Critical Assessment of Desalination Technologies

Funding Agency:
- Water Research Foundation (AwwaRF 4006)
- UK Drinking Water Inspectorate

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Project Objectives

- Identify and evaluate the full range of water quality, energy, environmental, economic, social, institutional, and regulatory impacts of implementing desalination technologies.
Methodology

- Data collection
  - Literature Review
  - International utility survey
  - Expert workshop
- Case study analysis
  - California, Colorado, Florida, Arizona, UK, Australia, Israel
- Development of a multiple criteria decision analysis (MCDA) approach
# Major Findings

## Challenges
- Environmental considerations
- Energy use
- Carbon footprint
- Water quality
- Concentrate disposal
- High cost

## Mitigation Strategies
- Conduct thorough feasibility study and pilot-testing
- Address early and effectively environmental concerns
- Lead a collaborative, open, and transparent dialogue
- Develop a multiple criteria decision analysis approach