THE WATER REPLENISHMENT DISTRICT SERVICE AREA

Service Area
- 420 Sq. Miles
- 43 Cities
- Over 4 Million Residents

Water Demand & Supply
- 550,000 acre-feet used per year
- 50% supplied from groundwater wells
- 50% supplied by imported water

WRD replenishes the groundwater basins and monitors water quality

Seawater barriers & spreading grounds are owned and operated by the Los Angeles County Department of Public Works
Began using recycled water for surface spreading (1962)

Began using recycled water for injection (1994)
WRD developed local sustainable and resilience of our groundwater supply through:

1. Increasing Production & Use of Recycled Water
2. Capturing & Conserving Additional Stormwater
Collection of projects to eliminate remaining demand for imported water.

A key to developing independence from imported water is the development of local recycled water sources.
ALBERT ROBLES CENTER

• Built in the City of Pico Rivera
• Completed in 2019
• Produces 3.25 billion gallons of advanced treated water for groundwater replenishment
• State-of-the-art Environmental Education Center
• Cornerstone of WRD’s Water Independence Now Initiative
• Created completely sustainable source of local water for groundwater recharge
BUILDING ON SUSTAINABILITY FOR A RESILIENT FUTURE

Groundwater Augmentation & Storage Projects Will Be Developed Using Local Supplies to Create Regional Water Independence

- Unused Local Water Supplies
- Recycled Water
- Stormwater

Increased Reliance on Sustainable Groundwater

- Offset potable imported water demands
- Storage provides resiliency during dry years
- The water supply for over 4 million people is entirely locally sustainable!
West Basin MWD
Edward C. Little Water Recycling Facility

City of LA
Terminal Island Water Reclamation Plant

Increased Stormwater Capture

Leo J. Vander Lans Advanced Water Treatment Facility
WIN4ALL GOAL #1: EXERCISE UNUSED GROUNDWATER RIGHTS

**Target Audience**

- Pumpers that purchase imported water and have unused groundwater rights:
  - **A:** Pumpers that have a low target production of less than 500 af
    - 10 pumpers
  - **B:** Pumpers with target production between 500 and 2,000 af
    - 9 pumpers
  - **C:** Pumpers with target production of more than 2,000 af
    - 5 pumpers

---

**2020-2021 Imported Water & Available Groundwater Supplies***

*Long Beach imported water demand included in Central Basin.*
Storage Accounts (2021-2022)

Central Basin
Individual Storage (ISA): 38% full
Community Storage (CSA): 19% full

West Basin
Individual Storage (ISA): 22% full
Community Storage (CSA): 31% full
Project concepts are divided into three main areas within WRD’s service area:

- West Coast Basin
- LVL and Long Beach Region
- Los Angeles Region
WEST COAST BASIN
Regional Brackish Water Reclamation Program

A Saline Plume Remediation Program that Provides Beneficial Use of Local Resources

- Remediation of trapped saline plume
- Provides a new, locally sustainable potable water supply
- Program replenishment provides a beneficial use of available recycled water sources
RBWRP Capture Zone Map

Legend
- Green Circle: Active Desalter Source Wells
- Red Diamond: Other Well

Planned Conveyance Piping
- Purple Triangle: Extraction Well Locations
- Blue Star: Regional Brackish Water Reclamation Program

Figure 15
Particle Paths for City Yard, Delthorne Park, and Brewer
A Planning Effort to Maximize Local Water Resources

- Produce up to 150 mgd (168,000 afy)
- Creates local source water and opportunities for augmentation
- Full start-up and operations to the Main San Gabriel Basin planned for 2032
- Early start projects planned to start design in 2023

1. West Coast Basin - Port Area (19 mgd)
2. Central Basin – Long-Beach-Montebello Forebay (13 mgd)
3. MSG Basin – Santa Fe Spreading (13 mgd)
4. MSG Basin – SG Canyon Spreading (43 mgd)
5. DPR Flow/Blend (10 mgd/5%)
   DPR Phase 2 (50 mgd)
6. Orange County – Anaheim Lake
Title 22
LACSD/Carson
“Campus+”

Connection to LADWP Loop System/LB Harbor

WRD Inland Injection Wellfield

West Basin Refinery

Total Demand from Early Delivery Projects ~30 MGD

Regional Recycled Water Program Potential Service Connection Locations for Early Delivery Opportunities

Legend
- Proposed 84-inch RRWP Pipeline
- LADWP Harbor Loop System
- Injection Well Locations
- WB Distribution System
- Lateral (by others)
- Demands Up to 10 MGD
- Demands Up to 4 MGD
- Demands Up to 16 MGD

PRELIMINARY FOR DISCUSSION PURPOSES ONLY

5/20/22
Meet refinery demands using advanced treated water
- Connect to MWD’s Pure Water
- Convert a portion of WBMWD’s recycled water system to advanced treated

Augmentation Projects using MWD Pure Water
- Regional Brackish WRP
- City of Long Beach

Dominguez Gap Barrier
- Use Pure Water as MWD backup connection
LADWP Harbor Recycled Water System
LVL AND LONG BEACH REGION
Los Coyotes to LVL (Augmentation)

A Groundwater Augmentation Program Utilizing Recycled Water Supplies from Los Coyotes WRP & Treatment Capacity at LVL

- WRD has an allocation of 10,000 AFY of tertiary water at LCWRP
- Water would be conveyed via 6 mile 24-inch pipeline from LCWRP to LVL, advanced treated at LVL, & injected into new inland injection wells
- WRD is identifying use of this water and working with pumpers to develop a storage and augmentation program
  - Currently working with LADWP & LBWD
- Pipeline and Pump Station Cost Estimate (2020) = $23.4 million
An Evaluation of Utilizing Recycled Water Supplies from Los Coyotes WRP at ARC

- WRD has an allocation of 10,000 AFY of tertiary water at LCWRP
- Water would be conveyed via 10 mile 30- to 36-inch force main from LCWRP to Albert Robles Center (ARC)
- Estimated Project Cost (2019) = $91.4M - $106M
- Water to be spread at the Montebello Forebay
Long Beach Augmentation Concepts

Increase injection near LVL and LBWD increases groundwater pumping

Inject MWD Pure Water and LBWD increases groundwater pumping
LOS ANGELES REGION
Utilize Recycled Water for Storage & Augmentation in Both Basins

- LADWP has 170,000 AFY of recycled water available at Hyperion WRP
- Master Plan is a joint effort between WRD & LADWP that evaluates replenishment & extraction of those supplies in the basins for storage & augmentation
Available Basin Storage

Available Storage
100 ft below groundwater surface elevation
Supply advanced treated water from Hyperion for replenishment in the West Coast, Central, and San Fernando Groundwater Basins

Operation NEXT Master Plan expected for completion in 2023
THANK YOU