



# Regional Recycled Water Program Quarterly Update

Engineering and Operations Committee

Item 6b

December 13, 2021

# Agenda

- RRWP efforts in 2021
  - Demonstration Plant testing
  - Environmental planning phase activities
  - Agency coordination
  - Grants and funding
  - Public outreach
- Upcoming RRWP efforts
  - Continue environmental planning efforts
  - Next steps in the Cost of Service process
  - Potential early-start projects
  - Potential early delivery of water

# Demonstration Plant Testing

- Successfully completed tMBR test phase
  - Preparing Summary Report
- Next phase of testing (sMBR)
  - Planning test phase activities
  - Selected specialized consultant
- Additional testing underway by LACSD
  - Concentrate and residuals characterization
  - GHG quantification
- ISAP/Regulatory meetings
  - Next meetings: January 2022



# Environmental Planning Phase Activities

## ● CEQA

- Planning CEQA schedule and deliverable milestones
- Coordinating data needs with Conveyance and AWT engineering

## ● Advanced Water Treatment

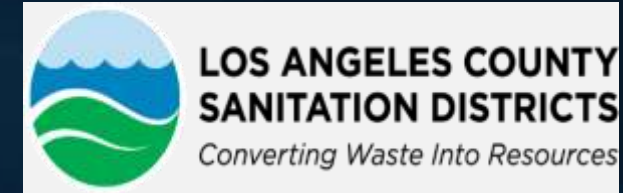
- Investigating distributed plants, alternative sites, phasing/flows
- Developing DPR framework response & DPR implementation white paper
- LACSD received approval of FORCO site-closure plan by Regional Board

## ● Conveyance

- Developing project risk register
- Identifying preferred pipeline alignment for CEQA

# Agency Coordination

- Continued LACSD coordination
  - Nitrogen Management Study
  - Nitrogen bench and pilot scale testing
  - Monitoring for source control/waste residuals
- Completed LOIs and Agreements
- Boron study to investigate assimilative capacity
- Discussing nitrogen limits for Orange County
- SNWA coordination workshops





# Grants and Funding

*Provide multiple benefits, including water supply reliability benefits for drought-stricken States and communities*

- Federal – \$450 M total grant fund to be spent over 5 years in the approved Federal infrastructure bill
- State – \$700 M in drought funding
- Investigating opportunities to accelerate the RRWP schedule to position Metropolitan for grant funding

# Public Outreach

- Stakeholder outreach meetings
- Outreach to Spanish-speaking audiences
- Brochures/fact sheets/press releases
- Conferences and Demo Plant Tours



Stakeholder Meetings

**UNA NUEVA FUENTE DE AGUA PARA EL SUR DE CALIFORNIA**

Regional Recycled Water Advanced Purification Center

El agua es demasiado valiosa para usarla una sola vez. Así que el Metropolitan Water District of Southern California está haciendo una inversión importante en un proyecto potencial de reciclaje de agua que reutilizará el agua que, hasta el momento, se desecha al océano.

Tome un recorrido virtual en vivo por el Centro Regional Avanzado de Purificación de Agua Reciclada

Regístrese en [MWDh2o.com/AguaReciclada](http://MWDh2o.com/AguaReciclada)

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

LOS ANGELES COUNTY SANITATION DISTRICTS  
Conserving. Reusing. And Replenishing.

Supporting local, sustainable resources and the economy

## The Benefits of the Regional Recycled Water Program

### A Pioneering Project

The Regional Recycled Water Program is a partnership between the Metropolitan Water District of Southern California and the Los Angeles County Sanitation Districts. The program would create a new water supply to help meet the region's needs by providing up to 150 million gallons of water daily or 168,000 acre-feet-year, enough for 1.5 million people. The water could replenish groundwater basins, be used by industries, and potentially be integrated into Metropolitan's existing drinking water treatment and delivery system.

#### 1. Water Supply Benefits: A New Source of Water for Southern California

- Provides a drought proof supply of water. The program would purify water used from homes, businesses and industries to create a new water supply for the region that is readily available, rain or shine.
- Replenishes groundwater basins. Groundwater basins in the region provide 30% of Southern California's water supply and have seen levels drop to historic lows in recent years. The program would produce a high quality water to refill these basins.
- Creates a local supply of water. New water resources could save imported water supplies from the Colorado River and Sierra Nevada for other uses.
- Increases water resiliency. The program would diversify water supplies and ensure reliability especially due to climate change. It also would prepare the region in case of an earthquake or other emergency that could disrupt these supplies.

**About Metropolitan**  
The Metropolitan Water District of Southern California is a state-established cooperative of 20 member agencies - cities and public water agencies - that serve 19 million people in six counties. Metropolitan imports water from the Colorado River and Northern California to supplement local supplies and helps its members develop increased water conservation, recycling, storage and other resource management programs.

**About LACSD**  
The Sanitation Districts are a regional public agency that serves the wastewater and solid waste management needs of 8.4 million people in 76 cities and unincorporated areas of Los Angeles County. The agency protects public health and the environment and, in so doing, converts waste into resources: the recycled water, green energy and recycled materials.

**BE INFORMED, BE INVOLVED**  
[www.mwdh2o.com](http://www.mwdh2o.com)  
1 8 0 0 8 0 0 0 0  
@mwdh2o

# Next Steps in the Cost of Service Process

- Review the RRWP considering Metropolitan's services
  - Refine the assessment of how the Program meets Metropolitans needs
  - Preparing a Program specific document with current information
- Prepare and publish cost functionalization in support of the Cost of Service analysis
  - How is the project paid for?
  - How will the costs be allocated?
- Conduct Board discussions to get feedback
- Complete assessment in 2022



# Potential RRWP Early Start Projects

- Engineering studies, preliminary and final designs prior to RRWP CEQA approval

## LACSD

- Enhanced treatment of solids return flows
- Modifications for nitrogen reduction

## AWT

- Demo plant expansion for DPR testing
- Early site grading/prep
- Early water deliveries

## Conveyance

- Geotechnical investigations
- Preliminary design for tunnels
- West Coast Basin pipeline

## Other

- Additional demo plant testing
- Alternative Delivery contract docs

# Potential RRWP Early Start Projects

Project	Description	Estimated Cost
DPR Expansion of the Demonstration Plant	Provide facilities to test potential processes for suitability and regulatory acceptance for DPR	± \$19 M
JWPCP Sidestream Deammonification Project Preliminary Design	Perform preliminary design for process system to reduce the nitrogen in the Centrate Underflow, reducing AWT chemicals & increasing water quality.	< \$5 M
Preliminary Design for Early Start Projects	Projects TBD, but could include treatment, pump stations, pipelines, tunnels or other RRWP projects	< \$10 M
Preliminary Design for Early Delivery of Water	Potential near-term AWT at the JWPCP for demands in vicinity of the plant	< \$15 M

# Potential Early Delivery of Water

- Work with stakeholder agencies to determine demands that could benefit from the early delivery of water
- Potential demands that could benefit from early delivery
  - West Coast Basin replenishment water (by 2026)
  - Harbor area(s) demands
  - Local industrial demands
- Exact scope and nature of projects TBD
- Projects would be consistent with the future full-scale project
- Potential utilization of an Alternative Delivery Approach
- Coordinate with agencies on delivery amounts and schedules

# Program Schedule



Environmental  
Planning

**IN PROGRESS**



Design and  
Construction

**FUTURE**



Start-up and  
Operations

**FUTURE**

