Los Angeles Department of Water & Power

BUILDING A STRONGER L.A.

Eric Garcetti, Mayor

Board of Commissioners
Cynthia McClain-Hill, President
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Mia Lehrer
Nicole Neeman Brady
Chante L. Mitchell, Secretary

Martin L. Adams, General Manager and Chief Engineer

September 30, 2022

The Honorable City Council
City of Los Angeles
Room 395, City Hall
Mail Stop 160

Attention: Councilmember Mitch O'Farrell, Chairperson - Energy, Climate Change, Environmental Justice, and River Committee

Honorable Members:

Subject: Council File No. 22-0528 – Statewide Drought / Water Shortage / Governor Newsom Executive Order N-7-22 / Metropolitan Water District / Voluntary and Mandatory Conservation

The multi-year drought continues to pose challenges for California and the Los Angeles region. A response to the subject referenced motion that requests the Los Angeles Department of Water and Power, Los Angeles Sanitation & Environment, and Metropolitan Water District of Southern California report back on the current and projected water drought conditions statewide from all sources of water, including stored water supplies and conveyance infrastructure, potential impacts to ratepayers, impacts of the drought on hydroelectric resources, implications for meeting the plan towards reaching LA100 100 percent carbon-free electricity, and related matters will be presented to the Energy, Climate Change, Environmental Justice, and River (ECCEJR) Committee.

If you have any questions or if further information is required, please call me at (213) 367-1338, or have your staff contact Mr. Matthew A. Hale, Director of Legislative and Intergovernmental Affairs at (213) 367-0751.

Sincerely,

Martin L. Adams
General Manager and Chief Engineer

MAH:fc
Enclosure
c/enc: Councilmember Paul Koretz, Vice-Chair ECCEJR Committee
Councilmember Gil Cedillo, Member ECCEJR Committee
Councilmember Kevin DeLeon, Member ECCEJR Committee
Councilmember Paul Krekorian, Member ECCEJR Committee
Mr. Eric Villanueva, Office of the City Clerk
Mr. Matthew A. Hale

Responding to the Urgent Water Drought: Water Supply Strategy

October 6, 2022

Energy, Climate Change, Environmental Justice, and River Committee Meeting

Water Supply Programs

Los Angeles Aqueducts

Conservation / Water Use Efficiency

Stormwater

Groundwater Treatment

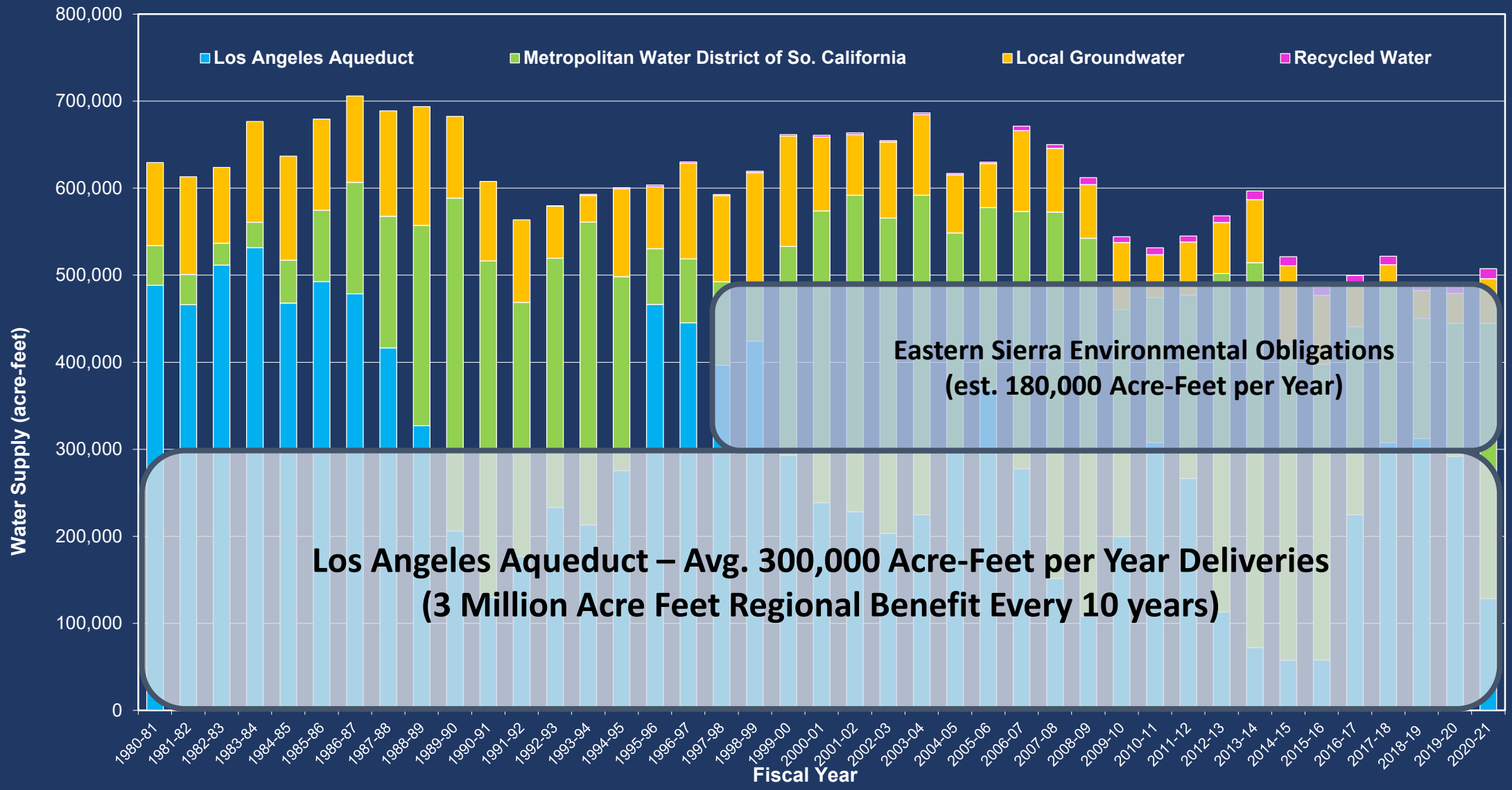
Metropolitan Water District

Recycled Water

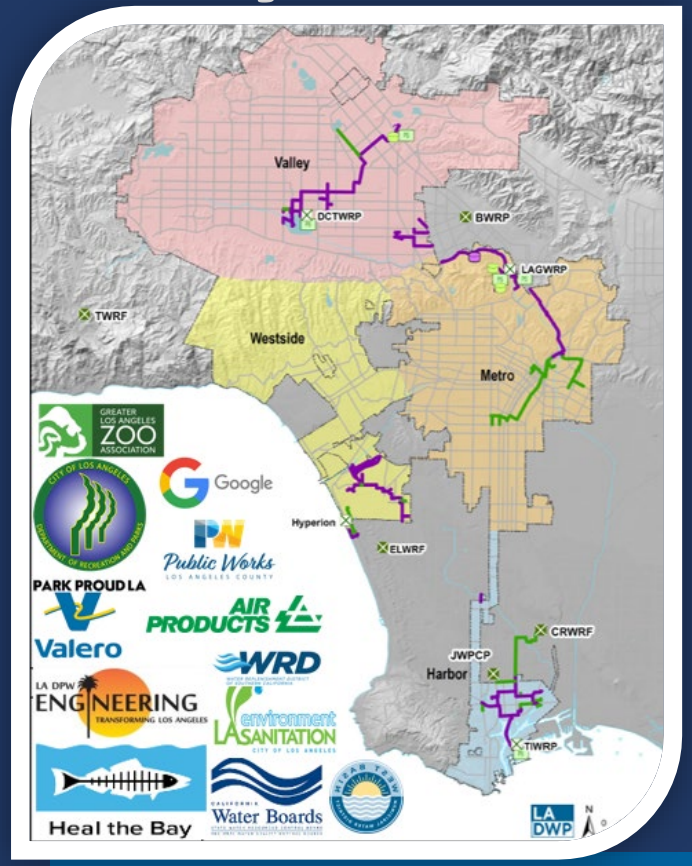
Groundwater Replenishment

Operation NEXT

Historical LADWP Sources of Supplies



Recycled Water Program



✓ Complete Purple Pipe Network

- **1979** – Start of Recycled Water Program
- Irrigation and Offset Non Potable Demands

✓ Current

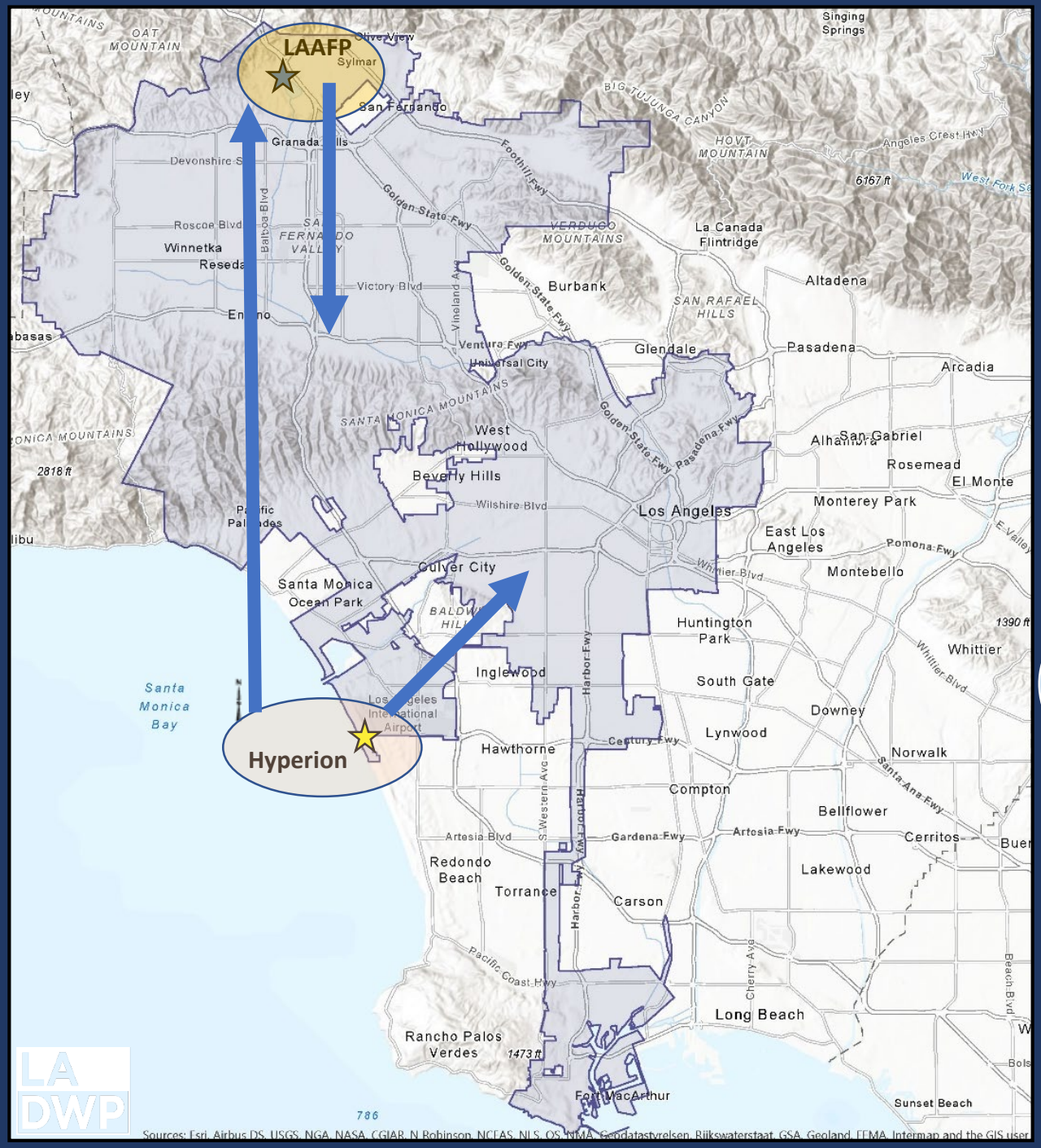
- **2019** – Start of Indirect Potable Reuse Program
- **2028** – Groundwater Recharge in San Fernando Basin

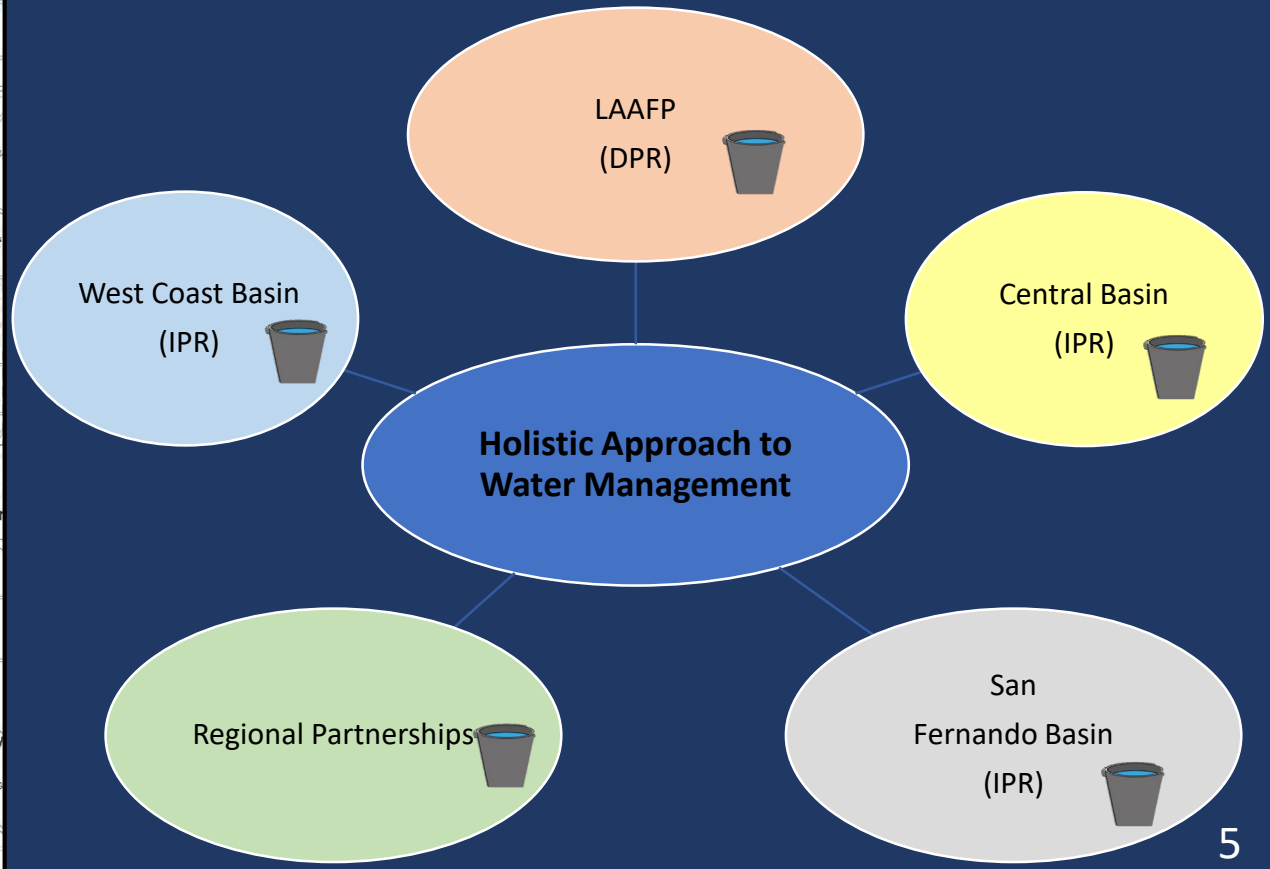
✓ Future

- **2023** – Direct Potable Reuse Regulations to be Finalized
- Operation NEXT (LADWP)
- Hyperion 2035 (LASAN)

Operation NEXT Program

- ✓ **Los Angeles Aqueduct Filtration Plant** *(LADWP)*
  - ✓ *Origin of most of supply for LA City (70%~).*
- ✓ **Hyperion Water Reclamation Plant** *(LASAN)*
  - ✓ *Future Advanced Water Purification Facilities*





Conservation Achievements

30%+
Less per capita water use in the last 15 years

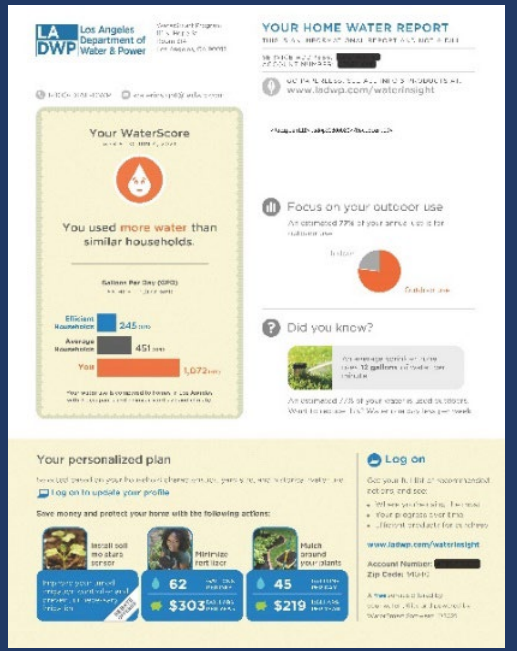
30+
Years of mandatory water conservation ordinances

51 million+
Square feet of turf replaced

3.2 million+
High-efficiency toilets, washing machines, showerheads and faucets replaced

LA DWP

Water Use Efficiency Improvements

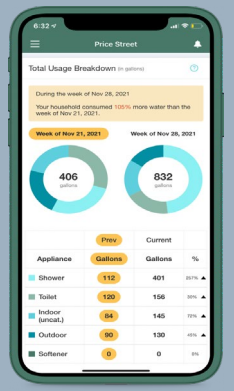


✓ Rebate Expansion/Increases

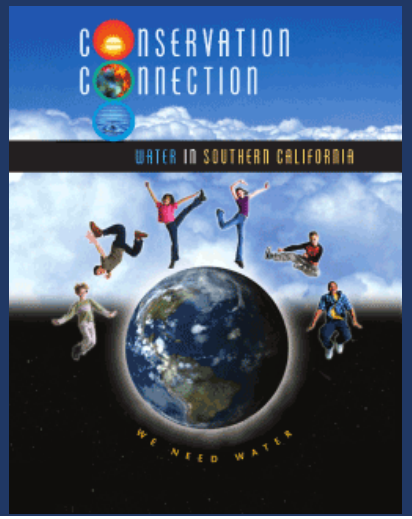
- Turf Replacement Rebate - $5/square foot (Oct. 2022)
- Efficient Toilets – Up to $300/toilet (Feb. 2022)
- High Efficiency Clothes Washers - $500/washer (Feb. 2022)
- Up to $2,000,000 in custom water savings incentives (Jul. 2021)

✓ Removing Barriers/New Services

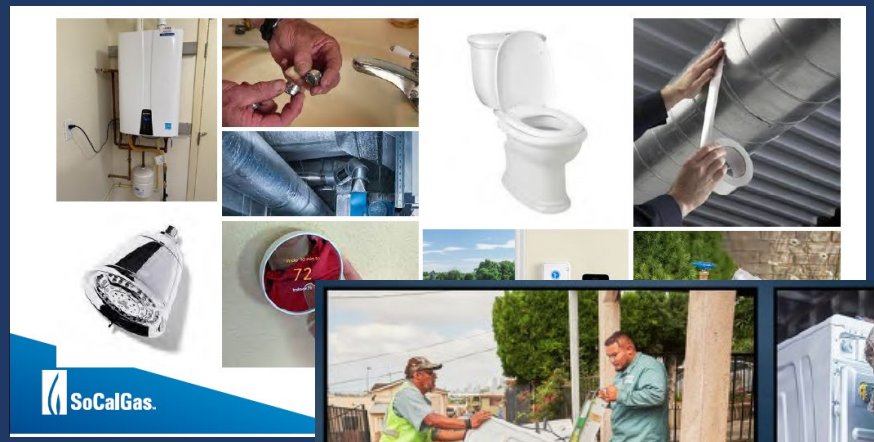
- Turf Replacement Design Services
- Hands-On Workshops
- Commercial Assessments
- Home Water Use Reports
- Water Use/Leak Detection Devices



Community Engagement
Direct Install Partnerships



LOS ANGELES WATERKEEPER®



✓ Community Engagement

<u>Community Partnership Grants</u>

- Theodore Payne Foundation Grant
- LA Waterkeeper Grant

<u>Outreach/Education</u>

- LA Times in Education

✓ Direct Install Programs

- So Cal Gas Co. Programs
  - Multifamily (MEA, ESAP, Common Area Laundry)
  - Residential Advanced Clean Energy Program
- Home Energy Improvement Program (LADWP)

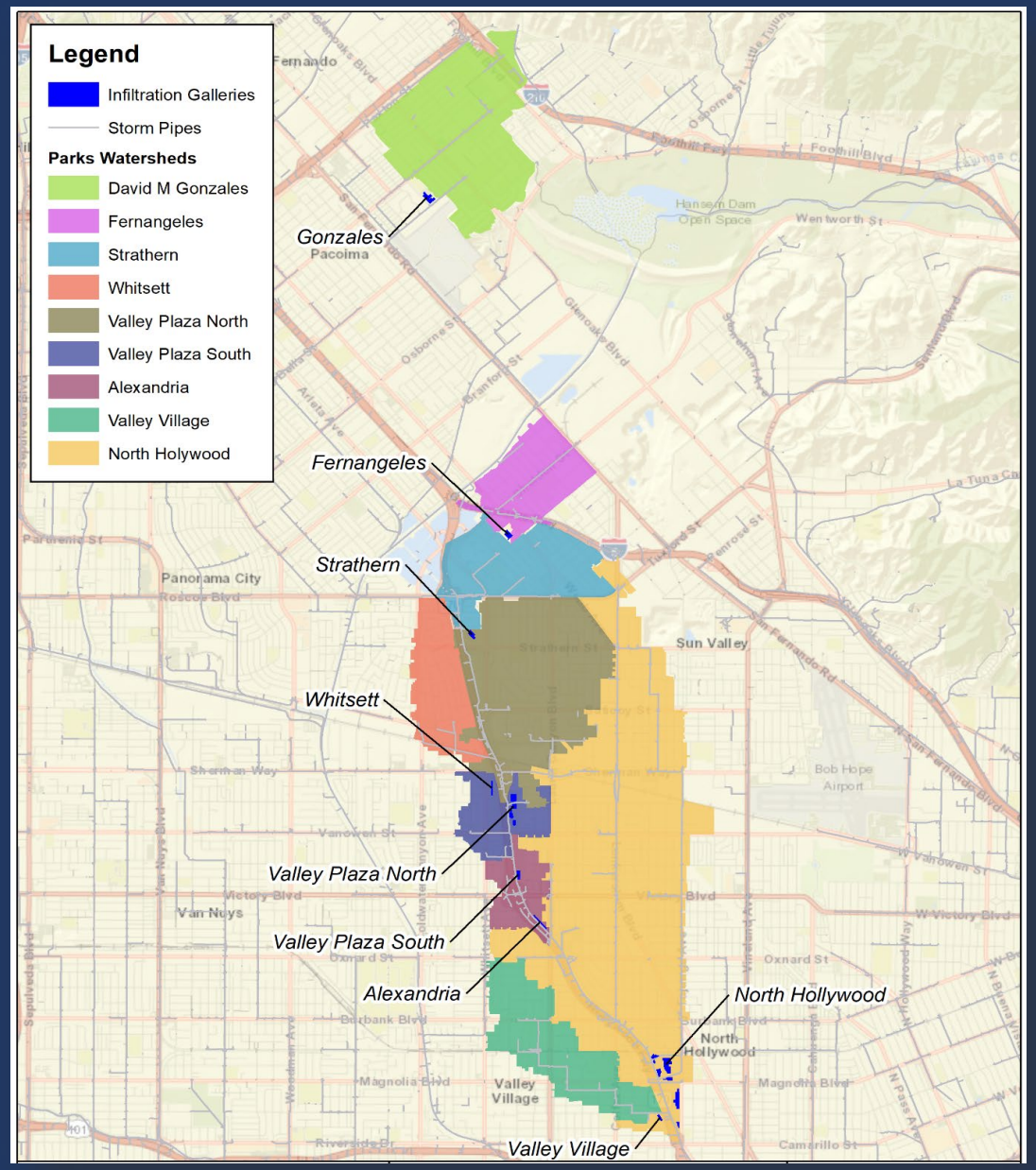
Stormwater Capture Parks Program

Overview

- Approximate capture: **2,900 Acre-Feet per Year**
- Project Design Cost**: $19.1 Million**
- Total Project Cost: **$382 Million**
- Estimated Completion Date: **Summer 2030**

Program's multi-benefits include:

- Increase City's water supply
- Improve water quality
- Increase flood control capacity
- Provide community driven park improvements
- Provide economic growth
- Mostly located in underserved communities



External Funding

LADWP Measure W Awards:

Round 1:

- $20.8 million; 3 projects

Round 2:

- $45.8 million; 3 projects

Round 3:

- $8.4 million; 1 project

MWD Grant Awards:

USBR WaterSMART: Water and Energy Efficiency Grant Program FY 2022

- $2 million dollar grant
  - Public Agency Turf Replacement

DWR Urban and Multi-benefit Drought Relief 2021

- $4.5 million dollars total
  - $2 million – Residential and CII Turf Replacement
  - $2.5 million – Residential Direct Install Program (SoCalGas Partnership)

LADWP Grant Applications:

USBR WaterSMART: Water and Energy Efficiency Grant Program FY 2023

- $5 million dollar grant application
  - So Cal Gas Direct Install Partnership (3 year duration)

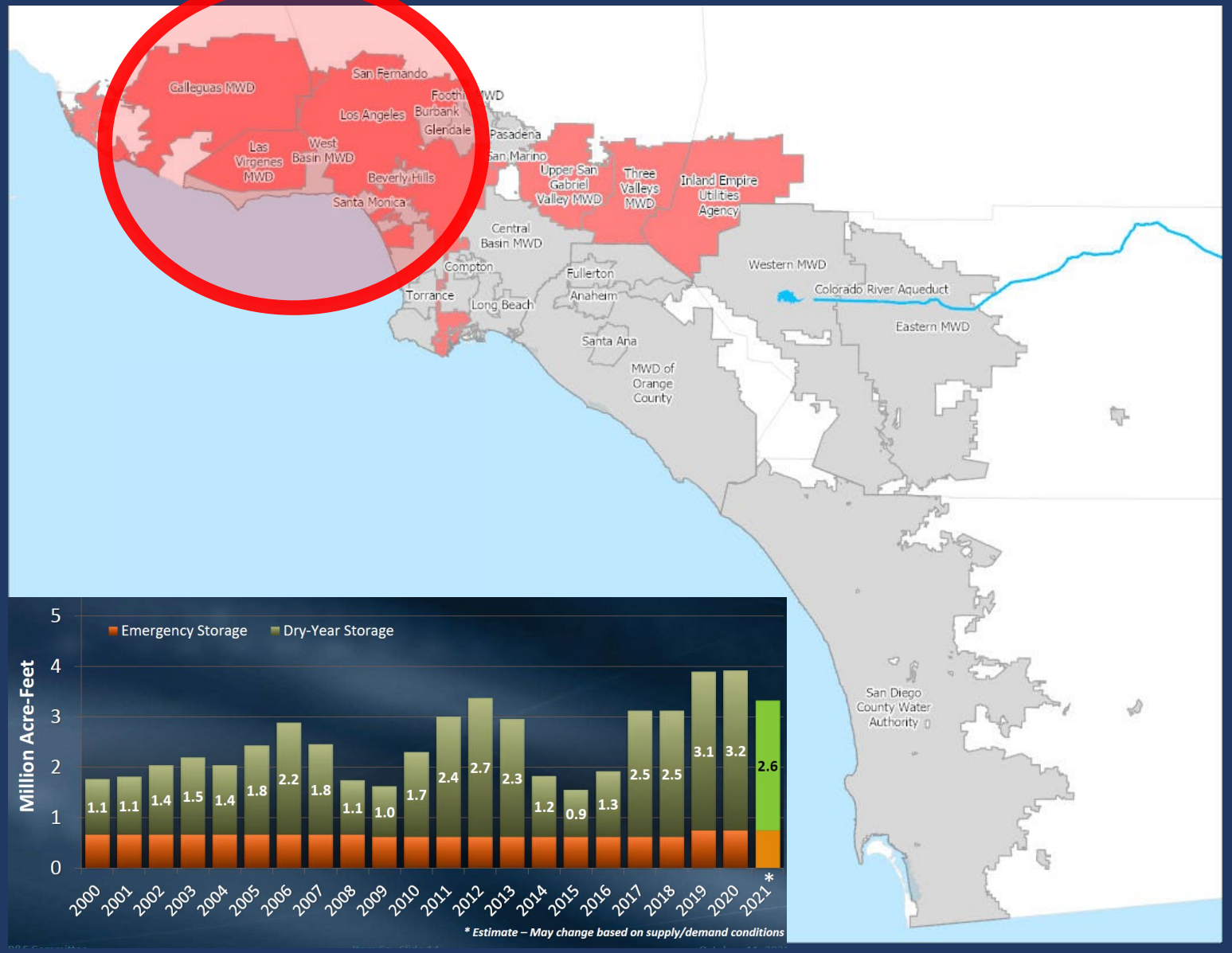
Prop 1, Round 2 Integrated Regional Water Management Implementation Grants

- $3.43 million in grant funding sought through Los Angeles County Flood Control District
  - Funds requested for Whitsett Fields Park North Stormwater Capture Project
  - Combination of General Implementation and DAC funding grants

LA DWP

Regional Infrastructure Problem Statement

Due to limited infrastructure, MWD cannot provide the State Water Project Dependent Agencies equitable access to water supply and storage assets during severe droughts.



Regional Conveyance Infrastructure Improvements

(Commitment to Regional Reliability - MWD Board Action on August 16, 2022; Resolution 9318)


EVERY DROP
OF WATER
COUNTS
SAVE
the
DROP

Council Motion 22-0528
Responding to the Urgent Water Drought

Energy, Climate Change, Environmental Justice, and River Committee

Barbara Romero

General Manager and Director

LA Sanitation and Environment

environment LA SANITATION CITY OF LOS ANGELES
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100% WATER RECYCLING

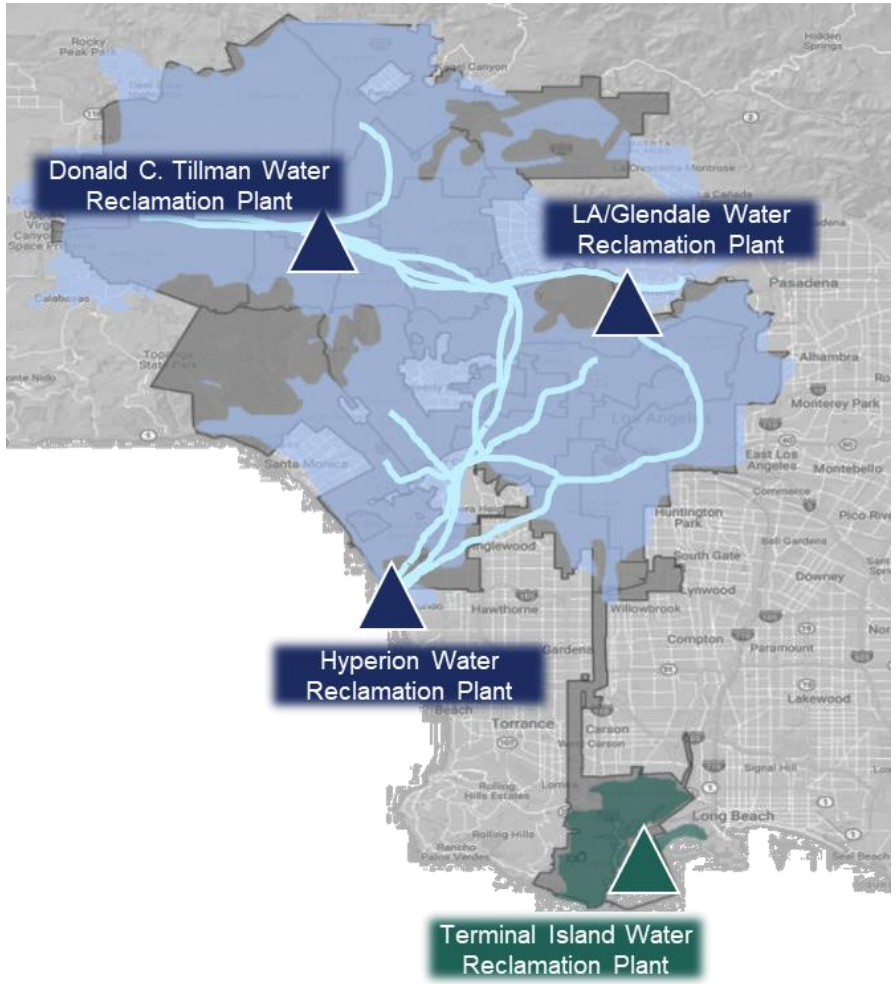
Water Recycling and Reuse: current status

- Clean Water Program
  - Population: 4.7 million
  - Area: 600 square miles
  - Sewer system: 6,700 miles

Recycled Water Production
2020-2021

Water Reclamation Plant (WRP)	Flow In (mgd)	Water Reused* (mgd)
Hyperion WRP	248	73
Los Angeles - Glendale WRP	13	13
Donald C. Tillman WRP	28	28
Terminal Island WRP	12	5
Total	301	119

*water is used for potable offset, in-plant uses, Dominguez Gap, WBMWD, Japanese Garden, and more



Terminal Island WRP: Advanced Water Purification Facility

- 100% Recycled Water
  - Phase 1: 6 MGD in 2006
  - Phase 2: 12 MGD in 2017
- Current status
  - Fully operational
  - 2021 CA WateReuse Excellence Award
  - Dominguez Gap Seawater Barrier largest end use at 6 MGD
- Working on process optimization
  - Advanced Oxidation (AOP) effluent recirculation system
  - Replacement of microfiltration
  - Reverse Osmosis (RO) concentrate ammonia injection

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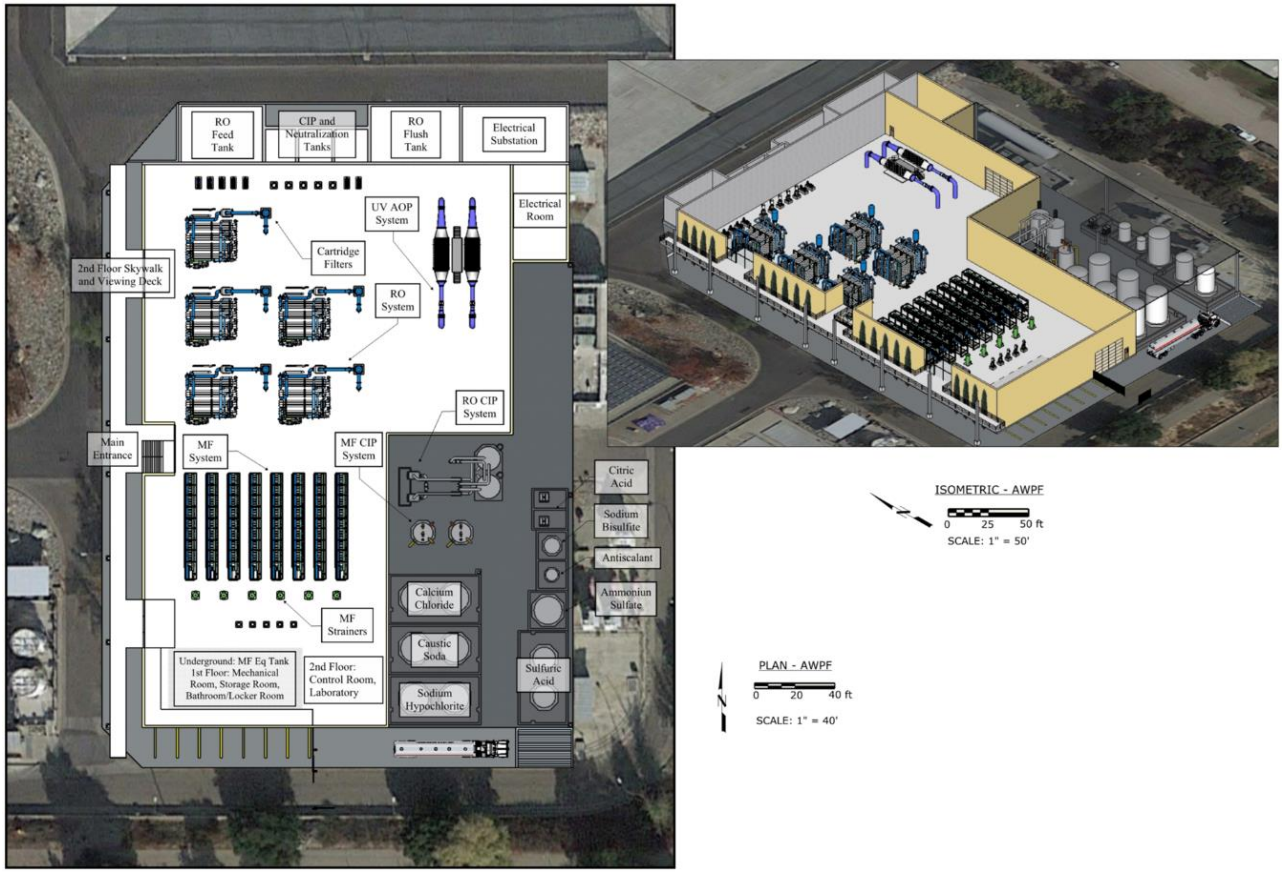
Donald C. Tillman WRP: Advanced water Purification Facility

- Project goals
  - 19.5 MGD design flow
  - Groundwater recharge in San Fernando Valley
- Project Partners
  - LASAN, LADWP
- Current status
  - Conceptual design completed
  - Design-build RFP issued and evaluated
- Next steps
  - Execution of MOA by LASAN and LADWP
  - Selection of design/builder
  - Contract award



Los Angeles - Glendale WRP: Urban Waterway & Water Technology Center

- Project goals
  - Test and demonstrate advanced water purification processes for indirect and direct potable reuse
  - Provide community amenities
- Current status
  - Predesign complete
- Next steps
  - Permitting
  - Design completion
  - Construction

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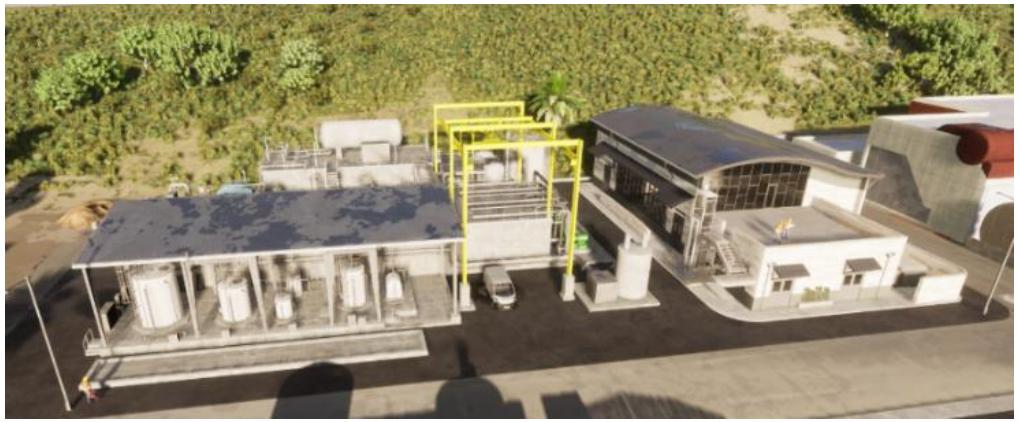
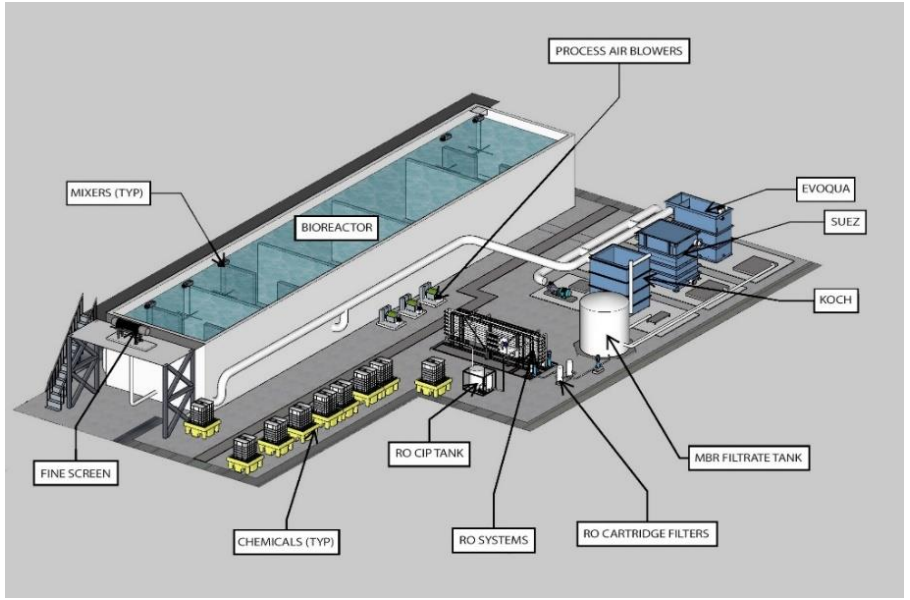
Hyperion WRP:
Hyperion 2035 Program

- Program goals
  - Transform Hyperion to 100% water recycling for indirect and direct potable reuse
  - Leverage water recycling and Hyperion's resiliency efforts
- Current status
  - Pilot and demonstration projects with LADWP, LAWA, West Basin MWD: finalizing construction
  - Program Implementation Plan: predesign of advanced water purification processes at Hyperion
  - Program Management Plan: effective delivery of the Hyperion 2035 Program
  - Technical and Community Advisory Groups: ongoing workshops with 40+ organizations
  - CEQA: Joint Programmatic EIR with LADWP





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Transition to stormwater

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100% WATER RECYCLING

Low Flow Diversion (LFD's): Urban Runoff for Recycling Efforts

- Dry weather diversions divert urban runoff to improve water quality and provide a reliable source of water for recycling efforts.

- 10 City LFD's Completed (9.6 MGD)

PROJECT TITLE	WATERSHED	Design Flow (MGD)
Marquez Avenue Low Flow Diversion	Santa Monica Bay	0.15
Bay Club Drive Low Flow Diversion Project	Santa Monica Bay	0.17
Temescal Canyon Low Flow Diversion	Santa Monica Bay	1
Palisades Park Low Flow Diversion Project	Santa Monica Bay	0.8
Santa Monica Low Flow Diversion Project	Santa Monica Bay	3.5
Thornton Avenue Low Flow Diversion Project	Santa Monica Bay	0.17
Venice Pavilion Low Flow Diversion Project	Santa Monica Bay	0.1
Imperial Highway	Santa Monica Bay	0.06
8th Street S.D. Low Flow Diversion	Los Angeles River	0.43
7th Street S.D. Low Flow Diversion	Los Angeles River	3.23

- 1 LFD's in Design (0.3M)

PROJECT TITLE	WATERSHED	Design Flow (MGD)
LA River LFD's (Compton Creek) #1	Los Angeles River	0.03

- 7 LFD's in construction (31.5 MGD)

PROJECT TITLE	WATERSHED	Design Flow (MGD)
Arroyo Seco Low Flow Diversion (Sycamore Grove Park, LFD#1, AS-15)	Los Angeles River	0.13
Arroyo Seco Low Flow Diversion (Hermon Dog Park, LFD#2, AS-21)	Los Angeles River	0.01
LA River LFD (Palmetto, LFD#1, R2-J)	Los Angeles River	0.43
LA River LFD (Mission Rd, LFD#2, R2-G)	Los Angeles River	0.34
LA River LFD (2nd St & Rose LFD#3, R2-02)	Los Angeles River	0.13
Ballona Creek Low Flow Treatment Facility (LFTF-1)	Ballona Creek	29
Sepulveda Channel Low Flow Treatment (LFTF-2)	Ballona Creek	1.3

- 10 LFD's Planned (0.5 MGD)

PROJECT TITLE	WATERSHED	Design Flow (MGD)
LA River LFD's (Compton Creek) #2	Los Angeles River	0.13
White Oak Avenue (LAR-E-021)	Los Angeles River	0.02
Reseda Boulevard (LAR-E-048)	Los Angeles River	0.02
Wilbur Avenue (LAR-E-058)	Los Angeles River	0.11
Tampa Avenue (LAR-E-065)	Los Angeles River	0.02
Haynes Street (LAR-E-077)	Los Angeles River	0.04
Winnetka Avenue (LAR-E-081)	Los Angeles River	0.01
De Soto Avenue (LAR-E-096)	Los Angeles River	0.06
De Soto Avenue (LAR-E-097)	Los Angeles River	0.01
Canoga Avenue (LAR-E-110)	Los Angeles River	0.05

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Recently Completed Stormwater Capture Projects

Agnes Ave: Gentry Ave & Vanowen St (CD 2)

Before (2019)

After (2021)

Ben & Victory Blvd (near Goodland Ave) (CD 2)

Before (2019)

After (2021)

Argo Drain Sub-basin Facility (CD 11)

Drainage area = 2,290 acres

Estimated Capture: ~ 1,176 AFY

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Safe Clean Water (Measure W) Efforts & Stormwater Capture Outlook

Regional Round 1 Projects

Project Title	Estimated Stormwater Capture (AF)	Anticipated Construction Completion Date
Valley Village Park Stormwater Capture Project, CD 2 (DWP)	99	6/2025
Fernangeles Park Stormwater Capture Project, CD 6 (DWP)	192	10/2025
Strathern Park North Stormwater Capture Project, CD 2 (DWP)	294	12/2025
Oro Vista Local Area Urban Flow Management Project, CD 7 (LASAN)	22	6/2026
Wilmington Q Street Local Urban Area Flow Management Project, CD 15 (LASAN)	17	9/2026
MacArthur Lake Stormwater Capture Project, CD 1 (LASAN)	5	10/2026
Lankershim Blvd Local Area Urban Flow Management Project CD 2 & 7 (LASAN)	52	10/2027
TOTAL	**689**	**–**

Regional Round 2 Projects

Project Title	Estimated Stormwater Capture (AF)	Anticipated Construction Completion Date
David M. Gonzales Recreation Center Stormwater Capture Project, CD 7 (DWP)	342	8/2025
Wilmington Neighborhood Greening Project, CD 15 (LASAN)	10	9/2026
Lincoln Park Neighborhood Project, CD 1 (LASAN)	46	3/2027
Valley Plaza (North) Park Stormwater Capture Project, CD 2 (DWP)	590	6/2028
TOTAL	**988**	**–**

Metropolitan Water District of Southern California

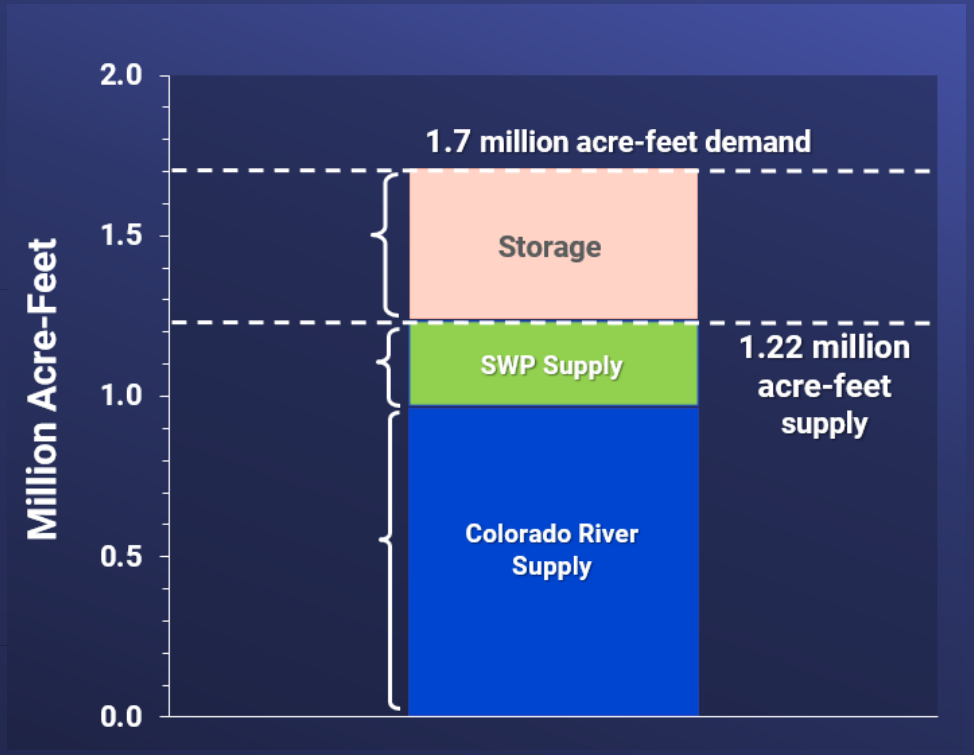
Report to Energy, Climate Change, Environmental Justice, and River Committee

Response to Council File No. 22-0528

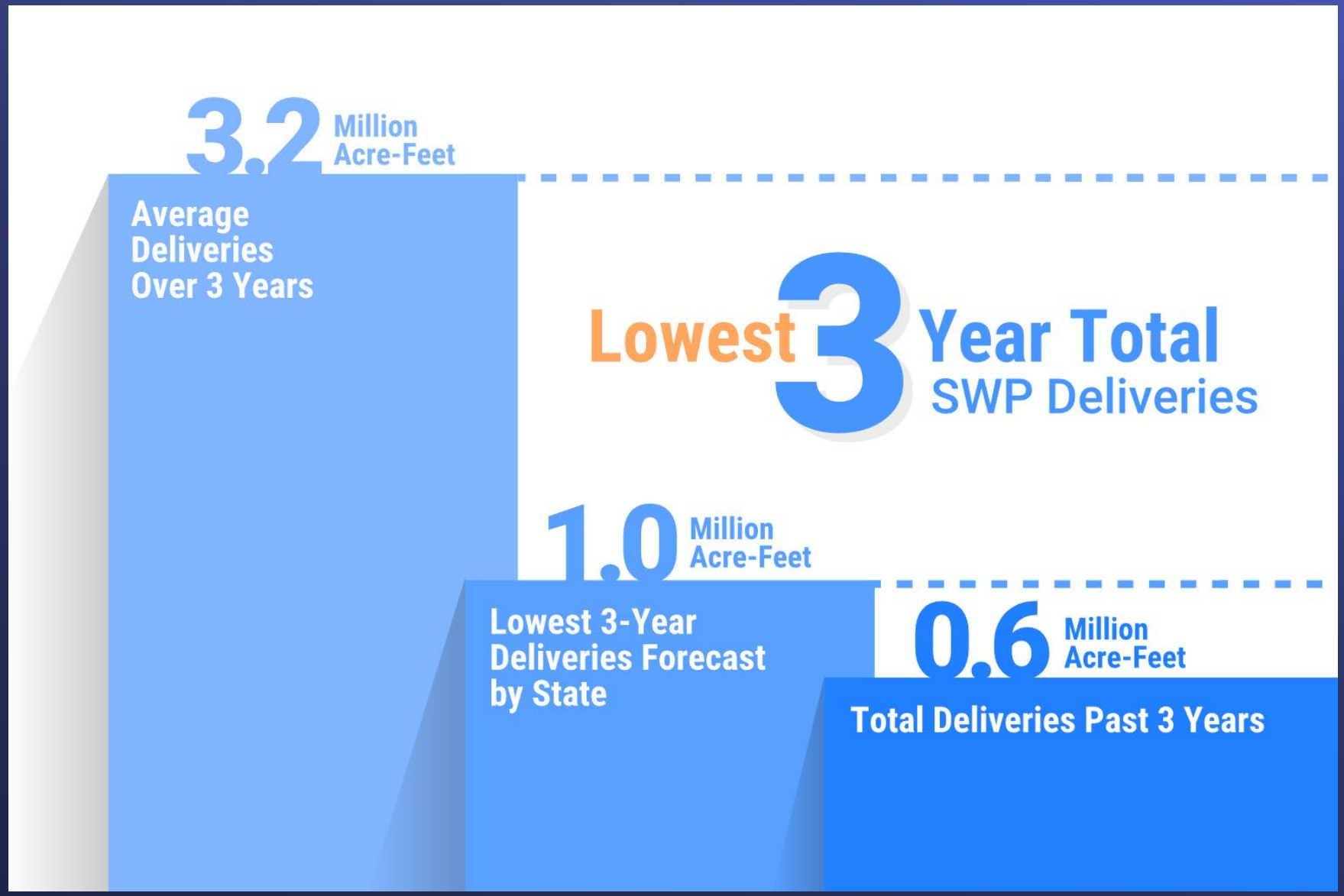
October 6, 2022

Water Supply Conditions for 2022

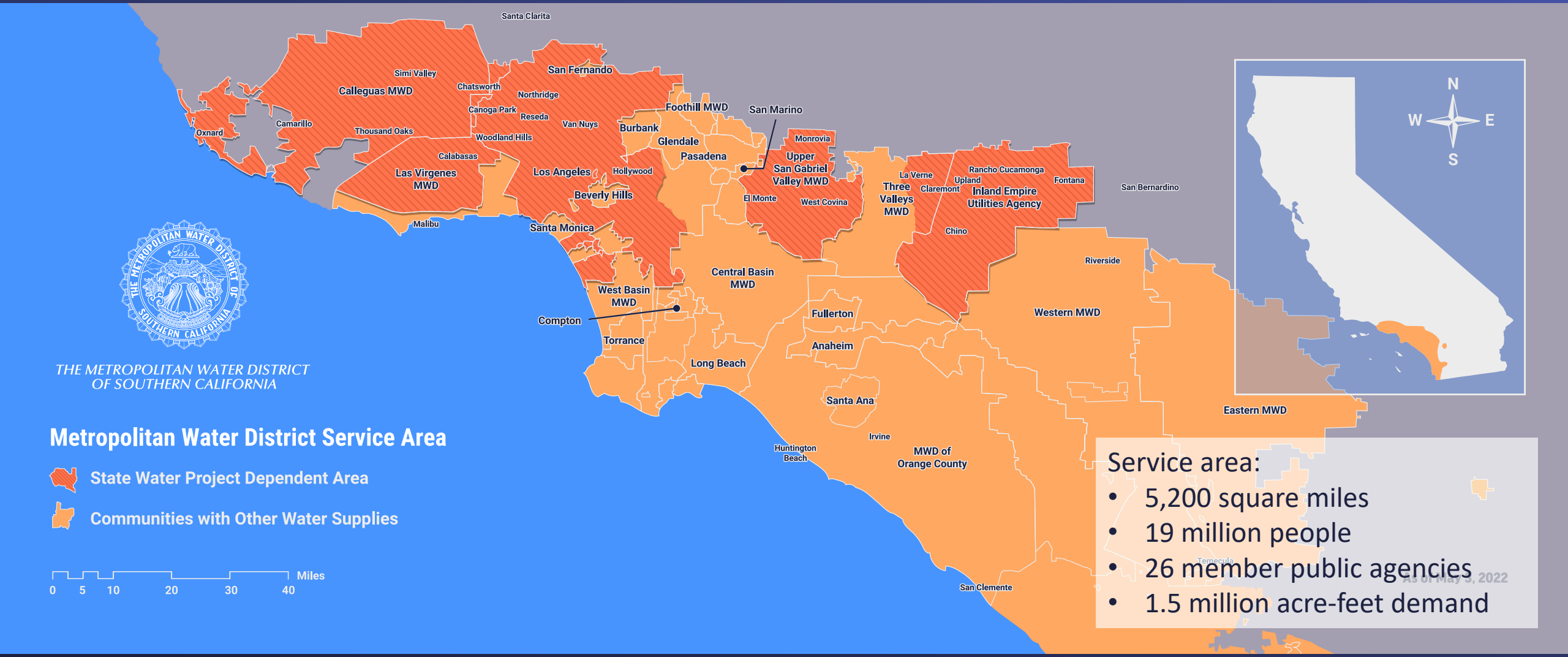
Severe Drought Affecting Imported Water Supplies to Southern California



State Water Project



Supply Constrained in 2022 for SWP Dependent Area



Service area:

- 5,200 square miles
- 19 million people
- 26 member public agencies
- 1.5 million acre-feet demand

Metropolitan Board Adopted Policy Statements

(Aug. 2022)

- Provide equivalent water supply reliability to all agencies through an interconnected and robust system of supplies, storage, and programs
- Reconfigure and expand existing portfolio and infrastructure to provide sufficient access to the integrated system and programs to achieve equivalent reliability for all member agencies
- Eliminate disparate water supply reliability through a One Water approach

Colorado River Basin

Upper and Lower Basin

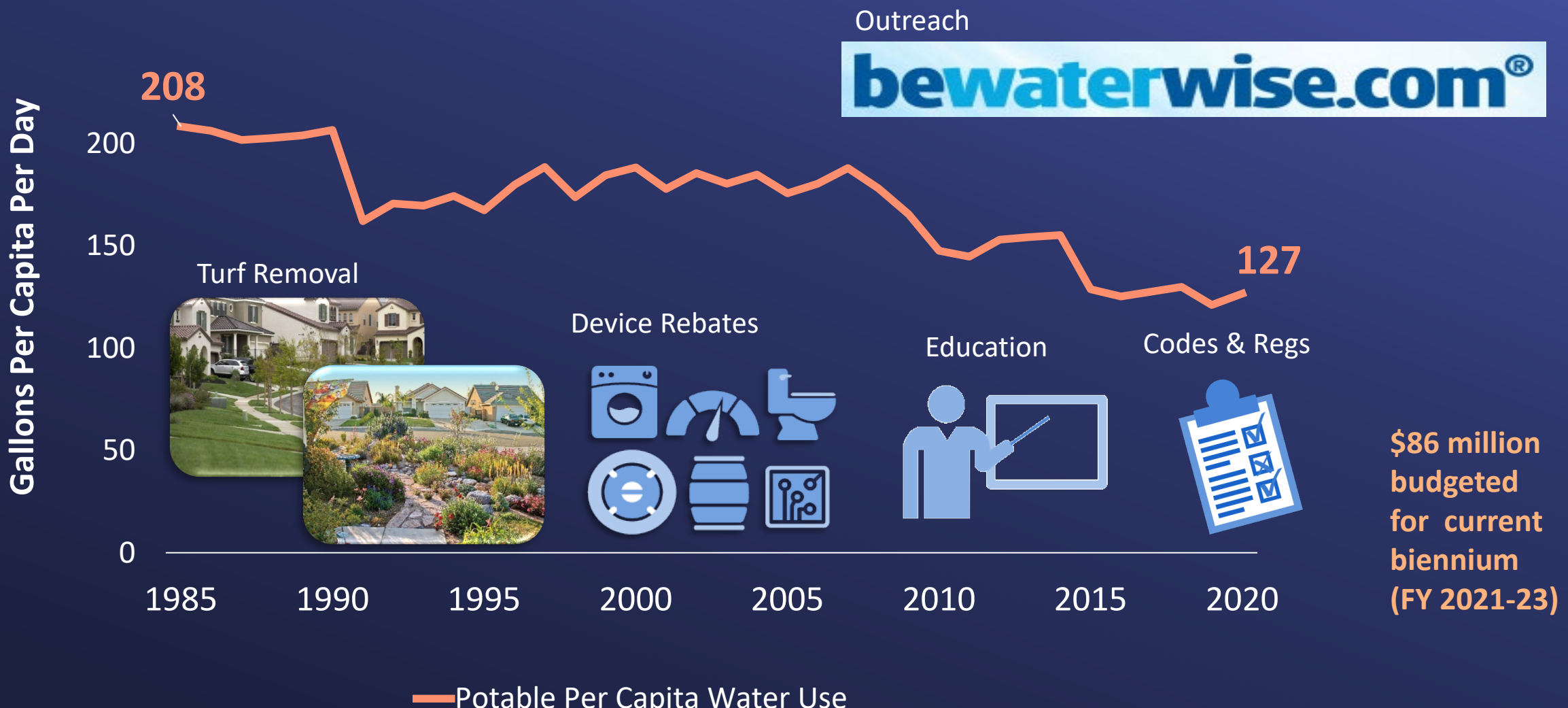
40 million people
7 western states, plus the Republic of Mexico

5.5 million acres of farmland
4,200 megawatts of hydroelectric capacity

Assessing Risks to Colorado Reservoirs

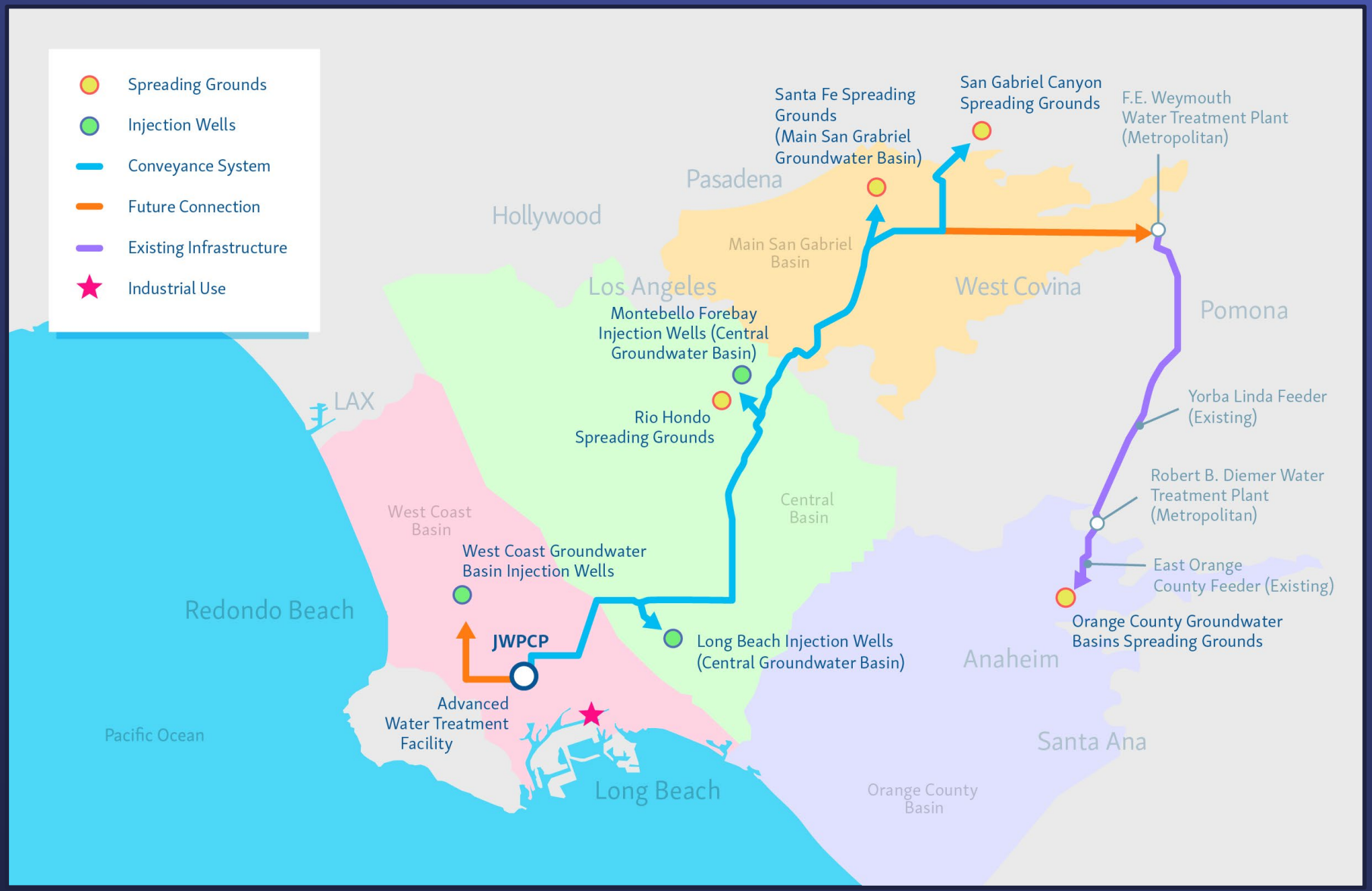
Declining Snowpack	• Current 30-year average is 11% lower
Reduced Runoff Efficiency	• 2021 Snowpack 89%, but runoff only 32%
Lower Reservoir Elevation	• Both Lake Mead and Lake Powell at lowest levels since filled.
Potential for Reduced Water Delivery	• Reduced water deliveries, including ICS (storage) from Lake Mead.

Demand Management Programs—An Important Area of Collaboration with Los Angeles



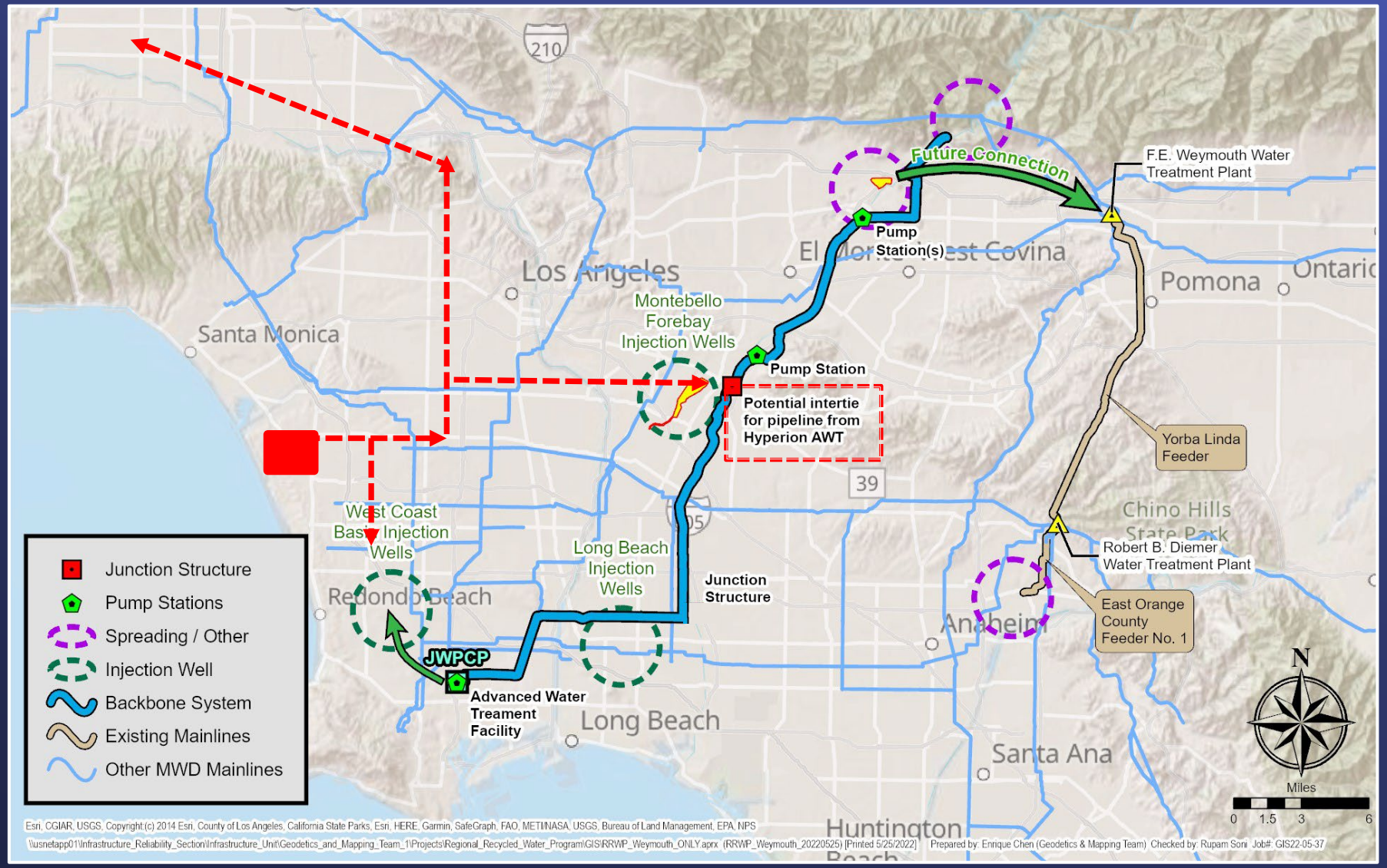
$86 million budgeted for current biennium (FY 2021-23)

Pure Water Southern California



Potential Integration with Operation Next

Integration of Operation Next & Pure Water SoCal allows regional distribution of purified water to broadest area and largest groundwater basins.



One Water Approach Addresses Uncertainties

Modernize and secure supply reliability for the State Water Project

Maintain reliable supply from the Colorado River

Complete distribution system improvements to allow water to move through region

Meet future demand by expanding local supply, including Pure Water Southern California

Eliminate non-functional turf


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928