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Service Change Notice 22-82  
National Weather Service Headquarters Silver Spring MD  
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To:           Subscribers:  
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From:       Mark Glaudemans  
              Chief, Water Resources Services Branch

Subject: Implementation of the Short Range River Forecast Uncertainty  
Graphic on or about September 30, 2022

On or about September 30, 2022, the NWS will operationally implement the Short Range River Forecast Uncertainty Graphic. Providing uncertainty bounds for hydrologic forecasts at all time scales is one of the most pressing needs of operational hydrologic forecasting. The Hydrologic Ensemble Forecast Service (HEFS) extends existing NWS hydrologic ensemble services to include short- to medium-range forecasts, incorporate additional weather and climate information, and better quantify uncertainty in hydrologic forecasting. This enhanced Short Range River Forecast Uncertainty Graphic utilizes ensemble river forecasts from HEFS to display the uncertainty ranges for the river forecast in the context of high and low water thresholds.

This graphic incorporates specific recommendations from a two-year mixed-methods social science research study that involved focus groups and stakeholder surveys with professionals and residents across the United States, along with input from previous experimental ensemble products. The social science study recommendations are described in the Bulletin of the American Meteorological Society report published in October 2021, entitled "Improving the Use of Hydrologic Probabilistic and Deterministic Information in Decision-Making". Product enhancements include new color schemes for the uncertainty ranges, updated legend explanations and additional contextual information and graphics.

For additional information, please see the Short Range River Forecast Uncertainty Product Description Document (PDD):

[https://nws.weather.gov/products/PDD/PDD\\_OplShortRangeRiverForecastUncertainty\\_2022.pdf](https://nws.weather.gov/products/PDD/PDD_OplShortRangeRiverForecastUncertainty_2022.pdf)

The NWS will be adding or replacing the current graphic, commonly found from the NWS Hydrologic Probability Information tab, with HEFS 10-Day River Level Probabilities graphic. The transition to this new graphic is expected to be implemented on or about September 30, 2022.

Please see the example at:

[https://water.weather.gov/ahps2/probability\\_information.php?wfo=ctp&gage=htvp1&graph\\_id=3](https://water.weather.gov/ahps2/probability_information.php?wfo=ctp&gage=htvp1&graph_id=3)

If you have additional questions or comments, please contact:

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