

Public Workshop on the Mono Lake Drought Response Considerations



February 15, 2023

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Item 3: Mono Lake Current Conditions

**Los Angeles Department of
Water & Power**

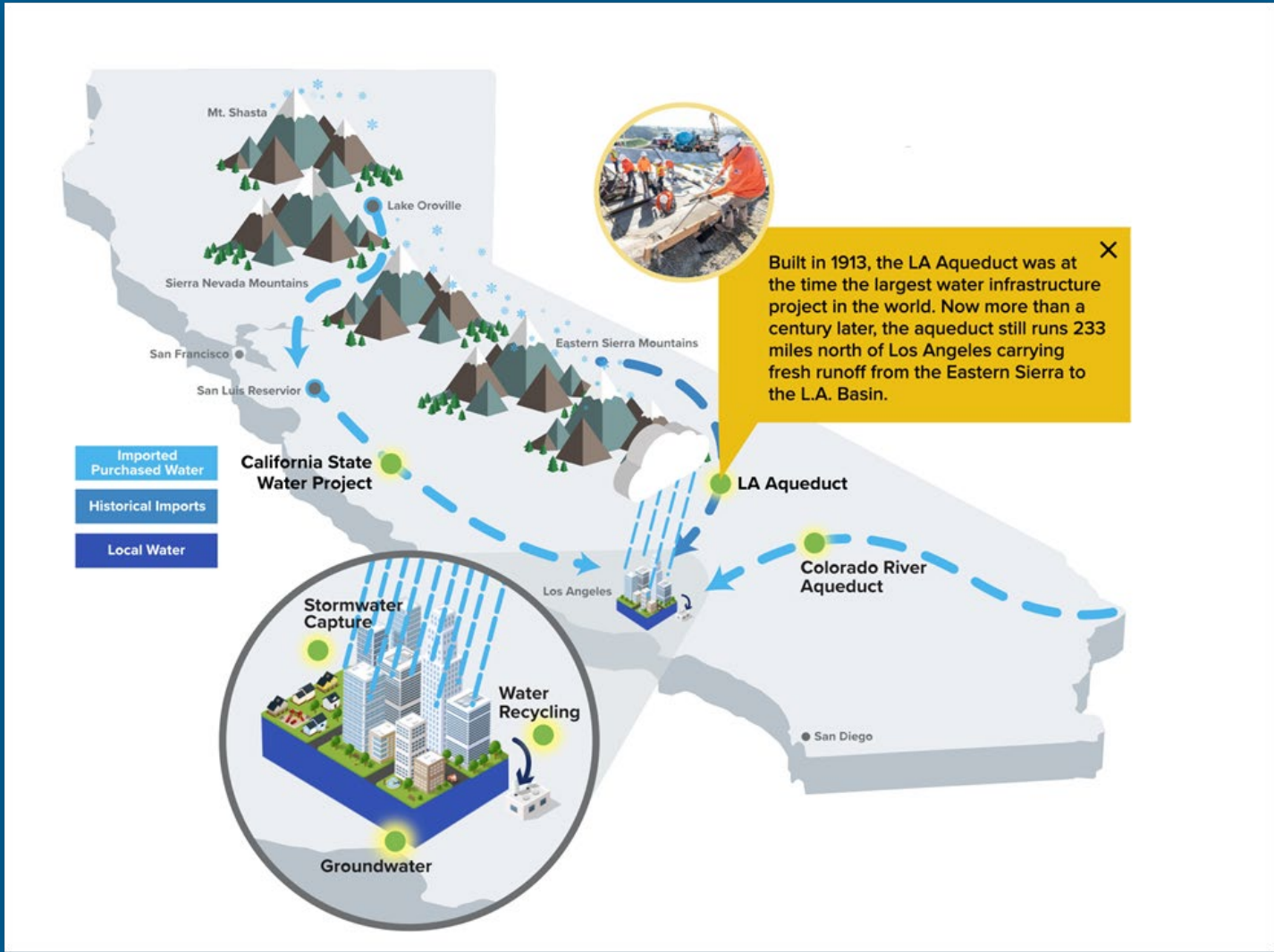
Anselmo Collins & Paul Liu



February 15, 2023

LADWP & THE MONO BASIN

February 15, 2023



THE LA AQUEDUCT IS VITAL TO CA

- Water supplies to the LA Aqueduct from the Mono Basin have been reduced by 85% – or ~70,000 acre-feet per year (AFY) – since D-1631.
- LADWP’s remaining Mono Basin supplies provide enough water to serve as many as 200,000 Angelenos.
- The LA Aqueduct provides Los Angeles’ most cost-effective water supplies while generating valuable hydropower that avoids carbon-emitting alternatives.

ELIMINATING MONO BASIN SUPPLIES *JEOPARDIZES RELIABILITY*

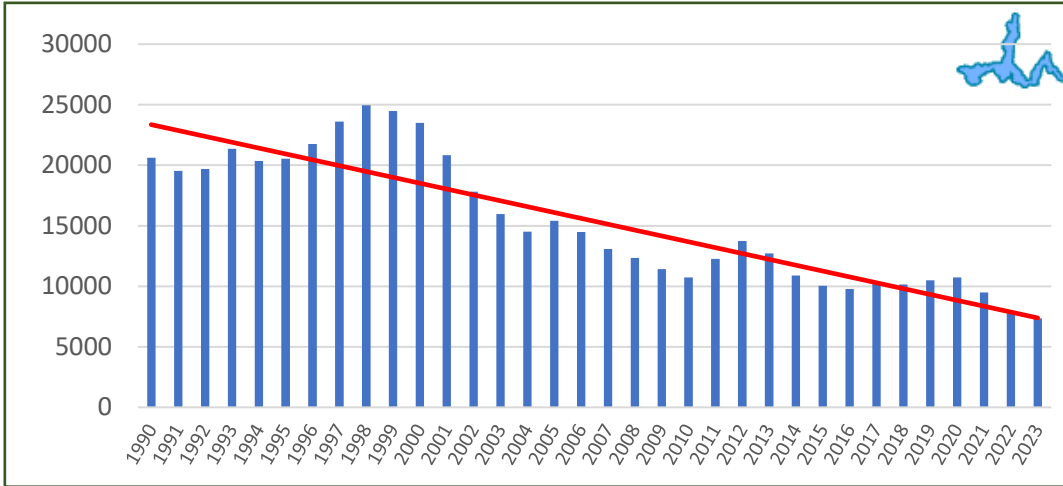
- Water supply reliability within Southern California's imported water sources is already strained.
- Several threatened and endangered species are impacted by demand on other state water systems.
- Mono Basin water supplies help ease demand on these systems.



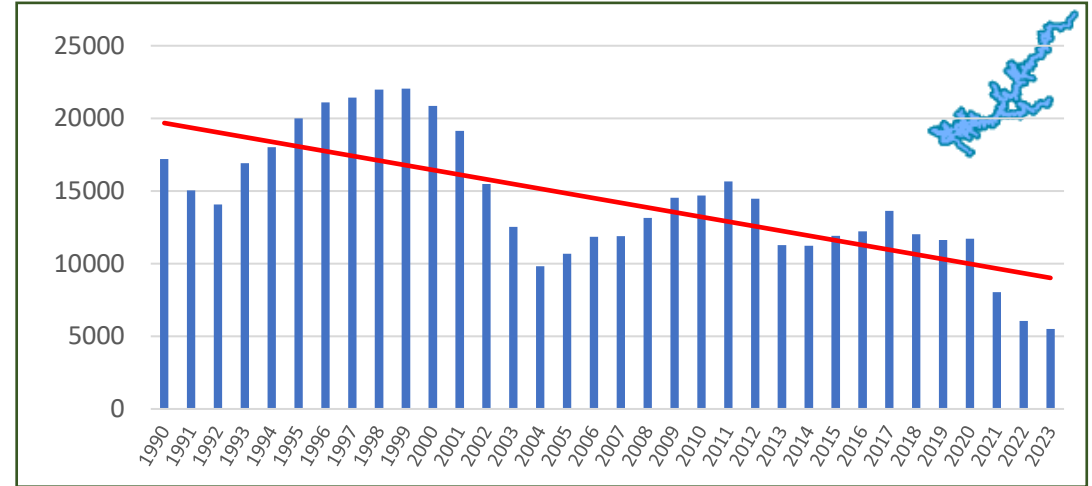
Supply Reliability Concerns – Declining Water Volumes in Critical Reservoirs

— Average Annual Storage (1000 AF)
 — Trend (Linear)

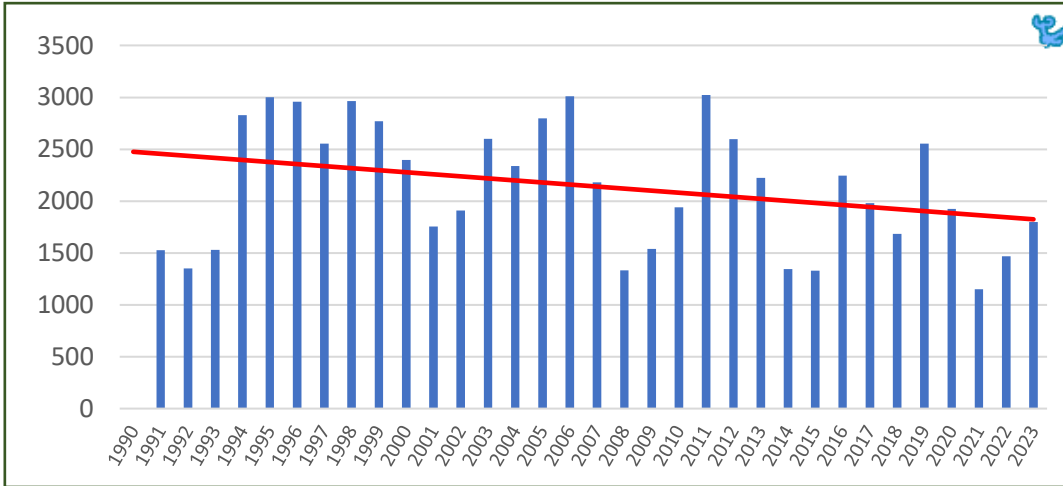
Lake Mead (Colorado River)



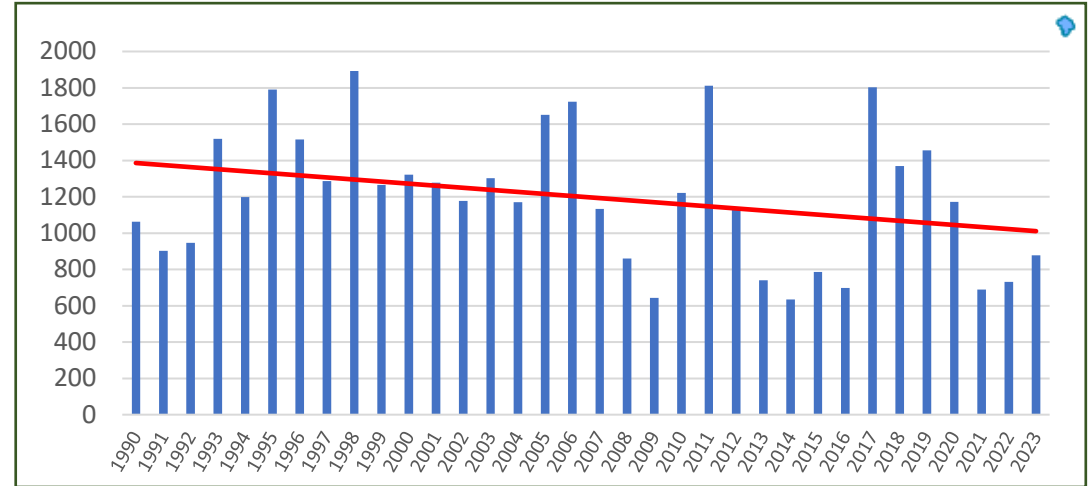
Lake Powell (Colorado River)



Lake Oroville (SWP)



San Luis Reservoir (CVP/SWP)



OTHER USERS ALSO RELY ON MONO LAKE WATER SOURCES

Their water uses include:

- Hydropower (SCE)
- Municipal (Lee Vining, Silver Lake, Mono City)
- Agricultural (Mono County, Conway Ranch)
- Federal land management (BLM, USFS)
- Industrial (Gravel mining)
- Other private uses



Irrigated Conway Ranch Pasture

Photo from Eastern Sierra Land Trust

NO “EMERGENCY CONDITIONS” AT MONO LAKE

- The landbridge is not currently exposed.
- The SWRCB adopted safeguards in D-1631 to prevent it from becoming exposed.
- With current snowpack levels (230% of normal), Mono Lake is expected to rise approximately 2 feet by the end of this year.
- LADWP’s diversions – which will not resume until fall – will only influence the lake level by ~1 inch.

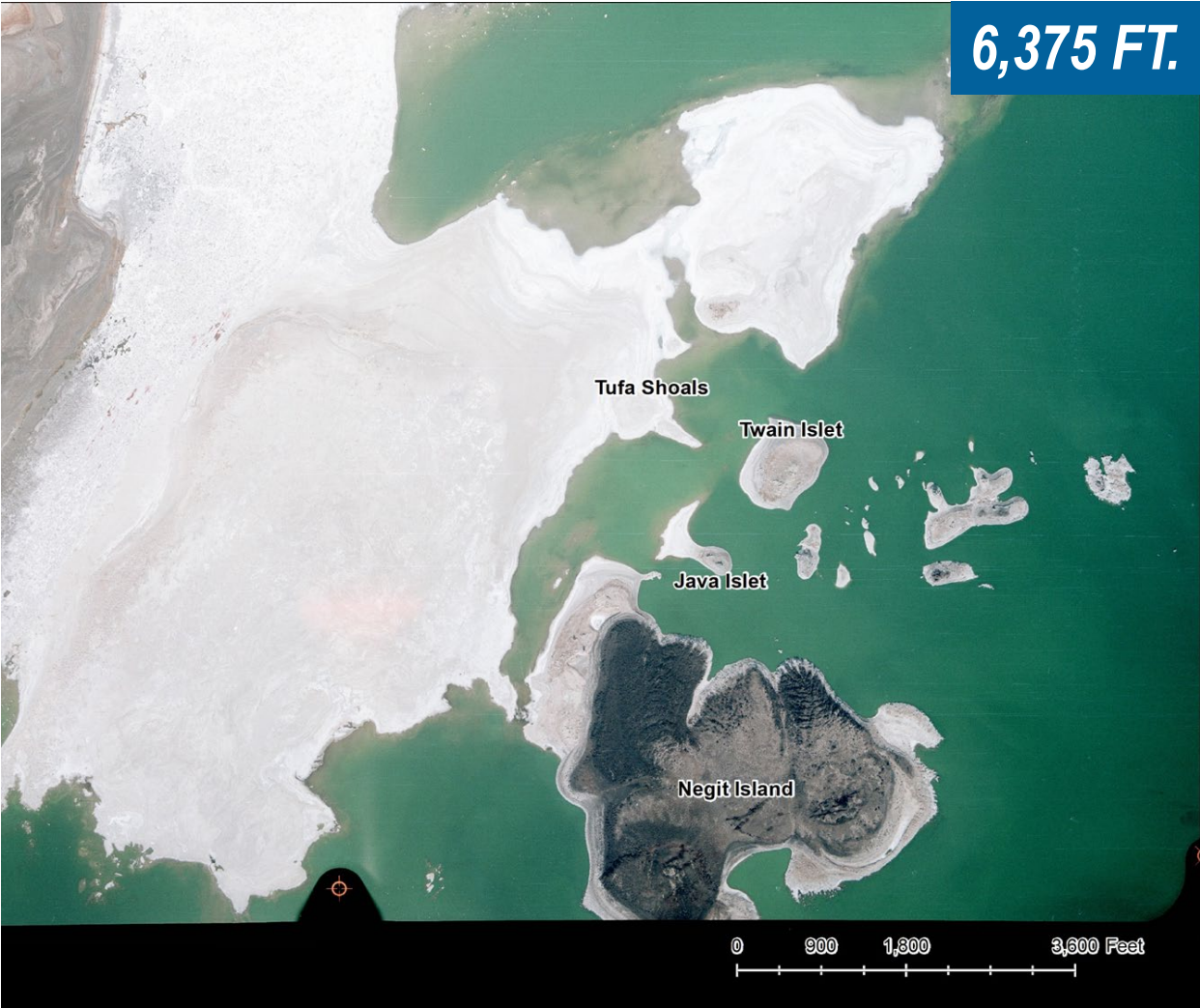


Mono Lake, Feb. 6, 2023

MONO LAKE

Prior to D-1631

D-1631 Safeguard



MONO LAKE

FEB. 6, 2023 - ELEVATION 6379.3 FT.



Twain Island

Negit Island

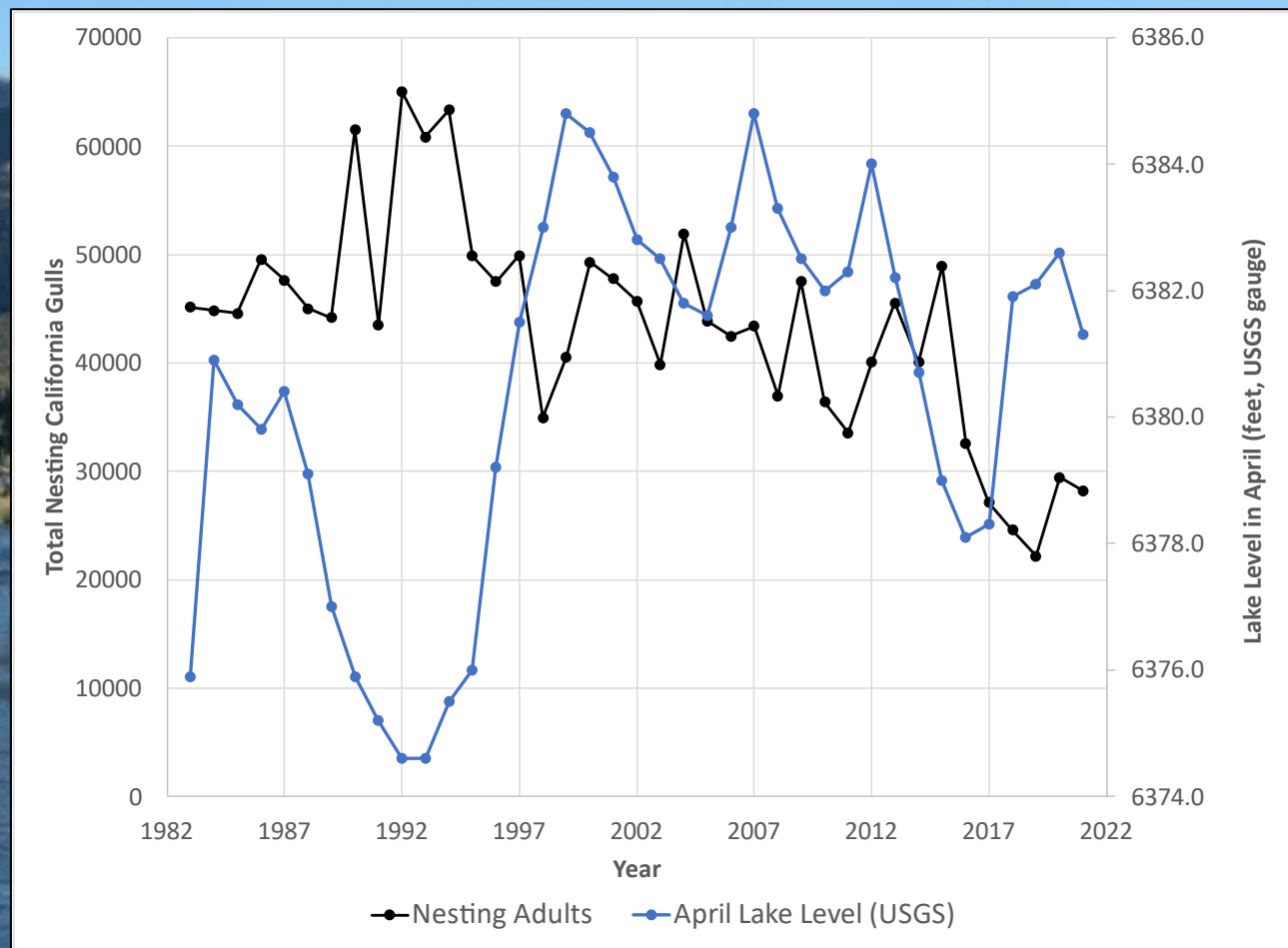
~425 yds.

~750 yds.



NO CORRELATION BETWEEN NESTING GULL POPULATION AND MONO LAKE LEVEL

- Food availability is the primary factor affecting nesting gull populations at Mono Lake.
- Nesting gull populations at Mono Lake have maintained, and overall population across CA and the American West has increased.
- Nesting gulls are also a predator for the snowy plover, an endangered species present at Mono Lake.



Gull Data From Point Blue Conservation Science

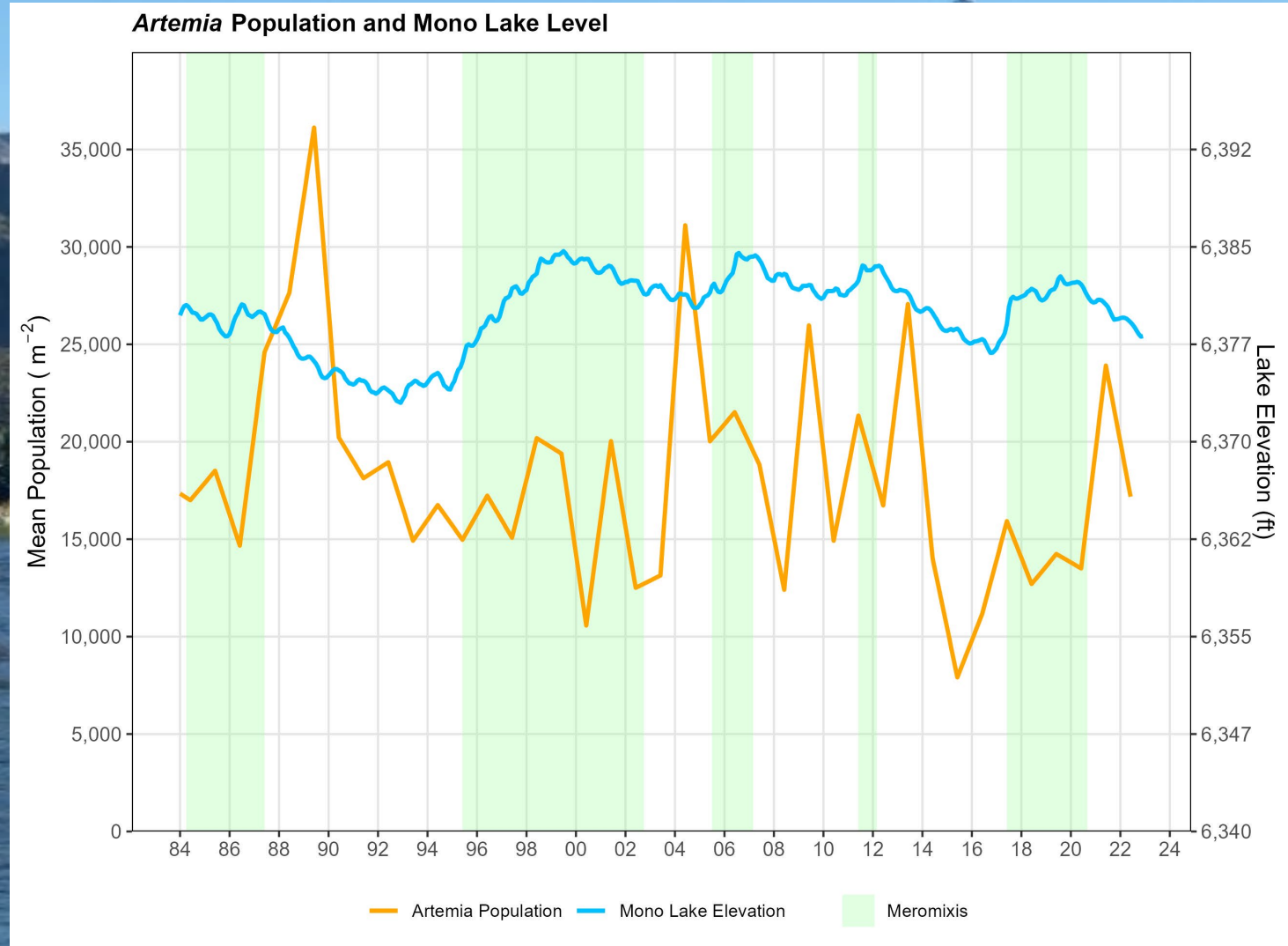


“In years when lake levels rise, lake productivity lowers, and though nesting islets are free of predators, there are insufficient resources to support large numbers of nests and produce large numbers of young.”

- Point Blue Conservation Science 2020 Annual Report

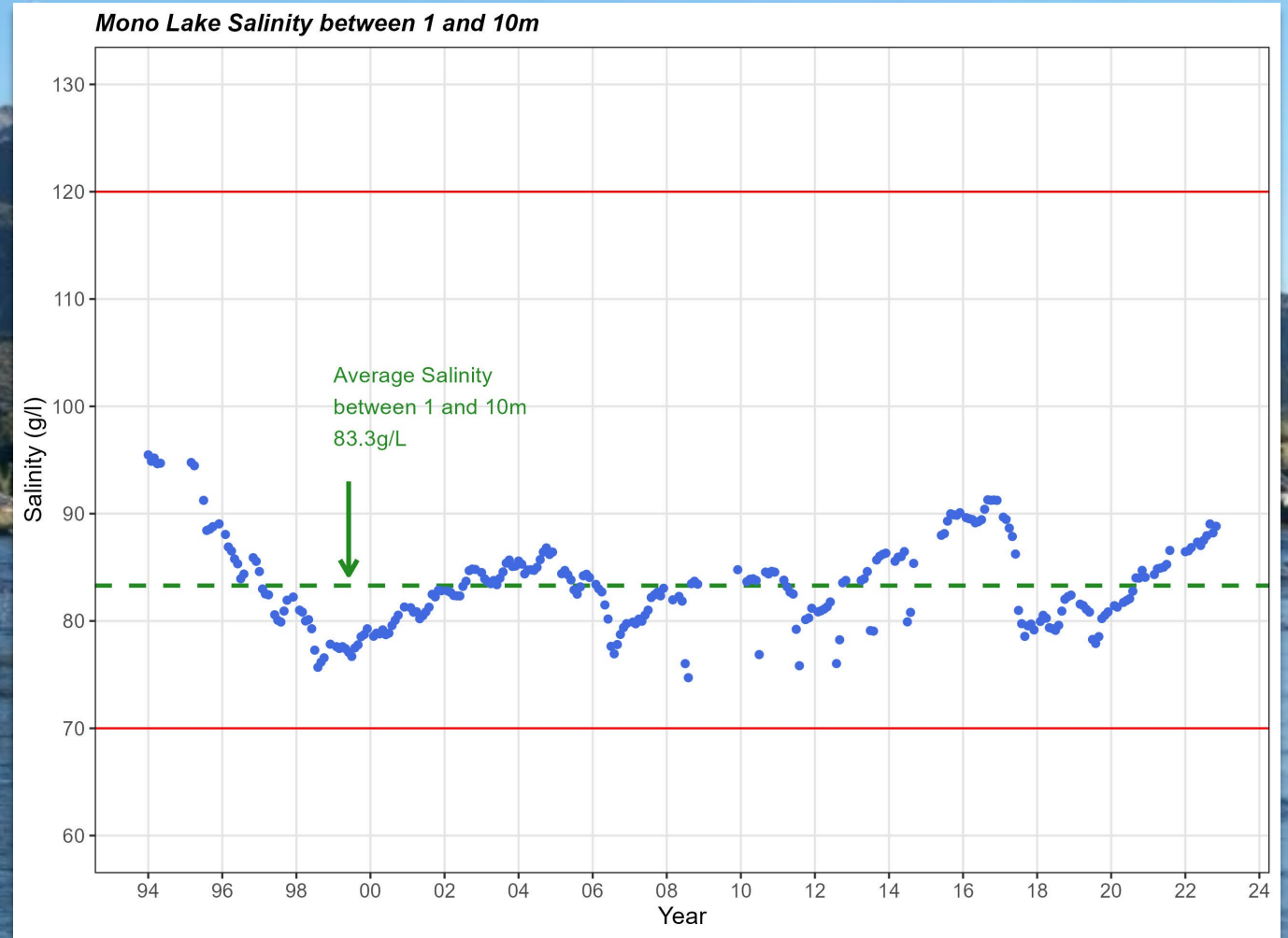
LAKE MIXING REGIME IS A DRIVING FACTOR FOR NESTING GULL POPULATIONS

- Brine shrimp is the main food supply for nesting gulls.
- In years of lake elevation gain due to high runoff, brine shrimp population has decreased.
- This is due to meromixis, prolonged stratification of layers of fresh and saline water within the lake.



SALINITY REMAINS IN A RANGE THAT SUPPORTS THE ECOSYSTEM

- Salinity levels between 70-120g/L support brine shrimp.
- The lake's average salinity between 1-10m, where brine shrimp graze, has been 83.3g/L since D-1631.



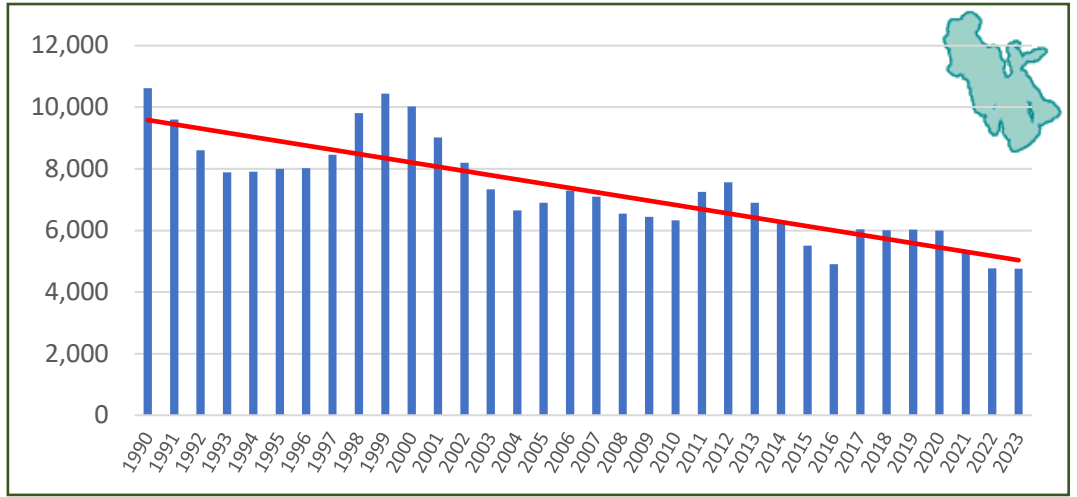
SUCCESS OF INVESTMENTS IN THE MONO BASIN

- SWRCB balanced public trust resources when it adopted D-1631.
- LADWP has a team of more than 100 specialists diligently working to ensure the requirements of D-1631 are met:
 - The four Mono Basin creeks have been restored and are being protected.
 - Fish populations are thriving.
 - Waterfowl habitats have been enhanced.
- LADWP has invested ~ \$46 million to date.

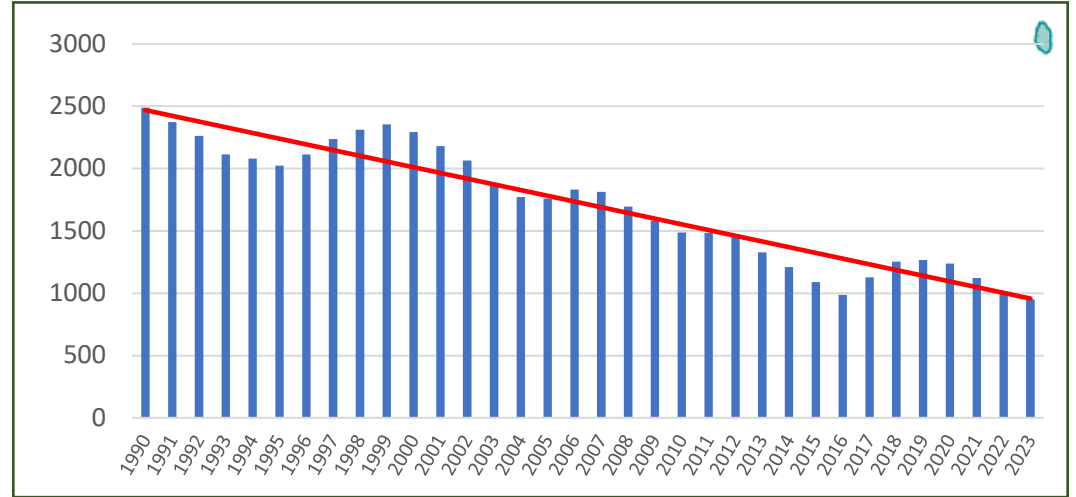
Water Volume Trends in Western Terminal Saline Lakes

Average Annual Storage (1000 AF)
Trend (Linear)

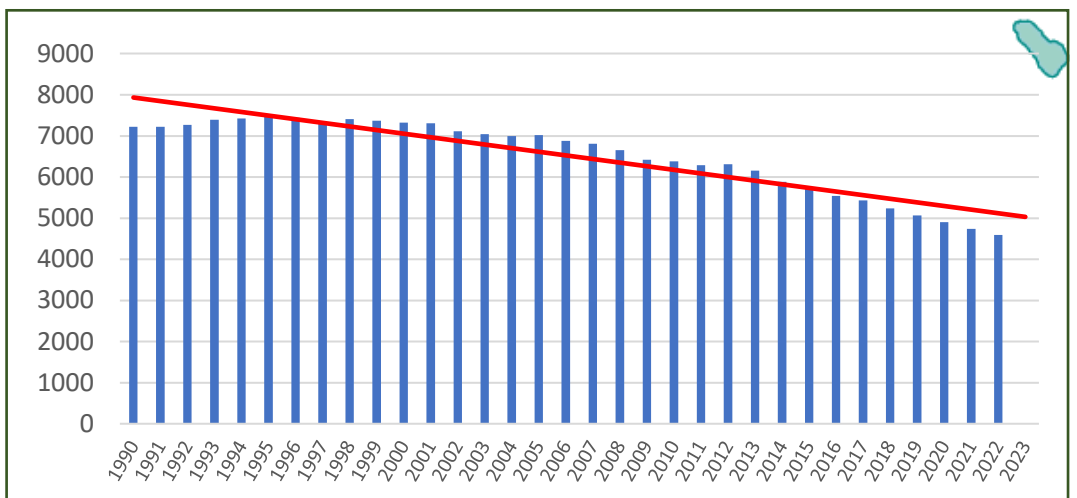
Great Salt Lake



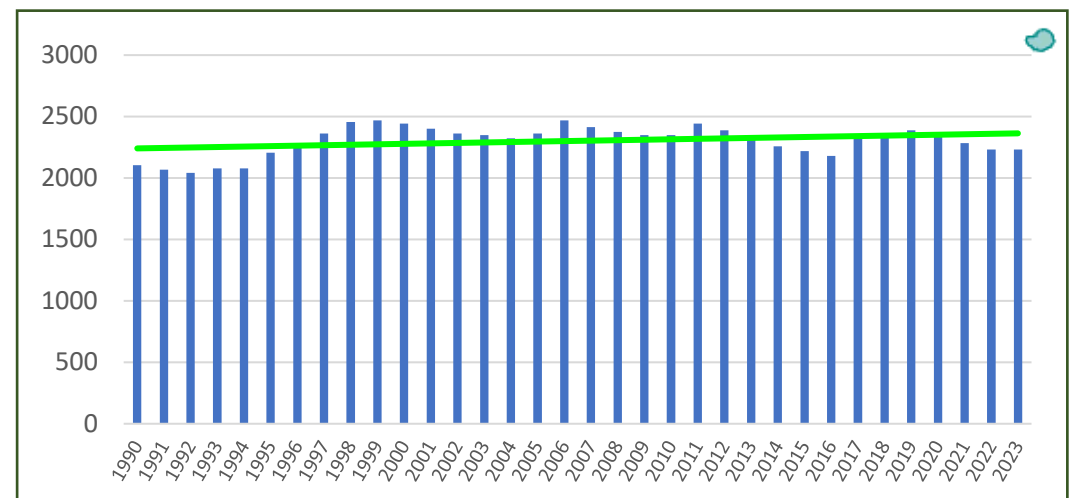
Walker Lake



Salton Sea



Mono Lake



WATER CONSERVATION IS A WAY OF LIFE IN LA

- LADWP is leading the state in meeting Governor Newsom’s climate and conservation goals.
- LADWP residential customers use an average of 74 gallons per capita per day (GPCD), compared to the statewide average of 91 GPCD.
- But, we cannot conserve our way out of the drought.

Know Your Watering Days

	MON	TUE	WED	THU	FRI	SAT	SUN
ODD ADDRESSES	✓				✓		
EVEN ADDRESSES				✓			✓

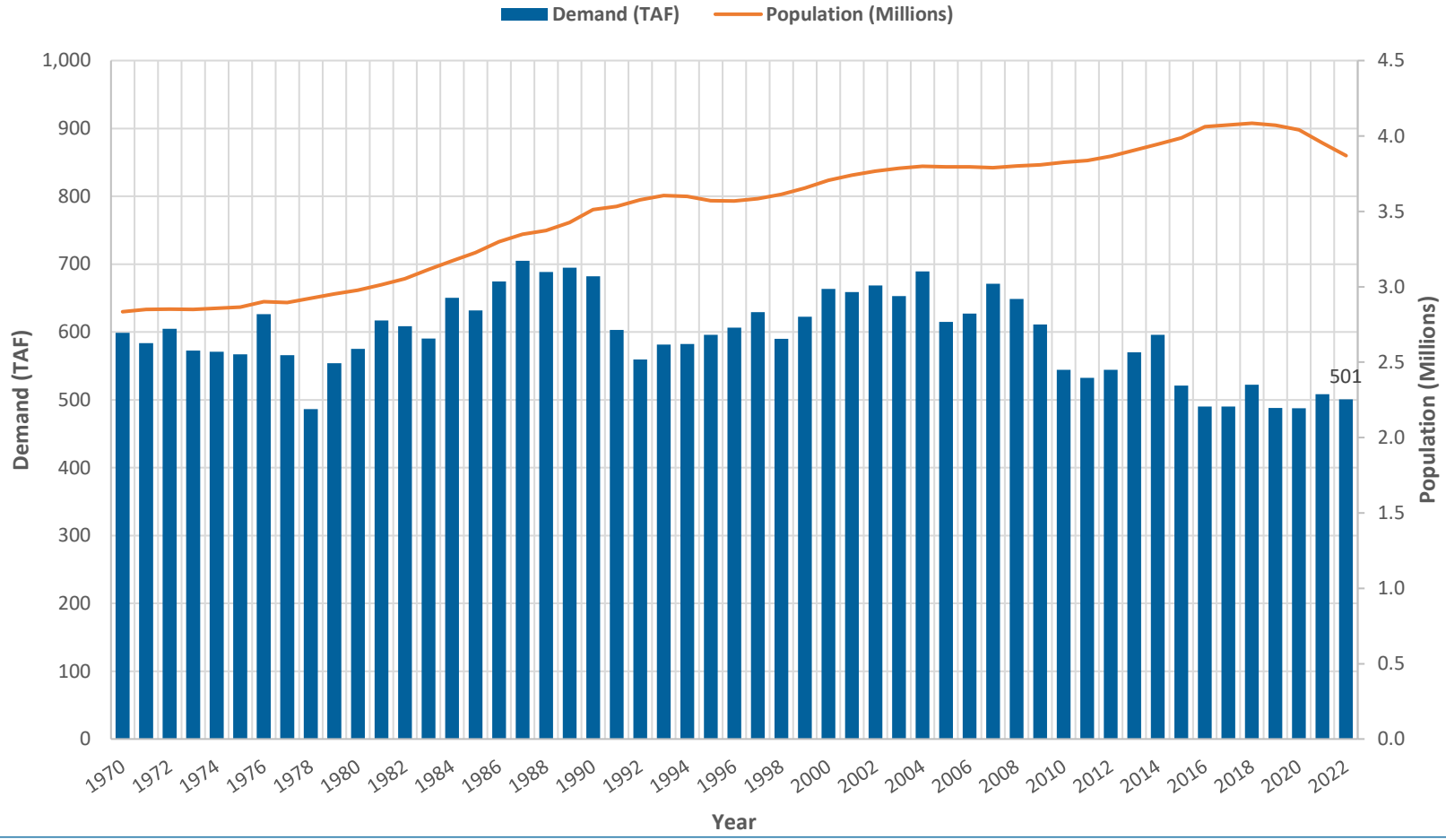


Limit Outdoor Watering to
 2 Days a Week
 8 Minutes per Station
 Before 9 AM or After 4 PM



ladwp.com/wateringdays

ANGELENOS HAVE CUT WATER USE *DESPITE A RISING POPULATION*



LOS ANGELES IS INVESTING IN LOCAL SUPPLIES

LADWP is making significant investments to expand local supplies and reduce reliance on purchased imports:



Conservation: With mandatory water conservation ordinances in place for the last 30+ years, 52 million square feet of turf replaced and 3.3 million+ new high-efficiency appliances installed, Angelenos are using 44% less water per year than they were 50 years ago, despite adding more than a million people to the City's population.



Water Recycling: Through Operation NEXT, LADWP aims to recycle 100% of the City's wastewater.



Stormwater: LADWP is forecasting more than 70 additional stormwater projects over the next 15 years to double capacity.



Groundwater: LADWP is remediating the San Fernando Valley Groundwater Basin, which will increase groundwater storage capacity by restoring full use of the basin.

SUMMARY

- There is no emergency at Mono Lake.
- D-1631 includes safeguards that have resulted in an overall elevation gain at Mono Lake, while water levels in other terminal lakes have declined.
- Current snowpack levels are expected to raise Mono Lake levels by ~2 feet by the end of the year, while LADWP's diversions – which will not resume until fall – will only influence lake elevation by ~1 inch.
- Mono Basin water supplies delivered via the LA Aqueduct are enough to serve as many as 200,000 Angelenos, up to 50% of whom live in disadvantaged communities.
- The LA Aqueduct is the least energy-intensive and most cost-effective water supply for Los Angeles, and generates valuable green hydropower every year.
- Further Mono Basin restrictions will cause additional strain on the State Water Project and Colorado River Aqueduct, on which certain threatened and endangered species rely.
- LADWP looks forward to continuing its communication and engagement with the Kutzadika'a Tribe on Mono Basin issues important to the Tribe.