

**Piloting Utility Modeling Applications:**  
**The Co-Production of Water Utility  
Climate Change Impact Assessment  
between Seattle Public Utilities and the  
Climate Impacts Research Consortium**

Joan Kersnar, Drinking Water Planning Manager  
5th Annual Pacific Northwest Climate Science Conference  
September 10, 2014

Seattle  
 Public  
Utilities

# Seattle Public Utilities



Chester Morse Lake on Cedar River

## Regional Water System

- Provides retail and wholesale water to 1.3 million people in region
- Sources of supply
  - Cedar River Watershed
  - South Fork Tolt River
  - Wellfields

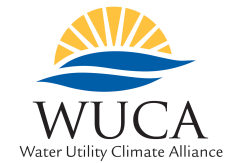
# SPU's Climate Program

- enhance knowledge by engaging the science
- assess impacts and vulnerabilities
- develop portfolios of approaches
- mainstream adaptation into decision-making
- establish collaborative partnerships
- strengthen institutions and people

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# Water Utility Climate Alliance



**Mission:** The Water Utility Climate Alliances provides leadership in assessing and adapting to the potential effects of climate change through collaborative action. We seek to enhance the **usefulness of climate science** for the adaptation community and improve water management **decision-making in the face of climate uncertainty**.

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Slide created by David Behar, SFPUC

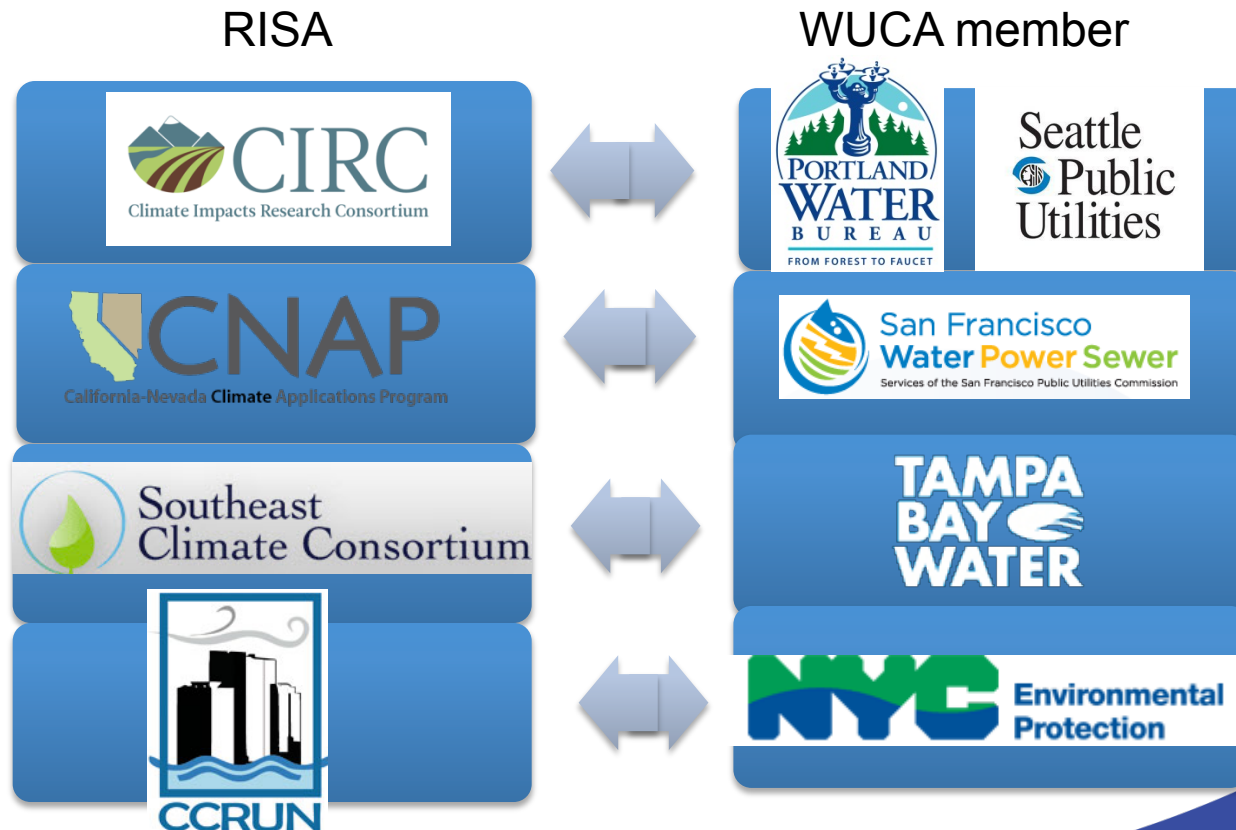
# PUMA: Piloting Utility Modeling Applications

5 current PUMA projects connecting:

- Regional integrated sciences and assessments (RISAs)
- Large municipal water utilities WUCA

Each project is looking at tools to support impact assessments

WUCA developing white paper on lessons learned



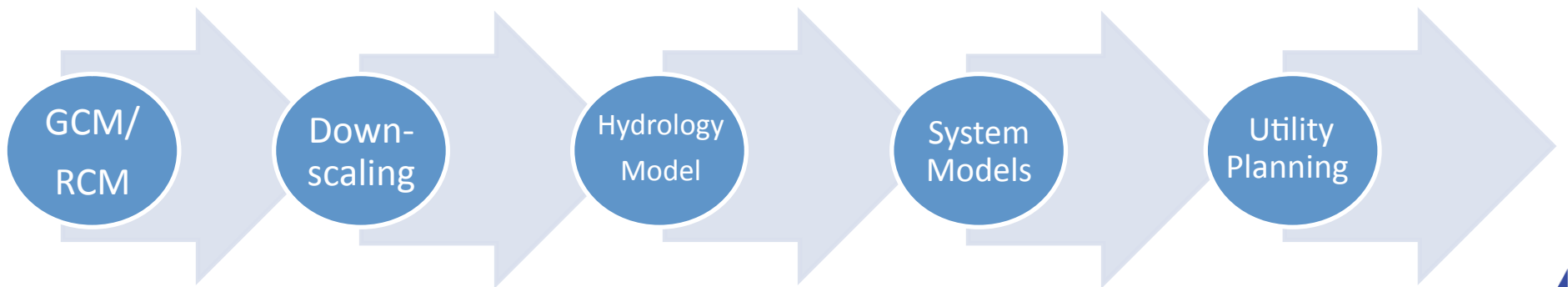
Adapted from slide provided by Katherine Hegewisch, University of Idaho

# PUMA: Piloting Utility Modeling Applications

- **SPU/CIRC focused on:**
  - supply
  - forest fires
  - timing of fall rains
  - atmospheric rivers
  - ENSO/PDO
  - precipitation thresholds in-city

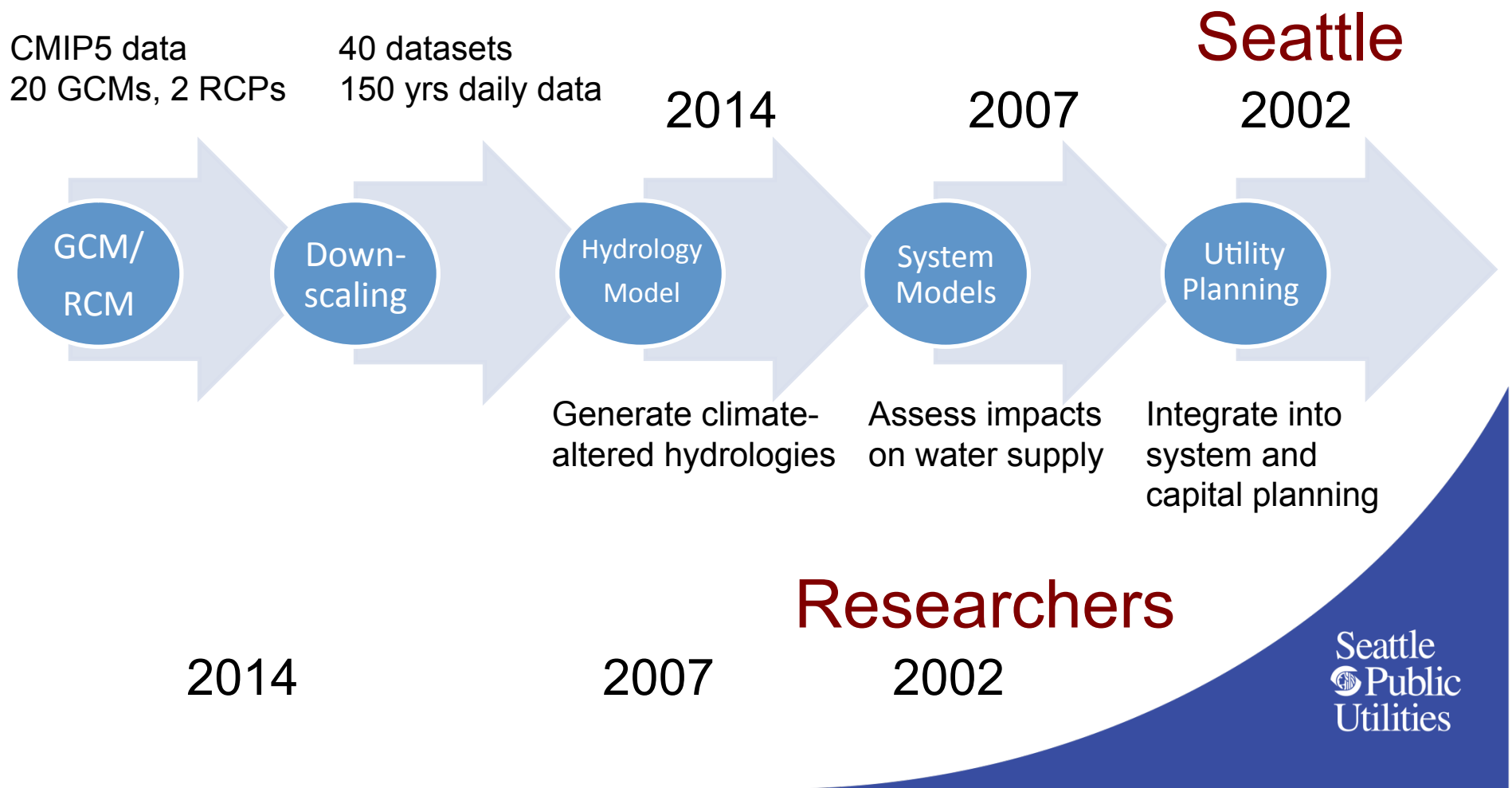


# Chain of Models & SPU's Evolving Capacity





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# Benefits of Co-Production

## For Researcher

- Facilitates education of those sectors impacted by climate change
- Enhances understanding of resources management
- Produces information more likely to be used

## For Utility

- Makes use of and enhances tacit understanding of how climate change may impact system
- Leverages researcher technical expertise and resources for data generation and interpretation

# Questions?

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WUCA website: [www.wucaonline.org](http://www.wucaonline.org)



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