

Collaborative Flood Forecast Process

Interagency Recovery Task Force

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Memphis, TN



Interest/Authorities in flood recovery

- ▶ NWS Organic Act – provides authority to forecast rivers and issue water-related warnings.

- ▶ National Weather Service (NWS) Mission

*The NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, **for the protection of life and property and the enhancement of the national economy.** NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community."*

- ▶ NWS products and services support response and recovery operations.



What worked well

- ▶ NWS pre-flood webinar with national/regional FEMA offices.
- ▶ Communication, coordination, and collaboration amongst partner agencies at local, state, and federal level.
- ▶ Communication and coordination with external stakeholders, media, and the general public.
- ▶ Real-time changes to “community” hydraulic model to account for floodway operations.
- ▶ Daily NWS/COE flood coordination briefing to support management of reservoir operations.
- ▶ [Enhanced NWS web page](#) to provide easy access to short/long term lower MS River forecast information.



What worked well

- ▶ Use of 5 days of forecast rainfall to generate short/long-range lower MS River flood forecasts.
- ▶ Use of 10 days of forecast rainfall to generate contingency forecasts for lower MS River to support emergency management.
- ▶ Public access to flood inundation maps to convey flood risk.
- ▶ Posting flood graphicasts on NWS office home pages to provide easy access to current/historical flood crest information.
- ▶ Pre-positioning rapid deployment stream gages for backup gage support.



Top 5 flood recovery priorities / challenges

- ▶ Development of a “community” hydraulic model for the lower MS River. Enhancement of current “community” model to account for backwater and floodway operations.
- ▶ Short- and long-range ensemble river forecast information.
- ▶ Better understanding of partner/customer operations and requirements to enhance delivery of decision support services.
- ▶ Common operating picture (e.g., flood inundation mapping, one-stop shop location for water information).
- ▶ Model performance



General Expectations

- ▶ MS River Interagency Fusion Cell will continue to address collaborative flood forecast priorities/challenges outlined in this presentation
- ▶ Recent interagency MOU signed by NOAA, COE, and USGS will help identify/pool resources to address certain priorities/challenges (e.g., data interoperability, flood mapping, common operating picture).
- ▶ Integrated Water Resources Science and Services (IWRSS) initiative – possible funding source in the future.



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