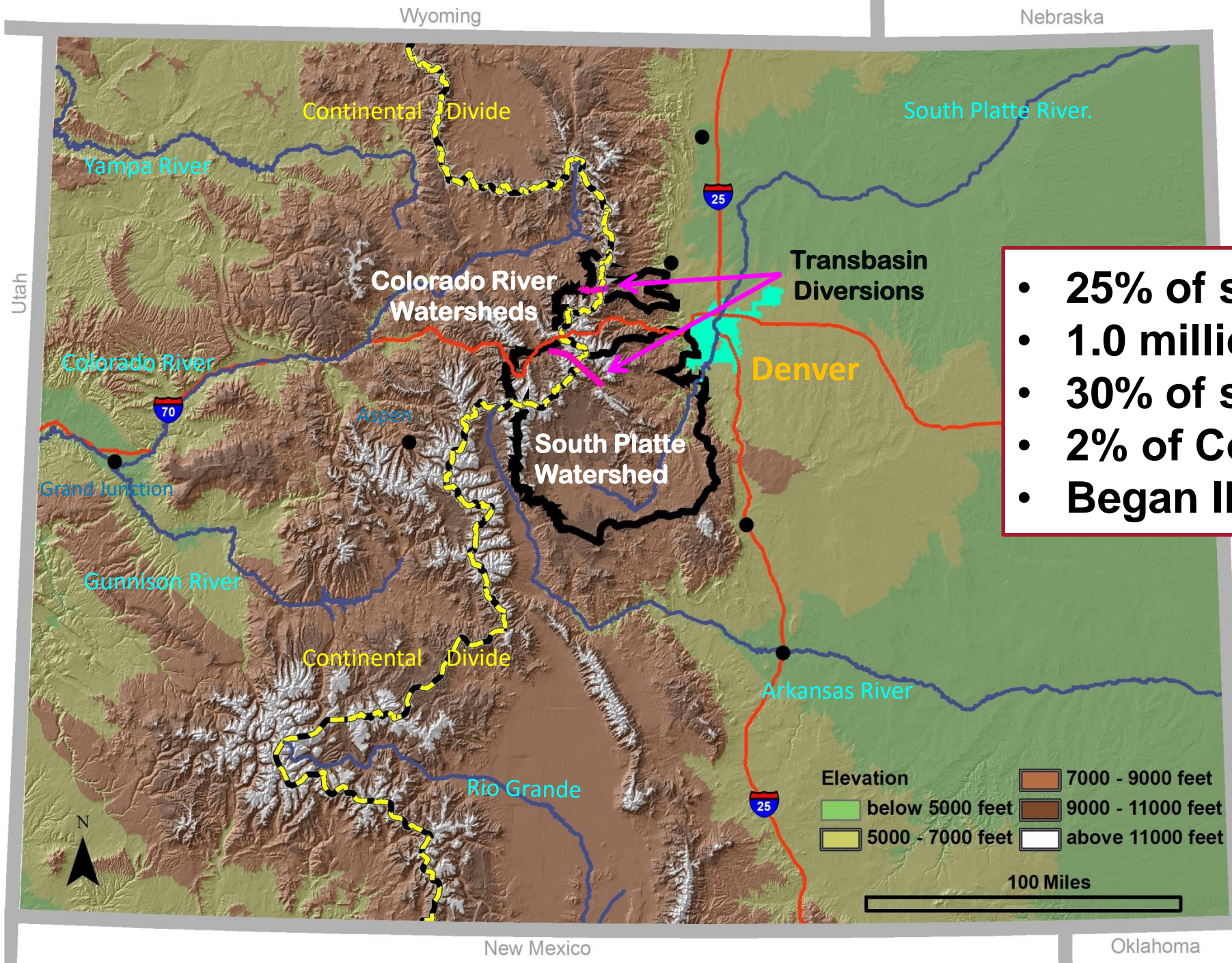


Long-range Integrated Planning at Denver Water



*Laurna Kaatz – Climate Program Director
DMDU, Oxford – November 14, 2017*



- 25% of state population
- 1.0 million jobs
- 30% of state GDP
- 2% of Colorado's water
- Began IRPs in 1996

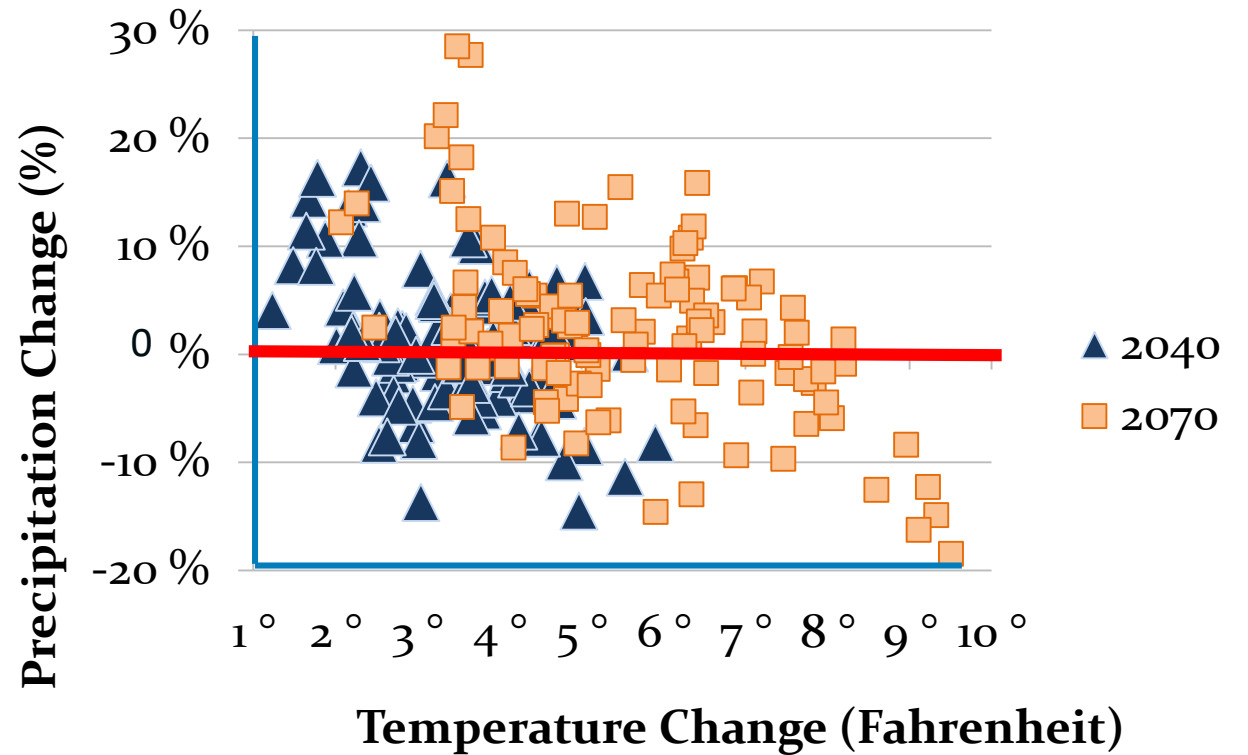


Time for Change

Unprecedented Simultaneous Natural Disasters



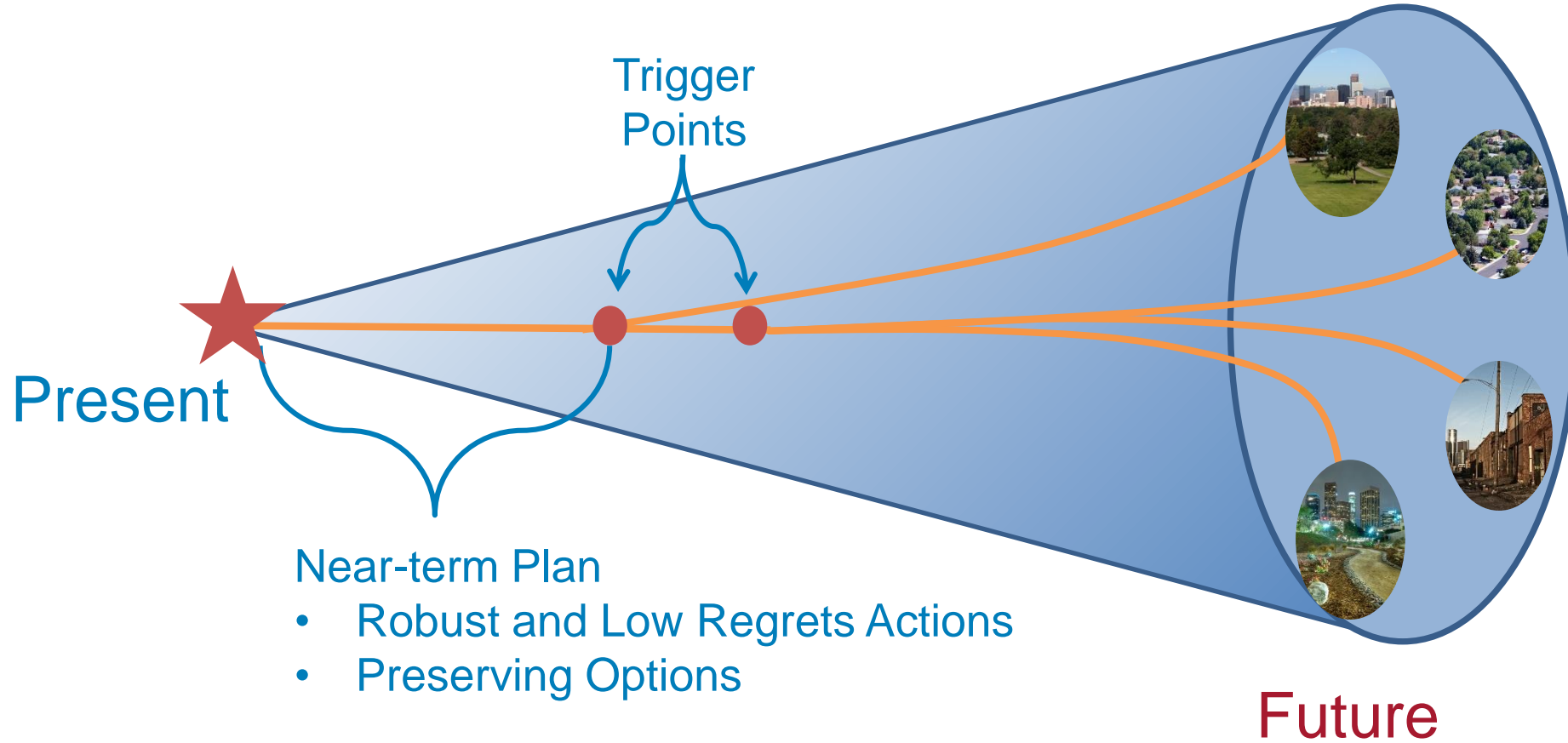
Climate Projections



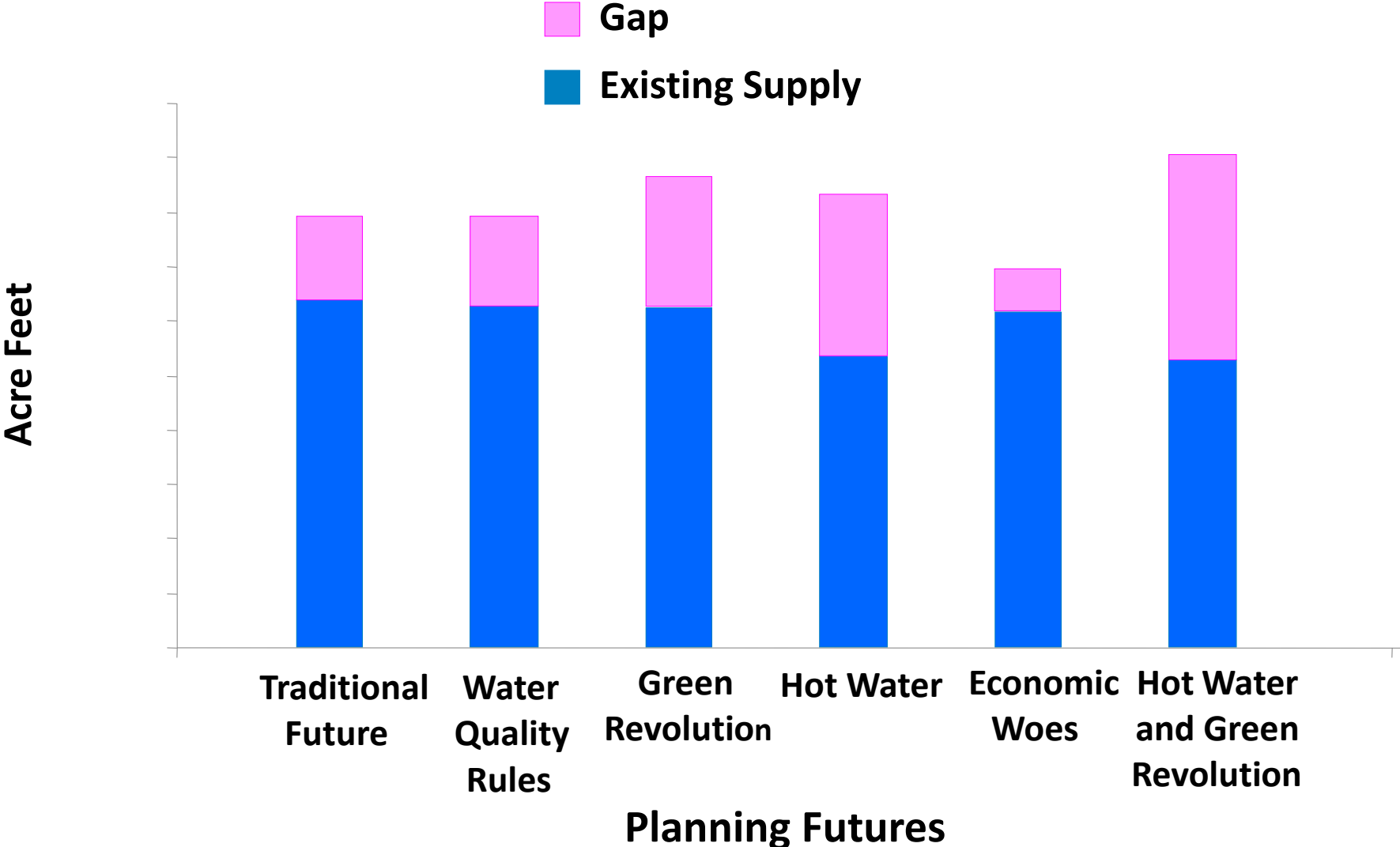
Deterministic Planning



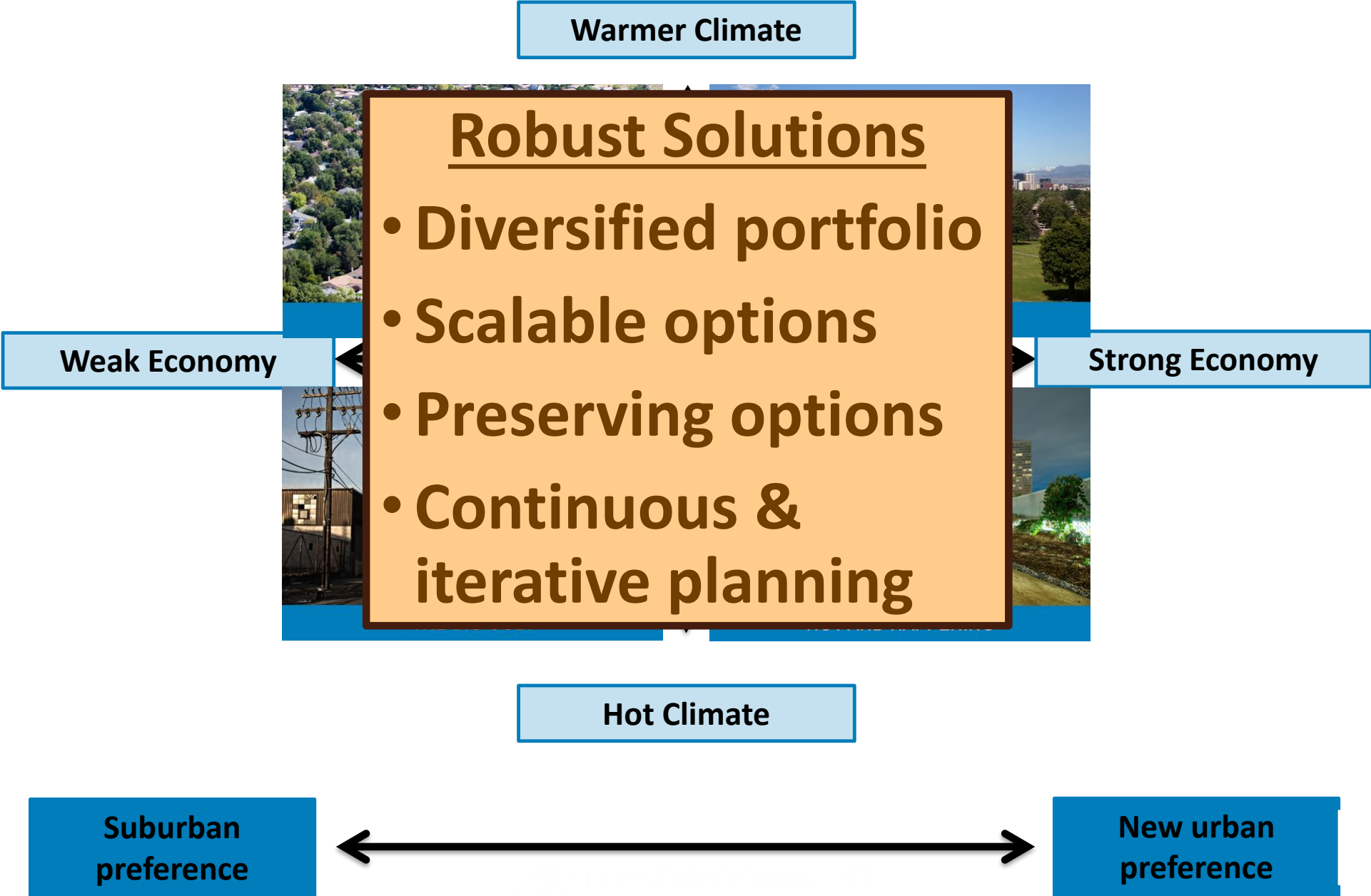
Cone of Uncertainty



Scenario Planning in 2011



SCENARIO PLANNING IN 2017



Reflections

- Learned a lot from past Scenario Planning
- Most involved employees are new to uncertainty planning
- Fit well with the organization's management and decision making structure
- Expedited process to build on and help finish previous IRP
- Complexity of planning for entire water system
- No simple planning model, using train of big models
- Focus on informing capital planning
- Leads well to progression into Robust Decision Making

Lessons

- Deep seated deterministic thinking takes a long time to change
- Simple scenario approach provides a lot of insight
- Few low regrets approaches for the long term
- Focus on increasing options and flexibility
- Worked well with complex water system model

long, long, long

Climate Adaptation at Denver Water



Thank you!

Laurna.Kaatz@denverwater.org

303-628-6424

