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Public Information Statement 23-55 Updated
National Weather Service Headquarters Silver Spring MD
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From: Mark Glaudemans, Chief
Water Resources Services Branch

Subject: Updated: Soliciting Comments on Experimental Flood Inundation Mapping (FIM) Services through September 30, 2024

Updated to correct the link to the Service Description Document (SDD).

Through September 30, 2024, the NWS is seeking user feedback on experimental Flood Inundation Mapping (FIM) visualizations and services. These new services will be provided on or about September 26, 2023 for areas covered by the County Warning Areas of the following NWS Weather Forecast Offices (WFOs):

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 will depict the spatial extent of inundation areas at a 10-meter horizontal resolution for flood events. For this initial 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. 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 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 six (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 two hours of any RFC issued forecast. The maximum value for each river reach for a time period up to the next five (5) days is used to determine inundation extent.

The FIM services will be available for viewing in the web-based NWS Geographic Information System (GIS) National Viewer, a national geospatial viewer that provides access to the experimental FIM services. The NWS GIS Viewer also presents visualizations of many operational products supporting the NWS water resources program and for other NWS service programs. The GIS Viewer water resources information, including FIM, will be accessible here:

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

The FIM services will also be 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 subsequently use and display the FIM in their own GIS system:

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

This initial deployment of FIM services is part of a planned 4-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/res2/693418131bd9b910b13387bae54bcabda

Input on the experimental FIM services for 10 percent of the nation's population including much of eastern Texas and portions of the Mid-Atlantic and Northeast is being sought from the users of this information. Comments can be provided by users outside of those areas with the new services at:

https://www.surveymonkey.com/r/ExpFIMServices_2023

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:

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National Public Information Statements are online at:

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

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