

NOUS41 KWBC 191500
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Service Change Notice 21-13
National Weather Service Headquarters Silver Spring MD
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From: Mary Mullusky
 Chief, Water Resources Services Branch

Subject: Changes to Hydrologic Ensemble Forecast Service (HEFS)
Probabilistic Water Resources Forecasts Issued by NWS River Forecast
Centers (RFCs): Beginning on February 18, 2021 and Fully Implemented by
September 30, 2021

Effective on February 18, 2021, the NWS RFCs will begin issuing HEFS water resources forecasts that use the Global Ensemble Forecast System Version 12 (GEFSv12) as the primary model forcing input. Current HEFS forecasts use the GEFSv10 as the primary model forcing input. This service change will be accomplished in a rolling implementation across the RFCs and be completed no later than September 30, 2021.

The HEFS is an operational ensemble prediction service that leverages skill in weather and climate forecasts to produce reliable and skillful ensemble forecasts of streamflow at forecast lead times ranging from one hour to one year. HEFS provides uncertainty ranges for hydrologic forecasts at all timescales and enables better risk-informed decisions to support water management.

The GEFSv12 upgrade use the latest Global Forecast System (GFS) model with the FV3 dynamical core (see Service Change Notice 20-75 at):

https://www.weather.gov/media/notification/pdf2/scn20-75gefs_v12_changes.pdf

It will provide enhanced precipitation and temperature forecasts, improving forecast skill compared to current GEFSv10-based forecasts. Enhanced precipitation and temperature forecasts from GEFSv12 will increase the skill in the operational HEFS ensemble river forecasts.

For more information, including details on when each RFC is implementing this change, please contact:

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National Service Change Notices are online at:

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

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