Pure Water San Diego Program
Public Utilities Department
San Diego’s Water Supply

85% of our water is imported...

San Diego is downstream
We Face Numerous Water Challenges

- Limited local & imported supplies
- Population growth
- Bay Delta constraints
- Natural disaster risk
- Rising imported water costs
- Recurring drought

Imported water cost per acre-foot

- 2000: $400
- 2018: $1300

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Multi-faceted Approach

- Conservation
- Desalination
- Groundwater Development
- Recycled Water
- Pure Water Program
San Diego’s Water Supply System

Existing System...
Primarily a Single-Use System

Point Loma WWTP / Ocean Discharge

Home/Business

Drinking Water Treatment Plant

Water Reclamation Plant

Non-Potable Water Use
- Irrigation
- Industrial

Reservoir

Water Sources
- Local Runoff
- Imported Water

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San Diego’s **Water Supply System**

Pure Water... Completes Our Water Cycle
Pure Water Runs a Successful Demonstration Facility

- 50,000 lab tests: Met all standards
- Water quality: Exceptional
- Energy use: Renewable
Pure Water will produce 1/3 of your water locally.

Phase 1
- 2023 Completion
- 30 mgd
- North City PWF to Miramar
Phase 1
- 2021 Completion
- 30 mgd
- North City PWF to Miramar

Phases 2 & 3
- 2035 Completion
- 53 mgd
- Central Area PWF to San Vicente or Lake Murray
- South Bay PWF to Lower Otay Reservoir (if needed)

Pure Water will produce 1/3 of your water locally

Central Area (WRP)
North City (WRP/PWF)
San Vicente Reservoir
Lake Murray
San Diego
Morena PS
National City
Chula Vista
Lemon Grove
El Cajon
Poway
Solana Beach
Del Mar
San

Lower Otay Reservoir
South Bay (WRP/PWF)
Morena Pump Station and Pipelines

- Two 10.5 mile Pipelines
  - Conveys wastewater to North City Water Reclamation Plant (WRP)
  - Supports Phase I Pure Water and recycled water production
  - Trenchless construction will be used to avoid:
    - environmentally sensitive areas
    - freeway crossings
  - Design completion: Early 2019
  - Construction: 2019 – 2023
North City WRP Expansion

- Treats wastewater to recycled water standards
- Expansion nearly doubles the amount of recycled water produced to meet needs of:
  - Pure Water Facility
  - Recycled Water System
- Design Completion: Early 2019
- Construction: 2019 - 2023
North City Pure Water Facility

- Treats recycled water to produce 30 mgd of purified water
- Includes a proven 5-step advanced water purification treatment process
- Design Completion: Late 2018
- Construction: 2019 – 2023
North City Pure Water Facility

Construction completed in 2023

- Ozonation
- Biological Activated Carbon Filters
- Membrane Filtration
- Reverse Osmosis
- Ultraviolet Disinfection / Advanced Oxidation
North City Pure Water Pump Station and Pipeline

Pure Water to Miramar Reservoir via:
- Pump Station
- Pipeline

Approximately 8 miles of pipeline
The purified water:

- Is released via underwater pipeline in the reservoir
- Will blend with imported and local water supplies
- Design Completion: Early 2019
- Construction: 2019 - 2023
North City Renewable Energy

- Produces Renewable Energy
  - Supports GHG reduction
  - ~16 MW

Locations:
- Pure Water
- Renewable Energy
- Miramar Landfill
- Metro Biosolids Center
Pure Water provides the City with a safe, reliable and sustainable water supply.
Who Supports Pure Water?
What Can I Do?

Join our mailing list and sign a support card

www.purewatersd.org
Sign up for a tour of the demonstration Pure Water Facility!