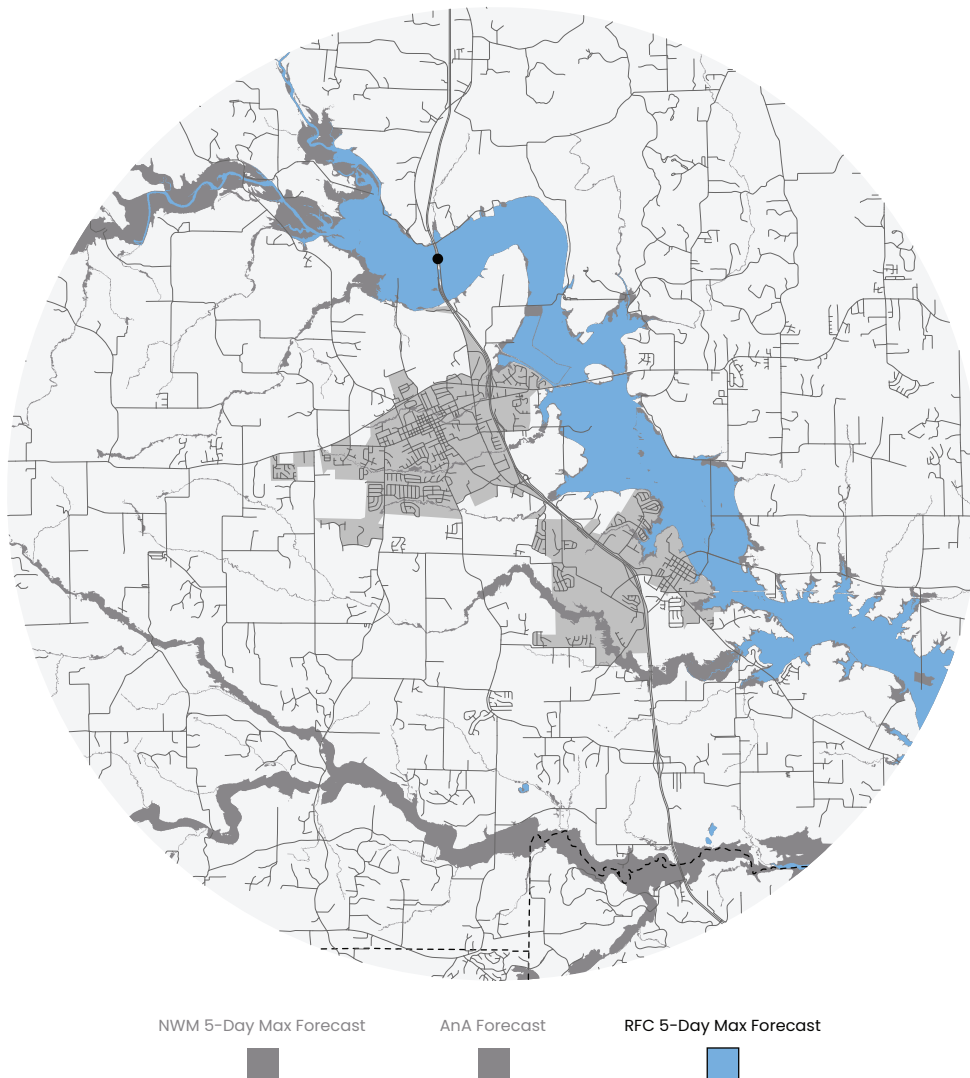


# River Forecast Center 5-Day Maximum Flood Inundation Mapping Forecast [RFC 5-Day Max FIM] Summary

## What is RFC 5-Day Max FIM Forecast?



RFC 5-Day Max FIM Forecast depicts the maximum inundation extent over the next 5 days derived from the official River Forecast Center [RFC] forecast routed downstream through the National Water Model [NWM] stream network. Maximum streamflows are available downstream of RFC forecast points whose forecast reaches the Action-Stage or higher flow threshold categories. RFC 5-Day Max FIM Forecast differs from NWM 5-Day Max FIM Forecast in that it relies on a discharge/flow forecast provided by RFC forecasters rather than an automated forecast from the NWM.

## How is RFC 5-Day Max FIM Forecast Obtained?

Forecasters at each RFC generate a Quantitative Precipitation Forecast [QPF] several times daily. This QPF serves as the precipitation forcing in the Community Hydrologic Prediction System [CHPS], which is the modeling system used to produce the streamflow forecasts for each of the AHPS forecast points. Then, the forecast flow from the RFC is used to create the FIM 5-day Max Forecast by routing the flow downstream through the National Water Model [NWM] stream network. In total, this provides inundation services along approximately 110,000 river miles downstream of the approximately 3600 forecast points.

## Limitations

RFC 5-Day Max FIM Forecast is only available downstream of AHPS forecast points.

## When to Use RFC 5-Day Max FIM Forecast Service

Because a forecaster selects the precipitation forecast data to be used, the RFC FIM generally produces higher confidence in the forecast than NWM FIM. Forecasters in the operations division typically use RFC forecast FIM as long as they review an area downstream of a gage. For anywhere else, NWM FIM is recommended.

## Considerations

While NWM ANA FIM, RFC 5-Day Max FIM Forecast, and NWM 5-Day Max FIM Forecast are all individual services, the only real difference is where the flows are coming from. For all three, the actual Height Above Nearest Drainage [HAND] model is the same; it just depends on what flow is fed into the HAND model. This means that if there's a problem with the Digital Elevation Model [DEM] data in an area, it will show up in all three services in the exact same way.