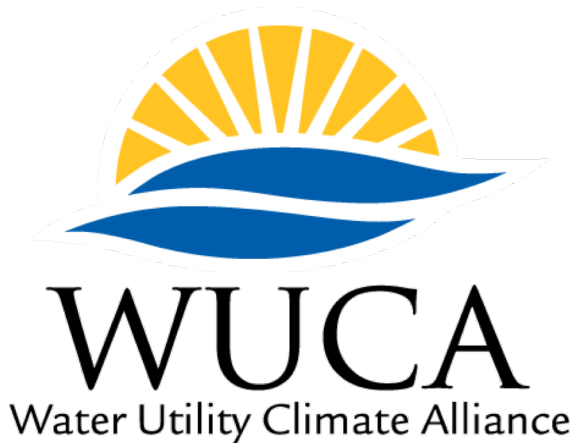
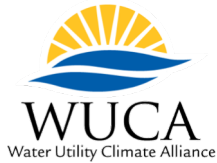


# Spotlight on Resilience: Water Utility Climate Alliance

2018 Executive Management Conference  
Association of Metropolitan Water Agencies  
San Francisco, October 16, 2018



David Behar, Climate Program Director  
San Francisco Public Utilities Commission  
Founding Chair, Water Utility Climate Alliance



# Happy Birthday WUCA!

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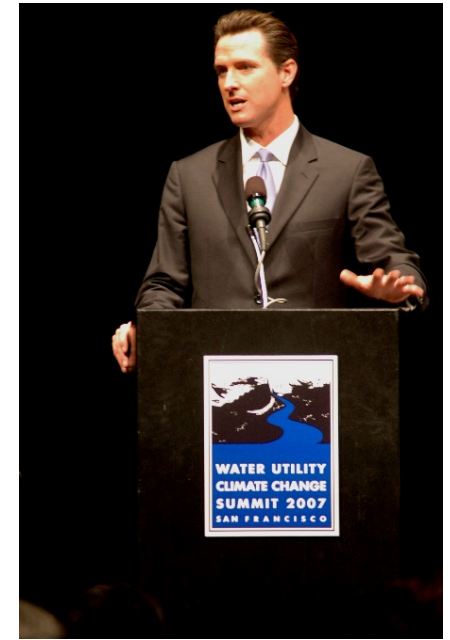
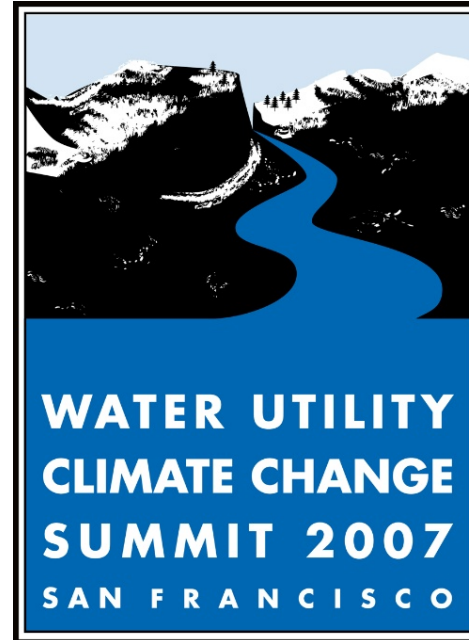
# WUCA

Water Utility Climate Alliance

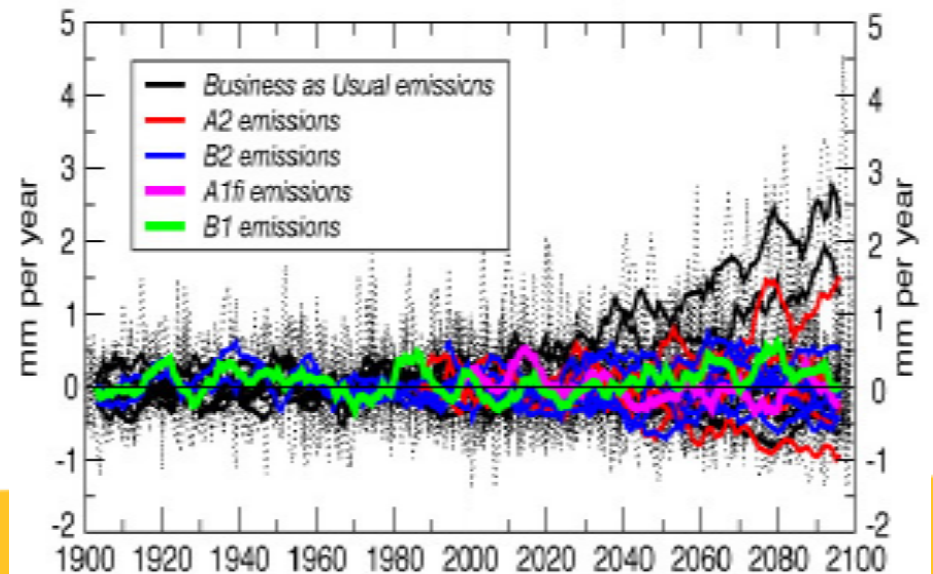
10 YEARS • 2008-2018



# Water Utility Climate Change Summit (2007)



PROJECTED CHANGES IN ANNUAL PRECIPITATION, NORTHERN CALIFORNIA



# Current Members





# Strategic goals

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## **Mission**

Collaboratively advancing  
water utility climate change adaptation

## **Vision**

Climate-resilient water utilities,  
thriving communities

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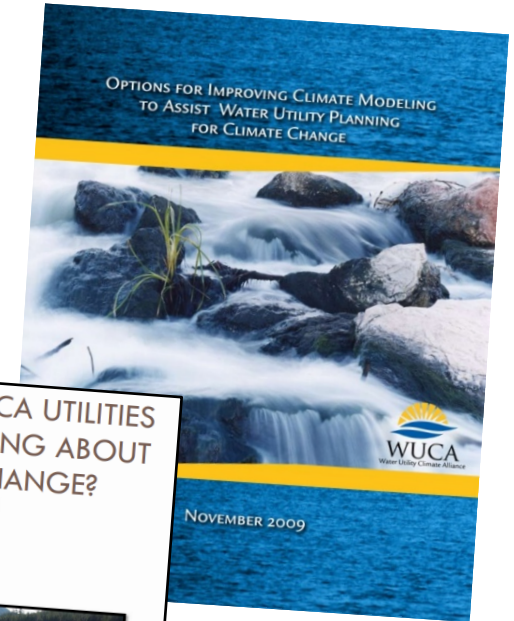


...Our coalition calls on Congress to:

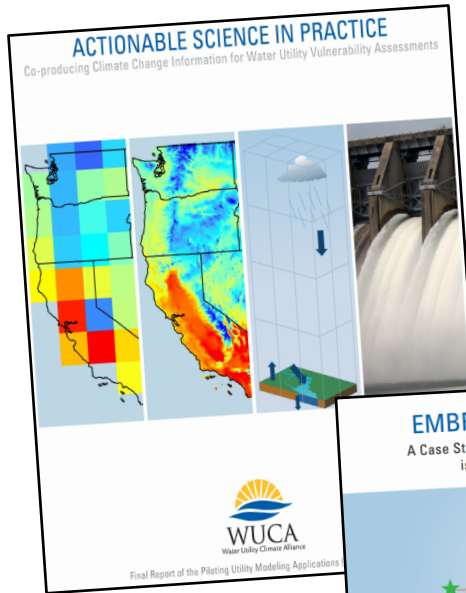
- 1. Establish a comprehensive, coordinated and federally sponsored applied research program that addresses predictive and decision-support tools**

# Activities

## Trainings



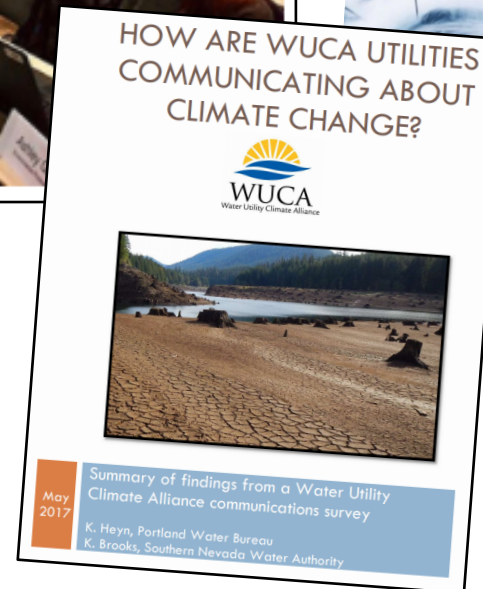
## Tools



## Research



## Case Studies



## Best Practices

# Defining what we need (2009)

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## “Actionable Science”

**Data, analysis, and forecasts that are sufficiently predictive, accepted and understandable to support decision-making, including capital investment decision-making.**

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### *Goal adopted in:*

*President’s Climate Action Plan (2013)*

*US Global Change Research Program Strategic Plan (2012)*

*Global Framework for Climate Services (2012)*

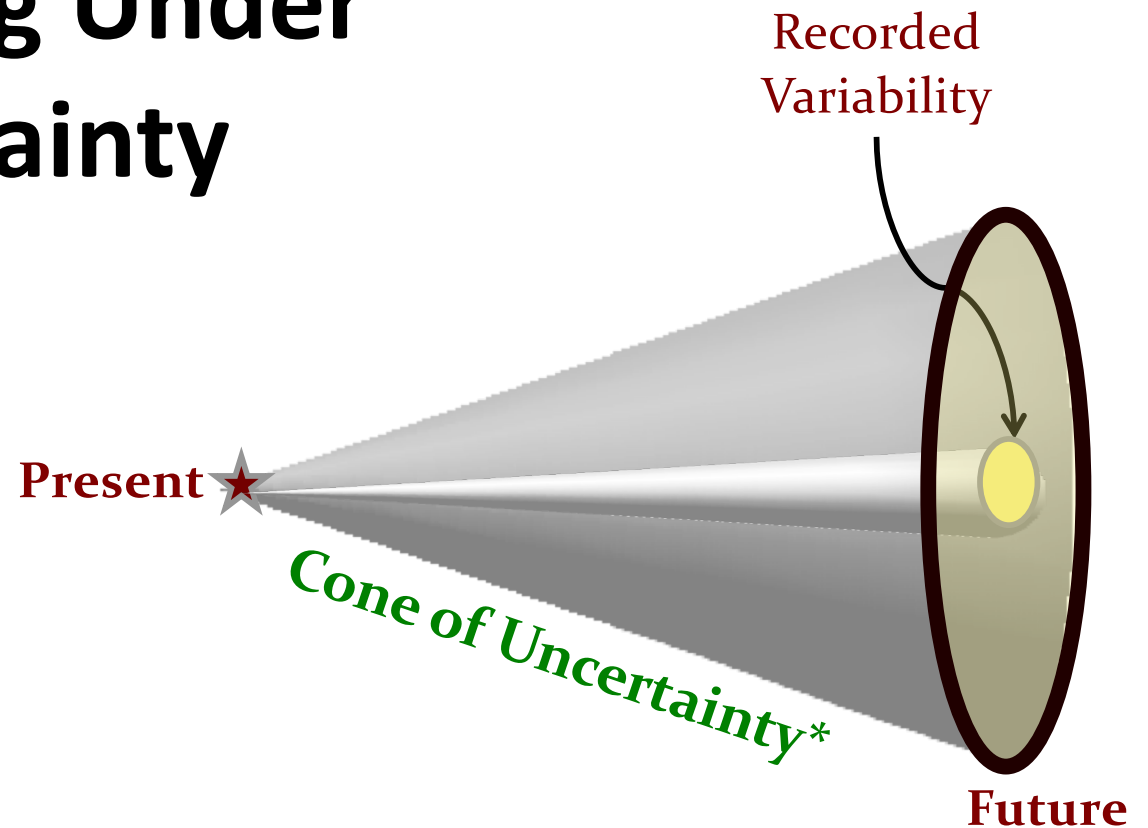
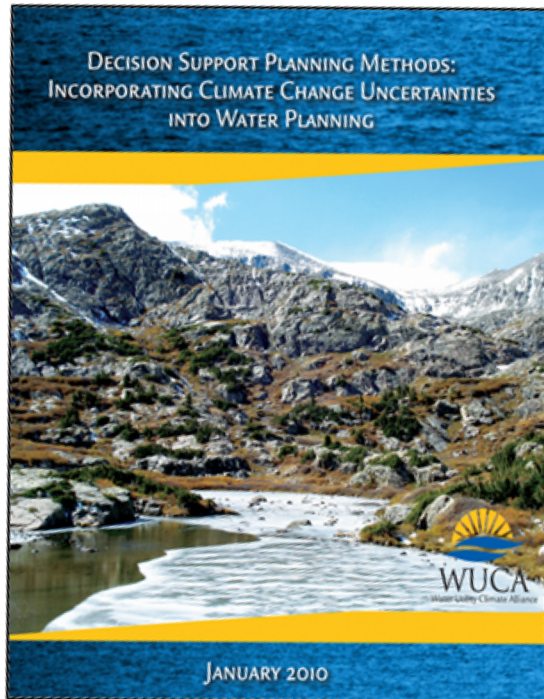
*US Army Corps Adaptation Plan (2011)*

*Climate Change and Water Working Group*

*(USBR, USGS, USACE, NOAA)*


...and when the science isn't clear...

# Decision Making Under Deep Uncertainty



# Some keys to Success

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- 1. General manager commitment**
  - 2. Senior staff engagement**
  - 3. Regular and frequent collaboration**
  - 4. Targeted research**
  - 5. Collaboration – water utilities, scientists, agency staff, decision experts...**
  - 6. Five Year Strategic Plan, Annual Work Plans**
- 

# Our panel

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- **Jim Lochhead, Manager and CEO, Denver Water**
  - **Michael Carlin, Deputy GM and COO,  
San Francisco Public Utilities Commission**
  - **Angela Licata, Deputy Commissioner, New York  
City Department of Environmental Protection**
  - **Marc Cammarata, Deputy Commissioner,  
Philadelphia Water Department**
- 

Thank you



WUCA

Water Utility Climate Alliance

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