

# NATIONAL WEATHER SERVICE

## Water Predictions for Life Decisions



Emergency Response



Recreation



Navigation



Water Resources

## Advanced Hydrologic Prediction Services



NOAA/PA 200258

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service

# The Advanced Hydrologic Predictions Services (AHPS)

The Advanced Hydrologic Predictions Services (AHPS) is the National Weather Service's (NWS) frontline solution to provide improved river and flood forecasting and water information across America. AHPS builds upon the NWS' long history of around-the-clock forecasting excellence bridging past successes with new sciences and technologies of the 21st century. AHPS includes **state-of-the-science forecasting tools** covering short-fused flash floods on small streams to long-range forecasts for floods in larger rivers.

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**“Our commitment is to water-proof the nation and support the economy with the best water information science and technology has to offer.”**

*(Glenn Austin, Chief of the NWS Hydrologic Services Division)*

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These tools make use of observations from highly sophisticated doppler radars, satellites, and a network of automated surface observing stations. Already a proven success in limited areas, AHPS will be implemented nationally as resources become available. AHPS will provide hydrologic information which better meets the changing needs of our diverse customers.

## More Accurate and Timely Forecasts

The broad reach of AHPS extends the range of forecasts from short-term (up to 6 hours) to long-term (out to weeks and months). AHPS will be tailored to better meet the hydrologic needs of the country and will enable the NWS to increase forecast skill and flood warning lead time. Probabilistic forecasts at more than 4,000 forecast points across the nation will indicate the likelihood that a river will reach a specific height. It will include real-time flood forecast maps depicting the areal coverage of a flood in urban and other high impact areas. AHPS will also provide more specific, accurate and timely forecasts pinpointing the location of flash flooding in **small basins**. With AHPS, emergency and water resource managers will have the information they need to make more informed **risk-based decisions** to optimize the use of their resources.



*Real-Time Flood Forecast Map*

AHPS, with its suite of enhanced information, provides the public with more detailed and accurate answers to the following questions:

- ✓ How high will the river rise?
- ✓ When will the river reach its peak?
- ✓ Where will the flooding occur?
- ✓ How long will the flood last?
- ✓ How long will the drought continue?
- ✓ How certain is the forecast?



Where implemented, AHPS provides more hydrologic information in a timely and user friendly manner, including visual Internet products. "It's immediate data, it's online, it's right there available for us to be used" (Ellen Gordon - Administrator, Iowa Emergency Management). AHPS will expand product accessibility and provide **easy to read graphical products** and information. If you can "click a mouse" you will have instant access to a wealth of hydrologic information for your community.

### Who Can Benefit from AHPS?

Everyone who makes decisions based on water, including **farmers, river boat pilots, emergency managers, municipal water supply officials, recreationists, and dam operators** can benefit from AHPS.

AHPS will allow better management and conservation of water as a natural resource. AHPS will provide water resource managers with the information they need to more effectively generate hydroelectric power, manage irrigation activities, control the use of water and determine the need for water storage prior to a drought or flood.

AHPS will enable emergency managers to be more proactive and "fight" a river against the ravages of a flood using a suite of easy to read graphical products. Emergency managers in urban and high impact areas will have access to real-time flood forecast maps. These maps depict how far the flood water will spread into the community and indicate home owner and commercial property vulnerability.

Because every minute counts, AHPS will provide the information community leaders and business owners will need to make better life and cost saving decisions about evacuating people or moving property before a flood occurs. The navigation community will be able to plan better with confidence and optimize the efficiency of barge and shipping operations saving millions of dollars each year. Recreational users will be able to stay out of harms way.

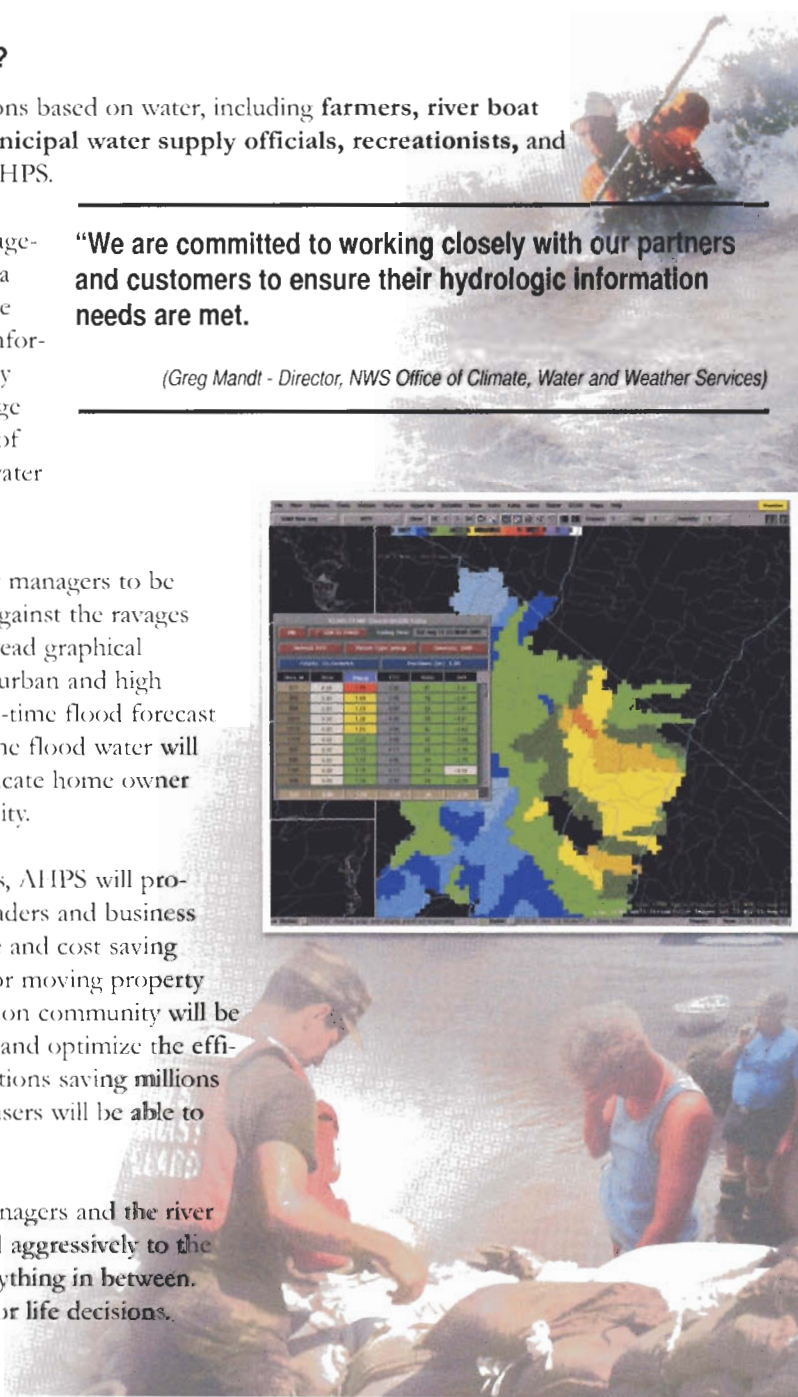
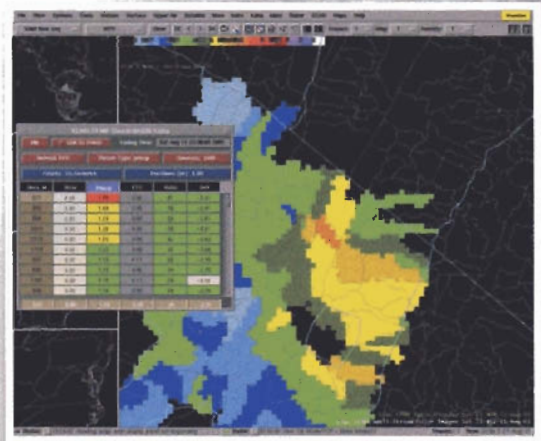
AHPS allows emergency managers and the river community to plan for and respond **aggressively to the threat of floods, droughts and everything in between.** AHPS provides water predictions for **life decisions.**

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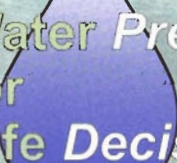
**"We are committed to working closely with our partners and customers to ensure their hydrologic information needs are met.**

*(Greg Mandt - Director, NWS Office of Climate, Water and Weather Services)*

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Improve your community's readiness for the next flood or drought . With AHPS you can better assess your hydrologic risk and take action.



*Water Predictions  
for  
Life Decisions*

For more information

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