

What Water Agencies Can Do Now About Climate Change

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Multi-State Salinity Coalition
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From Impacts To Adaptation

- Prolonged drought
- Lower flows
- Impaired water quality
 - Higher concentrations of contaminants in source water
 - Increased salinity
- Situational awareness
 - broad to local
- Vulnerability Assessments
- Adaptive Management

Climate Vulnerability is a function of:

LOCATION

AND

CAPACITY TO COPE

Behavioral & sociological

Institutional

Technological

Operational & structural

Legal & financial

Technical

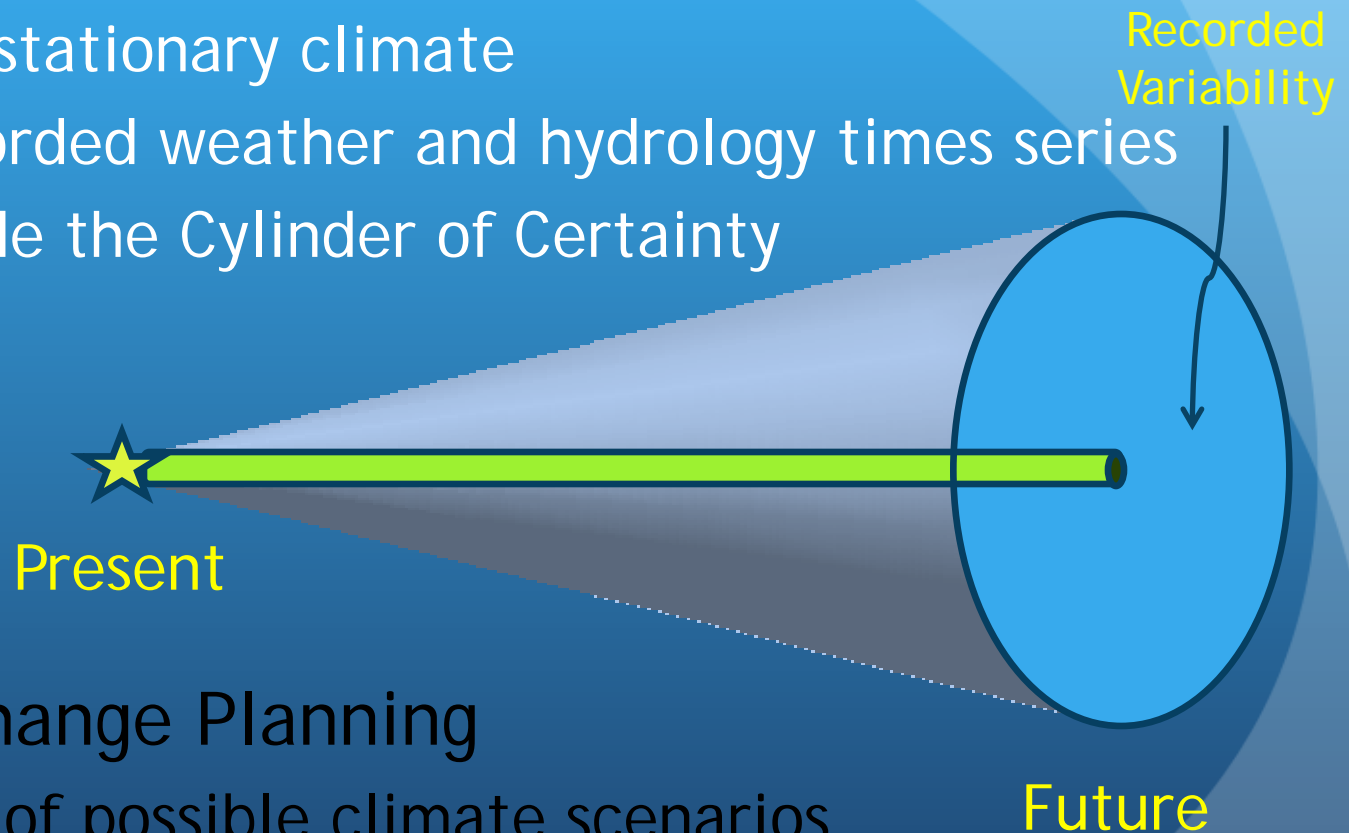
Political

Courtesy of Paul Fleming, SPU

Cone of Uncertainty*

○ Conventional Planning

- Assumes stationary climate
- Uses recorded weather and hydrology times series
- Plan inside the Cylinder of Certainty



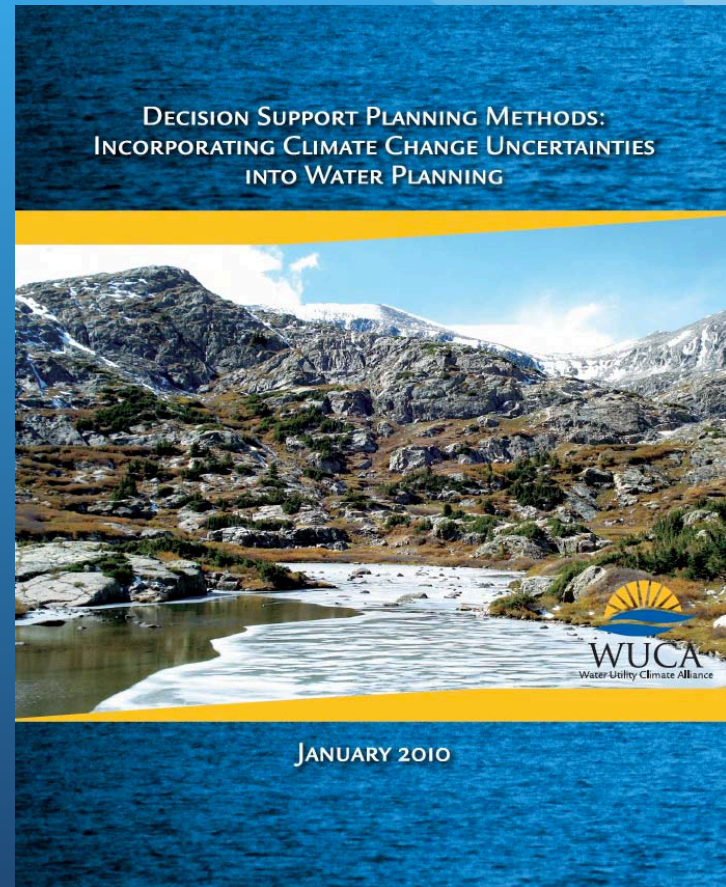
○ Climate Change Planning

- Hundreds of possible climate scenarios
- Multi-outcome planning
- Robust over optimal

*Denver Water, Adapted from Malcolm Pirnie

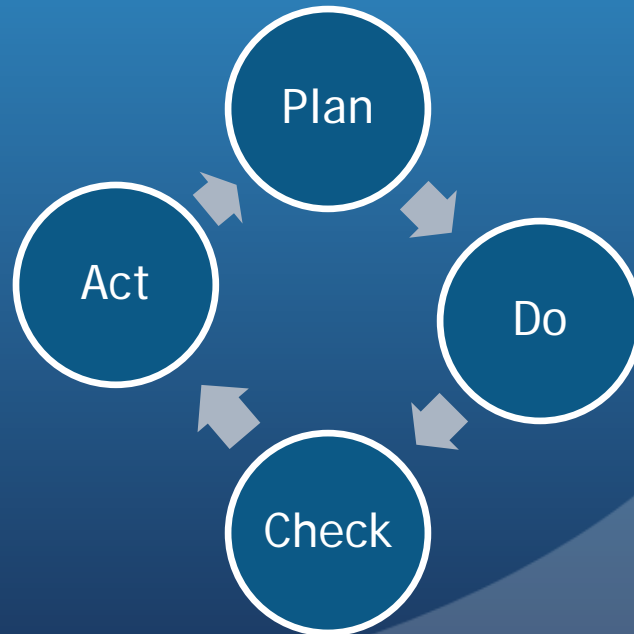
Decision Support Analysis

Including climate change factors in decision support analyses is essential for planning and preparing for a range of potential impacts and managing the uncertainty of climate change.



Adaptive Management

- Plan to manage for slow climate changes AND catastrophic events
 - *Probabilities are elusive - address the outliers*
- Iterative process



Research What's Being Done

- Federal agencies are busy
 - NOAA
 - DOI
 - EPA
 - OSTP
 - CEQ






What else is the water sector doing?

www.waterclimateforum.org

ORGANIZERS REGISTER HOTEL AGENDA SUPPORTERS

Climate Change Impacts on Water: An International Adaptation Forum

January 27 - 29, 2010
Washington, D.C.



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Finding Solutions To Water Utility Climate Challenges

Utility managers must plan and act today to prepare for the unavoidable consequences of climate change that are already apparent. Supportive government policies, practical climate research and sharing the adaptation experiences of international water sector colleagues are essential elements for taking action. The Forum agenda is replete with case studies, presentations and panel discussions providing practical approaches to inform water utility adaptation initiatives. It brings together key policy officials, such as European Environment Agency Executive Director **Jacqueline McGlade** and renowned Dutch climate scientist **Pavel Kabat** of the Intergovernmental Panel on Climate Change, as well as water ministers, climate officials and water system executives from all corners of the globe. [More ...](#)

OBJECTIVES


Updated January 27, 2010

Honorary Committee Chairwoman



Jacqueline McGlade,
Executive Director,
European
Environment Agency

Keynote Speaker



Jane Lubchenco,
Administrator,
National Oceanic and
Atmospheric
Administration

Honorary Committee Members

U.S. Senate
Jeff Bingaman (NM)
Ben Cardin (MD)
Sheldon Whitehouse (RI)

U.S. House of Representatives
Lois Capps (CA)
Diana DeGette (CO)
Jay Inslee (WA)
Ed Markey (MA)
Henry Waxman (CA)

ASSOCIATION OF METROPOLITAN WATER AGENCIES

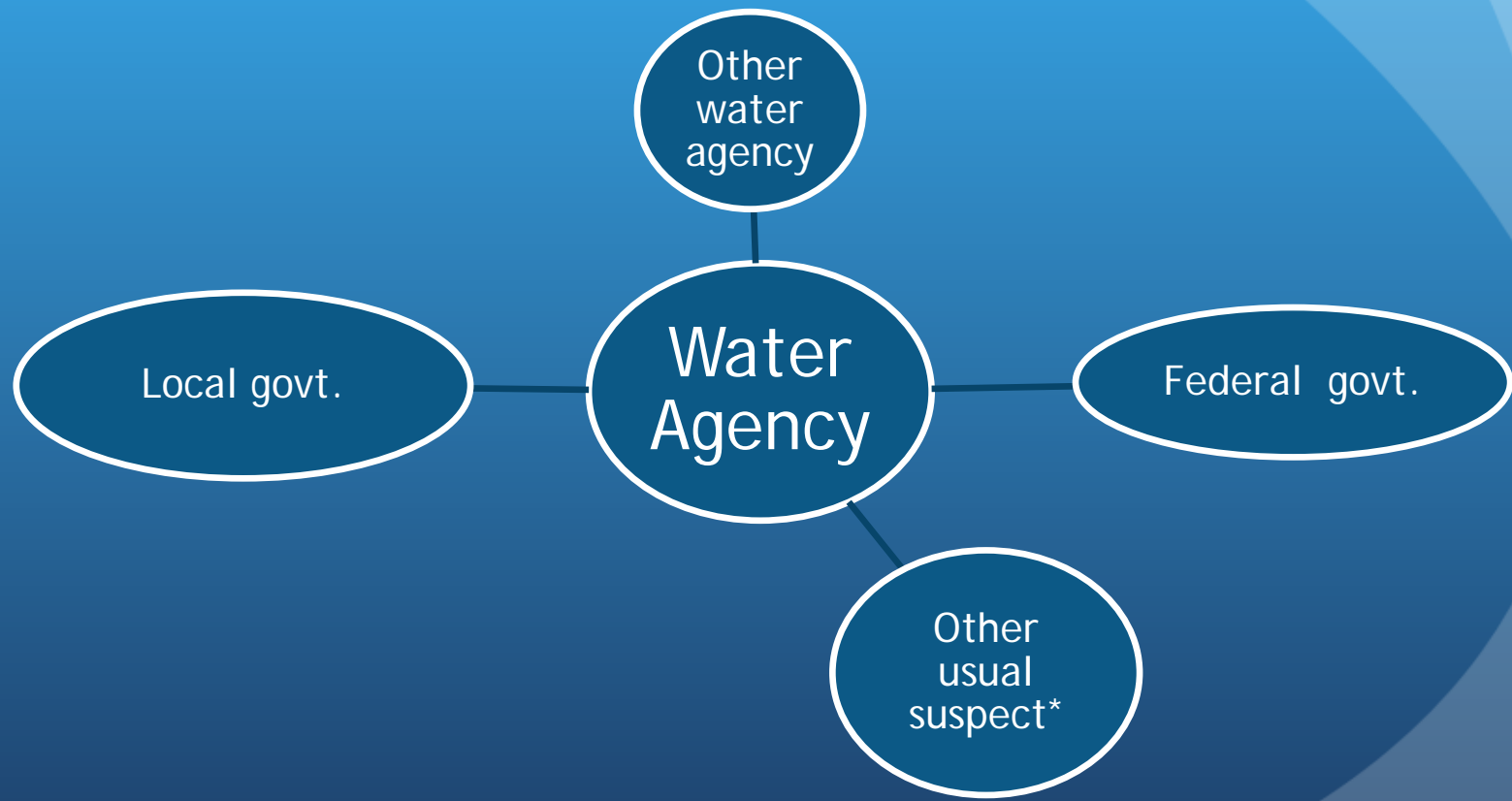
WATER RESEARCH FOUNDATION
ADVANCING THE SCIENCE OF WATER

WUCA
West Coast Climate Alliance

IWA International Water Association

American Water Works Association

Collaboration is needed - beyond the usual suspects



Collaborate



References

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- Water Climate Forum: www.waterclimateforum.org
- NOAA Climate Services: www.climate.gov
- DOI Secretarial Order No. 3285:
www.doi.gov/news/09_News_Releases/091409.html
- EPA Climate Ready Utilities Working Group:
<http://client-ross.com/crwuwg/>

Thank you

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