



**CITY OF MANHATTAN BEACH CITY HALL**

1400 Highland Avenue, Manhattan Beach, CA 90266

**WEBSITE:** [www.manhattanbeach.gov](http://www.manhattanbeach.gov) • **PHONE:** (310) 802-5000

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Erick Lee, Public Works Director

**MEETING:** City Council Regular Meeting, May 17, 2022

**SUBJECT:** Agenda Item No. 3 – Presentation from Director Desi Alvarez from the West Basin Municipal Water District

**DATE:** May 17, 2022

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## **SUPPLEMENTAL ATTACHMENT**

- PowerPoint Presentation (West Basin Municipal Water District)



# WEST BASIN

Municipal Water District

*Manhattan Beach  
City Council Meeting*

May 17, 2022

[www.westbasin.org](http://www.westbasin.org)



LET'S  
MAKE  
MANHATTAN BEACH  
SUPER-  
CALI-  
FRUGALISTIC

Save Water. Save California.



# Agenda

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West Basin Municipal Water District

Regional Water Supply

Drought

What Manhattan Beach Can Do

# West Basin Municipal Water District

75<sup>th</sup> Anniversary (1947-2022)

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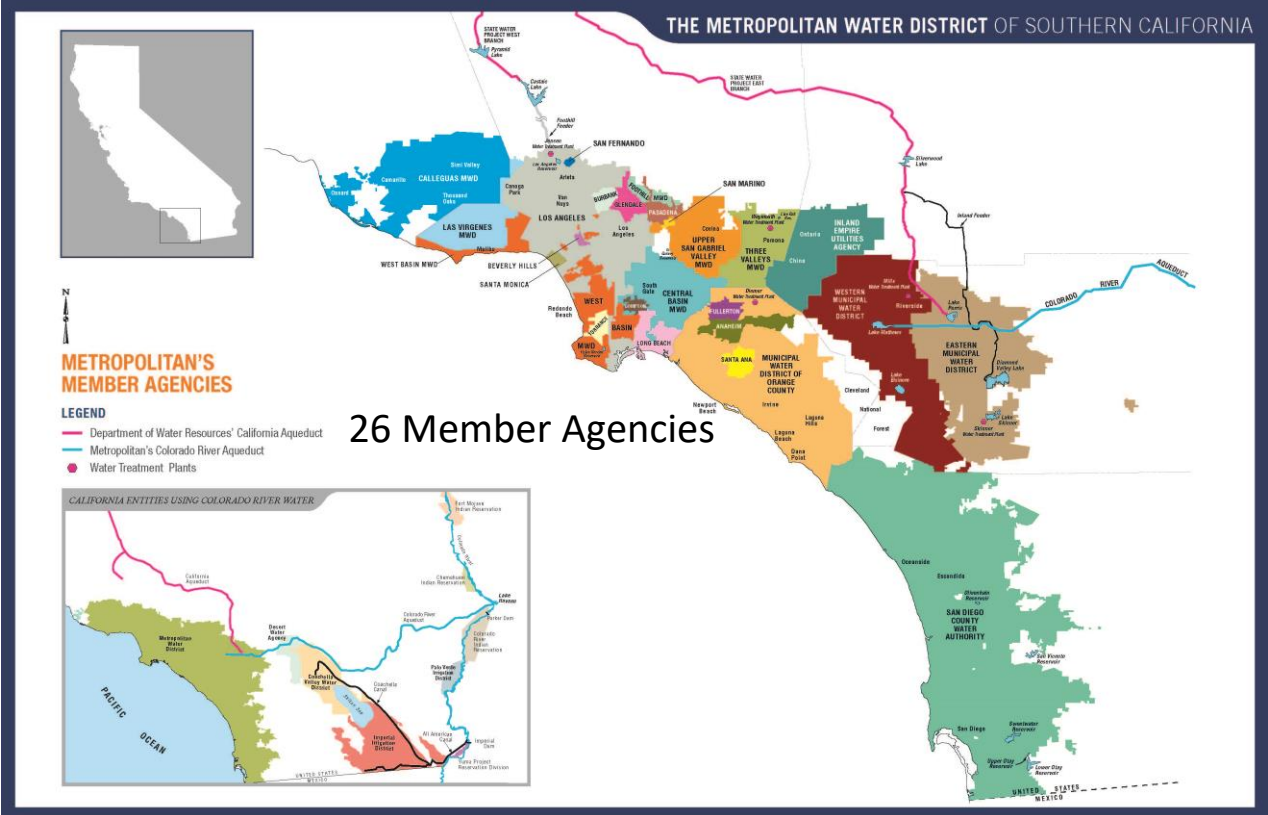


Post WW II LA County experienced explosive growth however most communities did not have sufficient water supply to meet the growth driven demand.

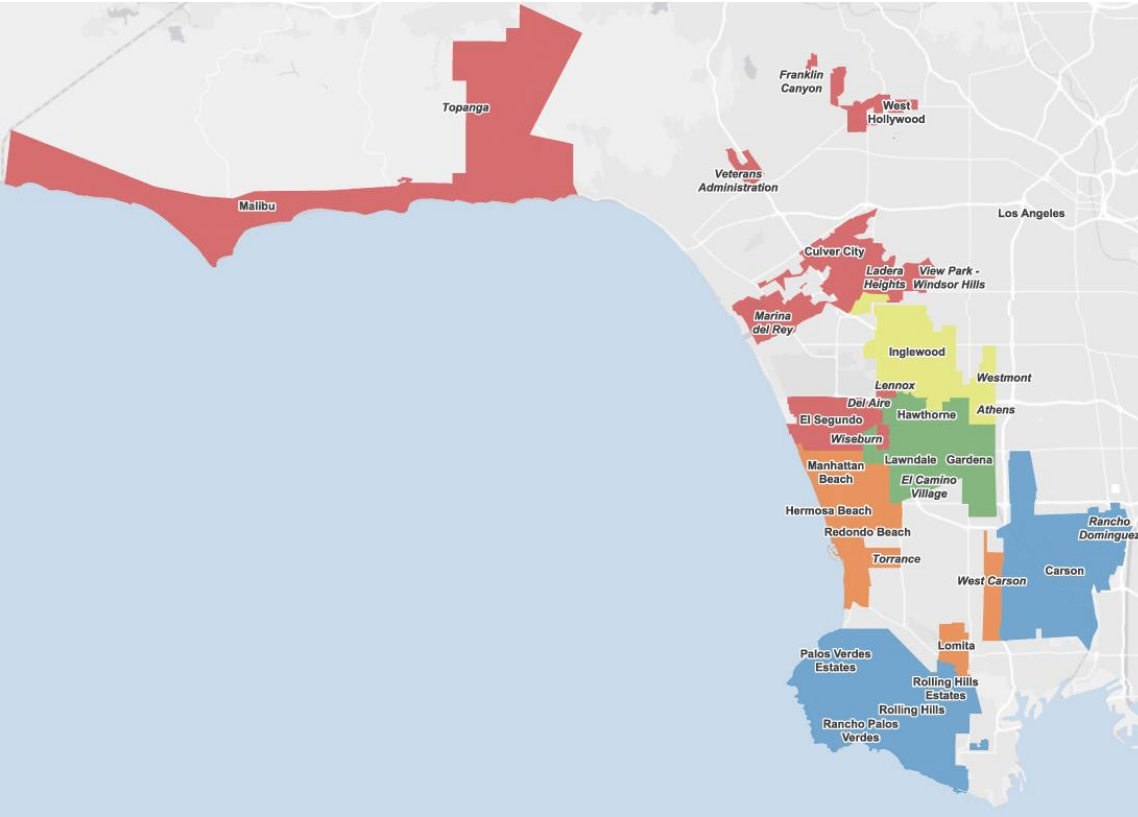
West Basin was **formed in 1947 to secure a reliable** water supply for communities in the west side of LA County.

Today, the District remains committed to its mission of water reliability.

# Metropolitan Water District



# West Basin Municipal Water District Service Area



**Division I**  
Carson, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, and unincorporated LA County areas of Rancho Dominguez

**Division II**  
Inglewood, and unincorporated LA County areas of Lennox, South Ladera Heights, West Athens, and Westmont

**Division III**  
Hermosa Beach, Lomita, Manhattan Beach, Redondo Beach, portion of Torrance and West Carson

**Division IV**  
Culver City, El Segundo, Malibu, West Hollywood, and unincorporated LA County areas of Del Aire, Lennox, Marina del Rey, North Ladera Heights, Topanga, View Park - Windsor Hills and Wiseburn

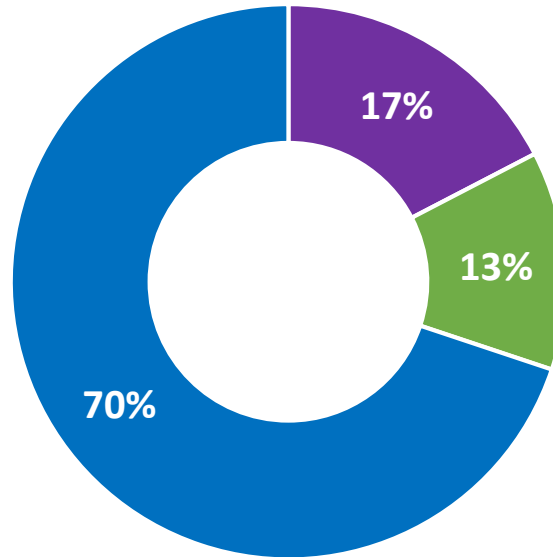
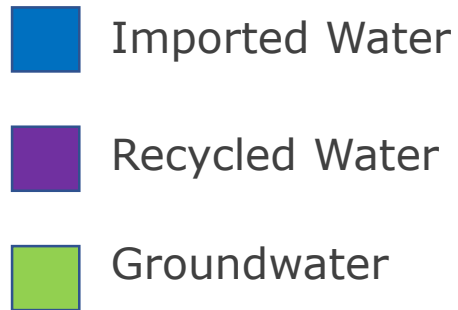
**Division V**  
Gardena, Hawthorne, Lawndale, and unincorporated LA County area of El Camino Village

# West Basin Water Portfolio

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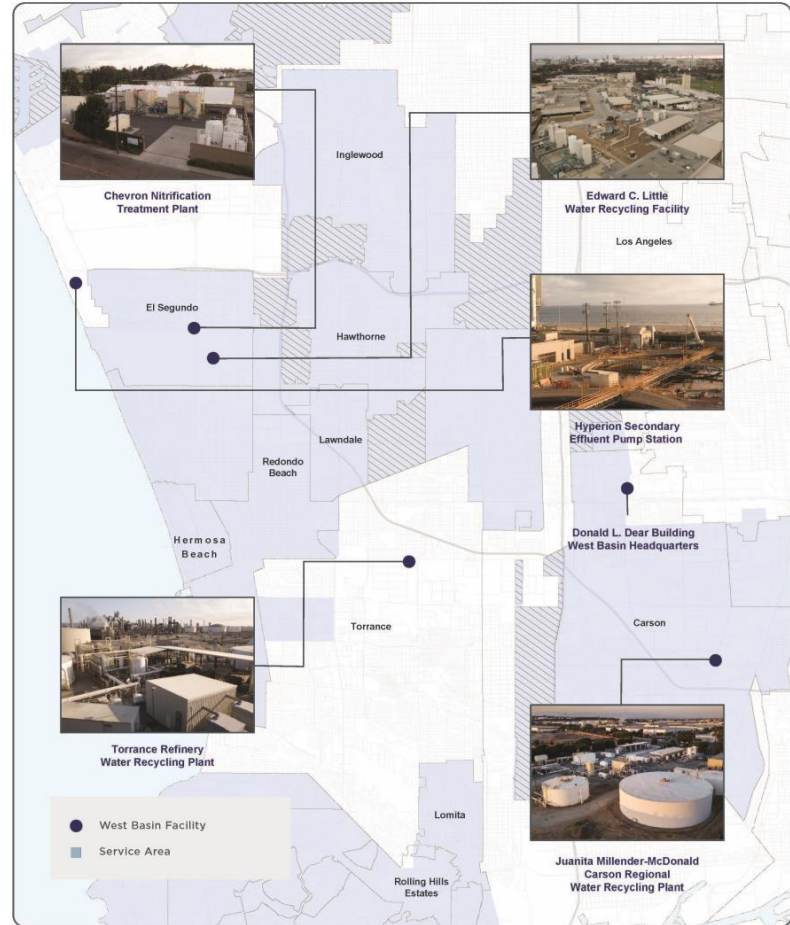
## Water Supply Portfolio

Based on 2020 Urban Water Management Plan



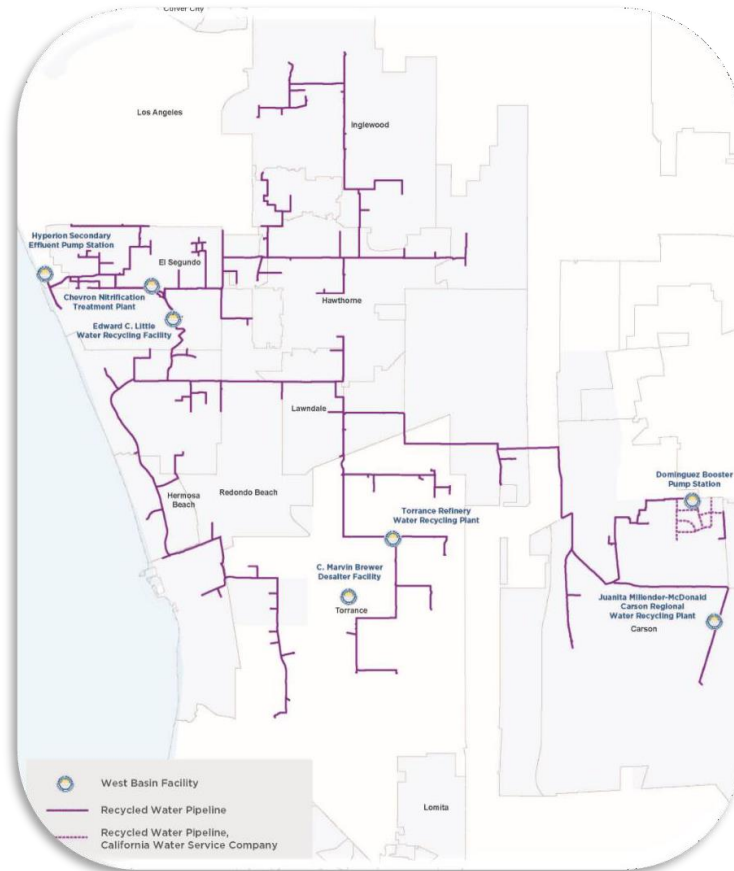
# West Basin Municipal Water District Recycled Water Facilities

- Source Water is LA Bureau of Sanitation's Hyperion Treatment Plant
- West Basin's Ed C. Little Treatment Plant
- Recycled Water Users
  - Refineries - ~ 50%
  - Groundwater Replenishment
  - West Basin Seawater Barrier - ~37%
  - Landscape Irrigation & Others - ~13%

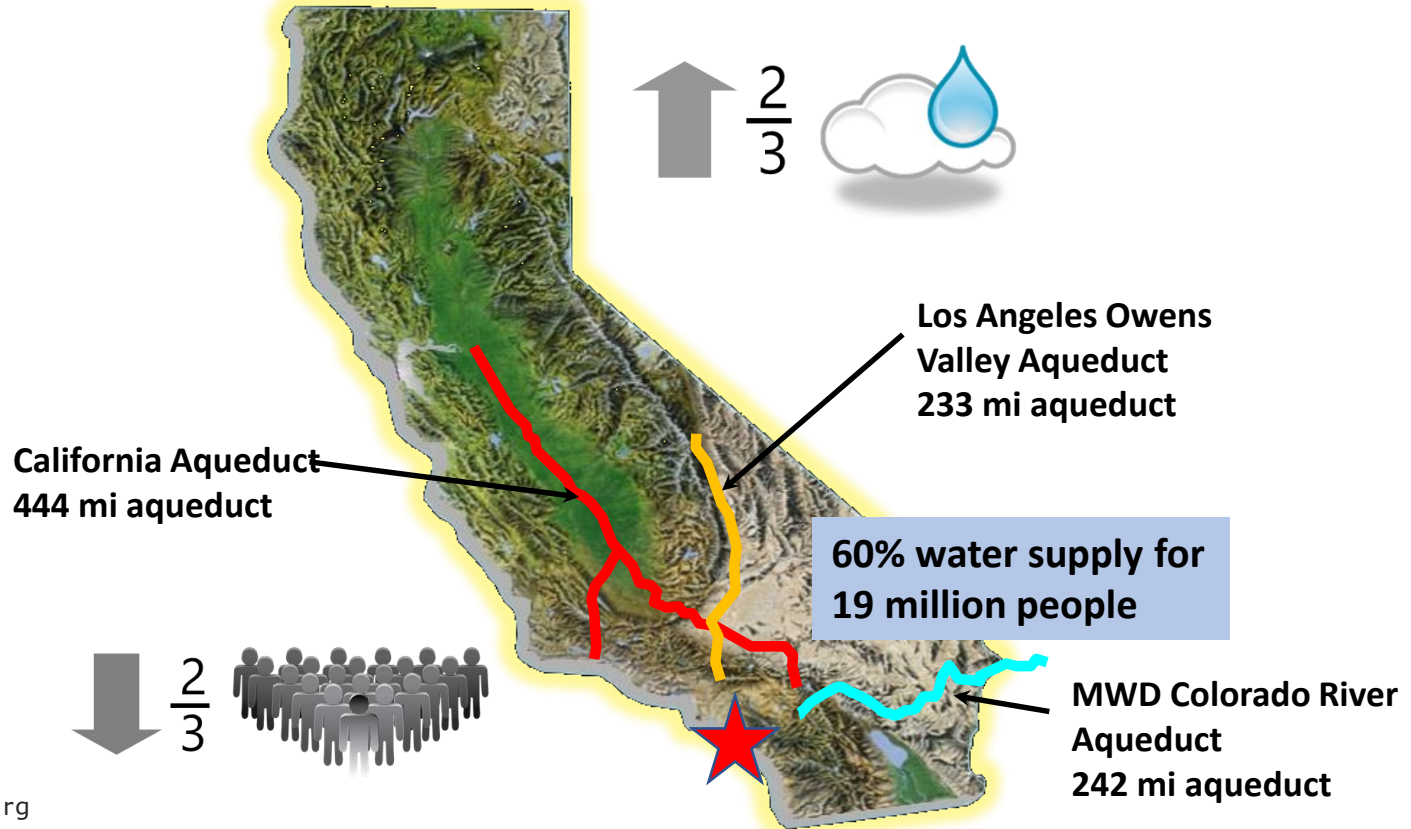




# West Basin Municipal Water District Recycled Water Distribution System



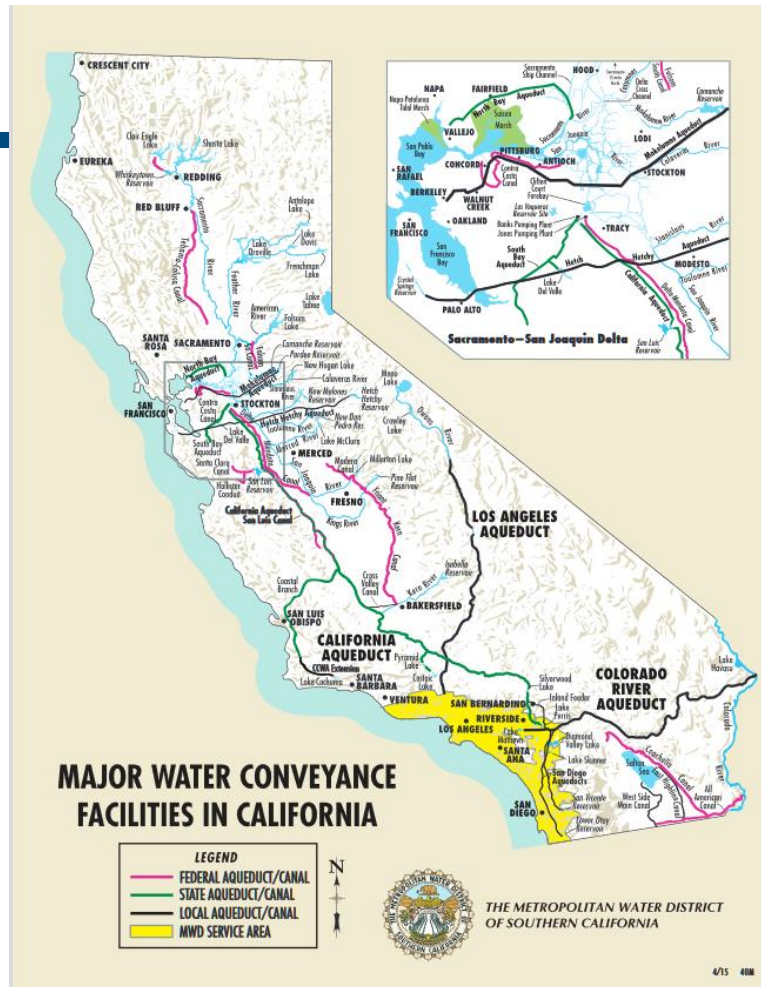
# Imported Water Relies on No Longer Reliable Sources



# Southern California's Water Supply

## Key Reservoirs

- Shasta
- Oroville
- Folsom
- New Melones
- Don Pedro
- McClure
- San Luis



## Storage in Key State Water Project and Federal Central Valley Project Reservoirs

Reservoir Name	Sta ID	Storage Capacity (AF)	Storage (AF) as of 4-7-22	Storage as % of Capacity	Storage as % of Average	Storage-Year Ago This Date	Change in Storage from a Yr Ago (AF)
Shasta	SHA	4,552,000	1,738,879	38	48	2,394,211	-655,3332
Oroville	ORO	3,537,577	1,688,862	48	66	1,454,062	+234,800
Folsom	FOL	977,000	603,077	62	95	364,532	+238,545
New Melones	NML	2,400,000	928,420	39	62	1,528,316	-599,896
Don Pedro	DNP	2,030,000	1,259,173	62	82	1,389,949	-130,776
McClure (Exchequer)	EXC	1,024,600	340,527	33	61	400,022	-59,495
San Luis	SNL	2,041,000	931,902	46	53	1,100,548	-168,646
Total Change in Storage – Year to Year							-1,140,800

# Colorado River Storage



Before and after photos of Lake Powell  
on the Colorado River

June 23, 2021



March 27, 2022

# Snowpack Is Practically Non-Existent



- Snowpack at Lowest Level in 7 Years
- As of April 8, 2022 Snow Water Equivalent is 7.2 inches
- 26% of Average for this Time of Year

# 791 DAYS of DROUGHT SINCE FEB 11, 2020 IT IS NOT OVER

## Los Angeles Times



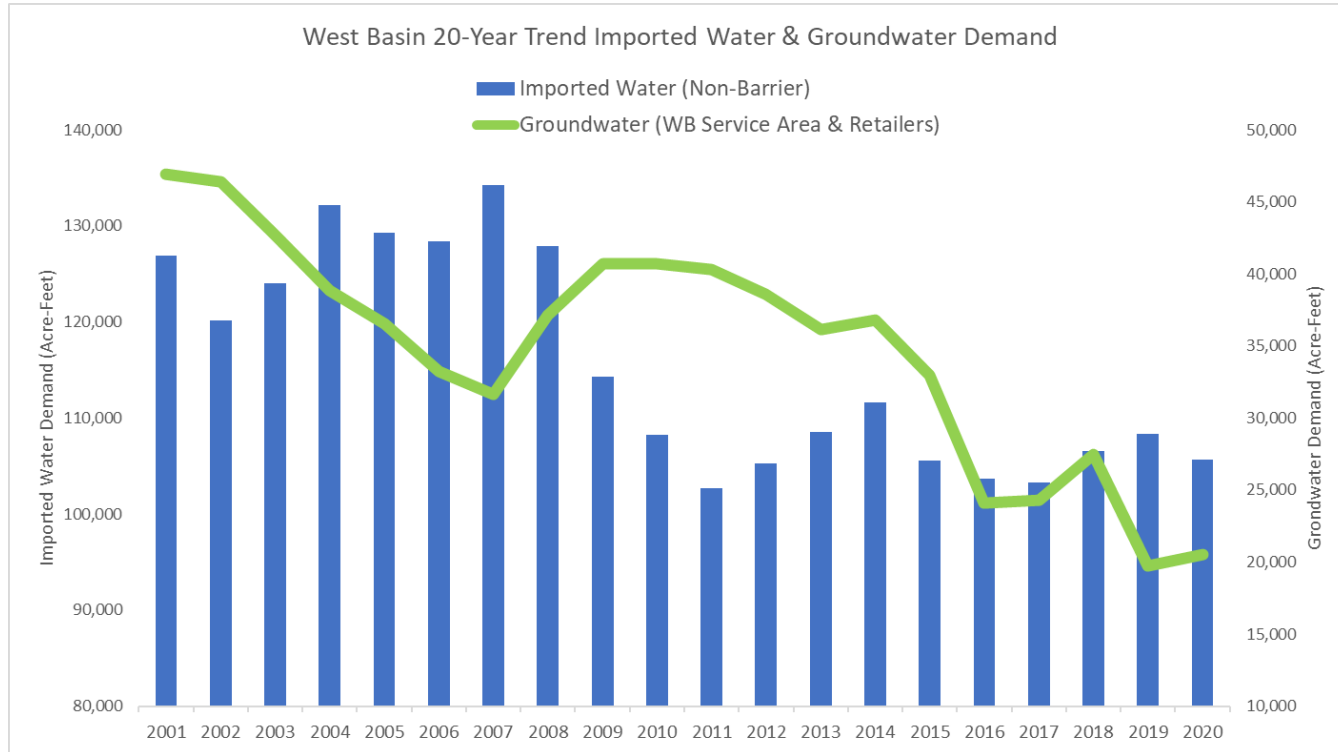
**TREE STUMPS** in the ghost town of St. Thomas, Nev., which resurfaced as Lake Mead's water receded. LUIS SINCO Los Angeles Times

This Western megadrought  
is the worst in a millennium

## On March 28, 2022 the Governor Issued Executive Order N-7-22

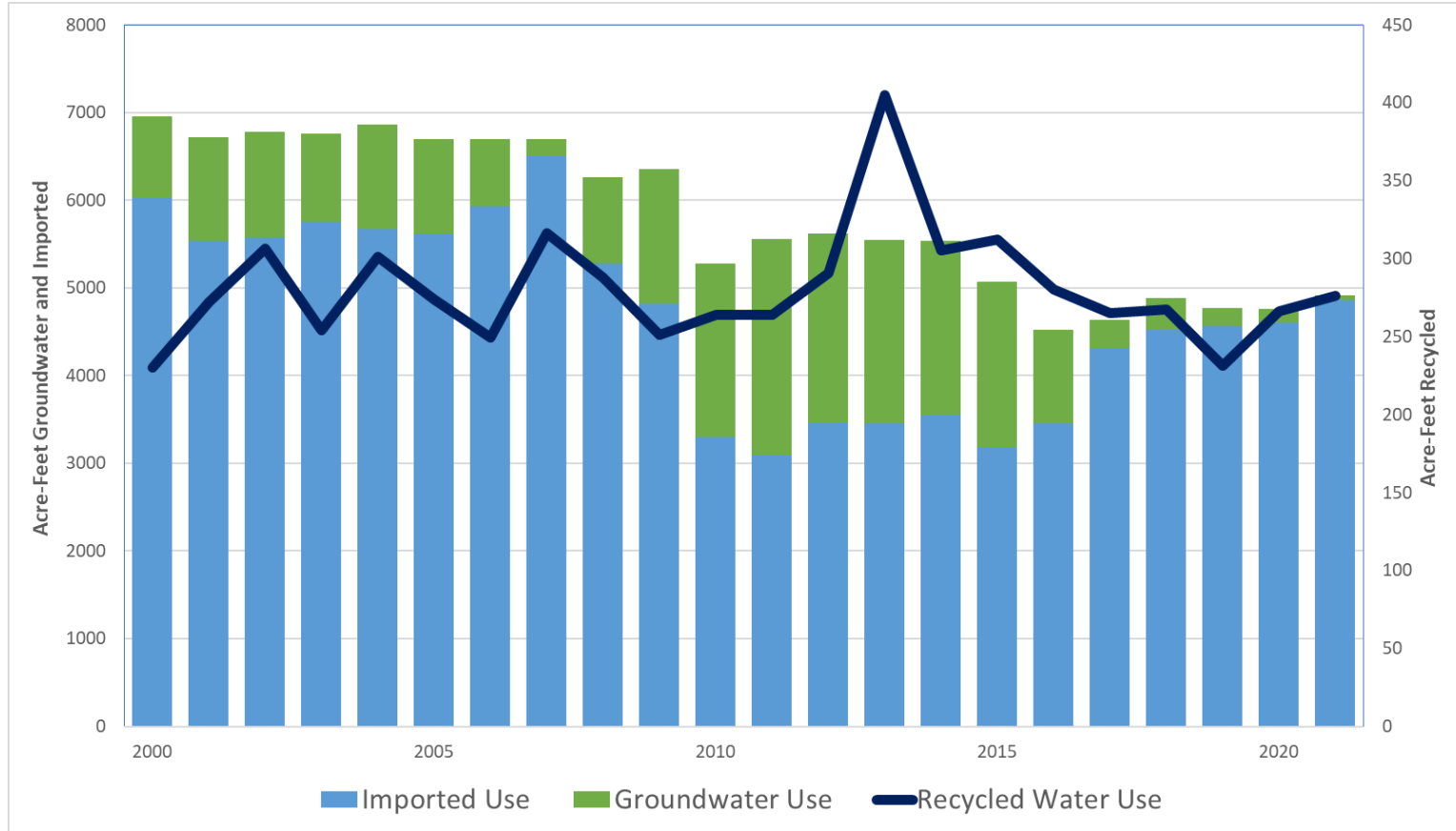
- The Governor's Orders and Proclamations regarding the Drought made April 10, 2021; May 10, 2021; July 8, 2021; and October 19 2021 remain in full force.
- By May 25, 2022 all urban water suppliers to activate Level 2 of their Water Shortage Contingency Plan.
- By May 25, 2021 The State Board to consider regulations for the elimination of non-functional turf.
- Encourages water storage, transfers, recharge, and recycling.
- Cracks down on illegal diversions or other wasteful/unreasonable use of water.

# West Basin 20 Year Imported and Groundwater Use



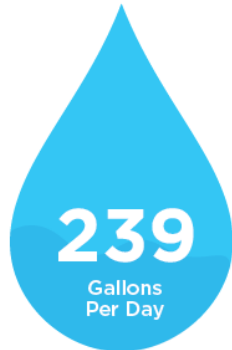


# Annual Water Use in the City of Manhattan Beach



# Per Capita Water Use – Indoor / Outdoor

Gallons per capita per day (GPCD)  
Gallons per person per day



1990



West Basin residents have **reduced**  
their **use of drinking water** by



43%



2020

Per Capita Water Use for City of Manhattan Beach: **120 gallons**  
Indoor GPCD: ~90 gallons    Outdoor GPCD: ~30 gallons

Per Capita Water Use for Cal Water Service – Hermosa Redondo Division: **100 gallons**  
Indoor GPCD: ~70 gallons    Outdoor GPCD: ~30 gallons

# Progress Toward 15% Voluntary Conservation

\*Compared to 2020

West Basin Retail Water Suppliers	Percent Change December 2021	Percent Change January 2022	Percent Change February 2022	Percent change Cumulative
California Water Service Company Dominguez	-19.7%	-14.4%	-15.0%	-11.8%
California Water Service Company Palos Verdes	-33.9%	-4.8%	2.4%	-9.2%
California-American Water Company	-19.9%	-4.6%	-8.8%	-8.1%
City of Lomita	-13.8%	-4.1%	NR	-7.1%
City of Inglewood	-9.2%	-2.8%	-7.3%	-5.8%
<b>City of Manhattan Beach</b>	<b>-14.3%</b>	<b>-1.6%</b>	<b>-5.7%</b>	<b>-4.6%</b>
City of Hawthorne	-6.7%	-3.5%	-5.0%	-4.6%
Golden State Water Company Southwest	-8.7%	-2.4%	-2.6%	-4.1%
Golden State Water Company Culver City	-10.3%	-9.1%	-5.6%	-3.5%
Los Angeles County Public Works Waterworks District 29	-28.9%	0.3%	8.8%	-2.7%
California Water Service Company Hermosa/Redondo	-3.7%	1.5%	-4.9%	-2.7%
City of El Segundo	18.0%	18.6%	-4.9%	44.6%

# West Basin Water Supply Challenge

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- 2020 UWMP provides 25-year look ahead for ensuring water reliability in West Basin service area
- Conservation and water efficiency programs play critical role
- West Basin to transition from mostly imported water to local supplies - potable reuse and groundwater supplemented with imported water
- West Basin projected to have reliable supplies for all climate scenarios based on recycled water system, increase use of groundwater, proliferation of water efficiency programs, and ongoing reliability of Metropolitan Water District imported water supplies

# West Basin Water Shortage Contingency Plan

## Board Action:

Declared Shortage Level 1 on July 26, 2021

Declared Shortage Level 3 on Nov. 22, 2021

## Based On:

- Continued drought
- Voluntary conservation targets
- Initial SWP allocation of 0%
- MWD regional drought emerg.
- Statewide drought emerg.
- Colorado River shortage
- Need for proactive measures

## Actions Taken:

- Drought communications plan
- SuperCaliFrugalistic campaign
- Expanded conservation programs
- Community presentations

SHORTAGE LEVEL	PERCENT SHORTAGE RANGE	SHORTAGE RESPONSE ACTIONS (NARRATIVE DESCRIPTION)
1	Up to 10%	At this shortage level, West Basin will implement one or more of the following shortage response actions: <ul style="list-style-type: none"> <li>- Call for voluntary retailer water-use reductions</li> <li>- Call for voluntary retailer use of non-imported potable sources</li> <li>- Implement additional conservation/water-efficiency programs</li> <li>- Deploy public outreach and communications measures</li> <li>- Implement mandatory retailer water-use reductions</li> </ul>
3	21% to 30%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 30%.

# What Manhattan Beach Can Do

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## A. Water Conservation:

- Increase Awareness of Need to Conserve Water



- Convert Municipal Landscaping to Drought Tolerant Landscaping

- Encourage Drought Tolerant Gardens on Private Development

## B. Shift from Imported Water to Groundwater

## C. Support Efforts to Reclaim Wastewater through Advanced Water Treatment


# Public Agency Grass Replacement Program



West Basin Municipal Water District

## Public Agency Grass Replacement Rebate Program

In Partnership with:



Board of Directors

Harold C. Williams Division I	Gloria D. Gray Division II	Desi Alvarez Division III	Scott Houston Division IV	Donald L. Dear Division V
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West Basin Municipal Water District

## Public Agency Grass Replacement Rebate Program

-  **Rebates start at \$4**
-  **Landscape design assistance**
-  **Projects up to 200,000 square feet**

Eligible public agencies include any federal, state, regional, local governmental entity:

- city-owned landscapes, parks, schools
- special districts
- joint power authorities
- agencies or departments



Before      After

To learn more and check eligibility, visit: [westbasin.org/public-agency-grass](https://westbasin.org/public-agency-grass)

# Residential/Commercial Grass Replacement Program



West Basin Municipal Water District

## Grass Replacement Rebate Program

Receive \$3 per square foot of grass removed

To qualify, projects must replace grass with landscapes that include:



Water-saving plants



Upgraded irrigation systems



Rainwater capture features



To learn more and check eligibility, visit:

[westbasin.org/grass-replacement](https://westbasin.org/grass-replacement)

or call the SoCalWater Smart program hotline:

**(888) 376-3314**

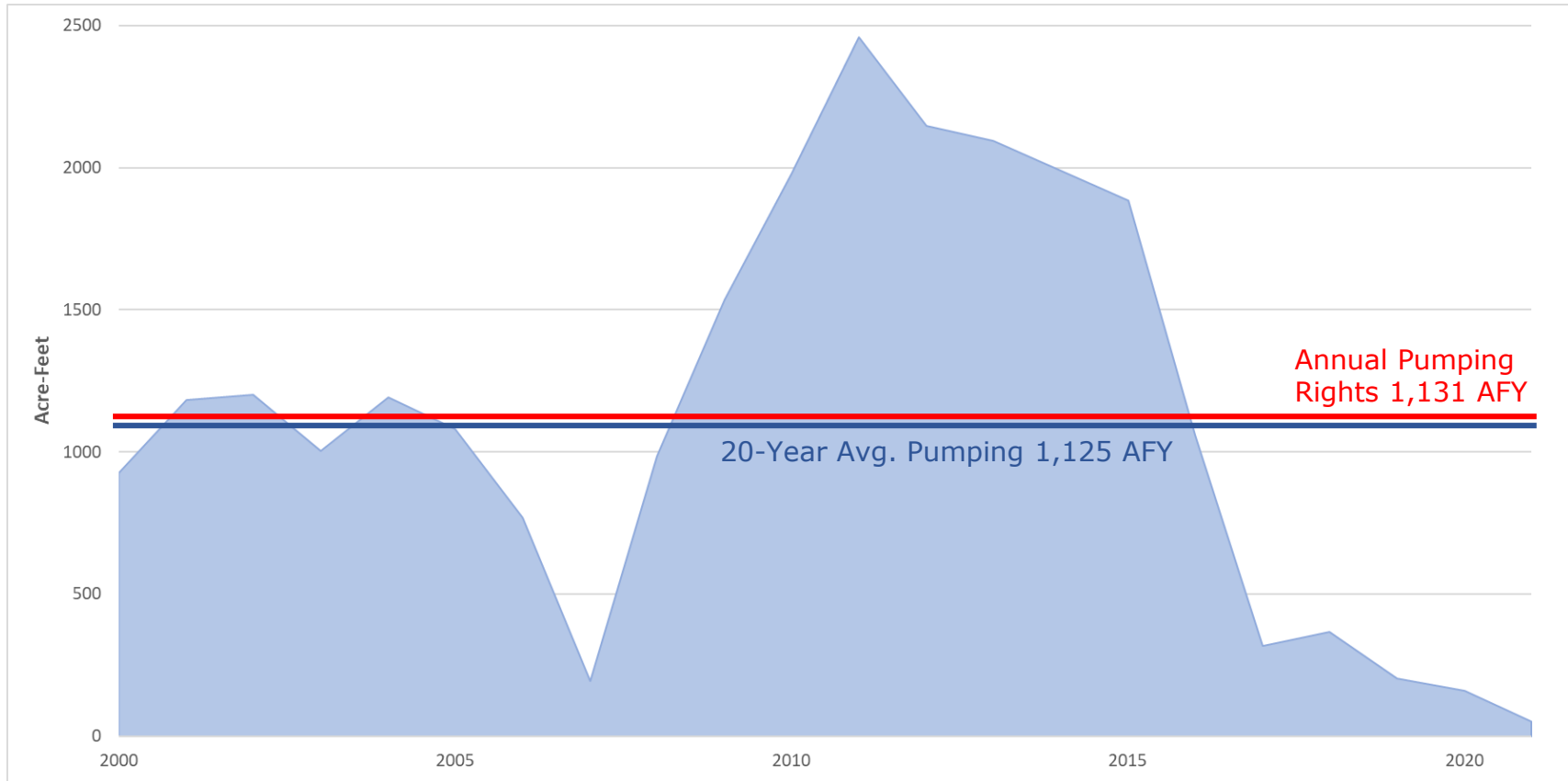


# Evolving Turf Removal Policies

- New Executive Order requires State Water Board to evaluate the adoption of regulations that would ban the irrigation of non-functional turf at commercial and industrial properties
- AB 2142 proposes to restore exclusions for turf removal rebates from being included in state gross income



# City of Manhattan Beach Groundwater Pumping



Current  
Storage:  
2,262 AF

# West Basin Programs to Save Water and Money

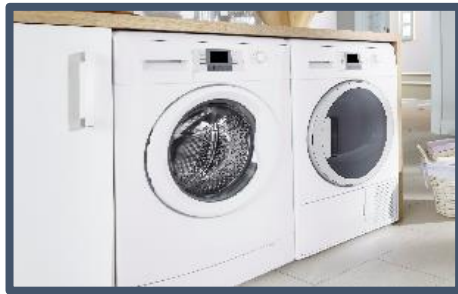
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Grass Replacement  
Rebates



Landscape Classes  
& Plant Resources



Change & Save  
Program



Cash for Kitchens  
Device Rebates

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QUESTIONS and THANK YOU