The background of the slide features a dense pattern of light blue water droplets of various sizes. On the left side, there is a vertical bar with a color gradient from blue at the top to red at the bottom. The main title is centered and rendered in a large, bold, blue serif font with a subtle drop shadow.

# Federal Government Response to Climate Change Impacts on Water Resources

November 2013

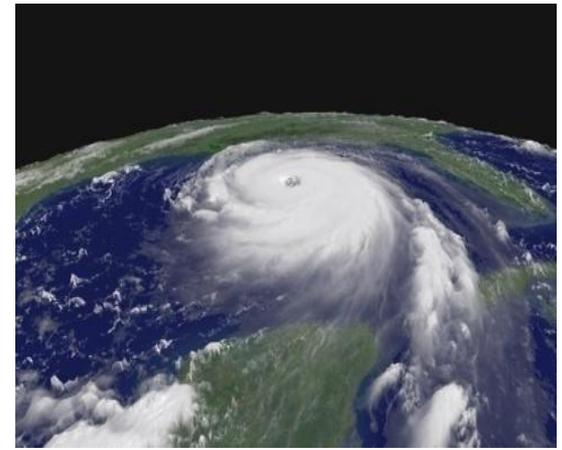
# Introduction



“Climate change has already altered, and will continue to alter, the water cycle affecting where, when, and how much water is available for all uses.”

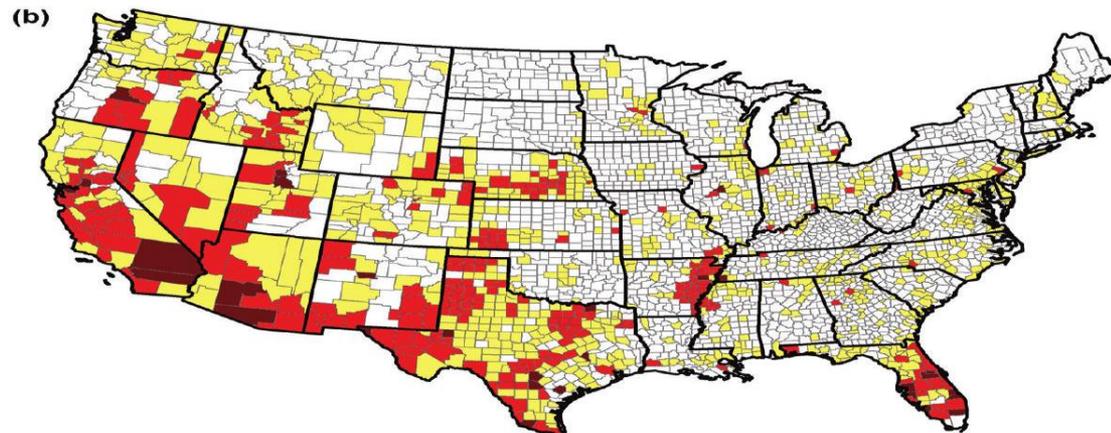
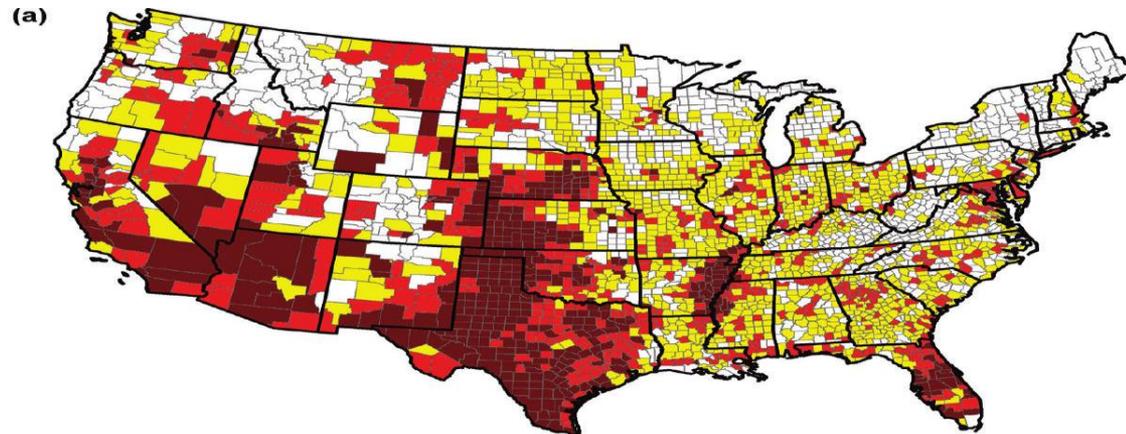
USGCRP, “Global Climate Change Impacts in the U.S.”(2009), Water Sector.

# Some Water-Related Effects of Climate Change



- Warmer water temperatures
- Changing patterns of precipitation
- Earlier snowmelt
- More extreme weather events
- Increased drought
- Sea level rise and storm surges
- Coastal impacts and ocean acidification

# Water Supply Sustainability Index 2015; S.B. Roy et al 2012



# Federal Government Response

1. President's Climate Action Plan/Exc. Order
2. National Climate Assessment
3. Interagency Climate Adaptation Coordination
4. *National Action Plan: Managing Freshwater Resources in a Changing Climate*
5. Advisory Committee on Water Information (ACWI) Climate Change Workgroup



# Stronger Communities and Infrastructure



1. Climate Resilient Investments (e.g. SRF)
2. New State/Local Task Force
3. Boost Resilience of Infrastructure
4. Rebuild and Learn from Sandy

# Protect Economy and Natural Resources

1. Conserve Land and Water Resources
2. Manage Drought
3. Reduce Wildfire Risks
4. Prepare for Future Floods



# Sound Science to Manage Climate Impacts



1. Assessing Climate Impacts in US (i.e. National Climate Assessment; final expected March 2014)
2. Launch Climate Data Initiative
3. Toolkit for Climate Resilience (e.g. Stormwater Calculator)

# Climate Preparedness Executive Order



- Modernizing Federal programs for climate resilient investment
- Natural resources assessment/timeline
- Information, data and tools portal
- Federal agency coordination council
- State/tribal/local task force

# National Climate Assessment



U.S. Global Change Research Program

# National Climate Assessment

- Draft released January 2013
- Water Resources Chapter
- Other Chapters Related to Water
  - Water Energy and Land Use
  - Urban Systems, Infrastructure, and Vulnerability
  - Decision Support
  - Adaptation
- Climate Regions; water assessments for each
- Final Assessment: April 2014

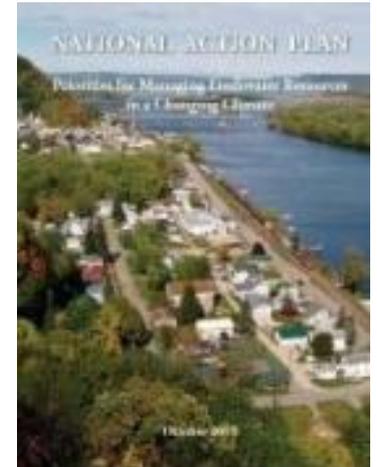
# Interagency Climate Change Adaptation Task Force



- Chaired by CEQ, NOAA, and OSTP
- Participation from diverse other Federal agencies (e.g., HUD, DOT, DOE, State as well as DOI, EPA, DOD)
- Comprehensive Reports in 2010 and 2011
- Agency Adaptation Planning
  - EO 13514
  - Implementing Instructions: March 2011
- Crosscutting Strategies
  - Water Resources
  - Coastal/Ocean
  - Fish/Wildlife/Plants

# *National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate*

- Published October 2011 by Interagency Climate Change Adaptation Task Force
- Key Recommendations:
  - Establish Planning Process
  - Improve Water Information
  - Strengthen Vulnerability Assessments
  - Expand Water Use Efficiency
  - Support Integrated Water Resources Management
  - Support Training and Outreach



# Advisory Committee on Water Information (ACWI)

## ➤ New Climate Workgroup

- Created in June 2012
- EPA Office of Water co-chairs with Water Environment Federation
- 40 stakeholder organizations and Federal agencies (including NIWR)
- Supports implementation of *National Action Plan*

# ACWI Climate Workgroup



## ➤ Functions:

- Review/comment on implementation of *National Action Plan*
- Foster intergovernmental coordination
- Inform and coordinate with other ACWI Subgroups
- Coordinate with Climate Strategies related to coasts and fish/wildlife/plants
- Encourage training and education related to climate change and water

# Directions for ACWI Climate Workgroup...



1. Develop 2014 workplan
2. In-person meeting – February 2014
3. Support implementation of President's Climate Action Plan and Executive Order
4. Advise and assist Federal agency climate and water adaptation
5. Participate in interagency work to implement:
  - *National Freshwater Action Plan*
  - National Ocean Policy: climate change recommendations
  - National Fish/Wildlife/Plants Strategy implementation

# Other Federal Collaborations



- CCAWWG (Climate Change and Water Working Group including NOAA, DOI, Army Corps of Engineers, EPA, others)
- Subcommittee on Water Availability and Quality (SWAQ)
- Floodplain Management Task Force
- National Ocean Council
- Regional Integrated Sciences and Assessment (RISAs)
- Landscape Conservation Cooperatives (LCCs)
- Climate Science Centers (CSCs)

*Thank you...*



## Questions or More Information?

- Jeff Peterson; EPA; 202-564-3745
- [http://acwi.gov/climate\\_wkg/index.html](http://acwi.gov/climate_wkg/index.html)