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From: David Vallee

Acting Chief, Water Resources Services Branch

Subject: Updated: Extending Public Comment Period on Experimental Short Range River Forecast Uncertainty Graphic through January 15, 2022

Updated to extend the comment period through January 15, 2022.

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 hydrologic ensemble services to include short- to medium-range forecasts, incorporate additional weather and climate information, and better quantify uncertainty in hydrologic forecasting.

The purpose of this experimental graphic is to display the uncertainty bounds for the river forecast in the context of high and low water thresholds used in the NWS Water Resources Web presence.

In 2019, the Nurture Nature Center conducted a social science study, which involved multiple scenario-based focus groups and surveys with professionals and residents across the United States, to examine their use and understanding of probabilistic and deterministic hydrologic forecast information. This study has resulted in the proposed enhancements to the use of color, specific language and word choice in legends, and placement of information for the HEFS Short Range River Forecast Uncertainty Product graphic.

Recommendations from this study, as 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," along with input from previous experimental ensemble products, were used to enhance the graphical representation of hydrologic forecast uncertainty. For additional information, please see the Experimental Short Range River Forecast Uncertainty Product Description Document (PDD):

https://nws.weather.gov/products/PDD/PDD_ExpShortRangeRiverForecastUncertainty 2021.pdf

The NWS is accepting comments through January 15, 2022 to add or replace the current graphic, commonly found from the NWS Hydrologic Probability Information tab, with HEFS 10-Day River Level Probabilities graphic.

Please see example:

https://water.weather.gov/ahps2/probability information.php?wfo=ctp&gage=h
tvp1&graph id=3

and please provide feedback on this graphic at the official NWS survey:

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

If you have additional questions or comments, please contact:

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