Partnering to Success with Recycled Water

Leveraging Opportunities and Addressing Challenges Together

February 21, 2014
Agenda

- Partnership & Collaboration
- Survey – Summary of Results
- Importance
- Challenges & Opportunities
Delta Diablo – Lead of Western Recycled Water Coalition

- 22 members, representing 3.8 million residents
- Developing 26 projects
- ~120,000 AFY
- Pursue Federal Funding
Western Recycled Water Coalition
Partnership and Collaboration

- Members of Congress want to help ...but requests must be for more than 1 project or 1 region or 1 state
  - Determine “real” recycled water projects that are in development across the U.S.

- Collaboration among five organizations for nationwide survey

- Survey sent out October 2013; results tallied November
Survey Summary Disclaimer – What it is and is not

• It is a snapshot in time of results from responses received from October 8 – November 4, 2013.

• It is not the universe of recycled water projects in development across CA or the United States.

• It is not necessarily representative of projects, yield, or cost of projects across the U.S.

• It is responsive to the request to show where agencies/organizations across the U.S. are currently investing $ in recycled water development.
219 Survey Respondents Located in 33 States
Survey Respondents in 14 States Reported Actively Developing Projects
92 Agencies with Recycled Water Projects

Arizona
California
Colorado
Florida
Illinois
Missouri
Nevada
New Mexico
North Carolina
Pennsylvania
South Carolina
Texas
Virginia
Washington
65 Agencies with Projects in California
~900,000 AFY being Developed by Survey Respondents

(Qualifier: Some projects did not report AFY, some a range)
$6.4 Billion Total Project Costs for Survey Respondents

(Qualifier: Some projects reported a cost range)

Note: do not divide $6.4b by 890K AFY

October 2013 Nationwide Recycled Water Survey Results
California Project Types

- 13 Advanced treatment facilities (UV/MF/RO); 9 tertiary treatment facilities; 5 scalping plants;
  - ~5 groundwater recharge and 4 indirect potable reuse projects

- Over 560 miles of pipeline, 36 storage facilities and 58 pump stations;

- ~23 misc. projects to expand treatment, distribution, or related facilities.
Project Funding Sources

• REAL PROJECTS: Over $630 million spent to date on planned projects over the next 10 years

• $450 million Federal & State funding secured to date
  - $380 M SRF Loans
  - $34 M Title XVI Grants
  - $4 M Other WaterSMART Grants
  - $3 M Other Federal Grants
  - $28 M Other State Grants
Project Funding Needs

• $2.8 Billion = Financial Support Needed

• 34% are “unlikely” or “definitely not” going to move forward without financial assistance
  - In California, 29 of 65 (45%) agencies are “unlikely” or “definitely not” going to move forward without $ assistance
  - Represents over 225,000 AFY of recycled water that may not be developed w/out $
Potential for Water Reuse

Source: Wade Miller, WateReuse Association

• About 7% of municipal wastewater effluent in the U.S. is reclaimed and beneficially reused.

• Israel reuses more than 70%.

• Singapore reuses 30%, up from 15% in recent years.

• Australia, now at 8%, has a national goal of 30% by 2015.
How much is available in California?

- **3.5 Million Acre feet** of wastewater in California are discharged to the ocean each year.

  “... represents the most immediately available and reliable source of new water in California.”

  (source: WateReuse Association)
Importance for California

We need water

December 2013 reservoir levels in Lake Oroville & Shasta Lake
Challenge: Project Funding Needs

- Agencies report needing ~50% State and/or Federal partnership in order to build recycled water projects.
  - With no outside funding, new RW systems can take ~40 years to break-even
  - A 50% partnership may reduce break-even period to ~20 years
  - It’s very challenging for local governing bodies to invest in infrastructure with break-even periods >20 years
Why Does a 50% Cost Share Makes Sense?
Projects will provides local, state and federal benefits

• Creating drought-tolerant supplies that can be relied upon even with the predicted impacts of climate change;

• Reducing dependence on imported water supplies;

• Moving towards tertiary and advanced treatment of wastewater;

• Improving surface water quality and reusing precious water supplies;
Why Does a 50% Cost Share Makes Sense?
Projects will provide local, state and federal benefits

• Moving California toward Statewide recycling goals;

• Supporting jobs and economic development;

• Capitalizing on local agencies willingness to invest local dollars on at least a 1:1 basis for an investment that has state and federal benefits well beyond 20 years.
Pursue New Federal Funding

- **Previous funding sources – not available**
  - Title XVI – no new project authorizations and no earmarks

- **Monitor New Federal Legislation:**
  - Water Infrastructure Financing Innovation Authority (WIFIA - proposed loan program)
  - “California Emergency Drought Relief Act of 2014”
  - Others? Modifications to existing acts
Pursue New State Funding

- **Previous:** Propositions 13 and 50
- **Existing:** Proposition 84 – Round 3 remains
- **New:**
  - Drought legislation
  - Water Bond
- **Modify:**
  - CWSRF Loans – 0% for 30 years
California Follow-up Survey (Feb. 2014)

- 57 California Agencies Participated
  - 45 agencies with projects to construct in 1-3 years:
    - Finance $1.1 B
    - Produce/distribute 200 TAF

- State Water Resources Control Board – Reviewing Results
  - Considering potential to offer 0-?% interest loans for RW
  - Criteria? Timing? TBD
  - Requires Board approval
## Value of 0% financing
### Example: $10 Million Project

<table>
<thead>
<tr>
<th>SRF Terms</th>
<th>Annual Debt Service</th>
<th>Present Worth of Debt Service*</th>
<th>Savings v. $10 M project*</th>
<th>Equiv. Grant Funding*</th>
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<tbody>
<tr>
<td>30-year, 2.1%</td>
<td>$452,662</td>
<td>$7,373,361</td>
<td>$2,626,639</td>
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<td>30-year, 1%</td>
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<td>30-year, 0.5%</td>
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<tr>
<td>30-year, 0%</td>
<td>$333,333</td>
<td>$5,429,624</td>
<td>$4,570,376</td>
<td>46%</td>
</tr>
</tbody>
</table>

*Using a 4.5% Discount Rate representative of traditional tax-exempt bond financing rate*
Next Steps

• **Inform**: 65 projects in CA developing over 550,000 AFY, $2.8 funding needs
  - Being shared with elected officials, funding agencies

• **Solidify the “ask”**: Agencies report needing ~50% State and/or Federal partnership in order to build recycled water projects

• **Work with SWRCB**: 0-1% 30-year loans for ready recycled water projects – limited time opportunity
Next Steps (cont.)

• Secure new funds:
  • Identify state elected officials to support water bond language or separate legislation to increase RW funding
    • Seek callout $ for RW

• Monitor Federal legislative proposals
  • Seek additional funding for recycled water projects
Collaboration & Partnership

• Join together - Speak as one voice

Continue to work together and invite others to join (WateReuse, CASA, WRWC, ACWA)

Thank you
Contact

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