

# SHOULD SCCWRP ADOPT WATER REUSE AS A NEW RESEARCH DIRECTION?



## Presentation to the SCCWRP Commission

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# BACKGROUND

- **Southern California water needs are increasing**
  - Governor's Action Plan estimates between 1.6-3.2 MAF by 2050
  - That is a 41-81% increase
- **Historically, we have met our water needs by importing**
  - That is not a viable solution for the future
  - If anything, water imports will decline
- **More recently, we have moved to conservation**
  - More opportunity still exists, but not a reliable basis for future planning
- **Recycled water is a promising potential addition to the portfolio**
  - A centerpiece of the Governor's plan

# SCCWRP MEMBER AGENCIES ARE KEY TO REUSE

- **Drinking water oversight is moving from the Department of Public Health to the State Water Board**
  - Improve linkage between drinking water and discharge regulation
  - That linkage is intended to encourage reuse
- **SCCWRP's wastewater treatment agencies are already recycling**
  - The City of San Diego is an extreme case: Aiming to recycle nearly two-thirds of their Point Loma outfall in the future
- **The stormwater member agencies already collect water for reuse**

# A POTENTIAL OPPORTUNITY FOR SCCWRP

- **There are a lot of science questions that need to be addressed**
  - Current SCCWRP research dovetails with many reuse research needs
- **We present a unique, science-based forum for collaborative interaction**
  - We don't just do the science, we effectively transfer it to the user community
- **SCCWRP is a trusted science provider**
  - There are other players in the field, but none that have SCCWRP's pedigree and mix of Board members to ensure scientific neutrality

# OVERLAP WITH OUR CURRENT PORTFOLIO

- **Emerging contaminants**

- SCCWRP expert panel has already provided guidance on what can be measured now
- We are presently developing bio-screening assays that will be the screening approach for the future

- **Microbiology**

- Big concern for direct potable water
- Our real-time QPCR monitoring is exactly what the industry needs
- Our QMRA experience also relevant to pathogen data interpretation

- **In-stream flow requirements**

- Hydromodification guidance
- Bio-objectives

- **Brine discharge**

# CHALLENGES

- **Need to develop relationships with water supply agencies**
  - They barely know us and would need to trust our neutrality
- **Need to befriend potential competitors**
  - SCCWRP's success is largely due to scientific consensus building
  - If the existing players view us as competitors, we will be less effective
- **Need to find funding**
  - Should be a supplement to, not a replacement for, present research foci
- **Might require a change to joint powers agreement**
  - “increase the scientific knowledge of how treated wastewater discharges, stormwater discharges and other human activities interact to affect Southern California's coastal aquatic ecological systems”

# WATER SUPPLY AGENCIES

- **They are a group we have not dealt with much historically**
  - Nothing bad in our history, just not enough history
  - Already have groups are getting their science from
- **Key is the forum for discussion and collaboration**
  - Their existing science comes from people they pay
  - They are concerned about how they will interact with the State Board
- **We would probably need to add them to the Commission for them to realize this advantage**
  - That would be a big step

# BEFRIENDING OTHER SCIENCE PROVIDERS

- **Can we define niches that lead to collaboration rather than competition?**
  - Initial (though far from complete) response seems to be yes
- **National Water Research Institute**
  - Most of their work is in treatment technology
  - Most of ours is in monitoring and assessment
- **Metropolitan Water District**
  - They have big research facilities that overlap with our expertise
  - They appear to work mostly on internal projects
- **WaterReuse Research Foundation**
  - They are a funding organization, not a research implementer
  - We are already partnering with many groups they fund
  - Might see us as a collaborator that provides an outlet for their findings

# FUNDING

- **Would need to attract funding without the user community viewing us as only in it for the money**
  - Starting a relationship by asking for money is the wrong first step
- **Also need to ensure that we are not taking money off the plates of our potential collaborators/competitors**
- **One solution is to start with defined projects paid for by our member agencies**
  - Others will want to interact with us once they see the value of our work
- **State Water Board has already expressed interest in providing us recycled water funding**
  - We would also need to have projects from our regulated members
  - Perception is everything!

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# NOW ITS YOUR TURN

- **You have heard some key advantages and challenges**
  - How do they balance out?
- **If you like the idea, how do we get started?**
  - Are there regulated agencies that have projects they would like to start on?
- **Are you willing to alter the joint powers agreement?**
  - Are you willing to add new members of SCCWRP?
  - If so, whom?

# WHO ARE POTENTIAL NEW MEMBERS?

- **Option 1: A consolidator group**
  - Metropolitan Water District
  - California Water Reuse
  - Water Reuse Foundation
- **Option 2: One water supplier from each county**
  - Similar to the stormwater model
  - West Basin
  - Orange County Water District
  - San Diego Water Authority
  - Inland Empire Utilities District

# SOUTHERN CALIFORNIA WATER SOURCES (AVERAGE BASED ON 2009)

