

National Oceanic and Atmospheric Administration: Agency Update

Greg Mandt

**Director, NWS Office of Climate, Water
and Weather Services**

**ACWI Annual Meeting
September 14, 2004**

NOAA FY07 Annual Guidance Memorandum

**Conrad C. Lautenbacher, Jr.,
Vice Admiral, U.S. Navy (Ret.)**

Under Secretary of Commerce for Oceans and Atmosphere

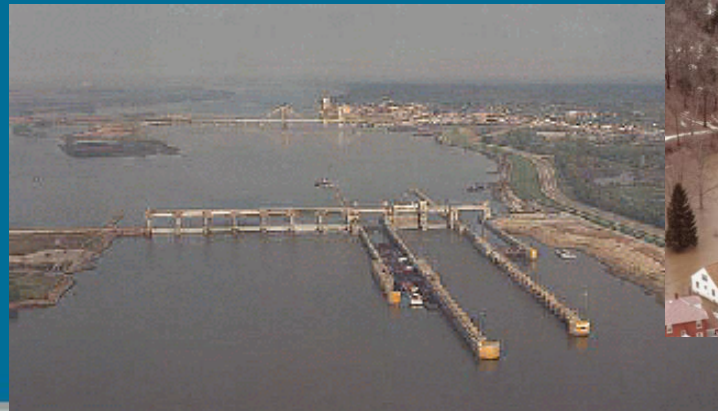
Provide Critical Information for Water Resources

“Water managers across the Nation are experiencing freshwater shortages, particularly in the West. Coastal water resources are continually stressed as populations rise, and, as highlighted by the USCOP, coastal water quality is a growing concern. To meet these challenges, additional information on freshwater and estuary transition zones is required by decision-makers. By 2011 a comprehensive suite of water resource information and predictions should support our focus on ecosystem-based management by linking hydrologic and ecological models. We must provide national leadership, foster innovative partnerships, and support collaborative research to ensure successful development and implementation of such a comprehensive framework for the delivery of water resources information. ...Improved short-term stream flow and long-term water supply predictions from NOAA’s Advanced Hydrologic Prediction Service must be augmented by high-resolution forecasts of soil moisture, ground water, snow pack, and reservoir levels. This information will support the commercial development of on-demand risk analysis tools for managing scarce water resources and mitigating impacts of drought. “

Program Overview

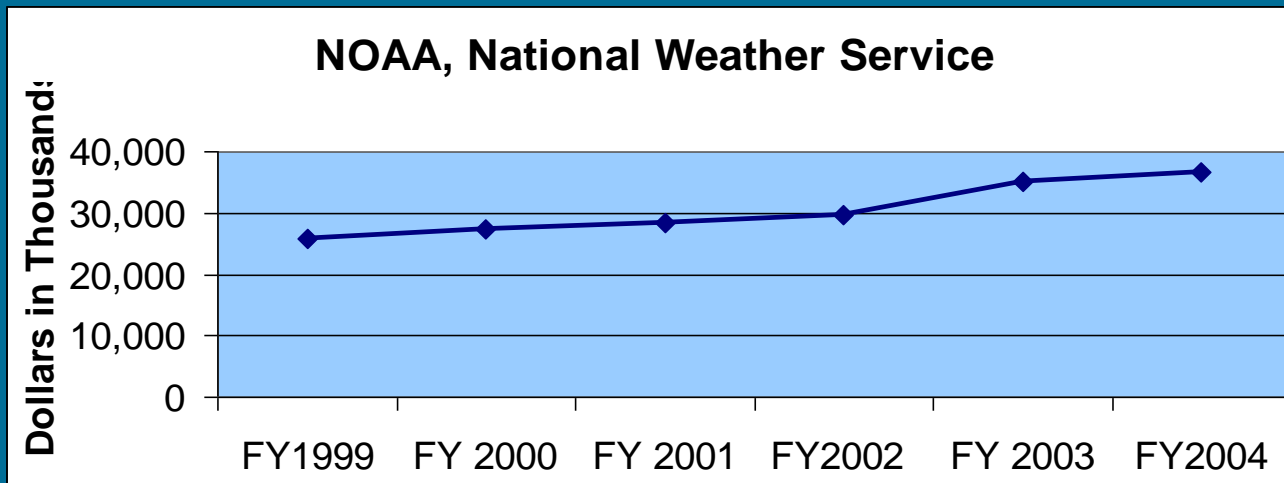
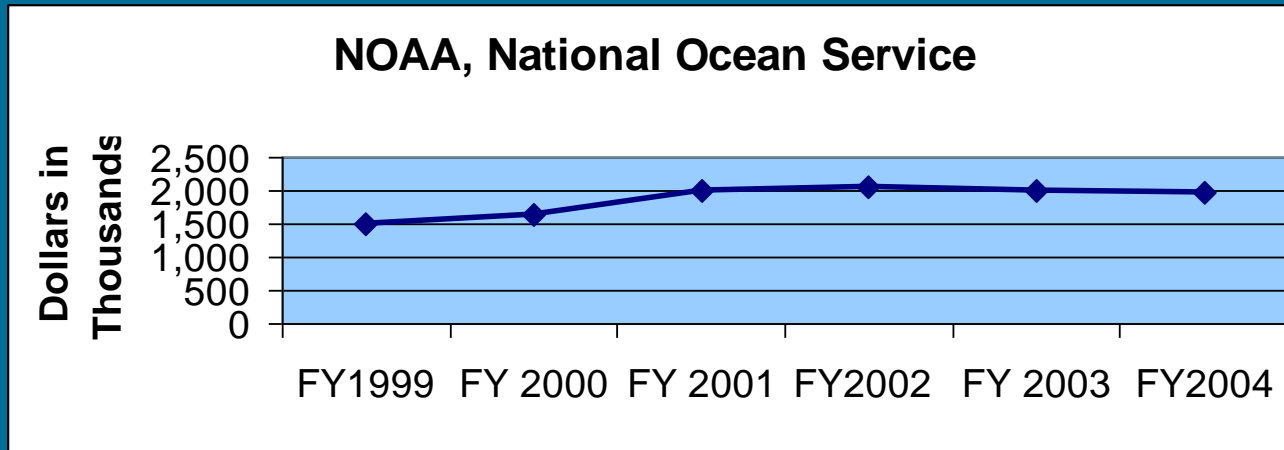
Long Term Goals

- Increase economic benefits from water forecasts and information
- Improve ecosystem management and enhance America's coastal assets
- Minimize losses due to floods and droughts
- Examine expansion of services to include water quality prediction



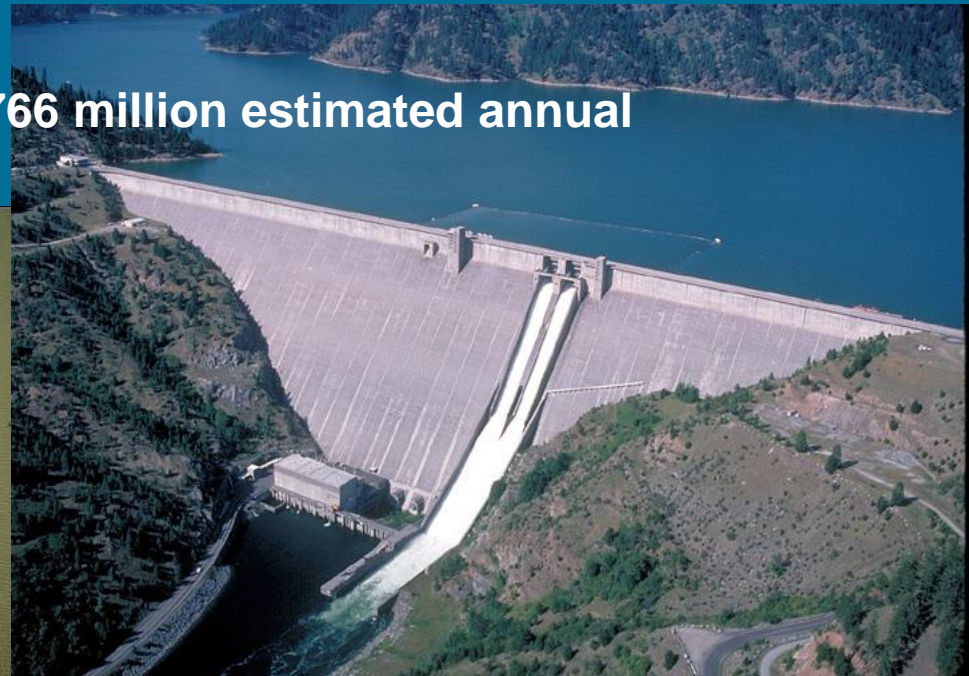
Resources Applied to Fresh Water Services

NOAA Funding Trend FY 1999-2004

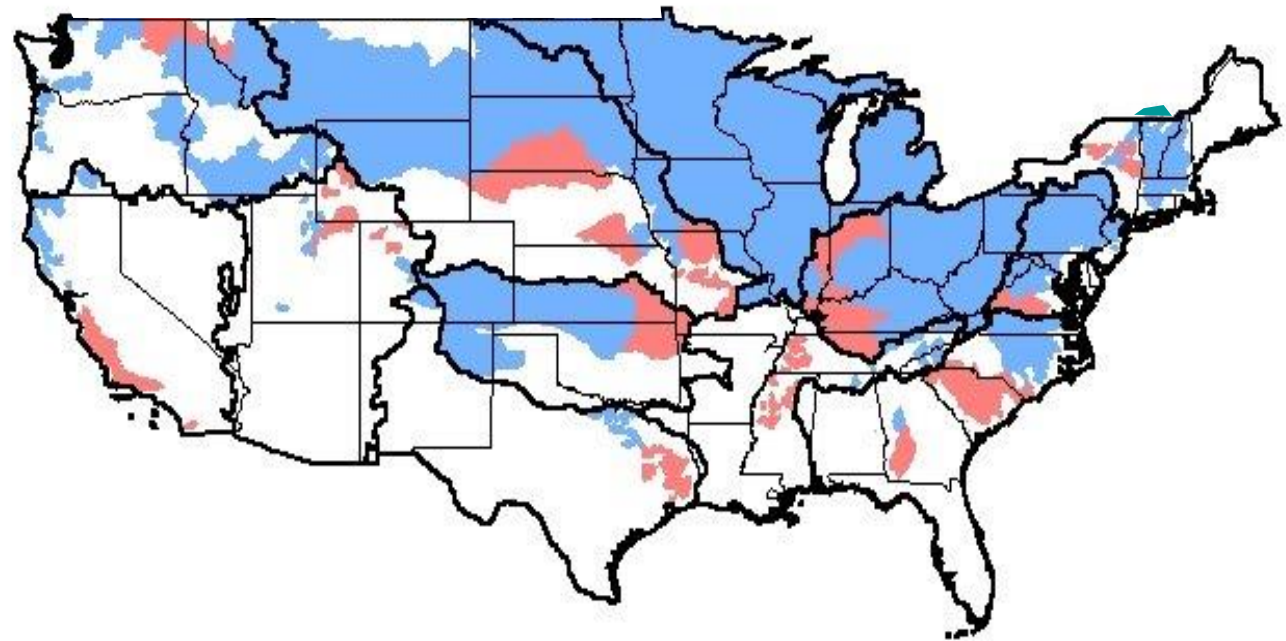
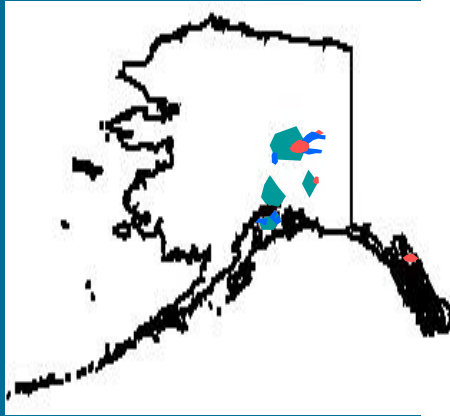


Advanced Hydrologic Prediction Service

- Providing enhanced water availability and flood warning information by leveraging NOAA's infrastructure and expertise
- Meeting user needs for modernized services through the infusion of new science and technology
- Providing consistent access to standardized graphics via consistent web interface
- \$60 million/10 year program with \$766 million estimated annual recurring benefit (NHWC study)




AHPS Implementation Status



AHPS **Expansion** Areas

-  Areas Completed Through FY 2004 (1,136 Forecast Points)
-  Areas Covered by FY 2005 National AHPS (386 New Forecast Points)

Accessing AHPS Information

**National Oceanic and Atmospheric Administration**
National Weather Service
WORKING TOGETHER TO SAVE LIVES

Site MapNews

Local forecast by "City, St"
City, StGo

Warnings
Current
By State...
Observations
Radar
Satellite
Snow Cover
Surface Weather...
Forecasts
Local
Graphical
Aviation
Marine
Hurricanes
Severe Weather
Fire Weather
Climate...
Forecast Models
Numerical Models
Statistical Models...
Weather Safety
Weather Radio
Hazard Assmt...
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Turn Around Don't Drown!
Each year, more deaths occur due to flooding than from any other severe weather-related hazard. People underestimate the force and power of water. Many preventable deaths occur in automobiles as they are swept downstream. Whether you are driving or walking, if you come to a flooded road, turn around don't drown. Details...

TROPICAL DEPRESSION FRANCES
The NHC has issued its final advisory on this system. Public Advisory Archive
Advisories from the Hydrometeorological Prediction Center will provide updates as long as the system remains a flood threat.

HURRICANE IVAN
11 AM AST
Public Advisory #25
11 AM AST
Forecast/Advisory #25
1500Z
Discussion #25
11 AM EDT
Maps and Charts
Archive
Listen to the tropical cyclone advisories
(Courtesy of FEMA)
Warnings & ForecastsGraphical ForecastsNational MapsRiversAir QualitySatellite
Warnings By StateGoClick On Map Below To Zoom In.
National Weather Service
Current Watches, Warnings, Statements, and Advisories
09-08-2004 17:42Z (01:42PM EDT)
Puerto Rico
Guam
American Samoa
Tornado Warning
Flash Flood Warning
High Wind Warning
Flood Warning
Severe Thunderstorm Watch
Flood Watch
Winter Weather Statement
Lake Wind Advisory
Wind Advisory
Wind Chill Warning
Wind Chill Advisory
Urban And Small Stream Flood Advisory
Flood Statement
Hazardous Weather Outlook
Tornado Watch
Special Marine Warning
Small Craft Advisory
Short Term Forecast
Special Weather Statement
24 Hour Loop12 hour Loop
Headquarters
For NWS Employees
Mission Statement
Strategic Plan
Headline Archive
International
Legislative Affairs
National Centers
Local Offices
Products and Services

<http://weather.gov/>

**National Oceanic and Atmospheric Administration**
National Weather Service
WORKING TOGETHER TO SAVE LIVES

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Local forecast by "City, St"
City, StGo

Warnings
Current
By State...
Observations
Radar
Satellite
Snow Cover
Surface Weather...
Forecasts
Local
Graphical
Aviation
Marine
Hurricanes
Severe Weather
Fire Weather
Climate...
Forecast Models
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Statistical Models...
Weather Safety
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Home > Rivers

The National Weather Service operates 13 River Forecast Centers that provide Hydrological information for their region. This map displays current conditions and is a product of the Advanced Hydrologic Prediction Service. This map is normally updated hourly.

Warnings & ForecastsGraphical ForecastsNational MapsRadarRiversAir QualitySatellite

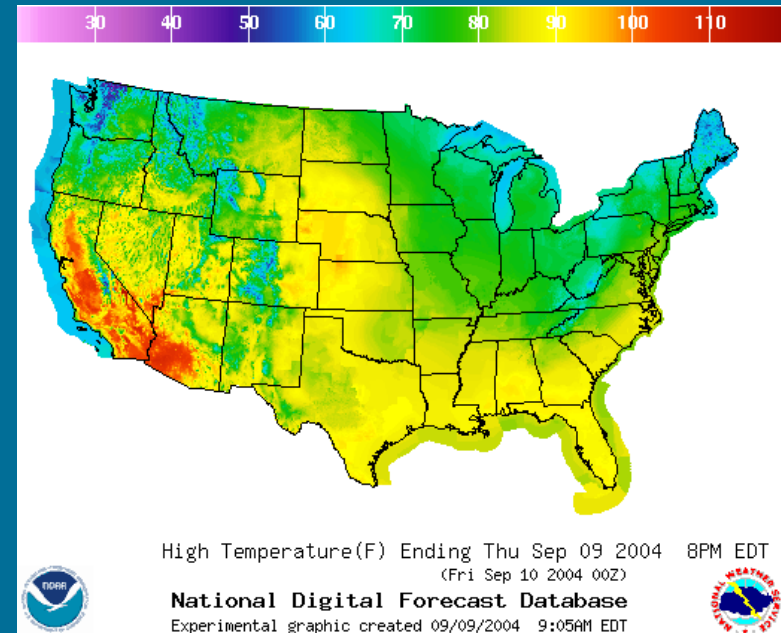
To view local information, select area of interest and click on the image below.

Advanced Hydrologic Prediction Service
Updated 11:40 AM CDT Sep 08 2004
2574 Gauges Below Flood Stage
23 Gauges Near Flood Stage
47 Gauges Above Flood Stage
Data Greater Than 12 Hours Old
American Samoa
Alaska
Guam
Hawaii
Key West
Puerto Rico

Hydrologic Resources
▶ Text Products
▶ River Forecast Centers
▶ About AHPS
▶ AHPS Feedback
Additional Resources
▶ National Significant River Flood Outlook
▶ U.S. Geological Survey Streamflow Information

Planned AHPS Enhancements

- Begin implementation of high resolution gridded hydrologic modeling capability in FY05
 - streamflow and soil moisture forecasts
 - resolution as high as 4 km and hourly
 - soil moisture information at surface, root and aquifer depths
- Goal is to provide access to gridded and associated graphical information via the National Digital Forecast Database (NDFD)
 - <http://weather.gov/forecasts/graphical/>



Measuring Customer Satisfaction

- The NWS is conducting a **web-based survey** of its Hydrologic Services Program as part of an ongoing effort to assess the overall satisfaction of NWS users and to garner feedback necessary to improve services.
- The survey is being administered by the CFI Group.
- Survey on line September 13, 2004



The National Weather Service (NWS) issues hazardous weather and flood watches, warnings, and advisories for the protection of life and property. It is also charged with providing information to enhance the national economy. The NWS Hydrologic Services Program focuses on providing forecasts, watches and warnings for river and flash flooding.

This survey is part of an ongoing effort to assess the overall satisfaction of NWS users and to garner feedback necessary to improve services. This survey focuses specifically on the NWS Hydrologic Services Program.

Your answers are voluntary, but your opinions are very important to us. Your responses will be held completely confidential, and you will never be identified by name. CFI Group, a third party research and consulting firm, is administering this survey via a secure server. This interview will take about 15 minutes, and is authorized by Office of Management and Budget Control No. 1505-0191.

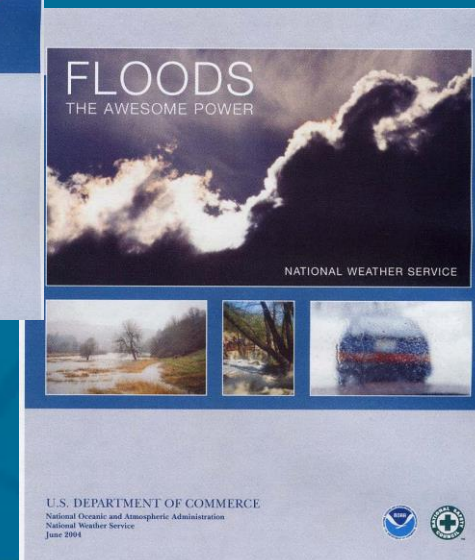
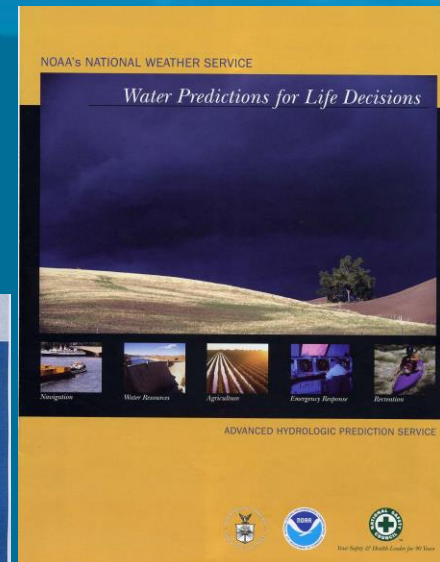
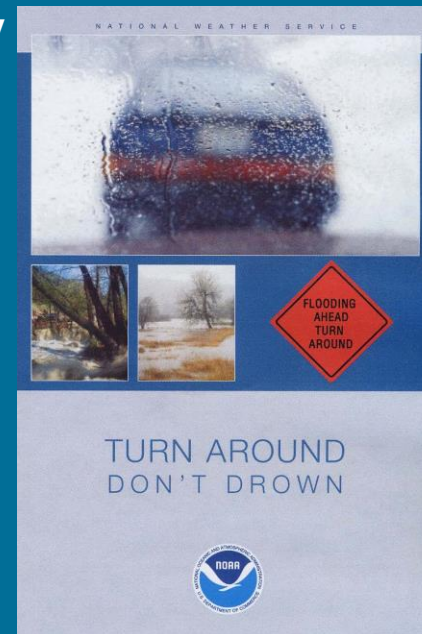
Please click on the "Next" button below to begin the survey. You may click the "Back" button at any time to view a prior page.

CFI Group
Claus Fornell International

• <http://www.cfigroup.net/NWSHydroSurvey2004/>

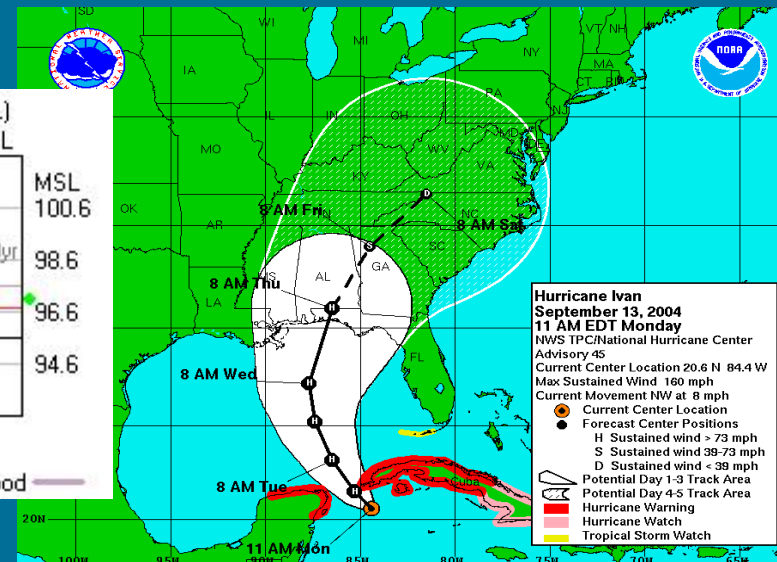
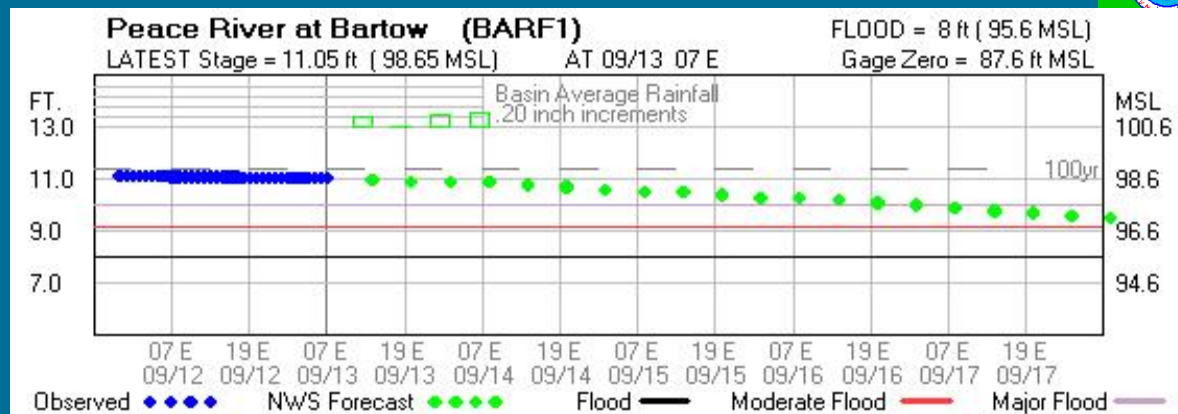
Partnerships Promoting Public Safety

- Produced **AHPS brochure** with National Safety Council (NSC)
- Developing a **Turn Around Don't Drown** safety guide with
 - NSC
 - American Association of Motor Vehicle Administrators (AAMVA)
 - Department of Transportation (DOT)
 - Federal Alliance for Safe Homes (FLASH)
- Updating **Floods the Awesome Power** flood safety brochure with
 - NSC
 - American Red Cross
 - FEMA
- Developed half hour NWS Hydrologic Services documentary entitled **Water's Fury** with the Weather Channel which first aired in April 2004.



Partnerships Promoting Public Safety

- FEMA providing AHPS forecasts and flood severity information to Emergency Managers (EMs) via HURREVAC decision assistance tool
- Currently available to EMs in Southeast U.S. and FEMA plans to include all Gulf and Atlantic Coastal States in 2005



Water Quality Forecasting

Background

Mandate

U.S. Ocean Commission on Ocean Policy Recommendation 15 to develop a national water quality monitoring and prediction system

Constituent Interest

Water managers, public health officials, private sector partners

Science is Mature

Numerous water quality forecast models support Federal water assessment and regulation missions

Enhancing our Focus on Water Issues

NSTC Committee on Environment and Natural Resources

- NOAA (Admiral Lautenbacher) is Federal Agency co-chair along with EPA and OSTP
- Subcommittee on Water Availability and Quality formed to examine the magnitude of water issues facing our country and the world



National Water Quality Forecasting

Vision and Strategy

Vision

National Water Quality Forecast System which delivers estimates of total oxygen content, mercury contamination, and other pollutants with enough accuracy and advance notice to take action to prevent or reduce adverse effects

Strategy

Work with EPA, USGS, USACE, and state water quality agencies, and the private sector, to develop National end-to-end forecast capability