South Orange County Regional Recycled Water Planning

San Diego Regional Water Quality Control Board

Santa Margarita Water District
February 11, 2015
SMWD Recycled Water

- Integral to Water Reliability Planning since 1979
- Currently meeting 17% of demand, projected to over 30%
- Ultimately utilize 100% of the wastewater
- Challenges:
  - Need Seasonal storage
  - Need Treatment plant expansion
South Orange County Regional Recycled Water Planning Effort

- Recycled water since 1970’s
- Commonality of goals and projects
- SOCWA holds Regional Recycled Water Permit 97-52
  - Long history of collaboration with Regional Board
- March 2014, SMWD regional recycled water summit
  - Identified opportunities, available supplies, current uses, proposed uses, impediments and developing implementation strategies
Regional Recycled Water Potential

### 11 Treatment Plants

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Future</th>
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<tbody>
<tr>
<td><strong>Capacity</strong></td>
<td>43 MGD</td>
<td>48 MGD</td>
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<tr>
<td><strong>Recycled production</strong></td>
<td>17,700 AFY</td>
<td>44,100 AFY</td>
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<tr>
<td><strong>Ocean Disposal</strong></td>
<td>30,800 AFY</td>
<td>10,100 AFY</td>
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<tr>
<td><strong>San Juan Watershed</strong></td>
<td>18,900 AFY</td>
<td>3,400 AFY</td>
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<tr>
<td><strong>Aliso Creek Watershed</strong></td>
<td>11,900 AFY</td>
<td>6,700 AFY</td>
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</tbody>
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### Tertiary Total Plant Flow

- **Regional Recycled Production**
  - Current: 17,700 AFY
  - Future: 44,100 AFY

- **Ocean Disposal**
  - Current: 30,800 AFY
  - Future: 10,100 AFY

- **San Juan Watershed**
  - Current: 18,900 AFY
  - Future: 3,400 AFY

- **Aliso Creek Watershed**
  - Current: 11,900 AFY
  - Future: 6,700 AFY
SMWD Recycled Water Projects

- Removing the obstacles for sustainable local supplies:
  - Expansion of Chiquita WRP – 4.0 MGD
  - Expansion of 3A Plant – 3.75 MGD
  - Coordination of wastewater flows between Oso Creek, 3A and Latham Plants - Up to 6.0 MGD
  - SMWD Trampas Canyon seasonal storage reservoir – 5,000 AF
  - San Juan Basin Optimization Plan
    - Recycled water recharge
Trampas Canyon Seasonal Storage Reservoir

- Seasonal storage
- Flows currently lost to ocean
- Regional resource
San Juan Basin Optimization Project

- Integrated with Regional Recycled Water Master Plan
- Impaired Basin impacted by ongoing drought
- Project includes
  - Development of a seawater barrier through a pumping trough or through injection
  - Development of storm water and urban return flow recharge
  - Development of recycled water recharge
- Sustainable water supply
Adaptive Management Required Based on Modeling

Seawater Intrusion Barrier: Trough or Mound

Groundwater Recharge: Stormwater and/or Recycled Water
Next Steps

- Finalize current project planning efforts
- Coordinate with Regional Board
  - Basin Plan Amendment
  - Water quality and project features
  - Potential project permitting
- Work with South Orange County Integrated Regional Watershed Management Plan
- Complete funding planning and applications