Recycled Water in the San Diego Region

CEC Science Advisory Panel for Recycled Water

Water Supplier Stakeholder Perspectives
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Today’s Talk

- Background on Water Authority
- Recycled water use in the region
  - Recycled water fill stations
- Potable reuse development in the region
  - City of San Diego’s Pure Water Program
  - East County Advanced Water Purification Program
- Regional support for potable reuse
San Diego County Water Authority

- Wholesale water agency created by State Legislature in 1944
  - 24 member agencies
  - Serves 3.3 million people and region’s $222 billion economy
- Provides 80%-90% of water used in San Diego County
- Mission to provide safe and reliable water supply to member agencies
Increasing San Diego County's Water Supply Reliability through Supply Diversification

1991
- Metropolitan Water District: 550 TAF (95%)
- Imperial Irrigation District Transfer: 28 TAF (5%)
Total = 578 TAF

2016
- Metropolitan Water District: 187 TAF (41%)
- Imperial Irrigation District Transfer: 100 TAF (22%)
Total = 455 TAF

2020*
- Metropolitan Water District: 126 TAF (21%)
- Imperial Irrigation District Transfer: 190 TAF (32%)
Total = 588 TAF

2035*
- Metropolitan Water District: 88 TAF (13%)
- Imperial Irrigation District Transfer: 110 TAF (16%)
Total = 694 TAF

* Includes verifiable and additional planned local supply projects from 2015 UWMP
TAF = Thousand Acre-Feet
Recycled Water Use in Water Authority Service Area

- Used since 1960s - Padre Dam MWD
- Purveyed by 16 member agencies
- Multiple benefits
  - Sustainable local supply
  - Reduces wastewater flows to ocean
- 24% of regional supply by 2035
  - Nonpotable and potable reuse projects
Recycled Water Fill Stations under Statewide General Order

- Commercial and residential fill stations
- Streamlined permitting
- Reduce potable water use during drought
- Title 22 Engineering Report in 2015

- Residential and commercial irrigation, street sweeping, dust control, fire protection
- User training and agreements
Potable Reuse Projects in San Diego Region

- **Projects Underway**
  - East County AWP Program
  - Pure Water San Diego

- **Projects Planned**
  - Agricultural and Drinking Water Reuse Project (Escondido)
  - Indirect Potable Reuse (Oceanside)
  - Potable Reuse Feasibility Study (SFID/SDWD/SEJPA)
  - USMC South WWTPs (Camp Pendleton)
City of San Diego’s Pure Water Program

- Demonstration Pure Water Facility - 2011
- Phase 1 - 30 mgd by 2021
  - Purified water to Miramar Reservoir
- Phase 2 & 3 – Additional 53 mgd by 2035
  - Purified water to Murray, San Vicente and/or Otay Reservoir
- Provide 1/3rd of City’s supply by 2035
- Reduce wastewater flows to ocean
Implementation of Phase 1

- Phase 1 design completion in 2018
  - Construction expected to begin late 2018
- EIR/EIS release
  - September 2017

- 2021 Completion
- 30 mgd
- North City PWF to Miramar
East County Advanced Water Purification Program

- Partnership between Padre Dam MWD, City of El Cajon, San Diego County, Helix Water District
- Demonstration facility opened in 2015
- Provide 25-30% of East County’s supply by 2025
  - Phase 1 – 2.2-3.5 mgd by 2020-2021
  - Phase 2 – 10.5 mgd by 2023-2025
East County Advanced Water Purification

- Regulatory conceptual approvals by DDW
  - Lake Jennings and/or Santee Groundwater Basin
  - Treatment processes
- $130 Million in grant and loan funding
Regional Coordination and Support

- Financial support
  - Water Authority and MWD incentive programs
  - Clean Water SRF loans
  - Federal and State grants

- Regional planning and outreach
  - San Diego IRWM Program
  - Potable Reuse Coordination Committee

- Regulatory assistance and coordination
  - SNMP Guidelines for San Diego region
  - San Diego Chapter of WateReuse

- Legislative support