

# Infrastructure / Retrofit Group

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Blue Ribbon Panel Report

Guy W. Carpenter, P.E.

Graham Symmonds

# Organization

- Co-Chairs:
  - Guy Carpenter, Carollo Engineers
    - Board of Directors, WaterReuse Association
  - Graham Symmonds, Global Water
    - WaterReuse Arizona Officer (Sec/Treas)
- Roster: 43
- Average Attendance: 20
- Meeting Frequency: Every 2 Weeks, for 2 Hours
- Agency Staff
  - Chuck Graf, ADEQ
  - Kym Holloway, ADEQ

# Working Group Objectives

- The original objectives of the Infrastructure/Retrofit Working Group were established by the Blue Ribbon Panel (BRP). They include:
  - Recommending measures that will facilitate the design, construction, operation, and maintenance of new and retrofitted reclaimed and recycled water systems.
  - Developing reclaimed water distribution standards (i.e., a uniform code of technical standards for design, operation, and maintenance of “purple pipe” systems) in Arizona
- The Working Group added two objectives, which were presented to the BRP on March 5, 2010 and again on May 7, 2010:
  - Develop proposed changes to statutes and rules related to aquifer recharge with reclaimed water.
  - Bring as many standards as possible into State rule, so there is less disparity among jurisdictions within Arizona.

# Summary Objectives

- Maximize the responsible, safe use of recycled water
- Identify missing elements in regulation that impede recycled water use
- Identify areas where regulation may be overly specific, or lacks sufficient specificity.
- Performance-based regulation

# Interim Report

- **Interim ≠ Final!**
- Members of the Group have identified a variety of issues which have been discussed with varying degrees of specificity
- The Group attempted to identify areas of emerging consensus and suggestions for resolving the issues.
- The Group has not reached consensus on any of the issues raised in this Interim Report nor has it agreed that the issues raised are in fact issues for this Work Group rather than for one of the other four Work Groups.
- The Group expects to continue to discuss the issues raised and whether or not each issue is an impediment to increased reuse, will foster greater reuse or is a public health issue that needs to be addressed.
- The short hand version of the issues and recommendations contained in this report may not accurately reflect the language submitted by the Work Group members.
- The issues and recommendations identified in the Interim Report will continue to be vetted and discussed among the Work Group members

# Emerging Areas of Focus

1. The existing Arizona Administrative Code governing Reclaimed Water Conveyance (AAC R18-9-601) is deficient in a number of areas. Addressing the deficiencies will help remove impediments to increased water efficiency and use of reclaimed water supplies.
2. Best Available Demonstrated Control Technologies (BADCT) need to be defined for an additional classification of reclaimed water exceeding Class A+, if an applicant pursues an Indirect Potable Reuse (IPR) program.
3. Treatment and infrastructure design standards and associated best practices (guidelines) need to be developed for indirect potable reuse.
4. Consideration of including in rule a definition and technical standards for cross-connection control, infrastructure and appurtenance marking/identification, and signage for all non-potable water resources (reclaimed water, gray water, harvested rainwater, storm water, non-potable groundwater, etc.).

# Top 10 (or, uh, 7)

- Need a matrix of State, regional, and local specifications and infrastructure standards to identify and mitigate the differences.
- Need a guidance document for Arizona with respect to what infrastructure and O&M issues need to be addressed and how, absent any other jurisdictional standards.
- Clarify conveyance (R18-9-601 *et seq*) and end user/on-site (R18-9-701 *et seq*) infrastructure related standards/issues.
- Work with Regulations/Permitting WG on its regulations matrix to help identify overlap, inconsistencies, etc. that impact infrastructure requirements.
- Guidance and definitions are needed for Indirect Potable Reuse (IPR) in aquifers in association with drinking water source approval and local and state agency permitting requirements.
- Need a path toward direct potable reuse (once defined).
- Need consistent operator certification for reclaimed water utility distribution systems.

# Going Forward

- Continue to strive for consensus on:
  - Issues
  - Solutions
- On direction from BRP, work to solve specific impediments