Rethinking Water Policy Opportunities in California:

Quantifying Water-Use Efficiency, Groundwater Management, and Water Re-Use Options

Bulletin 160-05 Advisory Meeting

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Water Policy Program,
Donald Bren School of
Environmental Science and Management
University of California, Santa Barbara

RAND Corporation
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Inland Empire Utilities Agency
California Urban Water Conservation Council
US Bureau of Reclamation
Points to Cover

1. Overview: Basic Approach to the Project
2. Background Research
3. Key Variables
4. Exploring Robust Strategies
5. Policy and Investment Opportunities
6. Advisory Board
Basic Approach

1. Examine the top three water supply sources as identified in B-160-05
2. Focus on the south coast region
3. Build on the best studies and research on each of the three supplies
4. Utilize a model as a scenario generator to facilitate dialogue
California Water Supply Options
(Bulletin 160-05 Public Review Draft)

Addition Water Supply (MAF per year)

- Urban WUE: Low Estimate 1.1, High Estimate 2.3
- Recycled Municipal Water: Low Estimate 0.5, High Estimate 2.0
- Surface Storage - CALFED: Low Estimate 0.9, High Estimate 1.4
- Agricultural WUE: Low Estimate 0.05, High Estimate 1.0
- Desalination: Low Estimate 0.2, High Estimate 0.7
- Conveyance: Low Estimate 0.3, High Estimate 0.4
- Precipitation Enhancement: Low Estimate 0.3, High Estimate 0.4
Background Research

1. Review the best research available on:
   - Urban water use efficiency
   - Groundwater management
   - Wastewater reuse

2. Develop a set of inputs for scenario development reflecting the range of values in the literature
Key Variables

1. Technology implementation
2. Population and location of water use
3. Prices and rate structures
4. Groundwater management
5. Climate change
Exploring Robust Strategies

What combination or “portfolio” of water management strategies builds resilient and robust systems under differing scenarios?

Using the model, we will explore with stakeholders various combinations of management options in order to inform the public dialogue regarding policy and investment opportunities.
Scenario Workshops

- Scenario generator will support discussion of merits and risks of various portfolios of strategies
- Concurrent Robustness Decisionmaking analysis by RAND team
Policy and Investment Opportunities

Opportunities for the development and implementation of policies and investment of public and private resources will be identified in the process.

Multiple benefits of specific strategies can be explored and quantified through the process.

Stakeholders and decision-makers can consider multiple options in an informed way.
Advisory Board

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Loretta Barsamian, US EPA*
Grace Chan, MWDSC*
Paula Daniels, Bay Delta Authority
Mary Ann Dickinson, CUWCC*
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