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Los Angeles County: A New Era of Sustainable Water

Robert Ferrante

Chief Engineer and General Manager

LA County Sanitation Districts



LOS ANGELES COUNTY
SANITATION DISTRICTS

A Century of Service

REGIONAL RECYCLED WATER INVESTMENTS FOR LA COUNTY

ENR LA Infrastructure Forum

Robert Ferrante

November 20, 2023



OUR SERVICE AREA

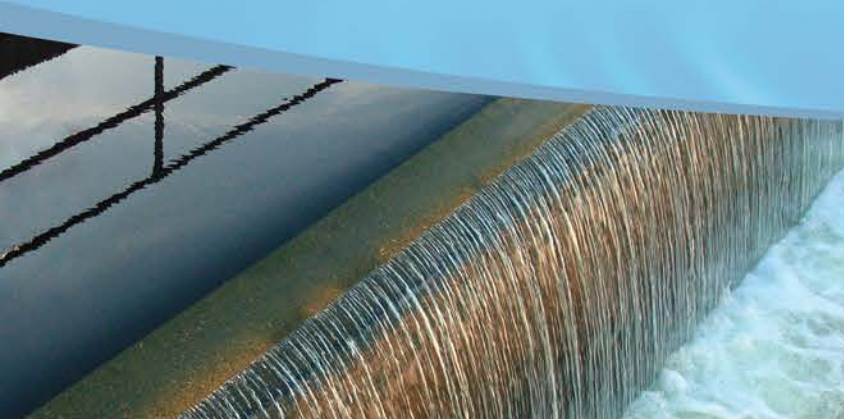


**LOS ANGELES COUNTY
SANITATION DISTRICTS**

Converting Waste Into Resources

OUR MISSION

To protect public health and the environment through innovative and cost-effective wastewater and solid waste management and, in doing so, convert waste into resources such as recycled water, energy, and recycled materials.



WATER RECYCLING



GREEN ENERGY



MATERIALS RECYCLING

Wastewater Facilities



-  Water Reclamation Plant
-  Wastewater Treatment Plant
-  Trunk Sewers
-  Sanitation Districts Service Area



Solid Waste Facilities



Ongoing Major Construction Projects



Clearwater Project



Valencia Water Reclamation Plant

Investing in our Sewer Infrastructure



- Increasing rehabilitation projects from 10 to 30+ per year
- Additional \$100 million per year.

Investments in Resilient Infrastructure

Seismic Retrofit Program

- Ensure that all occupied buildings meet the latest seismic code
- Ensure continuity of operations after an earthquake
- Evaluate and retrofit offices and treatment plants over the next 30 years
- \$476 million budget over 30 years.

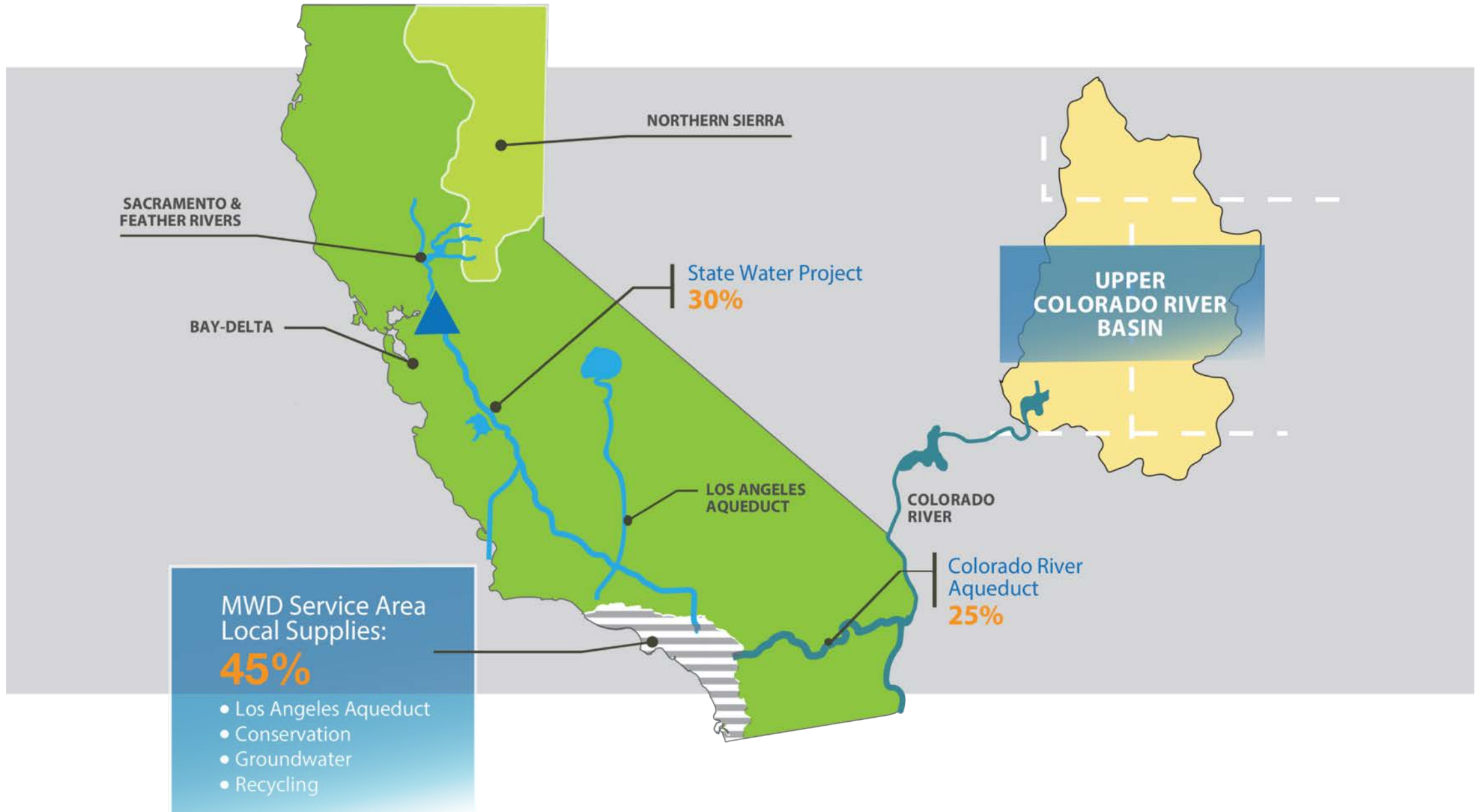


Facility Upgrades

- Many treatment plants built in the 1960's – 1980's
- Upgrades and rehabilitation needed for reliability, modernization, and compliance with new regulations



Water Sources for Southern California



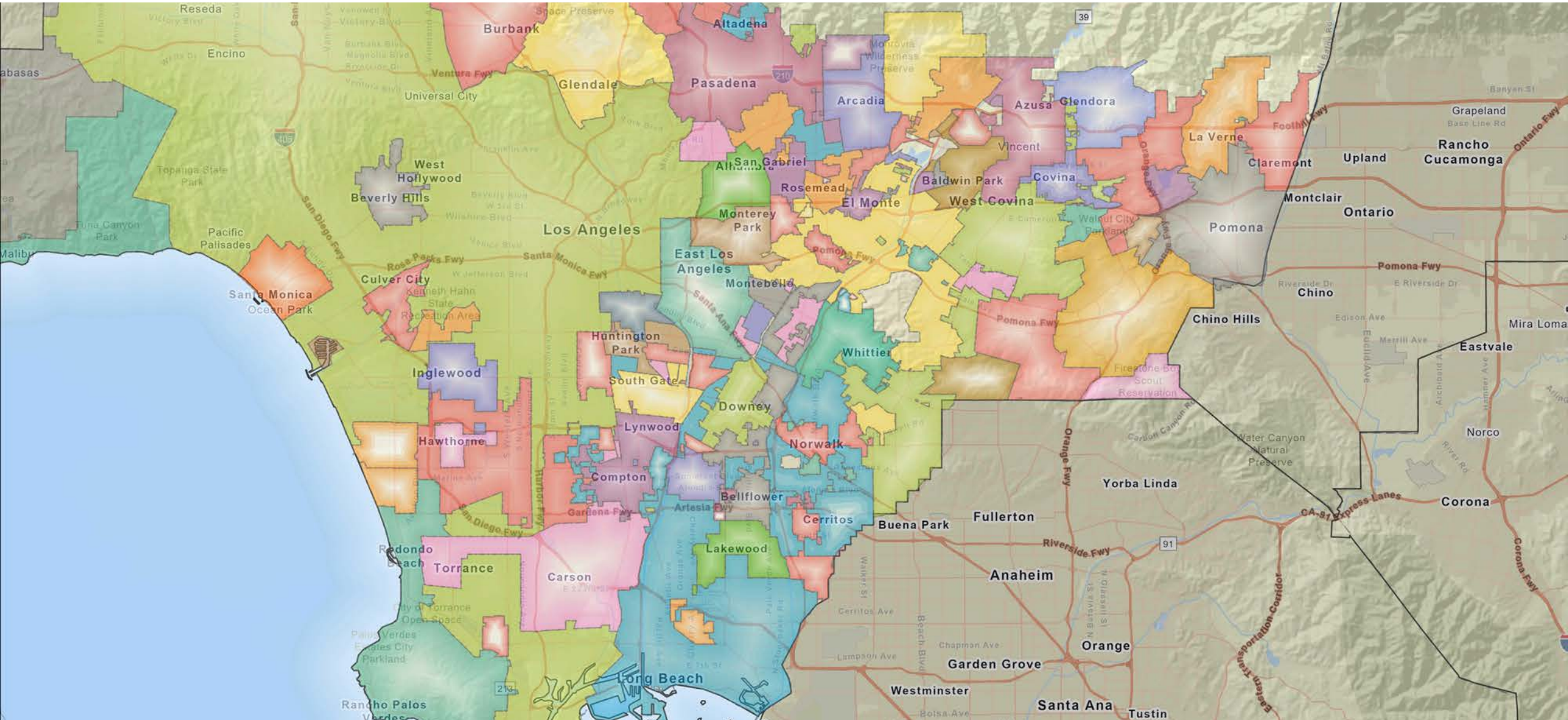
Lake Oroville in July 2021



Recycled Water



The LA Basin Water Purveyors



Key Factors in Regional Water Solutions



PUREWATER

SOUTHERN CALIFORNIA

How it works



①

Used water (wastewater) from homes, businesses, and industries in LA County



②

Cleaned at Sanitation Districts' A.K. Warren Water Purification Facility



③

Purified at Metropolitan's advanced water purification facility



④

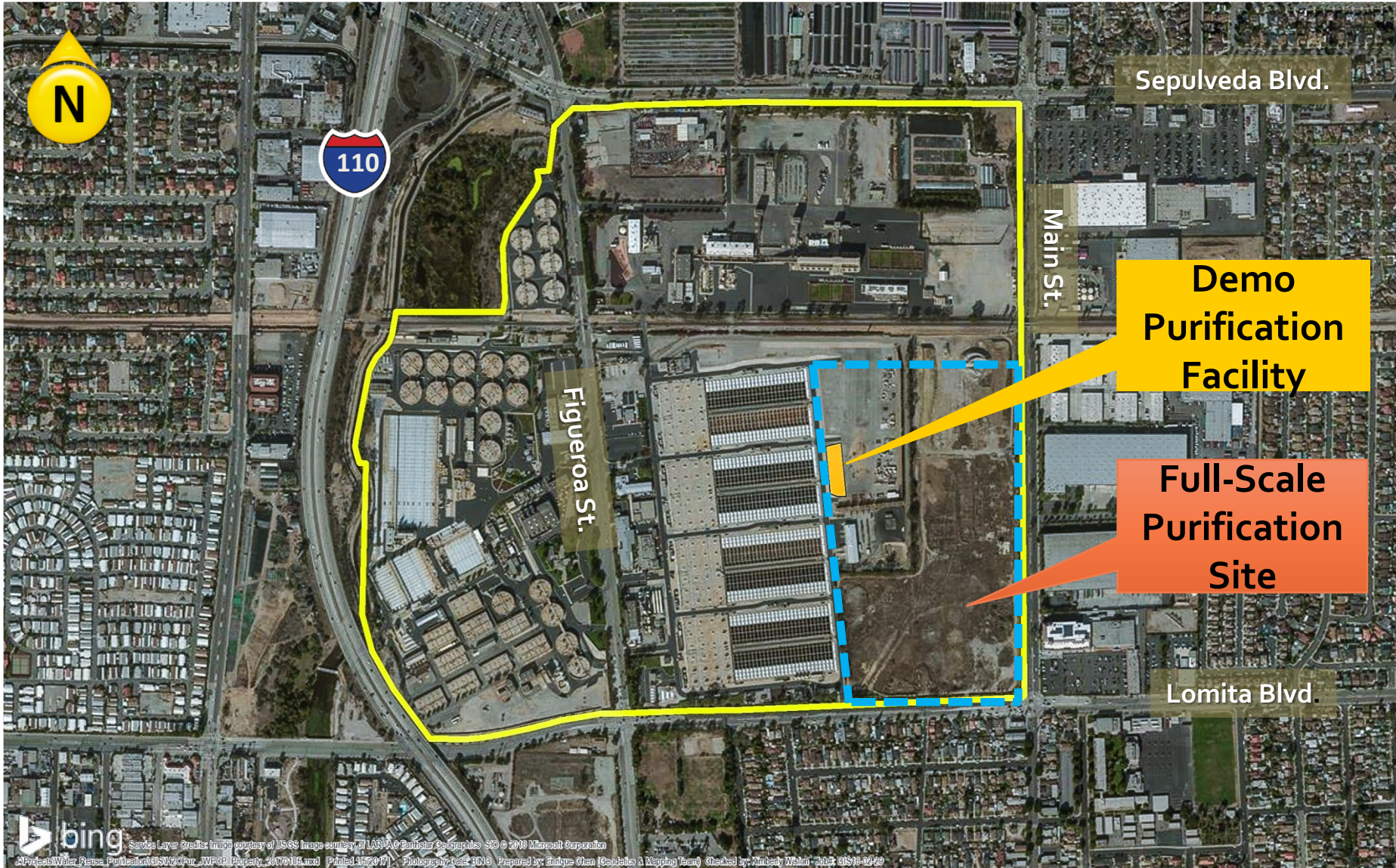
Conveyed through over 60 miles of pipeline to groundwater basins, industries, or Metropolitan's drinking water plants



⑤

A new climate-resilient source of water for Southern California

Harvesting Water from the Warren Facility



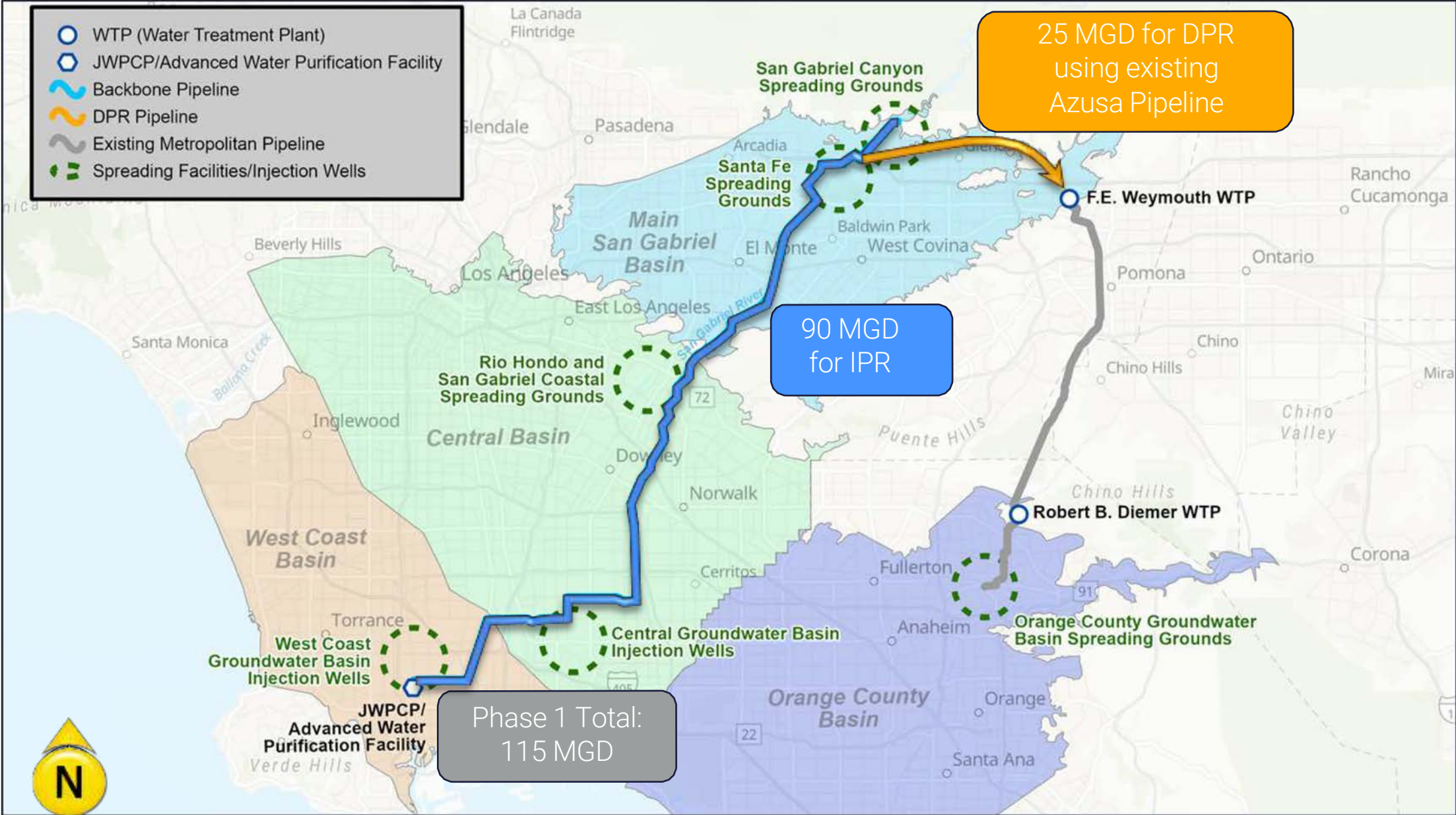
Average flow of
~250 million
gallons daily

Capacity of 400
million gallons
daily

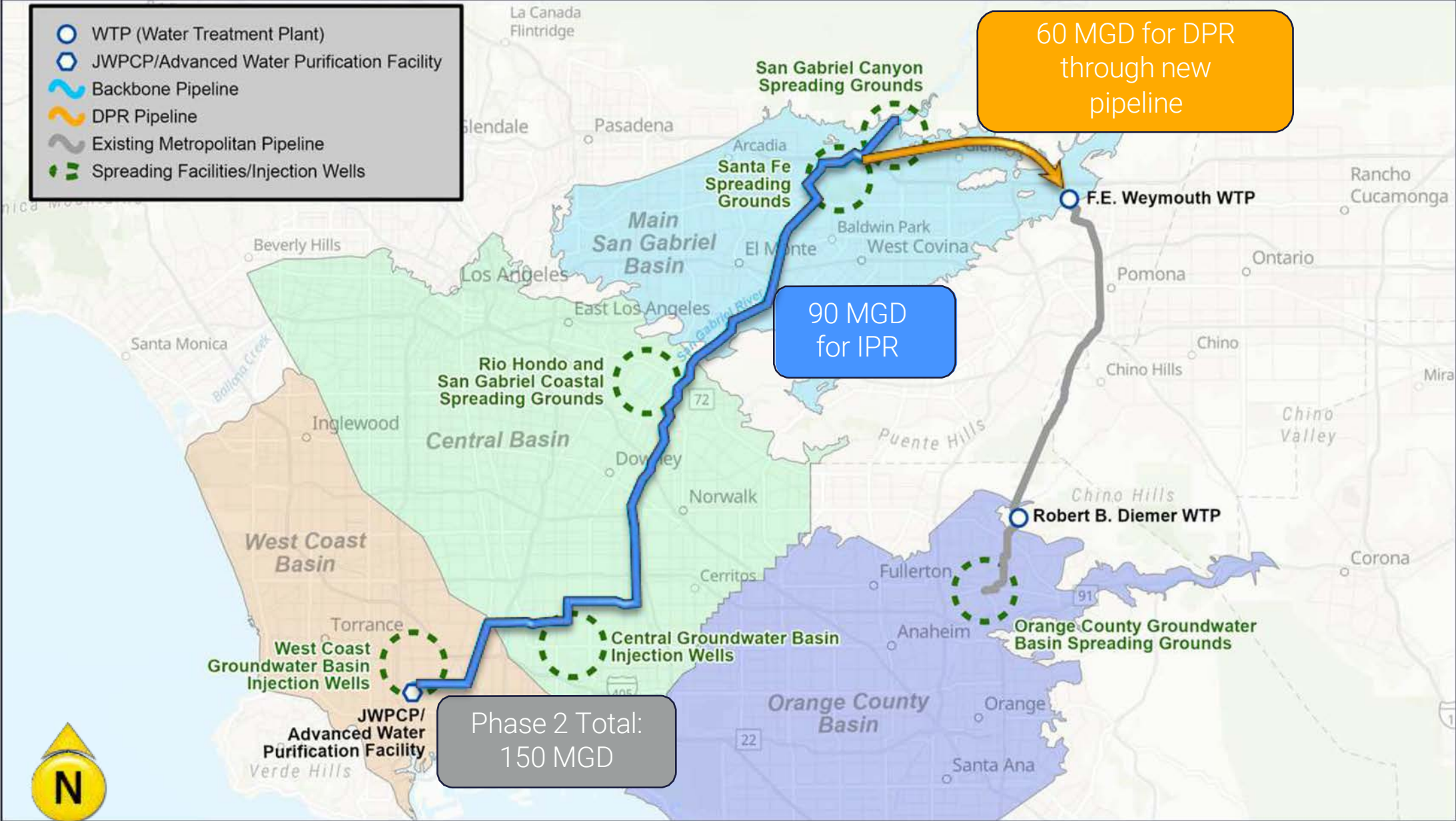
Cleaned water
flows to the
ocean

Largest untapped
source of treated
wastewater

Program Overview – Phase 1



Program Overview – Phase 2





THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Program Partners



LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Metropolitan Member Agencies



Groundwater Basin Managers



Colorado River Partners



Other Key Partners



US Army Corps
of Engineers®



Energy for What's Ahead™



Project Status and Schedule

2021-2025

Environmental
Planning

2024-2035

Design &
Construction

2031-2035

Phase 1 Startup
& Operations

Operation NEXT Water Supply Program

Objective:

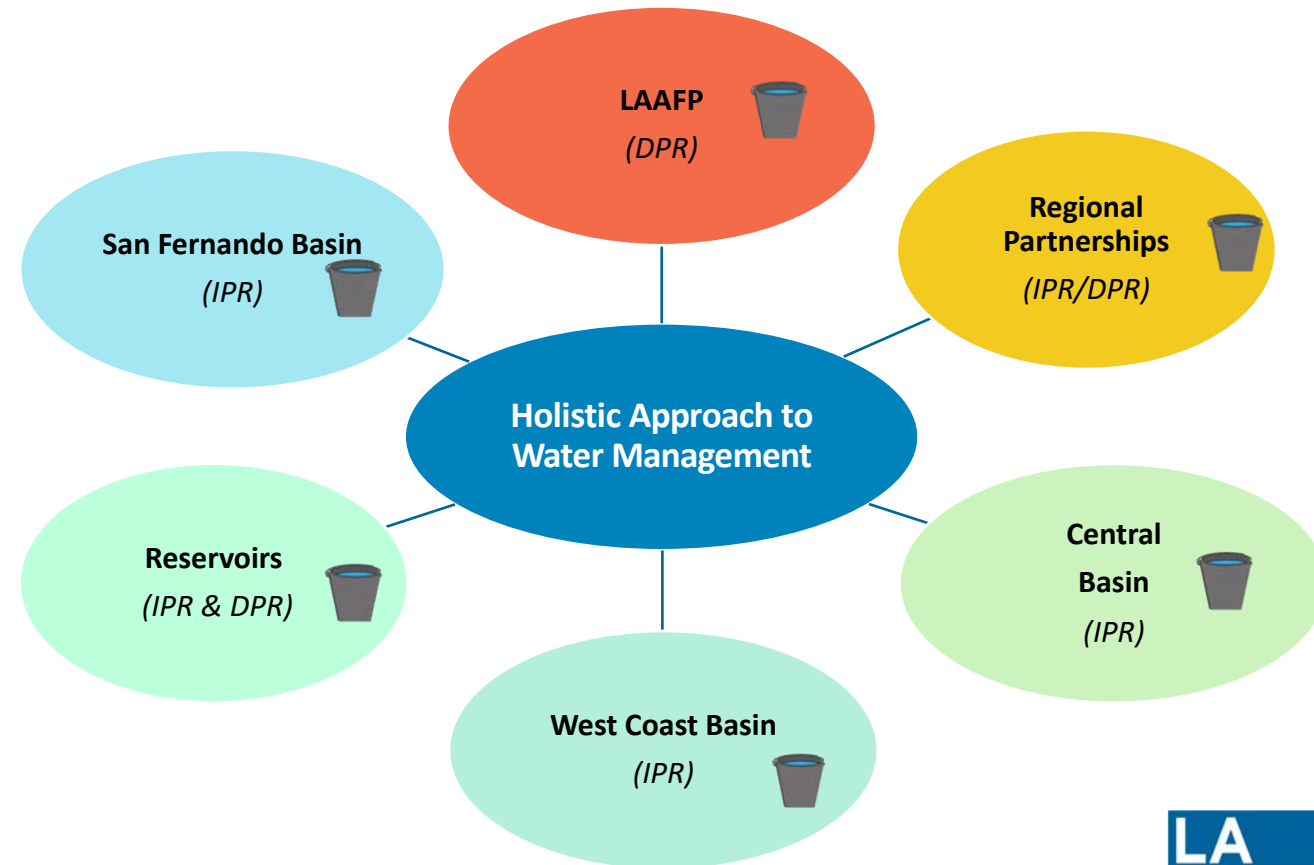
Maximize supply from the Hyperion Water Reclamation Plant for **beneficial reuse** for the City of Los Angeles.



Operation NEXT Supply Management



- ✓ Los Angeles Aqueduct Filtration Plant (LADWP)
 - ✓ Origin of most of supply for LA
- ✓ Hyperion Water Reclamation Plant (LASAN)
 - ✓ Future Advanced Water Purification Facilities



Operation NEXT Partnerships

Key Partner



Groundwater Basin Managers



Agency Partners



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA



Public Works
LOS ANGELES COUNTY





LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources




Benefits of Both Programs

Water Supply Benefits

 Provides a Sustainable Supply of Water

 Increases Water Resiliency

 Replenishes Groundwater Basins

 Creates a Local Supply of Water

Environmental Benefits

 Enhances Water Quality

 Reuses the Largest Untapped Source of Wastewater in the Region

 Reduces Reliance on Imported Supplies

Economic And Social Benefits

 Fuels Economic Growth

 Equity

 Generates Jobs



LOS ANGELES COUNTY
SANITATION DISTRICTS

A Century of Service

Questions?

www.mwdh2o.com/purewater

www.ladwp.com/operationNEXT



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