Reclaimed Water Rules Revision
Listening Session Workshop

Phoenix, AZ
March 10, 2016
1926 – Reuse of reclaimed water begins at South Rim, Grand Canyon

1972 – First reclaimed water rules, ADHS

1987 – EQA establishes ADEQ, which begins administering reclaimed rules

1999 – ADEQ gets clear legislative authority for permitting use of reclaimed water

2001 – New comprehensive rules transform program
82% of reuse occurs in just four states, Arizona being one.
Arizona is 2nd highest nationally in per capita reuse
Reclaimed Water Use

...but #1 at integrating reuse into the water supply portfolio

<table>
<thead>
<tr>
<th>Water Reuse Capacity (AF/yr)</th>
<th>Reclaimed Water as % of Total Water Supply</th>
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<tbody>
<tr>
<td>Israel 510,000</td>
<td>20%</td>
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<tr>
<td>Singapore 80,783</td>
<td>30%</td>
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<tr>
<td>United States 3,400,000</td>
<td>3%</td>
</tr>
<tr>
<td>Florida 955,000</td>
<td>4%</td>
</tr>
<tr>
<td>California 807,000</td>
<td>2%</td>
</tr>
<tr>
<td>Texas 482,000</td>
<td>3%</td>
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<tr>
<td>Arizona 504,000</td>
<td>7%</td>
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Source: Bluefield Research
1. Nationally recognized as one of best

2. Stringent treatment stds. for new/expanding WWTPs
   - Disinfect effluent so it is routinely pathogen-free
     - No *E. coli*, 4 of 7 daily samples
   - Remove nitrogen to below 10 mg/l
   - If for open access reuse (i.e., Class A+, A)
     - Filter effluent
     - Meet turbidity of 2 NTU or less (24-hour average)
3. Of Arizona’s 100 largest WWTPs
   – 93 distribute for reuse
   – 58 treat to Class A+/A standard

4. In greater Phoenix area, 82 – 95% of treated wastewater is beneficially reused
1. Keep up with the rapidly moving reclaimed/reuse field

2. Sustainable water supplies are becoming increasingly important

3. Advance ADEQ Strategic Goals
   a. Support environmentally responsible economic growth
   b. Enhance Arizona’s unique environment
Rulemaking Process
Who’s Involved?

Governor’s Regulatory Review Council (GRRC)

Secretary of State’s Office (SOS)

Agency ADEQ
Rulemaking Process

Agency files Docket Opening

3 weeks

Agency works with stakeholders on proposed changes

3 weeks

30 days public comment

Rule changes effective 60 days later

Agency prepares Notice of Proposed Rulemaking

Public Hearing on proposed rules

Agency prepares Notice of Final Rulemaking and submits it to GRRC

SOS publishes docket opening

We are here

SOS publishes Notice of Proposed Rulemaking

GRRC reviews and decides on rule changes

SOS publishes Notice of Final Rulemaking

We are here
Reclaimed Water Conveyances
(18 AAC, Chapter 9, Article 6)

R18-9-601. Definitions

R18-9-602. Pipeline conveyances

R18-9-603. Open water conveyances

Reclaimed water pipeline, City of Chandler
Direct Reuse of Reclaimed Water (18 AAC, Chapter 9, Article 7)

Scope: Permits, permitting process

R18-9-701 & 702. Definitions & applicability of rules

R18-9-703. Transition of permits

R18-9-704. General requirements, including signage

R18-9-705 & 706. Individual permit requirements

R18-9-707. Individual permit with industrial wastewater influence
Direct Reuse of Reclaimed Water (18 AAC, Chapter 9, Article 7)

Scope: Permits, permitting process

R18-9-708. Overall general permit requirements

R18-9-709 & 710. General permit renewal, transfer, revocation


R18-9-717. General permit for blending facility

R18-9-718. General permit for reclaimed water agent

R18-9-720. Enforcement and penalties
Direct Reuse of Reclaimed Water (18 AAC, Chapter 9, Article 7)

Scope: Permits, permitting process

R18-9-711. General permit for private residential gray water use

R18-9-719. General permit for other gray water use

Home gray water irrigation
Photo credit: Brad Lancaster

Large-scale gray water use
Barrett Honors College, ASU
Reclaimed Water Quality Standards (18 AAC, Chapter 11, Article 3)

Scope: Standards and allowed end uses

R18-11-301 & 302. Definitions and applicability


R18-11-308 & 309. RWQS for industrial use and unlisted uses

Appendix A. Table of allowed end uses
What these revisions don’t cover

• BADCT treatment requirements for WWTPs (under APP)

• Fees for reclaimed water permits (fee rules)

• Criteria for recharge of reclaimed water
  - permitted under APP
  - ADWR permit needed, too

• Development of certified operator classification for reclaimed water distribution systems
  - would fall under operator certification rules
Five Categories:

1. Conveyances/Infrastructure
2. Permits/Permitting Process
3. End Uses and Reclaimed Water Quality Standards
4. Gray Water
5. Other
Today’s Listening Session
Workshop Process

• 20 minutes total
• Write suggested changes/improvements on Post-it notes
• Post on one of the category topics

Please use a verb and a noun in your Post-it comment.

We’ll review and discuss together the Post-it notes for each category.