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Service Change Notice 26-44
National Weather Service Headquarters Silver Spring MD
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From: Allison Allen
 Director, NWS Office of Water Prediction

Subject: Upgrade of the Hydrologic Ensemble Forecast Service (HEFS) to version 1.1: Effective May 7, 2026

Effective on or around May 7, 2026, the National Weather Service will begin implementing Version 1.1 of the Hydrologic Ensemble Forecast Service (HEFS). This will be operationally running at all 13 River Forecast Centers by June 15, 2026.

HEFS extends the existing NWS hydrologic ensemble services to include short- to medium-range weather forecasts and incorporates weather forecasts from various sources. It provides ensemble forecasts of streamflow and river levels, at forecast time horizons of less than a day to more than a year. HEFS v1.1 contains several significant enhancements over the initial version implemented in 2021.

Changes with Version 1.1 are summarized below, and additional details of the HEFS v1.1 changes above can be found in this Product Description Document (PDD) at the following link:

https://nsdesk.servicenowservices.com/api/g_noa/nwspc/res2/f77cd0d897b4471c8881bb7de053af61

- The HEFS Meteorological Ensemble Forecast Processor (MEFP) has been enhanced to include Conditional Bias Penalized Regression (CBPR), which improves forecasts of higher precipitation amounts used as input forcing, and, thus, ensemble streamflow forecasts.

- Also within MEFP, input forcing temperature forecasts have been improved by incorporating a non-diurnal temperature pattern. This will improve ensemble temperature forcings forecasts, and, thus, ensemble streamflow forecasts, especially when the temperatures don't follow a typical diurnal pattern.

HEFS forecast data in time series form can be accessed through an experimental Application Programming Interface (API, here) at the link immediately below.

<https://water.noaa.gov/about/api>

A Public Information Statement with additional details on the API is available here.

https://www.weather.gov/media/notification/pdf_2025/pns24-77_updated_exp_hefs_api_aab.pdf

Any questions regarding this implementation should be directed to the points of contact below.

For questions on the science aspects of the HEFS, please contact:

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For questions on general product format and processing, please contact:

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National Service Change Notices are online at:

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