

# **Desalination in California: The Potential for a More Reliable Water Supply**

CalDesal  
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# Introduction and Topics



- **NWRI Desalination White Paper**
  - In collaboration with John Ruetten (Resource Trends)
  - Currently a draft is under review
- **Topics**
  - Progress on desal
  - Why reliability?
  - Desal facts and perceptions
  - How to treat desal
  - Moving forward
  - Bonus: Preview of a NWRI report on reliability

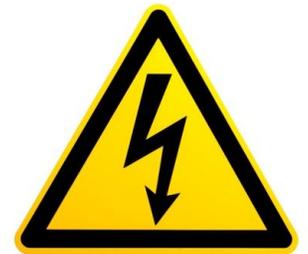
# Desalination Progress

- **Slow**
  - But maybe for good reasons
- **Conversation can be contentious**
  - Different from potable reuse
  - Often, narrow and locally focused
- **Focus on costs/impacts and not benefits/value**
  - Specifically, reliability
  - There is a “cost of reliability”



# Why Reliability?

- **Concerns:**
  - Decreasing availability of imported water
  - Drought and earthquake risks
  - Potential climate change
- **Question: Is our ability to serve water consistently year after year a concern?**
- **How much risk is there?**
  - To our water reliability
  - To our economies and quality of life
  - How much \$/month is reliability worth?
  - Is there a economic risk of a water crisis?



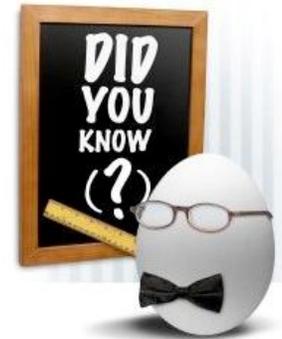
# Selling Water or Water Reliability?

- **Is municipal water a commodity?**
  - We think about water differently
- **If the product is “water reliability”:**
  - Conservation and recycled water make sense (and this is generally accepted)
  - Rate increases for reliability can be justified
- **Reliability as an investment?**
  - Risk mitigation
  - “Cost” associated with the reliability of a new supply



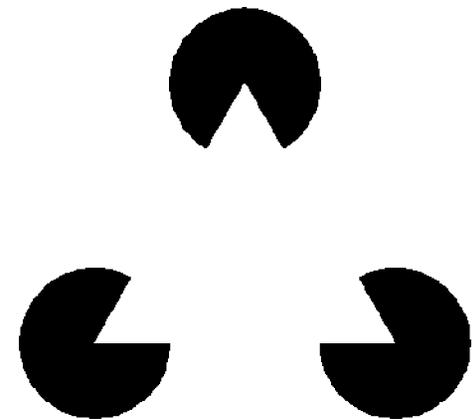
# Facts of Desalination

- A new (and reliable) watershed flow
- Potential for large volumes of water
- Standard water rights not an issue
- Coastal land and access are issues
- Desal impacts the environment
- Relatively high energy use
- Costs more than traditional supplies
- Proposed by both public and private developers



# “Perception” of Desal

- **Highly valuable to ensure future reliability**
- **Can resolve regional water reliability issues**
- **Will reduce dependence on imported water**
- **Only after we conserve, capture, and recycle**
- **Too costly**
- **Uses too much energy**
- **Damages the environment**
- **Fuels growth**
- **Only as a peak supply**



# How to think about Desal?

- **Desalination has regional benefits**
  - Make the conversation broader
  - Integrate local and regional reliability interests
- **Consider a “reliability” frame of mind**
  - Improve reliability and lower risks
- **Address perception of desal**
  - Completely renewable water resource
  - Relatively straightforward to implement
  - Creates benefits – with regional approach



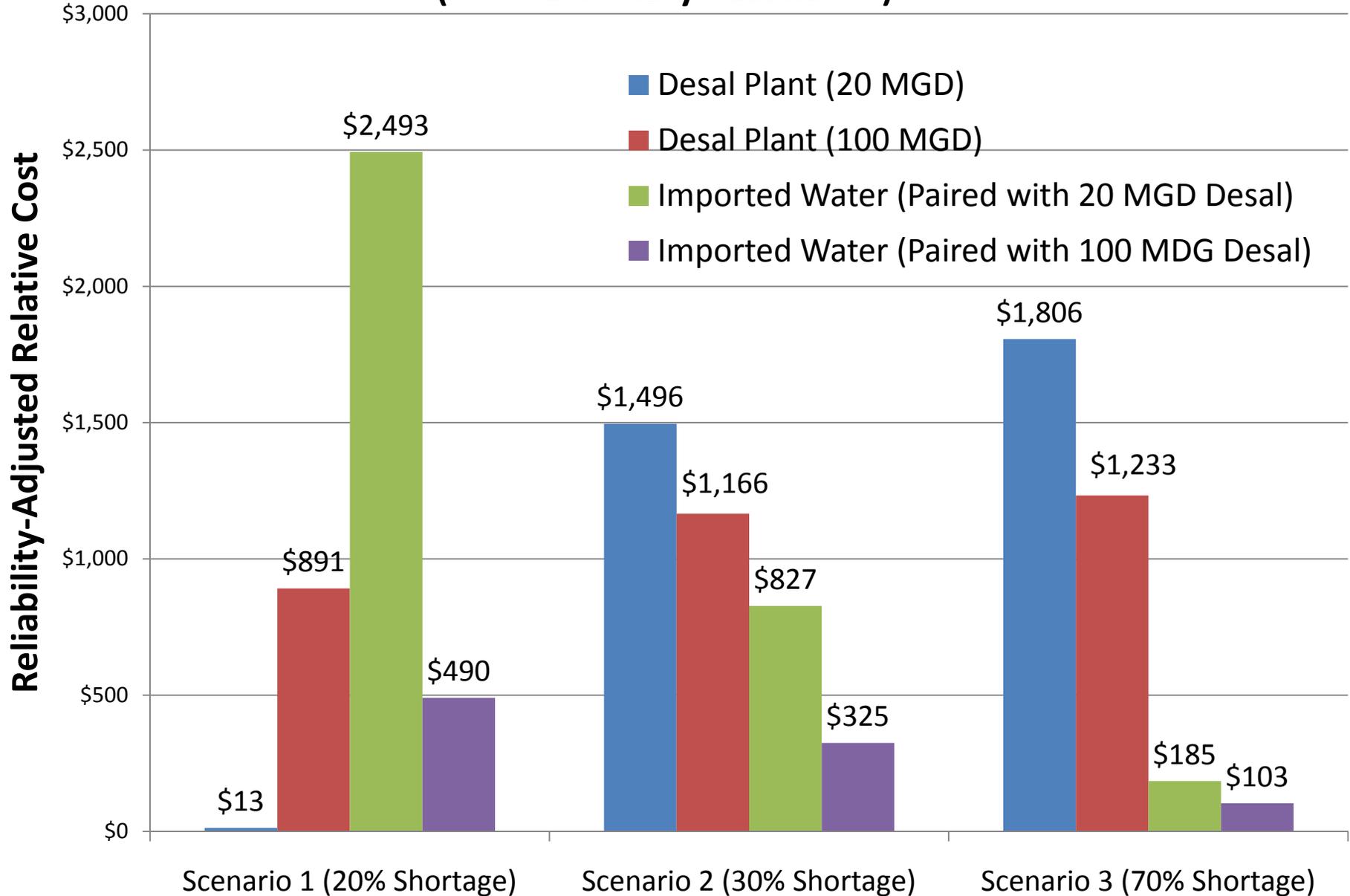
# Moving Forward

- **Develop regional position on:**
  - Conservation
  - Potable reuse
- **Implement “selling reliability” approach and message**
- **Build “regional” approach**
- **Create a standard of regional participation**
- **Engage Nevada and Arizona in discussion**
- **Goal: Broad thinking on reliability and benefits**



# Estimated Reliability-Adjusted Relative Costs

(\*\*Preliminary Results\*\*)





**NWRI**



***Thank you!***

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