TX
Houston/Galveston, TX
Blacksburg, VA
Seattle, WA
Spokane, WA
Charleston, WV

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 include a near-real-time analysis of the latest inundation extent as well as forecasts of maximum inundation over the subsequent 5-day period. For Hawaii, Puerto Rico and the U.S. Virgin Islands, 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) forecasts 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 experimental products will be available:

Inundation extent mapping for the contiguous United States and portions of South Central Alaska, including the Cook Inlet, Kenai Peninsula, Copper River and Prince William Sound Watersheds, 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.
- 3) 5-Day Maximum from the RFC Forecast. FIM is updated within an hour 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 Hawaii, 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 (00Z and 12Z for Hawaii and 06Z and 18Z for Puerto Rico and the U.S. Virgin Islands). 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 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 third 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/d05b768747672a 50f6550c03e16d4399

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 2025

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.

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