

Recycled Water in the San Diego Region



CEC Science Advisory Panel for Recycled Water

Water Supplier Stakeholder Perspectives
July 19, 2017

Lesley Dobalian
Principal Water Resources Specialist

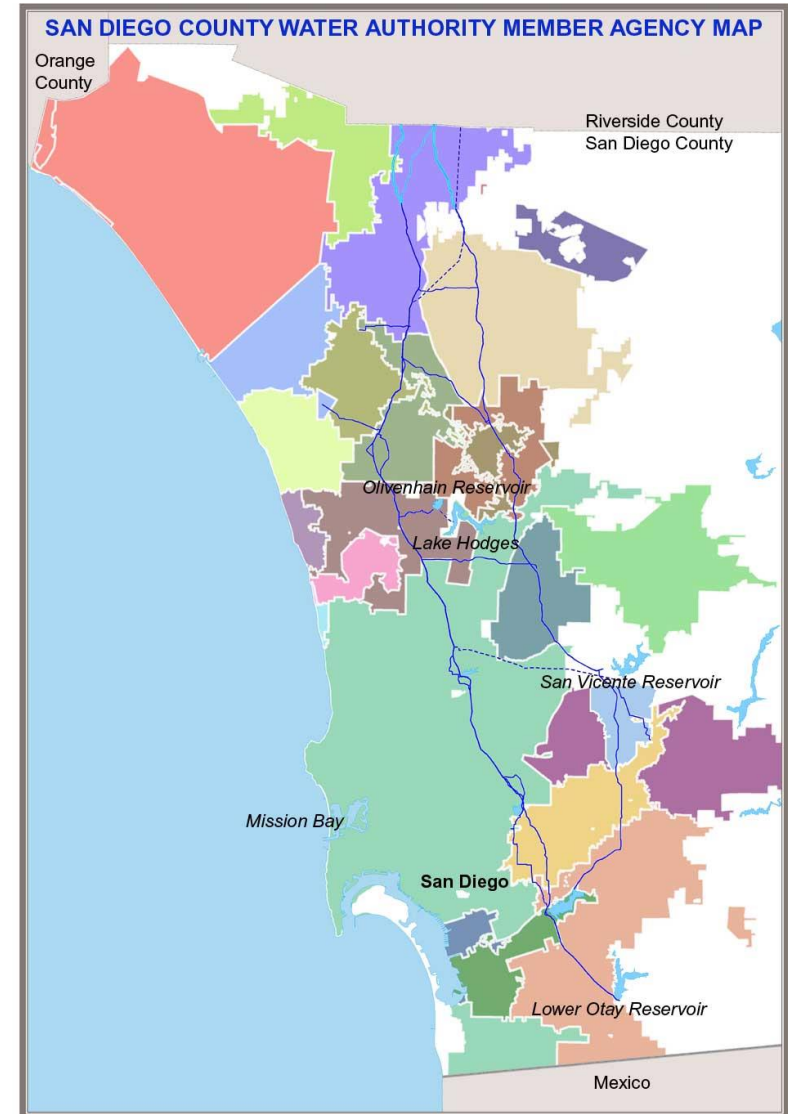
Today's Talk

- ▶ 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



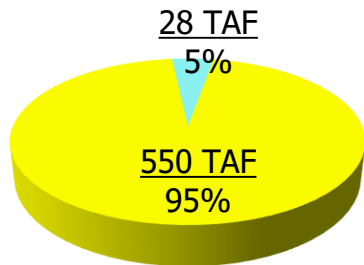
San Diego County Water Authority

- ▶ 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



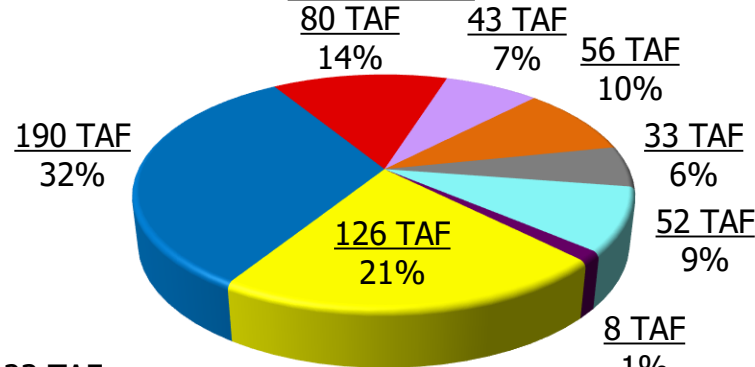
Increasing San Diego County's Water Supply Reliability through Supply Diversification

1991



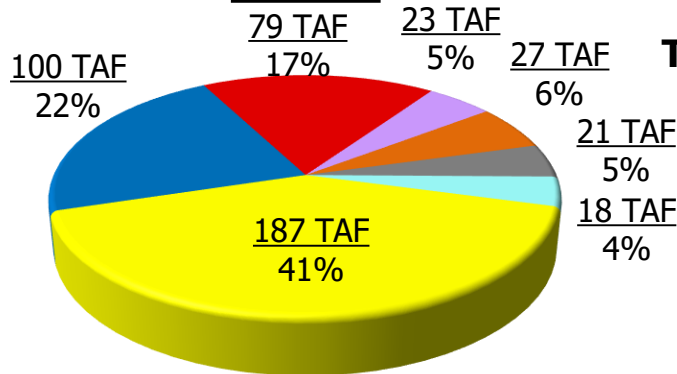
Total = 578 TAF

2020*



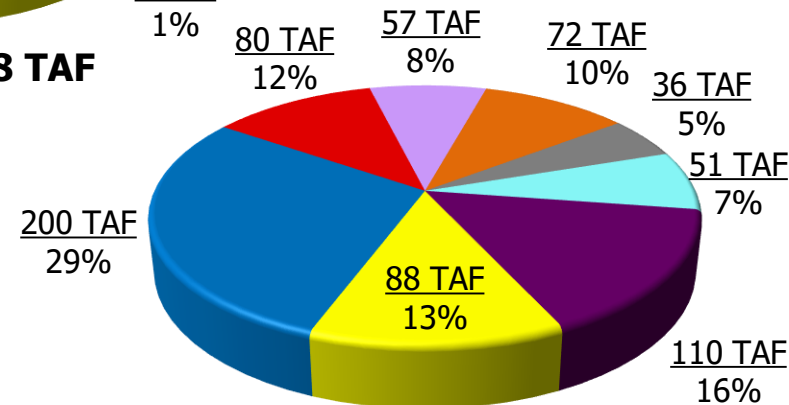
Total = 588 TAF

2016

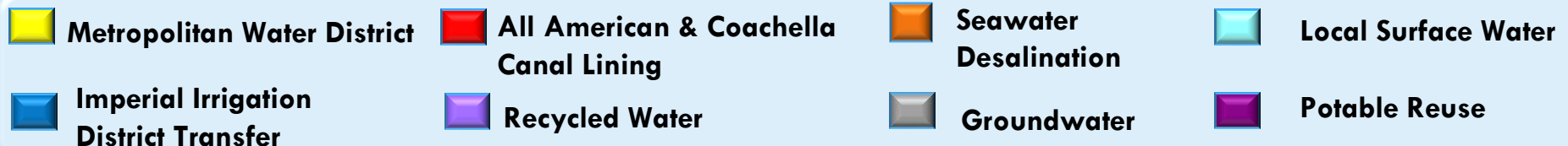


Total = 455 TAF

2035*



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
- ▶ Repurified Water Report Committee – 1994
- ▶ 24% of regional supply by 2035
 - Nonpotable and potable reuse projects



Recycled water - Santee Lakes



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

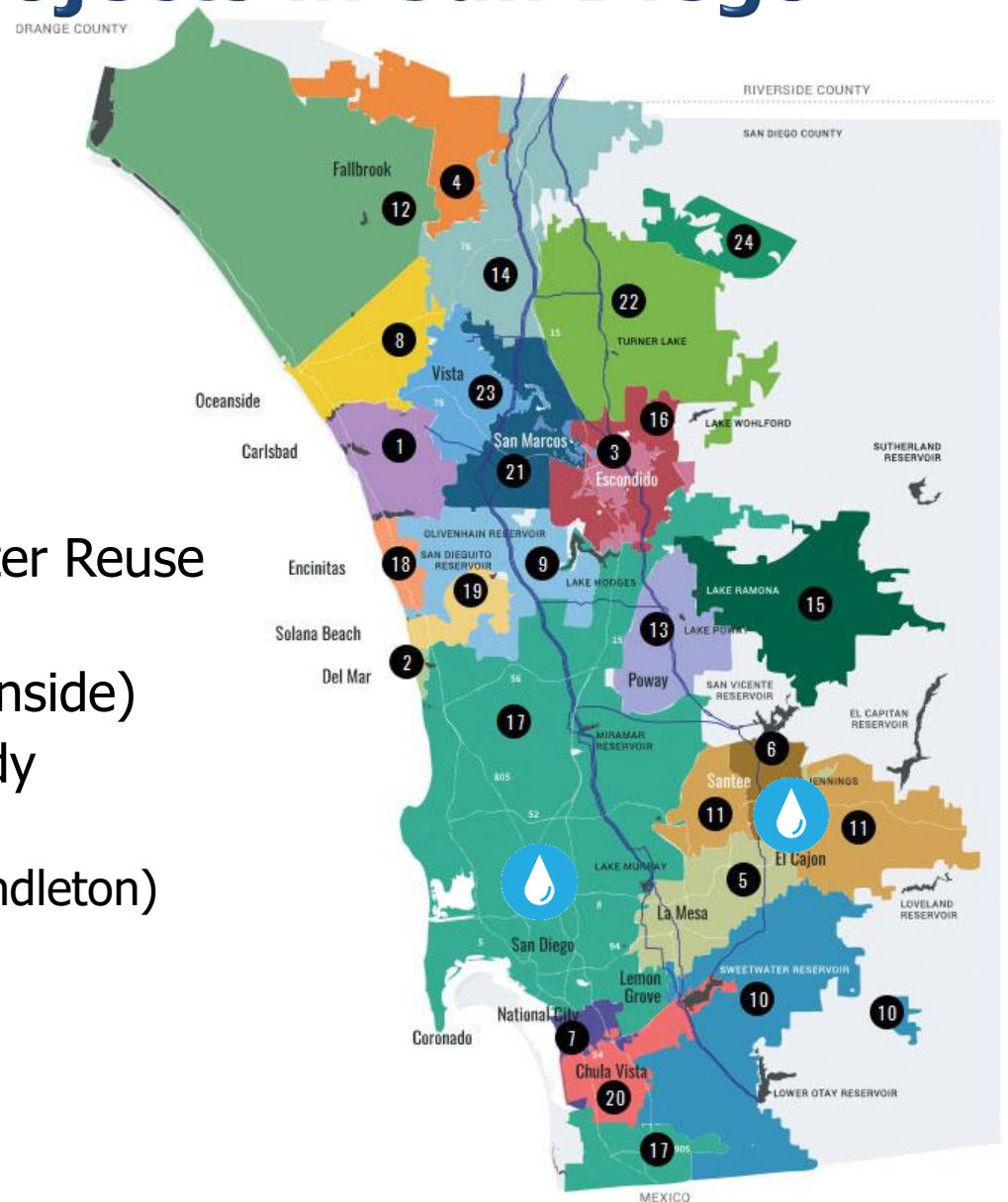
Potable Reuse Projects in San Diego Region

▶ 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



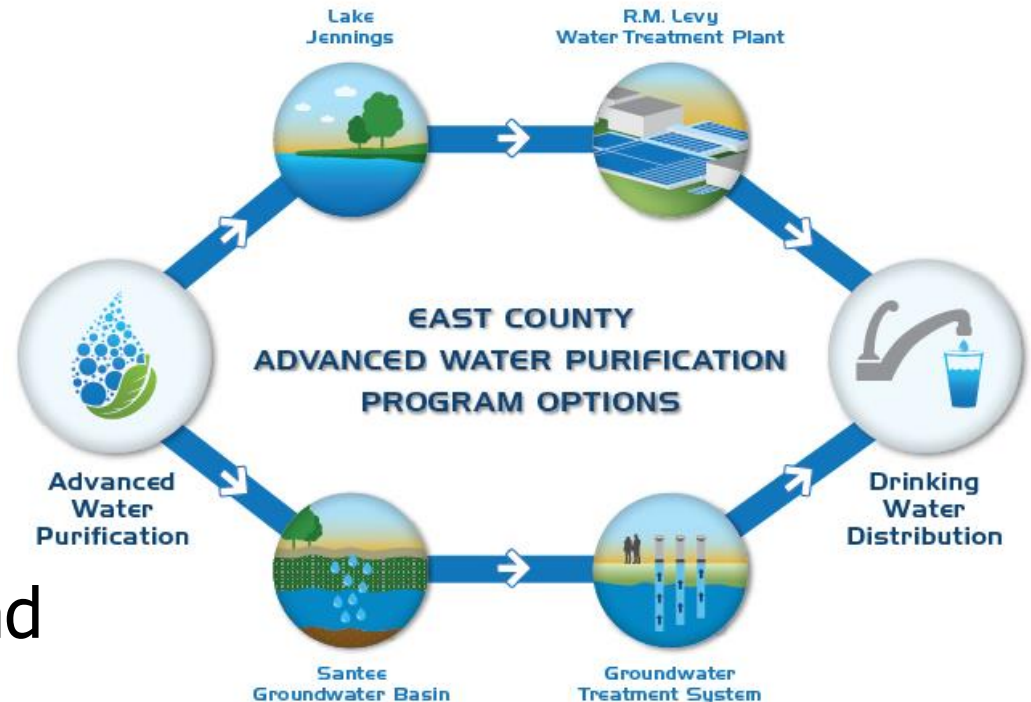
East County Advanced Water Purification Program

- ▶ 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 WaterReuse
- ▶ Legislative support

