



Pure Water Southern California

A New Source of Water for Southern California

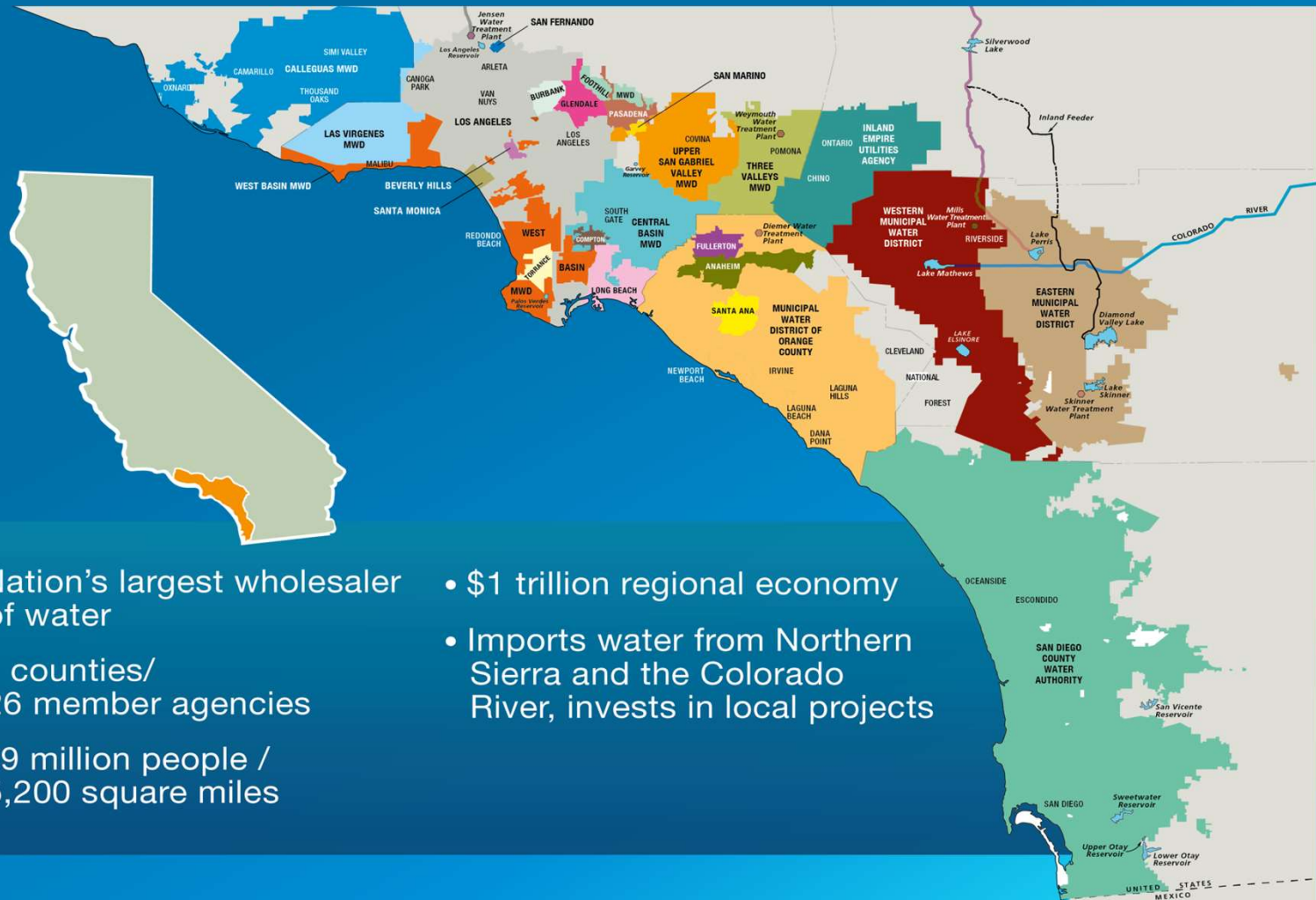
Panel: Evaluating Collaborative Options for a Second Century
Colorado River Water Users Association Conference
December 15, 2022

PUREWATER
SOUTHERN CALIFORNIA

Metropolitan's Conservation Partnerships

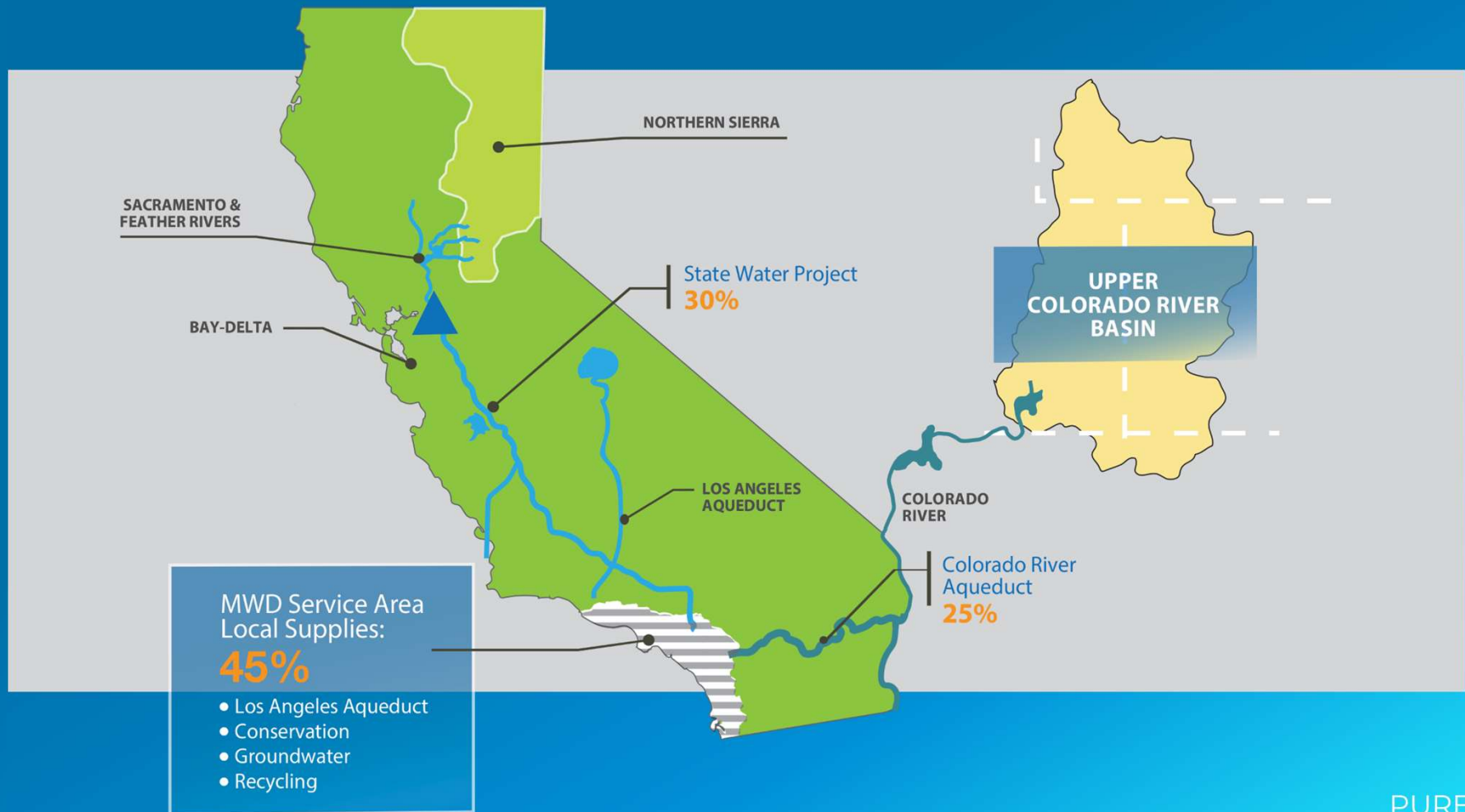
- Pure Water Southern California is opportunity to build on Metropolitan's history of collaboration
 - U.S. & Mexico
 - *Minutes 319 and 323*
 - Lower Division States and M&I Contractors
 - *500+ Plan and Pilot System Conservation*
 - Upper Division States & Upper Colorado River Commission
 - *System Conservation Pilot Program*
 - Irrigation Districts & Tribes
 - *fallowing, on-farm conservation, deficit irrigation*

Metropolitan Overview



- Nation's largest wholesaler of water
- \$1 trillion regional economy
- 6 counties/ 26 member agencies
- Imports water from Northern Sierra and the Colorado River, invests in local projects
- 19 million people / 5,200 square miles

Sources of Water for Southern California



Pure Water Southern California

Pathway to Development



①
Wastewater
from homes,
businesses,
and industries
in LA County



②
Treated at
Sanitation
Districts' Joint
Water Pollution
Control Plant



③
Purified at
Metropolitan's
advanced water
treatment plant

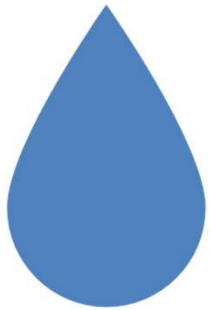


④
Conveyed
through over 60
miles of
pipeline to
groundwater
basins,
industries, or
Metropolitan's
treatment
plants

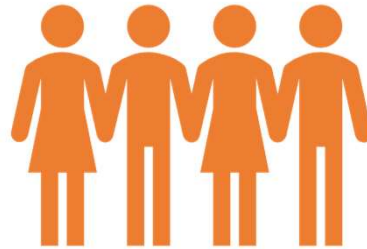


⑤
A new purified
source of water
for Southern
California

In Numbers



Up to 150 million
gallons per day or
168,000 acre-feet
per year



Enough water for
over
1.5 million people



One of the largest
programs of its
kind in the world

Program Benefits



Earthquake

Prepares the Southland for the event of a catastrophic earthquake by increasing local water supplies.



Drought

Produces a drought-proof source of water, readily available rain or shine.



Groundwater

Replenishes groundwater basins, which provide 30% of Southern CA's water supply and have seen levels drop to historic lows in recent years.



Economy

Helps meet needs of region's growing economy and population at a cost comparable to other local water resources.



Wastewater

Uses region's largest untapped source of wastewater, currently sent to the ocean.

PROGRAM PARTNERS

Wastewater Partner



**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources

Groundwater Basin Managers



Metropolitan Member Agencies



Colorado River Partners



**SOUTHERN NEVADA
WATER AUTHORITY**



Other Key Partners



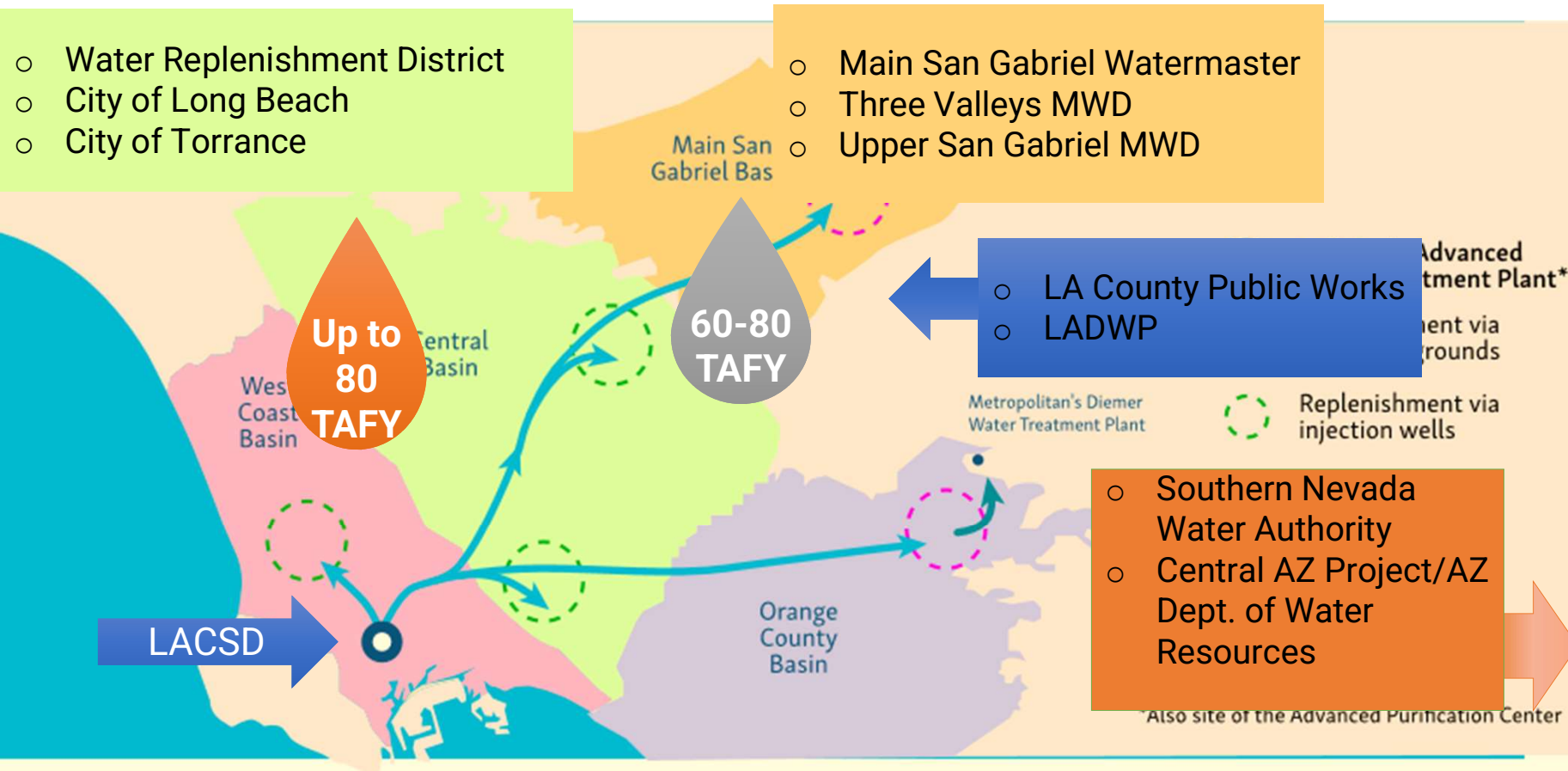
**US Army Corps
of Engineers**



Energy for What's Ahead™



Institutional Arrangements



Wastewater Partner

Joint Water Pollution Control Plant

- Average flow of ~260 MGD
- Primary and secondary treatment
- Currently discharges to the ocean
- Largest untapped source of treated wastewater



Pure Water Southern California

A FULL-SCALE ADVANCED WATER TREATMENT PLANT



Three-step purification process featuring membrane bioreactors, reverse osmosis and ultraviolet light/advanced oxidation



Rendering of full-scale facility

Program History

Major progress to date

- Technical Studies – 2009
- Bench Scale Testing – 2012
- Feasibility Study – 2016
- Demonstration Plant – 2019-present
- Conceptual Study – 2019
- Environmental planning phase – approved Nov. 2020
 - Engineering and Technical Studies
 - Program Environmental Impact Report
 - Public Outreach support



Demonstration Facility

Pure Water Southern CA

State and Federal Funding

- State
 - \$80M direct earmark funding - 2022
 - Potential for competitive DPR-related grants
- Federal
 - New large-scale recycled water program created in the Infrastructure bill
 - \$450M made available for regional projects
 - Maximum grant award is 25% of project cost
 - Program guidelines expected in the Fall 2022
 - Potential WIFIA loans



Program Schedule



Environmental
Planning



Design and
Construction



Startup and
Operations

2021-2024

2024-2031

2032

Opportunities to accelerate this timeline

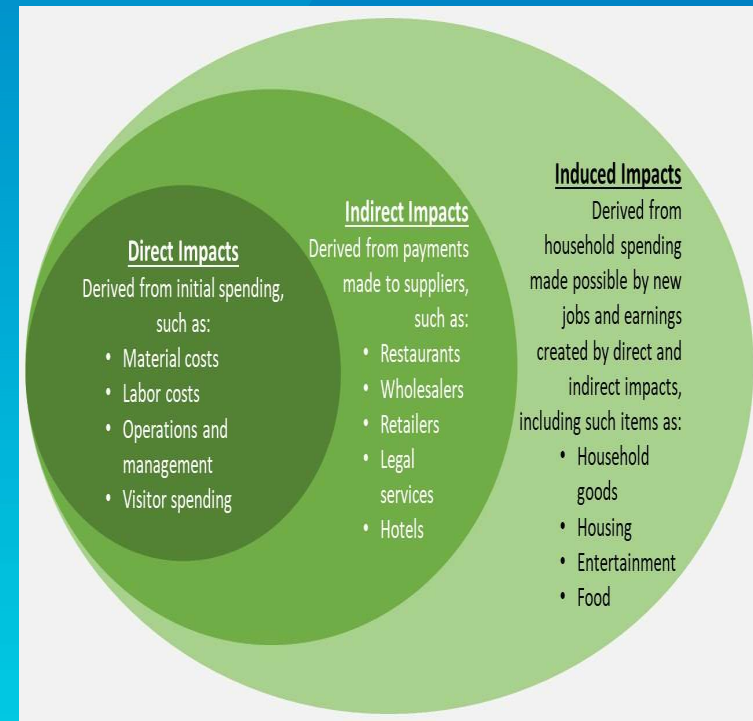
Program Costs (2018 Costs)

Cost Description	Backbone System (2018 Dollars)	Full Program (2018 Dollars)
Production Capacity (mgd)	100	150
Capital Program Cost ¹	\$2.6 billion	\$3.4 billion
Annual O&M Cost (\$/year)	\$69 million	\$129 million
Program Unit Cost of Yield		
Capital Unit Cost	\$1,181/AF	\$1,054/AF
<u>O&M Unit Cost</u>	<u>\$ 631/AF</u>	<u>\$ 772/AF</u>
Total Program Unit Cost	\$1,812/AF	\$1,826/AF

1. Costs are from the Conceptual Planning Studies Report (2018 dollars). Costs will be updated during the PEIR phase, if approved by the Board. Does not include cost of DPR

ECONOMIC OUTPUT FROM PROGRAM

- Los Angeles Economic Development Council job creation report
 - \$8.7B total economic output created
 - 47,000 development related jobs
 - 24,100 construction jobs in So. Calif.
 - \$400M+ State and Local taxes generated
- Ongoing economic activity in So. California
 - \$300M+ annual economic output
 - Over 1,000 total jobs supported



LAEDC Institute for Applied Economics

Metropolitan Pure Water Southern California Website

www.mwdh2o.com/rrwp

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

EN

Local Water Agency

Director Login



Water is too precious to use just once. So, the Metropolitan Water District of Southern California is making a major investment in a potential water recycling program that would reuse water currently sent to the ocean. Pure Water Southern California, formerly known as the Regional Recycled Water Program, will take cleaned wastewater and further purify it to produce a new, sustainable source of high-quality water for Southern California.

This partnership with the Los Angeles County Sanitation Districts would produce up to 150 million gallons of water daily when completed and provide purified water for up to 15 million people.

