

Water Resource Strategies and Information Needs in Response to Extreme Weather/Climate Events



Case Study Series

To learn more, visit:

Water Research Foundation Climate Clearinghouse:

<http://www.theclimatechangeclearinghouse.org/ClimateChangeScience/default.aspx>

Water Environment Research Foundation Climate Web Site:

http://www.werf.org/i/ka/Climate_Change/a/ka/ClimateChange.aspx

NOAA Sectoral Applications Research Program Web Site:

<http://www.cpo.noaa.gov/ClimatePrograms/ClimateSocietalInteractionsCSI/SARPProgram/ExtremeEventsCaseStudies.aspx>

EPA Climate Change and Water Web Site:

<http://water.epa.gov/scitech/climatechange>



This case study series is based on six workshops in communities throughout the U.S. that have experienced some form of extreme event in recent years – including floods, storms, drought, sea level rise/storm surge, and unseasonable frost. Meeting demand for a variety of water services places drinking water, wastewater and stormwater system managers at the center of many challenges associated with extreme events.

This workshop series illustrates how water resource systems and their communities were affected by recent events, explores the broader community and watershed context in which decisions are made, and points to means of increasing water utilities' and communities resilience to extreme weather and climate events.

The objectives of the workshops were to:

1. Learn what worked and what didn't in water and wastewater utilities' responses to extreme climate and weather events
2. Identify emerging approaches to adaptation planning and preparedness
3. Discuss gaps in tools and knowledge for coping with future extreme events
4. Explore how local, state and national agencies and organizations can support information needs.

The case studies are based on six workshops followed by a workshop to synthesize the findings:

- Russian River Basin (Sonoma County, CA) - March 2012
- Apalachicola-Chattahoochee-Flint Basin (Gwinnett Co., GA) - May 2012
- Tidewater Virginia (Williamsburg, VA) - Sept. 2012
- National Capital Area (Washington, D.C.) - Dec. 2012
- Lower Missouri River Basin (Kansas City, KS) - Feb. 2013
- Central Texas Area (Austin, TX) - March 2013
- Synthesis Workshop (Washington, D.C.) – April 2013

A final report will be available late summer 2013.

Co-sponsored by the National Oceanic and Atmospheric Administration, US Environmental Protection Agency, Water Environment Research Foundation, Water Research Foundation, Concurrent Technologies Corporation, and NOBLIS.

NOAA EPA WERF WaterRF CTC Noblis

Executive Summary of Lessons Learned

Useful Resources

NIDIS: NOAA National Integrated Drought Information System: <http://www.drought.gov>

USGS GSFLOW coupled groundwater and surface water flow simulation:
<http://water.usgs.gov/nrp/gwsoftware/gsflow/gsflow.html>

USGS StreaMail: Stream Gage App:
<http://water.usgs.gov/wateralert/streamail.html>

EPA CREAT: Climate Resilience Vulnerability Assessment Tool:
<http://water.epa.gov/infrastructure/watersecurity/climate/creat.cfm>

COcoRaHS: Community Collaborative Rain, Hail and Snow Network:
<http://www.cocorahs.org/>

WARN: Water/Wastewater Agency Response Network:
<http://www.awwa.org/resources-tools/water-knowledge/emergency-preparedness/water-wastewater-agency-response-network.aspx>

