WIN 4 ALL: Securing Regional Resiliency Through Sustainable Groundwater

SECURING OUR WATER FUTURE TODAY
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.
WRD developed local sustainable and resilience of our groundwater supply through:

1. Increasing Production & Use of Recycled Water
2. Capturing & Conserving Additional Stormwater
WHAT’S NEXT?

COMPLETE GROUNDWATER SUSTAINABILITY

REGIONAL GROUNDWATER RESILIENCY

THE 2040 PLAN FOR REGIONAL WATER INDEPENDENCE
**WIN 4 ALL PROCESS**

1. Fully Utilize Unused Groundwater Pumping Rights and Replenish with Locally Sustainable Resources
   - *Increase Stormwater Capture*
   - *Develop New Recycled Water Supplies*

2. Use Available Groundwater Storage Space to Increase Regional Resiliency
   - *Develop Groundwater Storage Programs to Store Excess Supplies for Drier Years*
   - *Develop Groundwater Augmentation Programs to Meet Annual Water Demands*

Replenishment for current pumping is entirely locally sustainable through WIN.

**WHAT IS GROUNDWATER STORAGE?**

Groundwater is stored in layers of sediment or rock beneath the surface called aquifers. Within an aquifer, the water is found in the pore spaces between sand and gravel grains or in fractures in bedrock.

When groundwater is extracted, available space is created that can be replenished either naturally or by humans with stormwater, imported water, or recycled water.
AVAILABLE STORAGE COMPARED TO BASIN DEMANDS AND SUPPLIES

**Central Groundwater Basin**
- Storage Capacity: 330,000 Acre-Feet

**West Coast Groundwater Basin**
- Storage Capacity: 120,000 Acre-Feet

**Hyperion Water Reclamation Plant**
- Supply: 200,000 Acre-Feet

**Regional Recycled Water Program**
- Supply: 150,000 Acre-Feet

**Imported Water Demand**
- Within basins: 250,000 Acre-Feet
- Regional Demand for Imported Water (Acre-Feet / Year)

**Regional Demand for Imported Water Resiliency**
- Increased Water Supply Resiliency

**Groundwater Basin Storage Capacity**
- Central Groundwater Basin: 330,000 Acre-Feet

**Regional Demand for Imported Water**
- (Acre-Feet / Year)
A Collaborative Regional Effort to Remediate a Brackish Groundwater Plume in the West Coast Basin

✓ Enables pumpers to utilize unused pumping rights
✓ Provides a new, locally sustainable potable water supply
✓ Program replenishment provides a beneficial use of available recycled water sources
✓ Remediation enables use of available groundwater storage space (120,000 Acre-Feet)
Safe Drinking Water Program & Disadvantaged Communities Outreach Assistance Program

- Promotes groundwater cleanup through installation of wellhead treatment at existing production wells
- Provides grants or loans to well owners
- Provides technical support for project development

Well Construction and Rehabilitation Loan Program

- Enables use of unused existing pumping rights
- Provides 0% interest loans to pumpers for well rehab or construction
NEW LOCAL WATER SUPPLY PARTNERSHIPS

Available Local Recycled Water Supplies

Hyperion Water Reclamation Plant
City of Los Angeles

Regional Recycled Water Program
Metropolitan Water District & Sanitation Districts of LA County

Los Coyotes Water Reclamation Plant
Sanitation Districts of LA County

Current Regional Partnership Planning Efforts are Underway to Evaluate Use of Available Supplies for:

- Resiliency for Replenishment Demand
- Groundwater Storage Projects
- Groundwater Augmentation Projects