



April 7, 2022

Water Resilience for Southern California

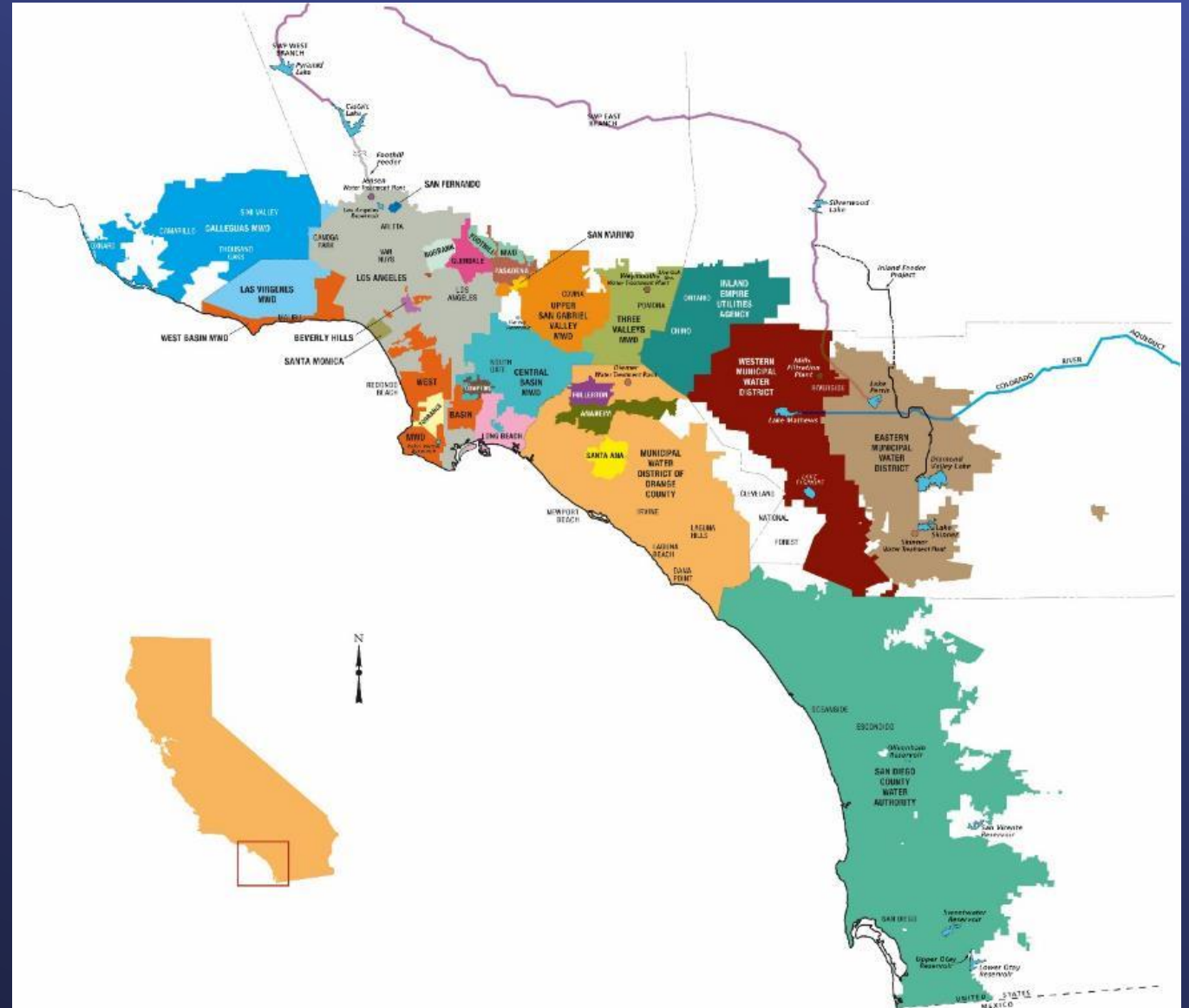
Liz Crosson

Chief Sustainability, Resiliency and Innovation Officer

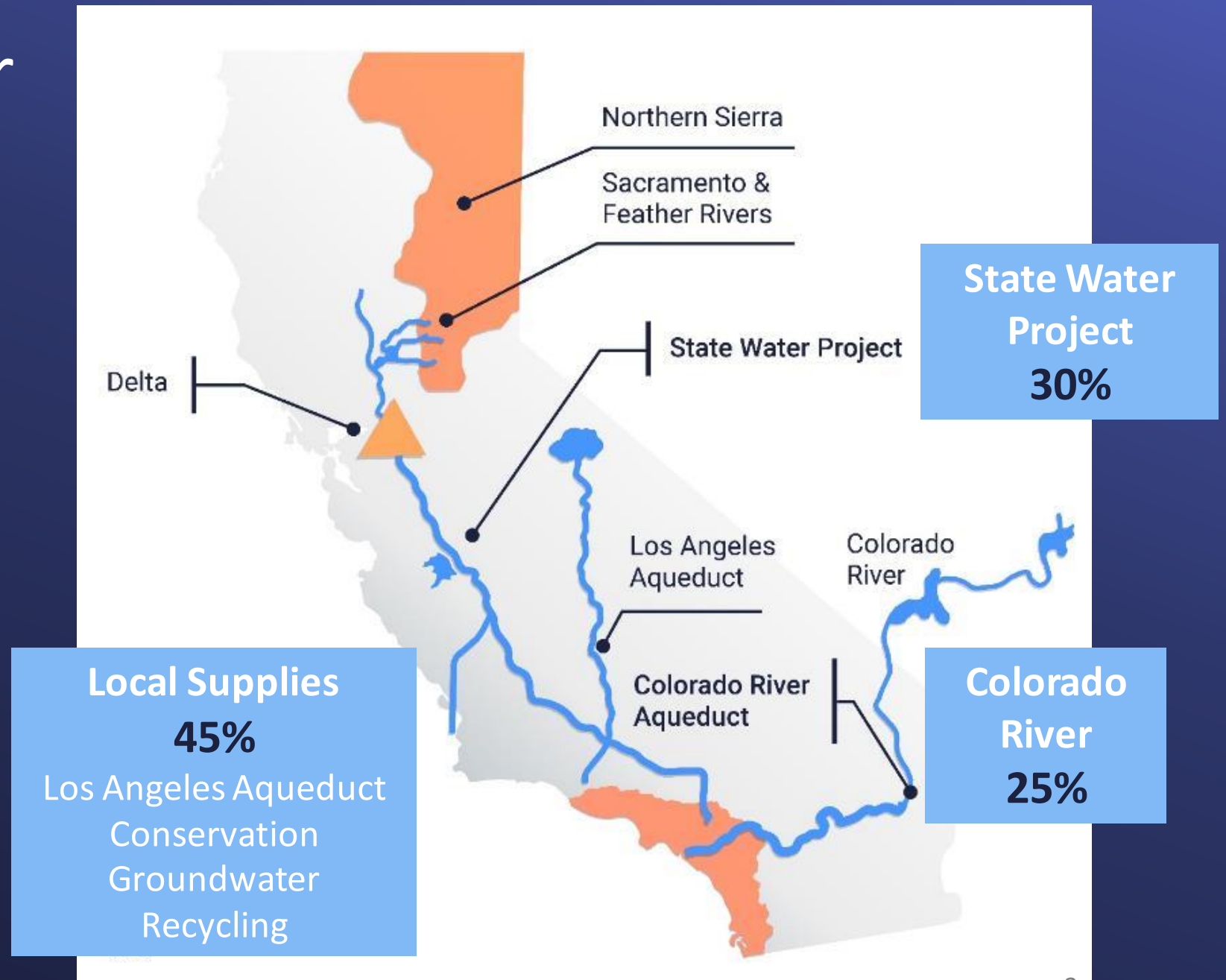
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Metropolitan Water District of Southern California.

- Nation's largest wholesale water provider
- Service area: 19 million people, 5,200 square miles, parts of six counties
- 26 member agencies
- Supports \$1.4 trillion regional economy (ranks 13th in the world)



Securing Water for Southern California



Metropolitan's Imported Supply Watersheds.



In a First, U.S. Declares Shortage on Colorado River, Forcing Water Cuts

Arizona farmers will take the initial brunt, but wider reductions loom as climate change continues to affect flows into the river.



Years of drought have severely depleted the reservoirs that feed the Colorado River, and deeper restrictions on water use are expected. "Additional actions will likely be necessary in the very near future," a senior official said. Patrick T. Fallon/Agence France-Presse — Getty Images

By Henry Fountain



Los Angeles Times

CALIFORNIA

Southern California water officials declare supply alert amid worsening drought



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THE OCR

'Water supply alert' issued for...

NEWS • ENVIRONMENT • News

'Water supply alert' issued for Southern California in response to drought

Metropolitan Water District's declaration calls for a voluntary reduction in use, but mandatory restrictions could arise in the future.



Los Angeles Times

CALIFORNIA

California slashes State Water Project allocation as year begins with record dryness



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KCAL 9 News at 8:00

68°



NATIONAL SALES EVENT

Event Ends September 7

SEE OFFERS

Vehicles shown with options using visual effects. Participating Toyota dealers only.



Water Supply Alert Issued For SoCal As Drought Worsens

By CBSLA Staff August 17, 2021 at 6:51 pm Filed Under: california, Drought, Metropolitan Water District, water



Adel Hagekhalil

METROPOLITAN WATER DISTRICT GENERAL MANAGER

CBSN

LOS ANGELES

DROUGHT

CALIFORNIA

SANTA CLARITA

TUE 96

WED 81

THU 86

FRI 88

SAT 84

SUN 88

MON 93

80°

6:01 PM



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BRANDON CLEMENT/LSM

Almost the entire western US is in a drought, according to government experts

See the dried up reservoir that's shutting down this power plant

Lake Oroville, a reservoir that provides water for a hydroelectric power plant in California, is so low that it must be shut down for the first time since it opened in the 60's. Source: CNN

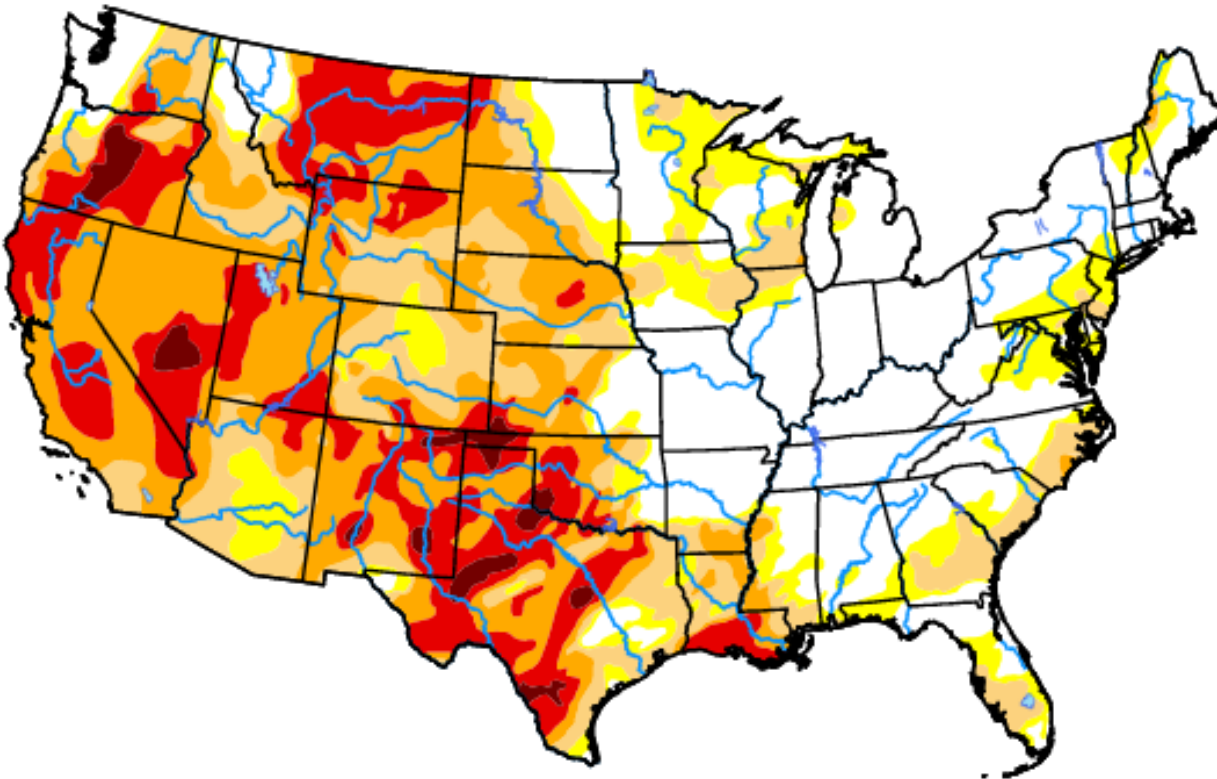
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



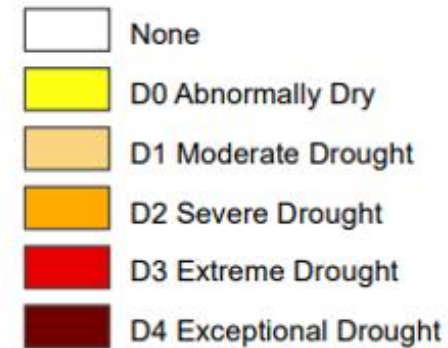
Drought Conditions Persistent in the West.

As of March 31, 2022

U.S. Drought Monitor



Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

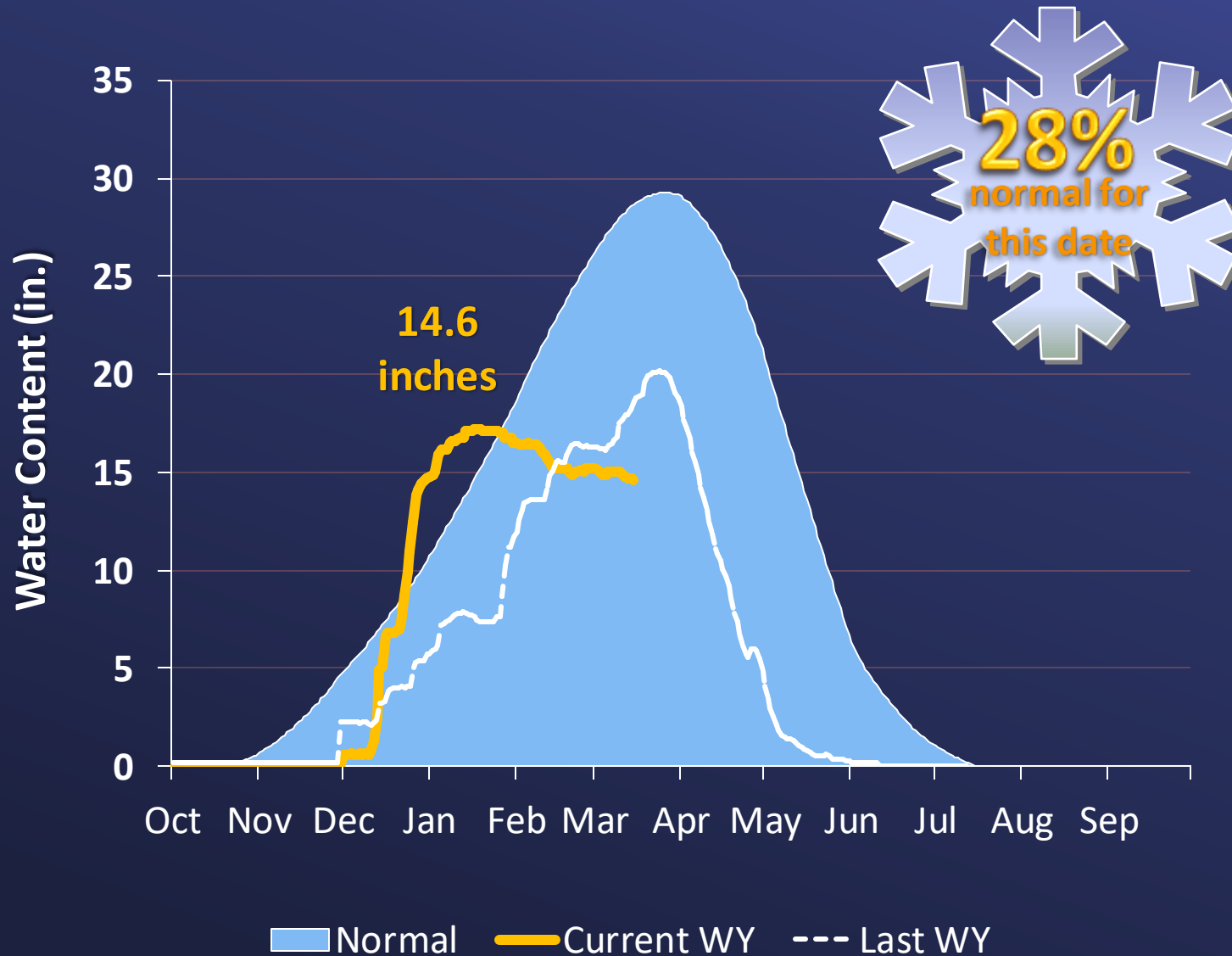
Author:

Brian Fuchs
National Drought Mitigation Center



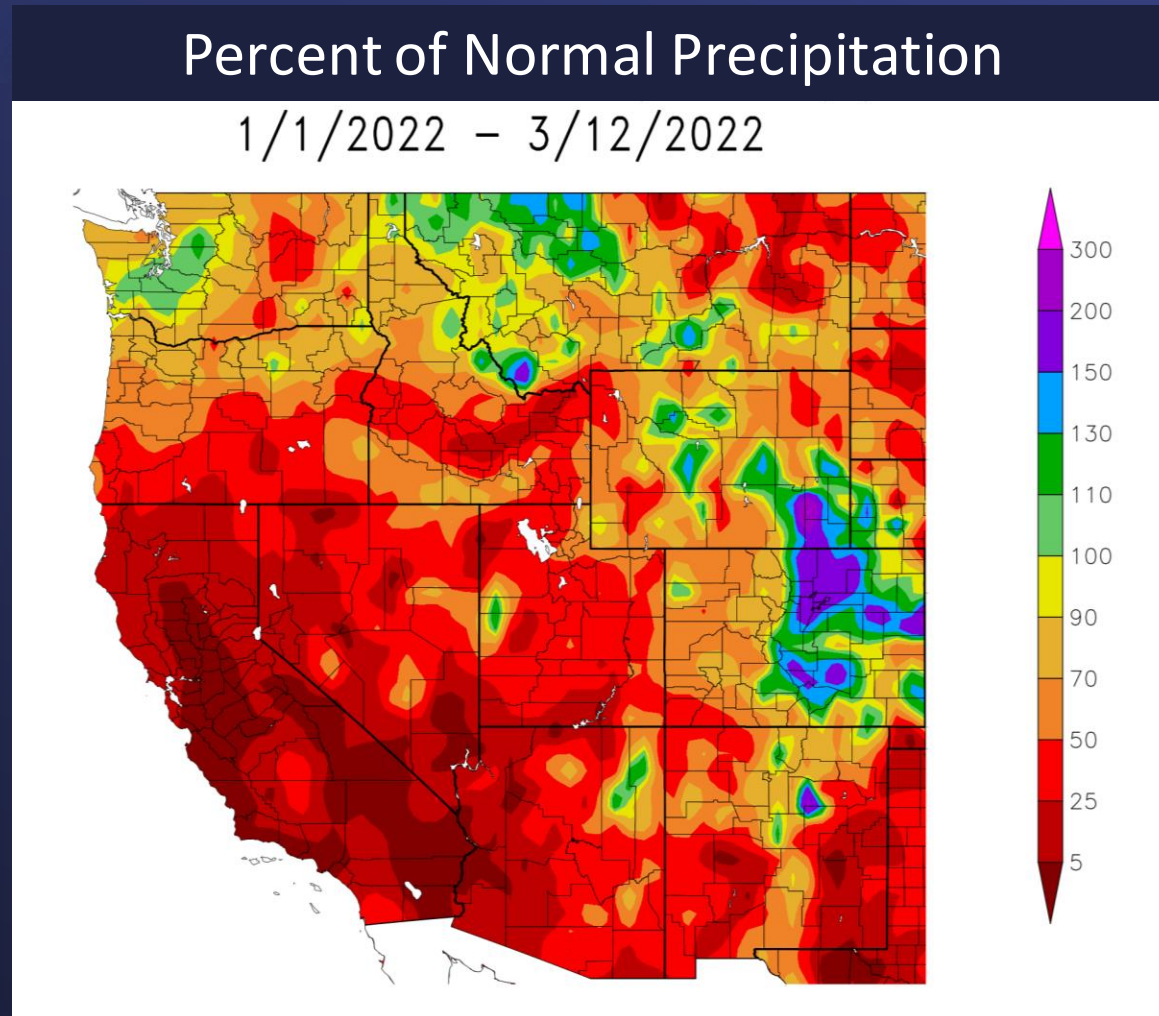
droughtmonitor.unl.edu

Hydrologic Conditions Northern Sierra.



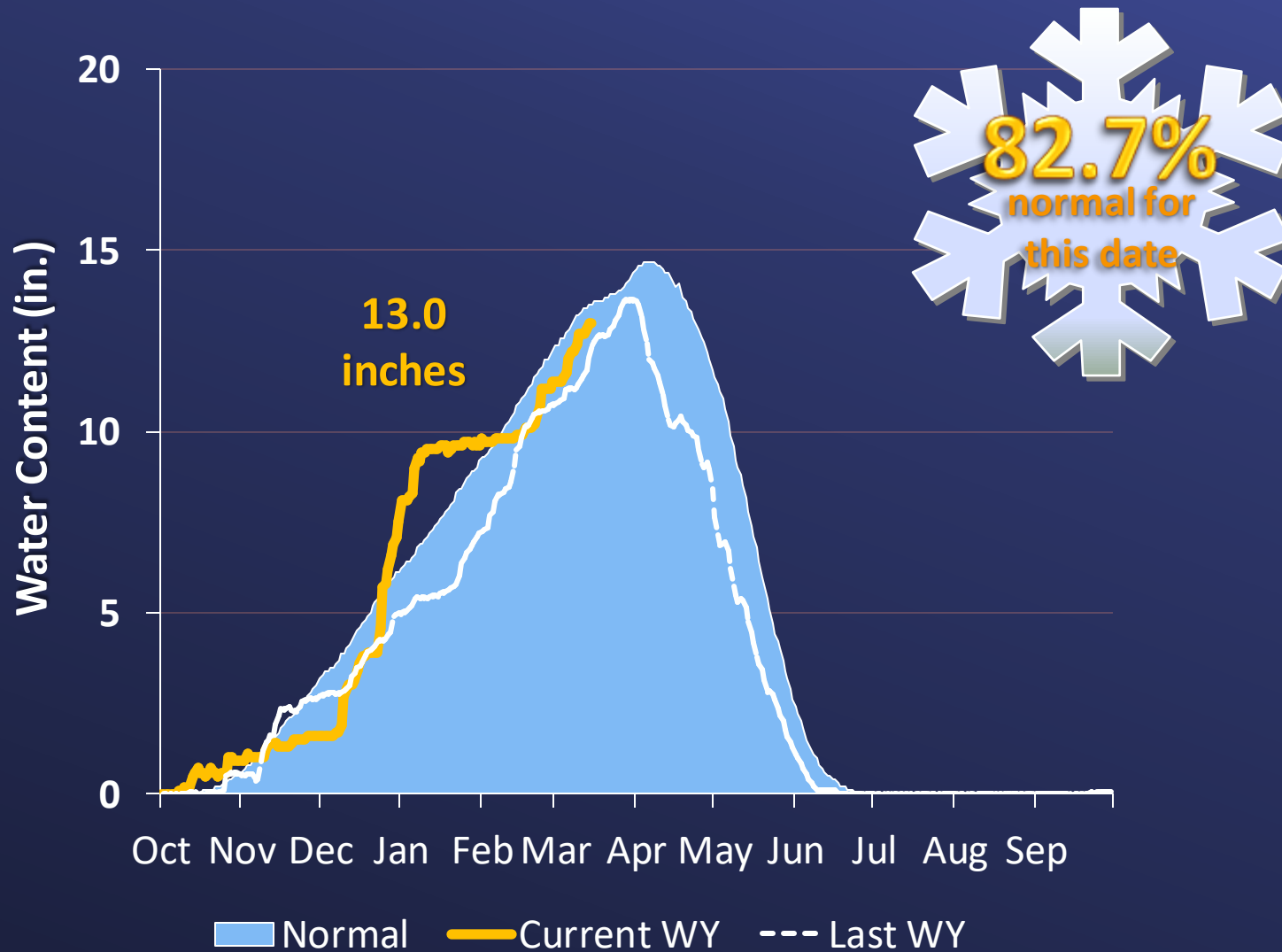
- Water content has begun to decrease
- Way below average for this time of year
- Statewide average is 38% as of April 1 Snowpack Survey

Hydrologic Conditions Northern Sierra.



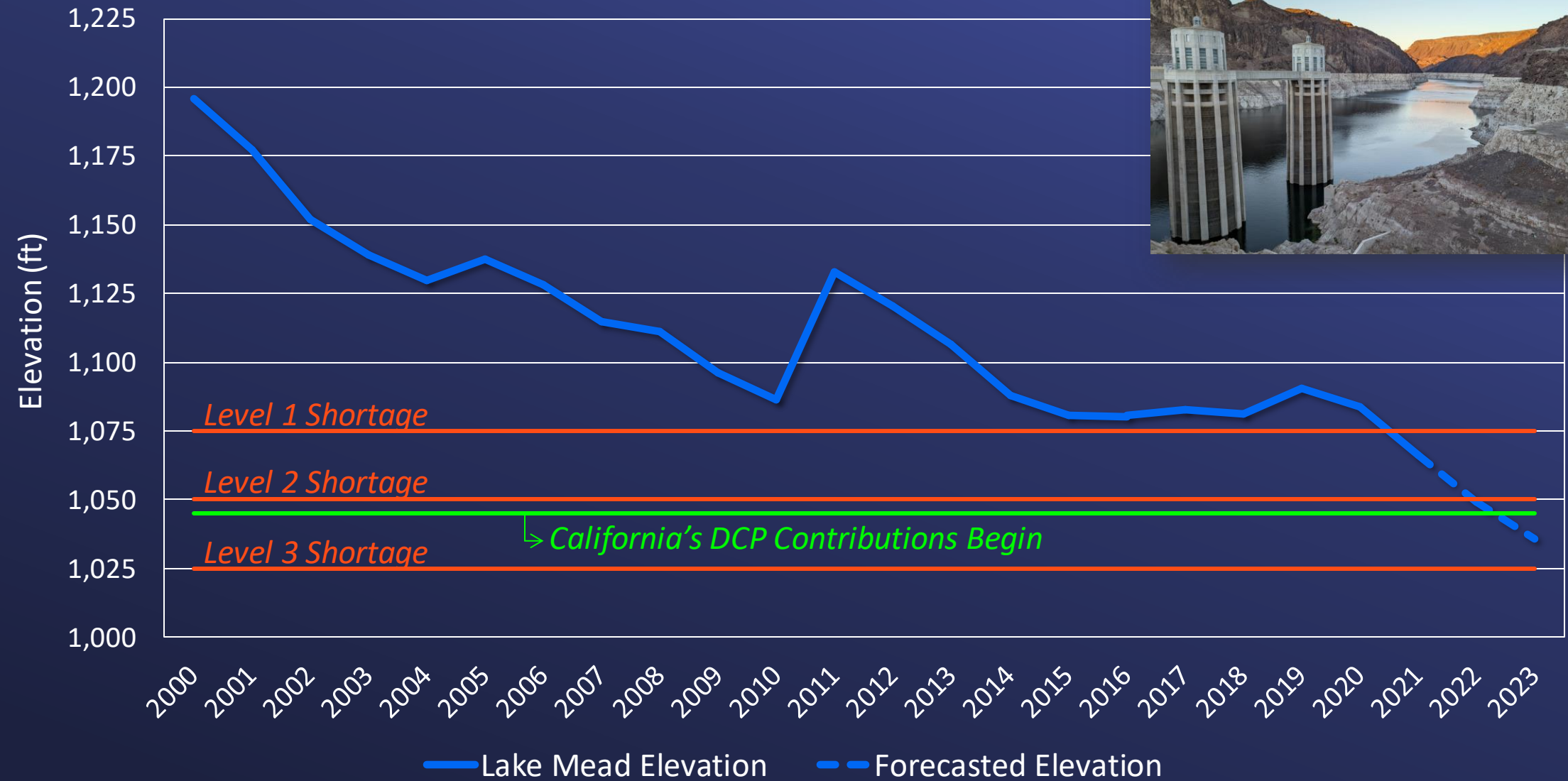
- Jan –Mar 2022 driest on record (8-Station)
- Runoff forecast has been decreasing since December
- Department of Water Resources reduced water use allocations to 5%

Hydrologic Conditions Upper Colorado River Basin.



- About average for this time of year
- Not seeing decreases in water content yet
- Metropolitan had supplies to fill available aqueduct capacity this year

Declining Lake Mead Elevation.



Key Findings of
the
2000-2021
Megadrought.

- Driest 22-year period since year 800
- 2002 and 2021 ranked among the driest
- Human-caused climate change is responsible for about 42% of the soil moisture deficit since 2000
- Drought likely to continue
(75% chance to continue to 30 years)

What is Water Resilience?

- 1) *Water Resilience is the ability to provide an uninterrupted supply of safe, clean water through natural occurrences such as earthquakes, drought, climate change and water quality conditions.*
- 2) *Water resilience is commonly understood as the ability of water systems to withstand a variety of water-related shocks (floods, droughts, changes in water quality) without losing their ability to support key functions.*
- 3) *Water resilience is the ability of social-ecological systems to weather and recover from shocks while remaining adaptable to an uncertain future, and “water resilience” refers to those characteristics in a water system.*
- 4) *Water resilience must encompass approaches that allow us to persist, adapt, and transform in the face of uncertain climatic change stressors and shocks.*
- 5) *Water resilience is the ability of water systems to function so that nature and people, including those on the frontlines and disproportionately impacted, thrive under shocks, stresses and change.*

Planning for Uncertainties and Keeping the “Bucket” Full



**Integrated Water Resources Plan
utilized a scenario planning
approach to better prepare for
an uncertain future**



Maintain imported supplies
from the Colorado River



Modernize and secure supply
reliability of the State Water Project



Meet all future demands by
expanding local supplies



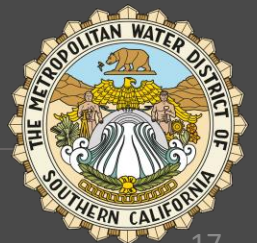
One Water

THE METROPOLITAN WATER DISTRICT
of SOUTHERN CALIFORNIA



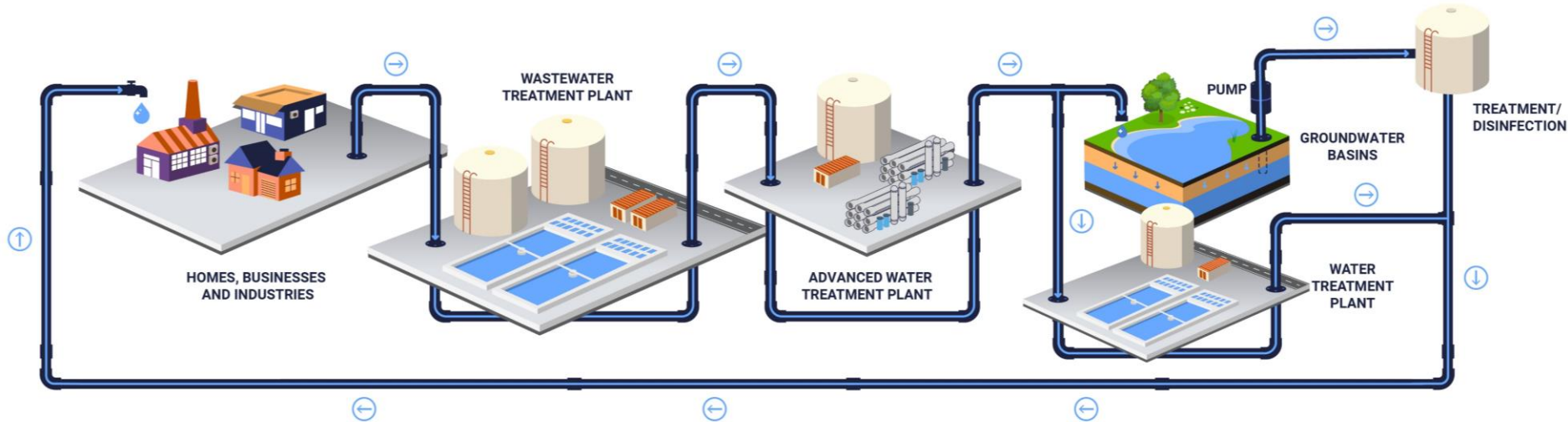
Regional Solutions:
The Regional Recycled Water Project

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



Producing a Drought-Proof Supply of Water for Southern California

150 million gallons daily, enough for 500,000 homes



Regional Recycled Water Program_

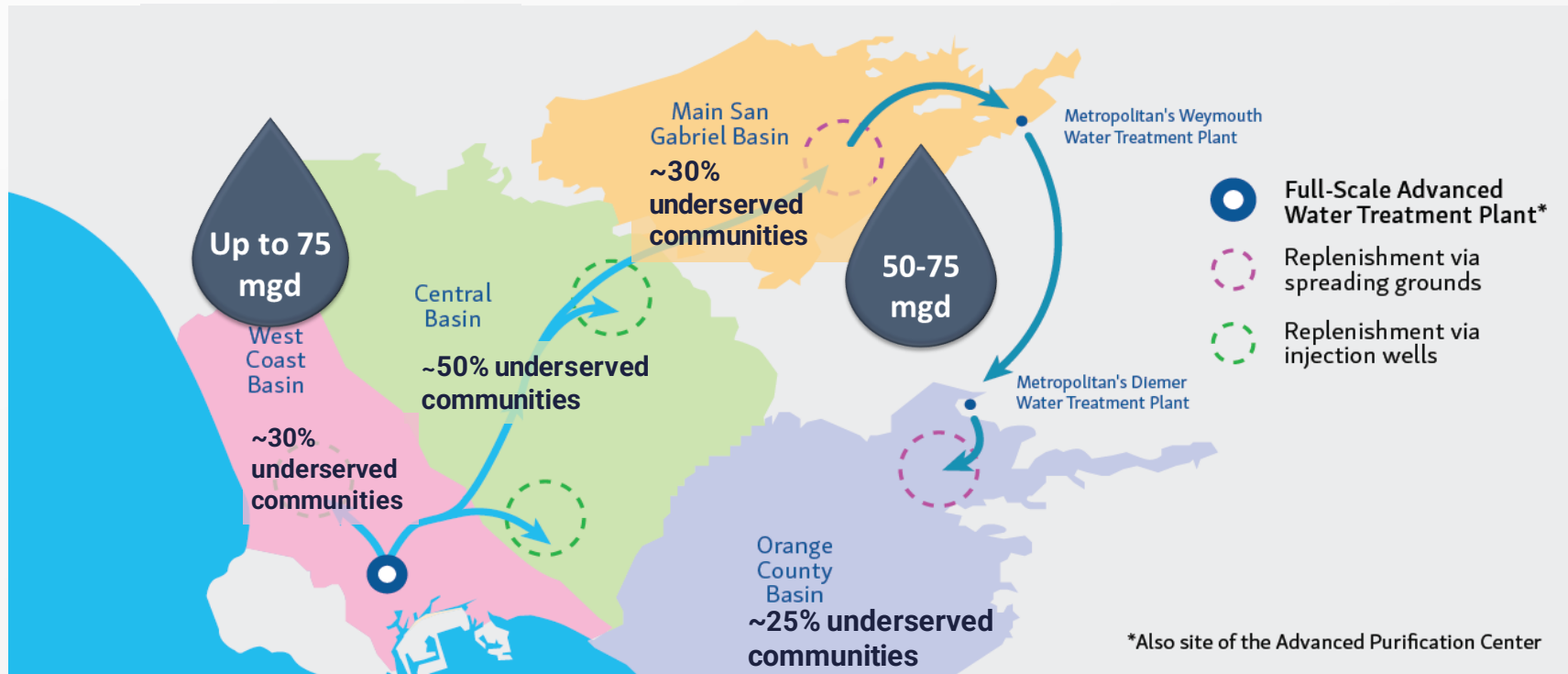
How It Works.

Wastewater from homes, businesses and industries in LA County

Cleaned at Sanitation Districts' Joint Water Pollution Control Plant in Carson

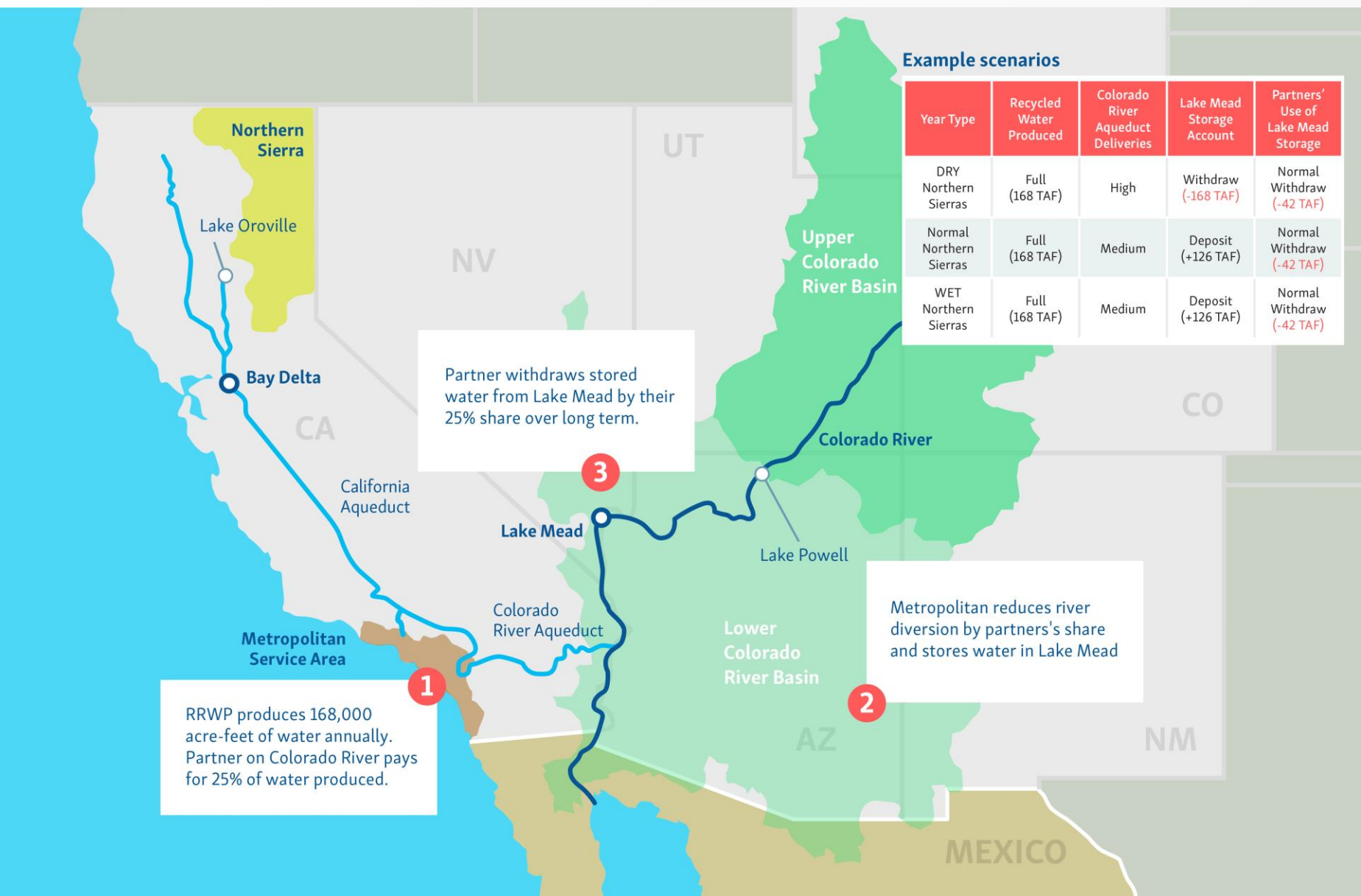
Purified at Metropolitan's Advanced Water Treatment Plant

Conveyed through 40+ miles of pipeline to groundwater basins, industries or Met treatment plants



Regional Recycled Water Program

Groundwater
Basins Served by
Full-Scale
Program.



Regional Recycled Water Program

Potential Exchanges With Colorado River Partners.



Partnerships with Ag.

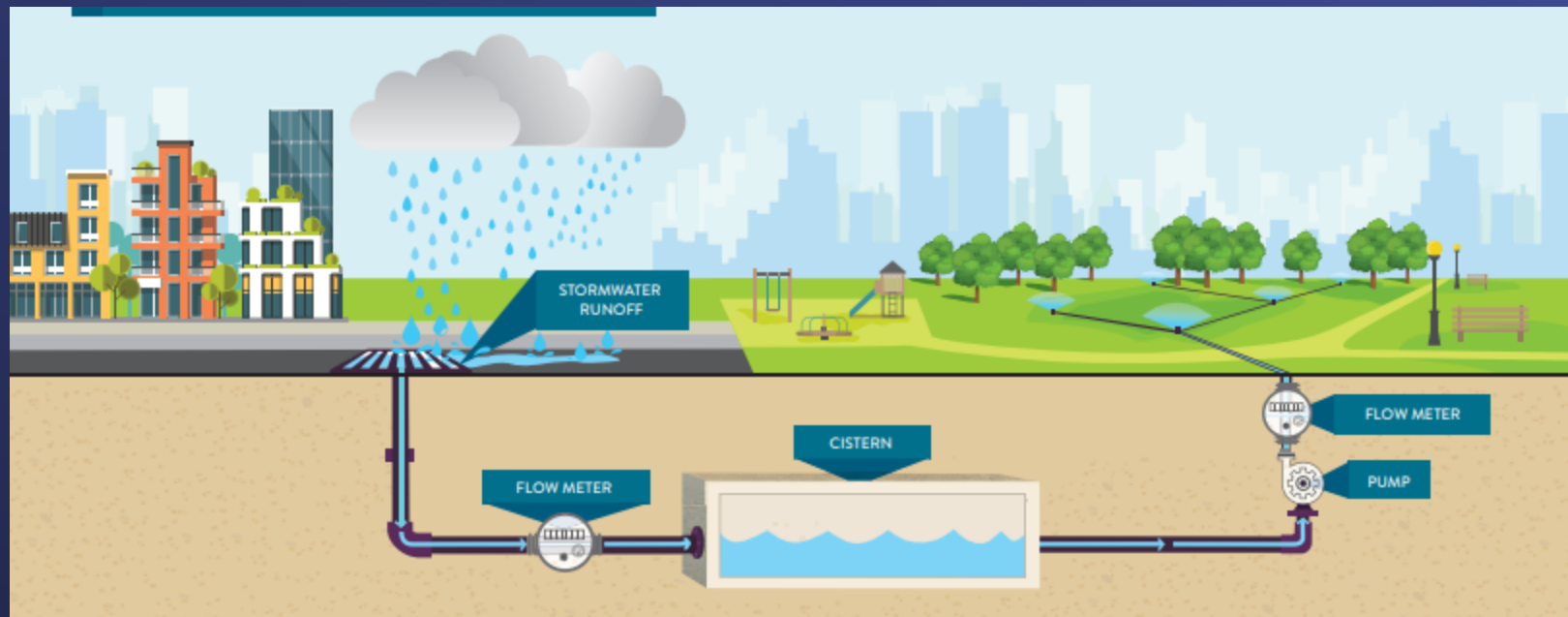
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MET Local Resources Program
Supports Member Agency Projects

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Greg Avenue Pump Station,
Expanding Flexibility of Distribution System

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Sap Flow Sensor,
MET Innovative Conservation Program

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