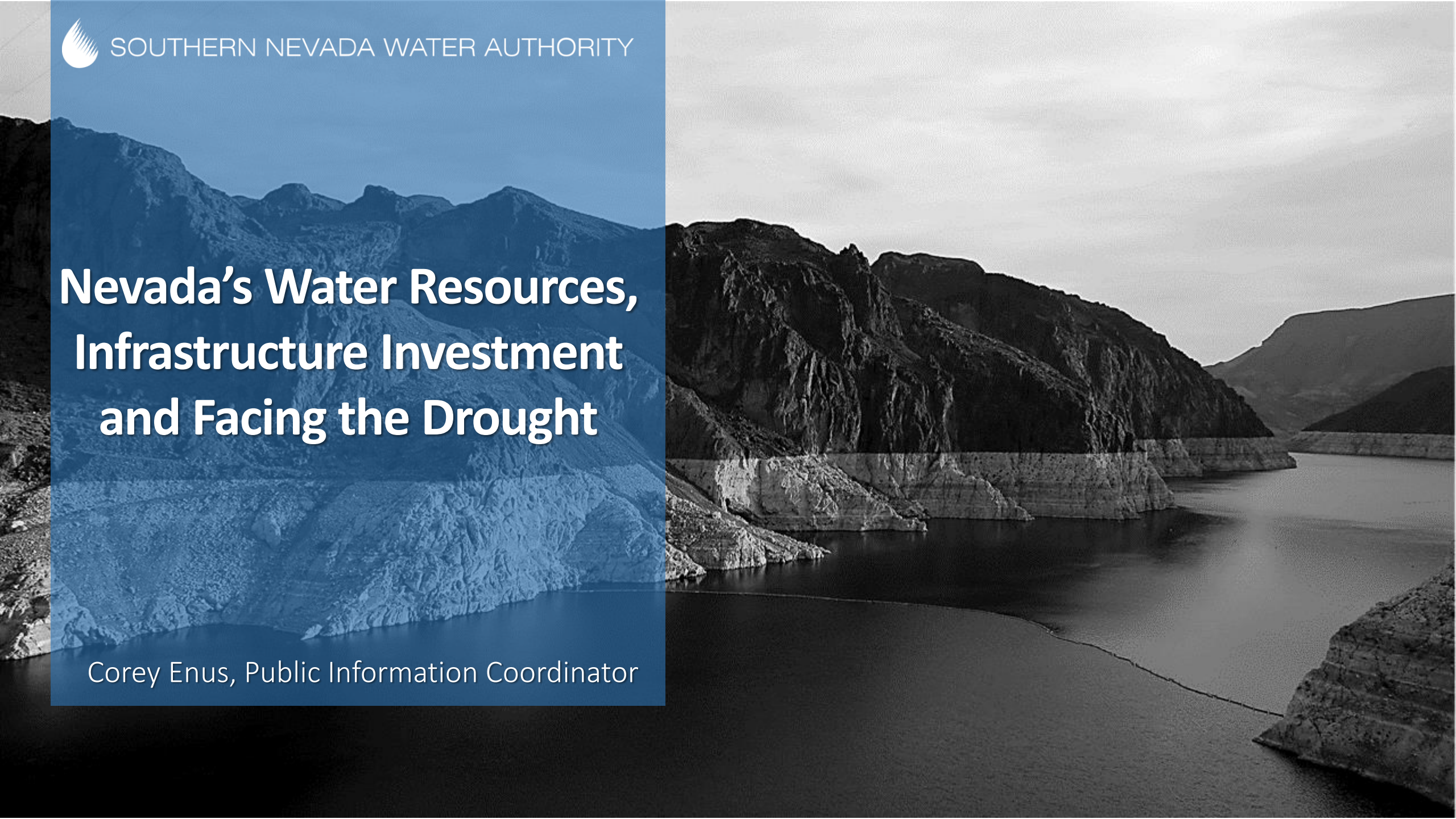


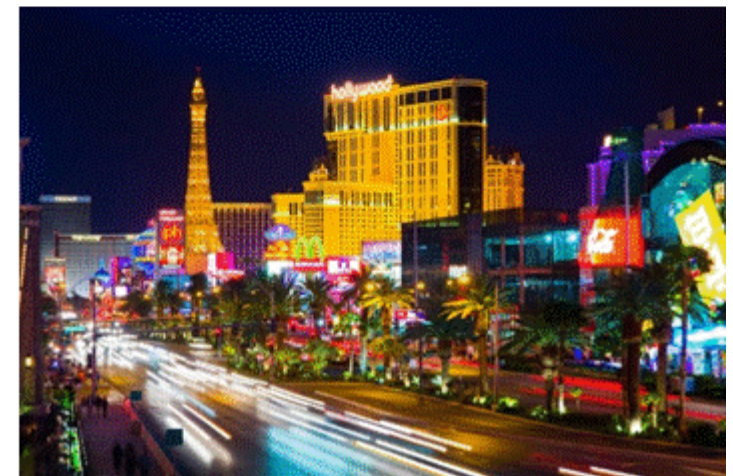
Nevada's Water Resources, Infrastructure Investment and Facing the Drought

Corey Enus, Public Information Coordinator



MAJOR RESPONSIBILITIES

Seven of every 10 Nevadans rely on the SNWA to supply water to homes and businesses.



MAJOR RESPONSIBILITIES



CONSERVATION

Incentives, Programs,
Regulation and Pricing



WATER SUPPLY PLANNING

Developing and managing
regional water supplies



WATER QUALITY

Maintaining and
protecting water quality



INFRASTRUCTURE

Building and operating
major facilities

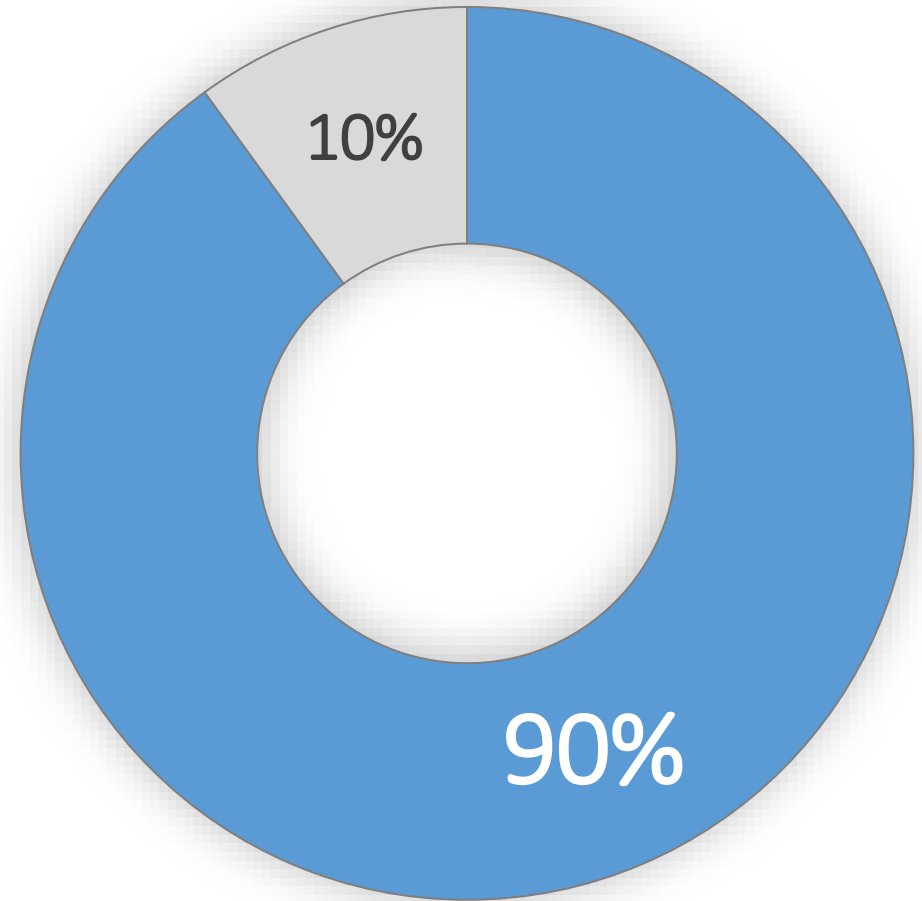


STEWARDSHIP

Protecting
environmental resources

WATER RESOURCES

Southern Nevada is nearly fully reliant on the Colorado River to meet the community's water demands.



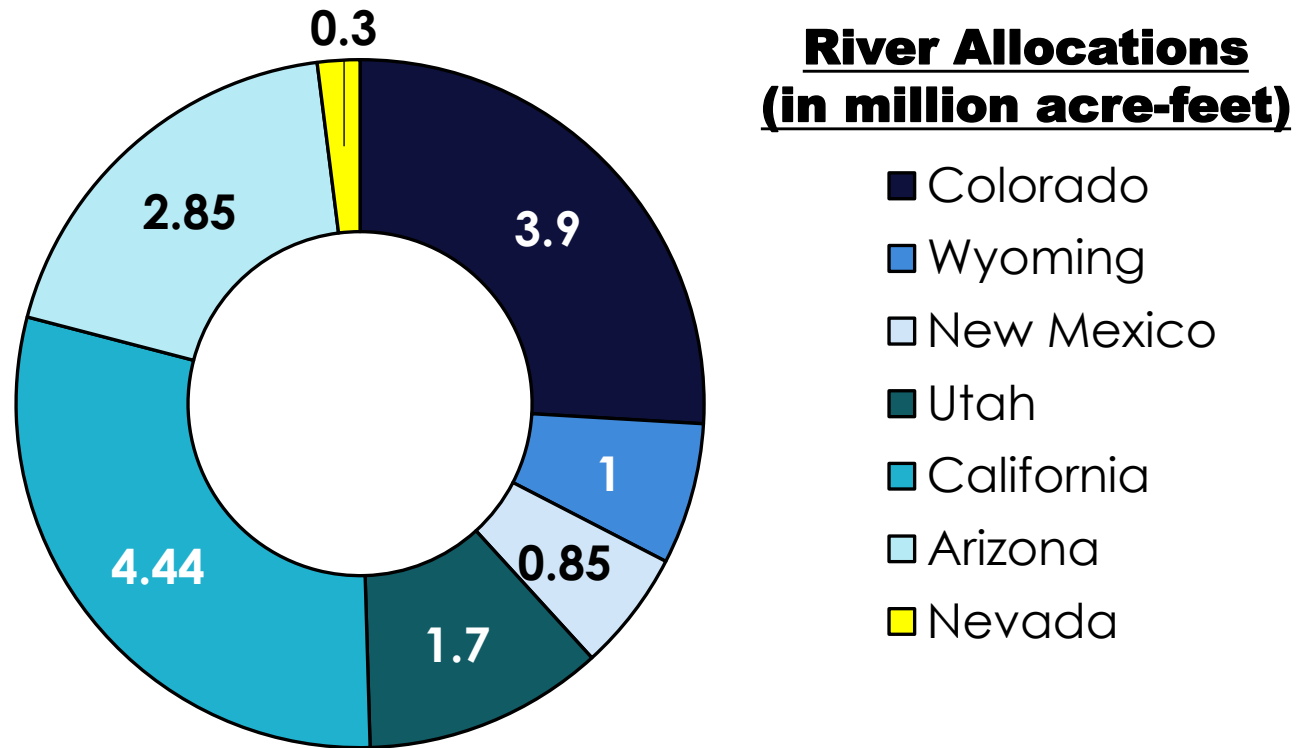
■ Colorado River ■ Other

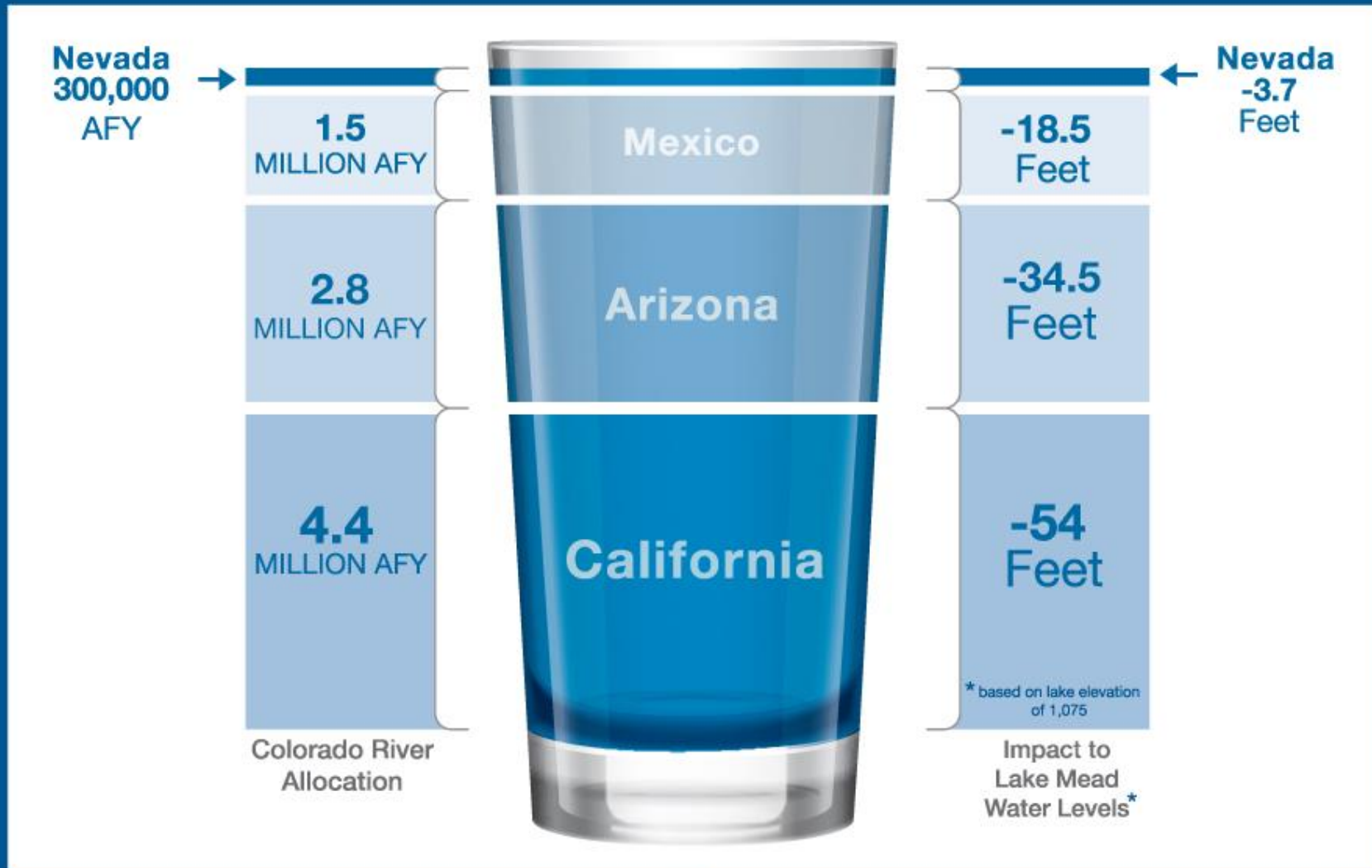
The Colorado River is shared among seven Basin States and the country of Mexico.



COLORADO RIVER

Nevada receives 300,000 acre-feet of Colorado River water annually.



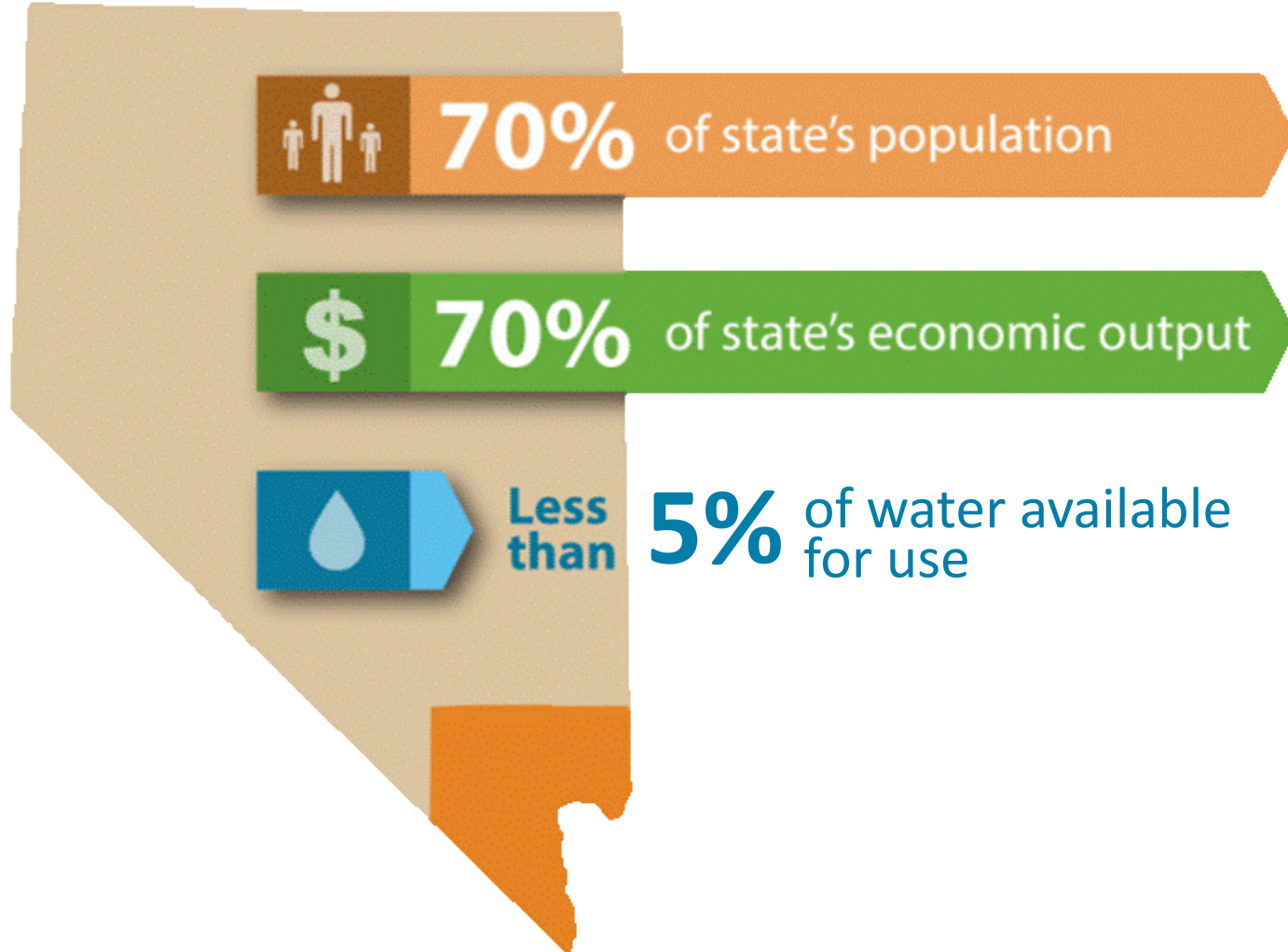


Acre-foot = 325,851 gallons

AFY = Acre-feet per year

An acre-foot provides enough water for 2 homes in Southern Nevada for 14 months.
 Graphic depicts full annual Lower Basin allocation, which may or may not be fully used or available each year.

WATER USE



Drought conditions have significantly depleted Lake Mead storage.

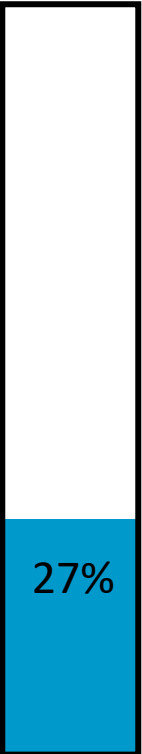
1999



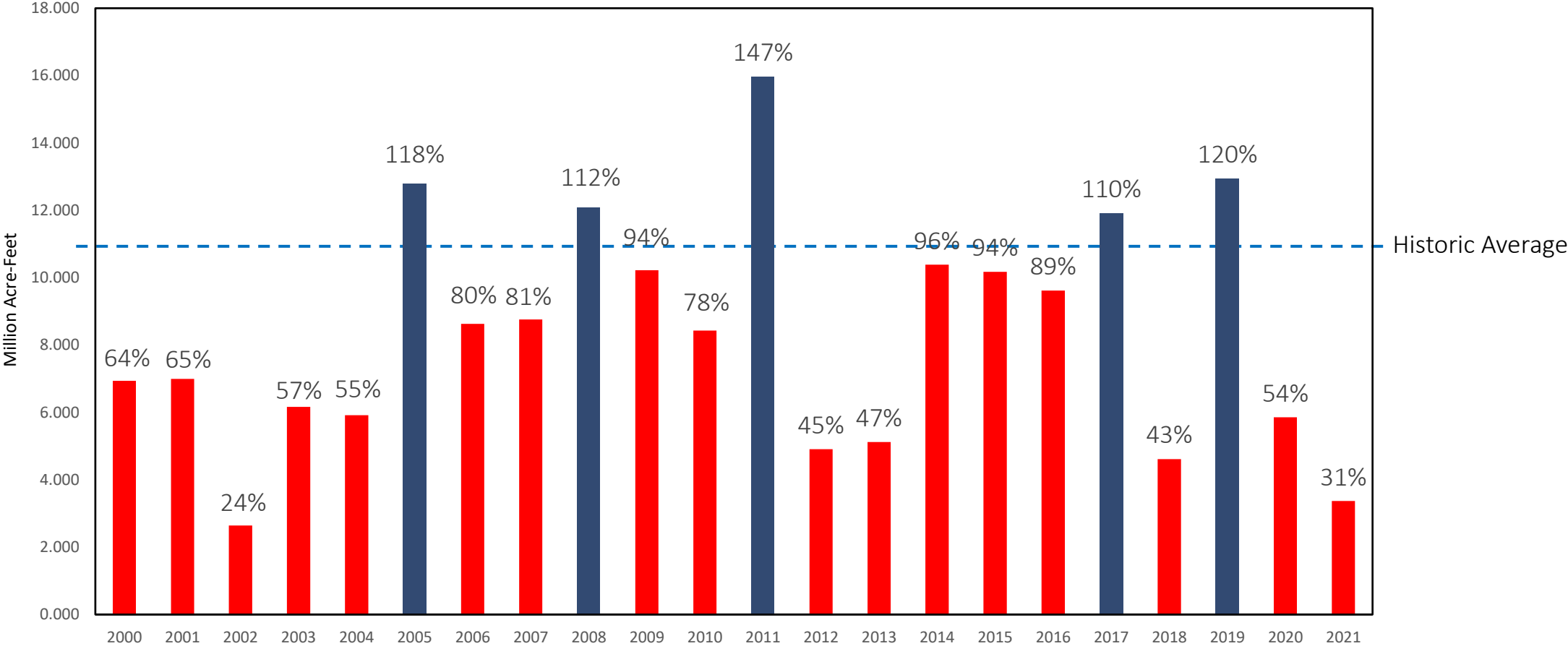
2004



2022



Since 2000, cumulative Colorado River natural inflows have been approximately 16 trillion gallons below the historical average.



TIER 2 SHORTAGE DECLARATION

JANUARY 2023

**CURRENT ELEVATION
1041 ft.**

Intake No. 1

1041ft.

Intake No. 2

Dead Pool - Elevation 895 feet

860 ft.

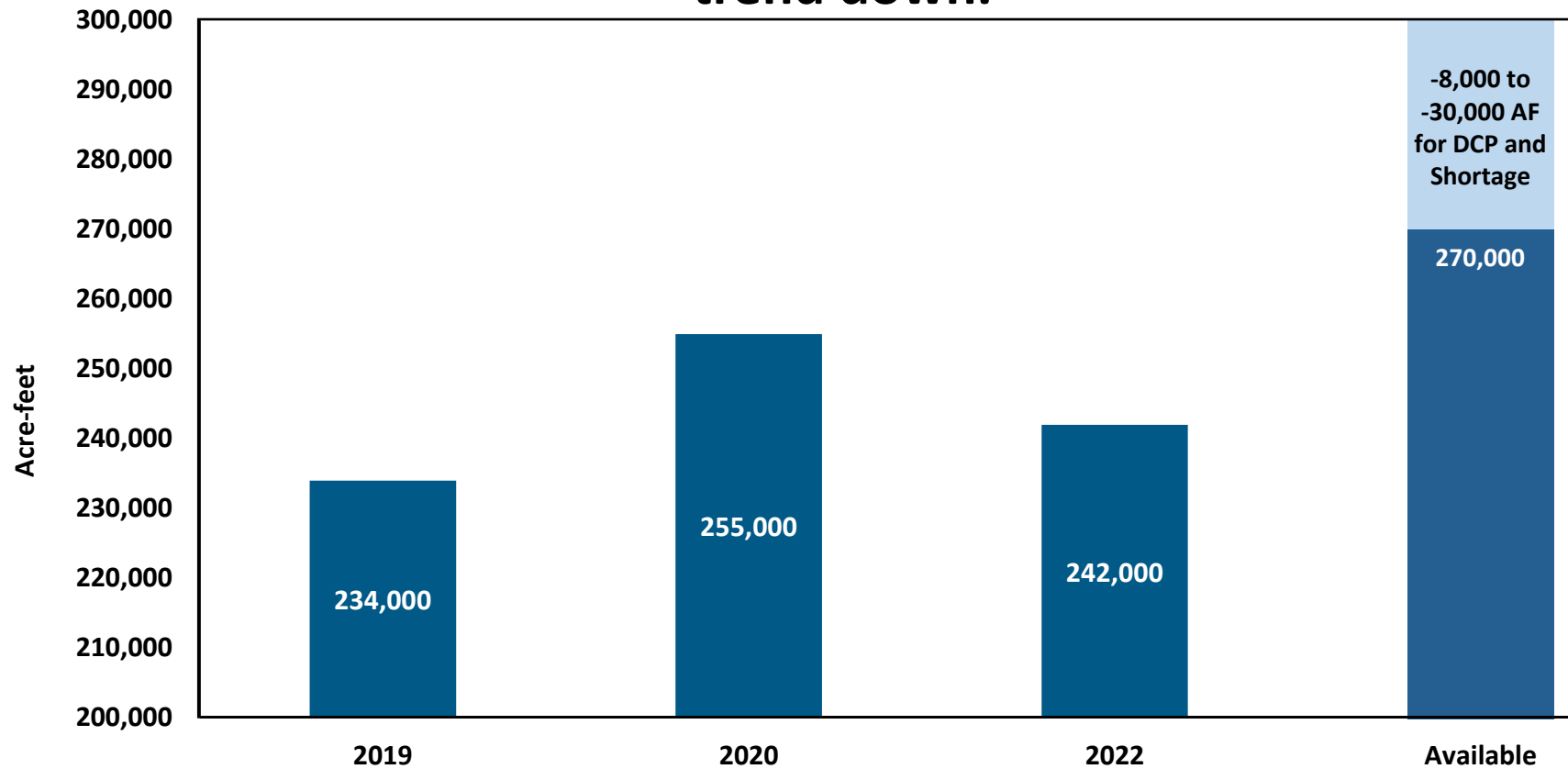
Intake No. 3

LAKE MEAD SHORTAGE LEVELS

Lake Mead Elevation	Shortage Reduction	Available
1,090+ feet	0	300,000 AFY
1,075 – 1,090 feet	-8,000 AF	292,000 AFY
1,050 – 1,075 feet	-21,000 AF	279,000 AFY
1,045 – 1,050 feet	-25,000 AF	275,000 AFY
1,025 – 1,045 feet	-27,000 AF	273,000 AFY
< 1,025 feet	-30,000 AF	270,000 AFY

COLORADO RIVER WATER USE

**Consumptive was up significantly for 2020.
That trajectory was not sustainable, beginning to
trend down.**



DROUGHT RESPONSE

Southern Nevada has spent **decades** preparing for drought and climate impacts to ensure the reliability of water supplies for Southern Nevada



**WATER
BANKING**



**RESOURCE
PLANNING**



INFRASTRUCTURE



CONSERVATION

ADVANTAGE: Decades long commitment to conservation

- Mandatory watering schedule
- Water efficient development codes
- Water waste fees
- Tiered water rate pricing
- Golf course water budgets
- Rebate programs
- Significant investments in public outreach

Southern Nevada Xeriscapes -- Homeowner

We offer this rebate to encourage residents to convert some or all of their water-thirsty grass to xeriscape, a lush yet water-efficient landscape. Follow these easy steps to qualify for up to a \$1,000 credit on your water bill.



Step 1

Photograph your current grass yard. Be sure to include the total area you're planning to convert. If necessary, take several photos. We want to see what your landscape looks like BEFORE you convert.



Step 2

Plan your xeriscape (see Themes and Plant Palettes or visit the [Desert Demonstration Gardens](#)). Complete the [SNX Residential Application](#) and submit it. Mail the photos with a printout of the application. Within three weeks of receiving your application and photos, the Water Authority will contact you to let you know they have received your application. (You may prepare the application online, but you'll still have to print out and sign a copy and mail it in along with the photos).

Step 3

Convert your landscape.

Step 4

Contact SNWA when your conversion is complete. SNWA will schedule an appointment to measure your landscape and verify you have met all the requirements for the program.

Online Advertising for the program that became today's Water Smart Landscapes Program, 2001

NEVADA'S ADVANTAGE: Consistent regional policy enactment across jurisdictions and elected officials willing to make tough decisions



INFRASTRUCTURE

An aerial photograph of a large-scale construction site. The central focus is a massive circular concrete structure, likely a water intake or pumping station, which is currently in the rebar and formwork stage. A concrete pump truck with a long, articulated boom is positioned around the structure, pouring concrete into the center. The surrounding area is a vast, flat construction site with various pieces of equipment, including cranes, trucks, and stacks of materials. The ground is a mix of dirt and gravel, with some areas appearing to be excavated or prepared for further construction. The overall scene depicts a major infrastructure project in progress.

- Intake No. 3 preserves system capacity and protects customers from water quality issues
- The Low Lake Level Pumping Station (L3PS) ensures water deliveries down to 875 feet
- Our \$2.5 billion capital improvements program will help protect the community against drought and climate impacts



LAKE MEAD INTAKE NO. 3

Intake No. 3 ensures system capacity and protects customers from water quality issues.

Operations began September 2015.

Project details:

- **3 mile tunnel underneath Lake Mead**
- **Approximately 2,400 concrete rings—each weighing more than 32 tons—used to line tunnel**
- **Elevation 860 feet**
- **Cost: \$817 million**



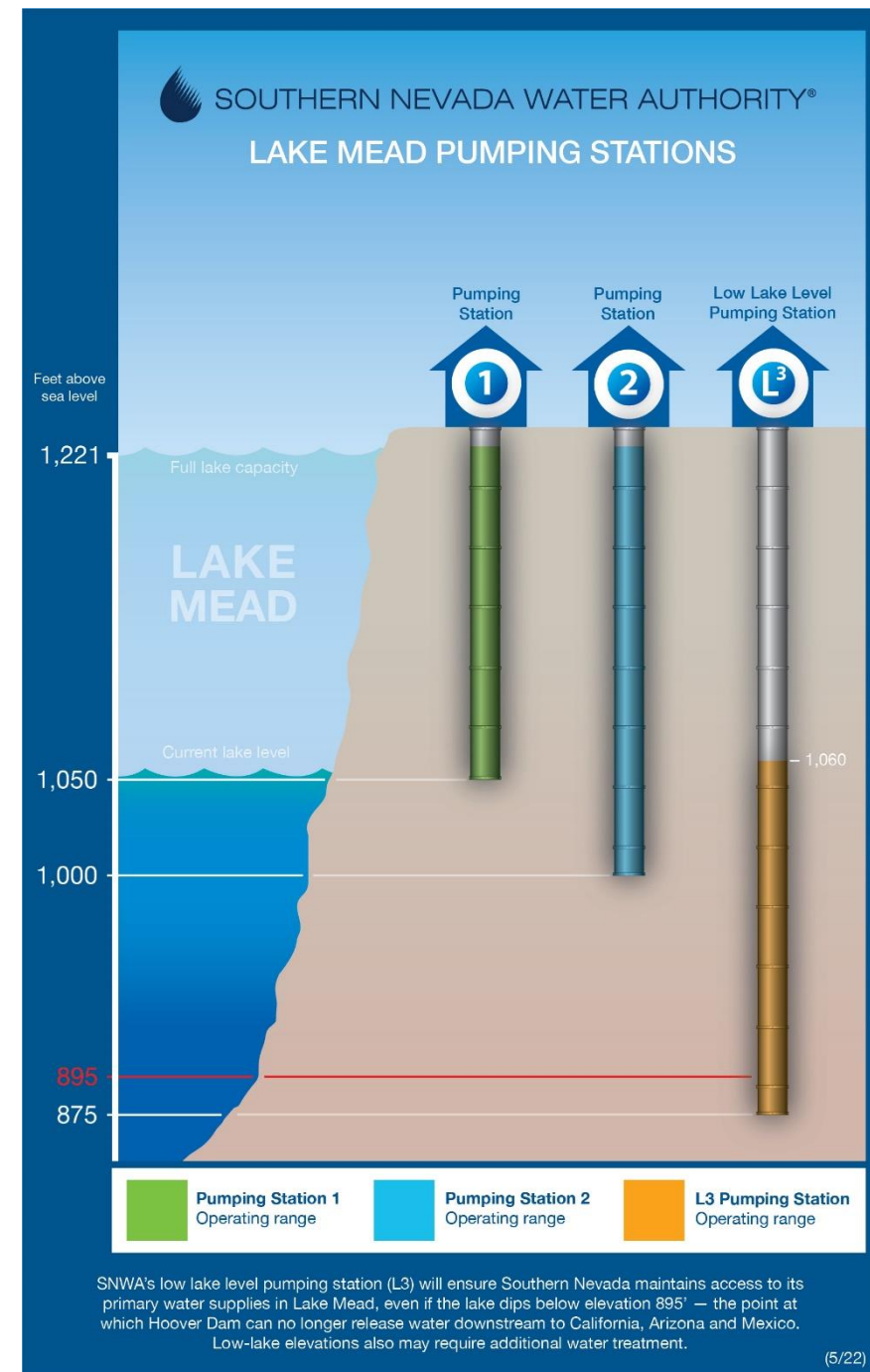
Before Intake No. 3 was put into service

LOW LAKE LEVEL PUMPING STATION

Construction of the Low Lake Level pump station ensures water deliveries down to 875 feet.

Operations began April 2022

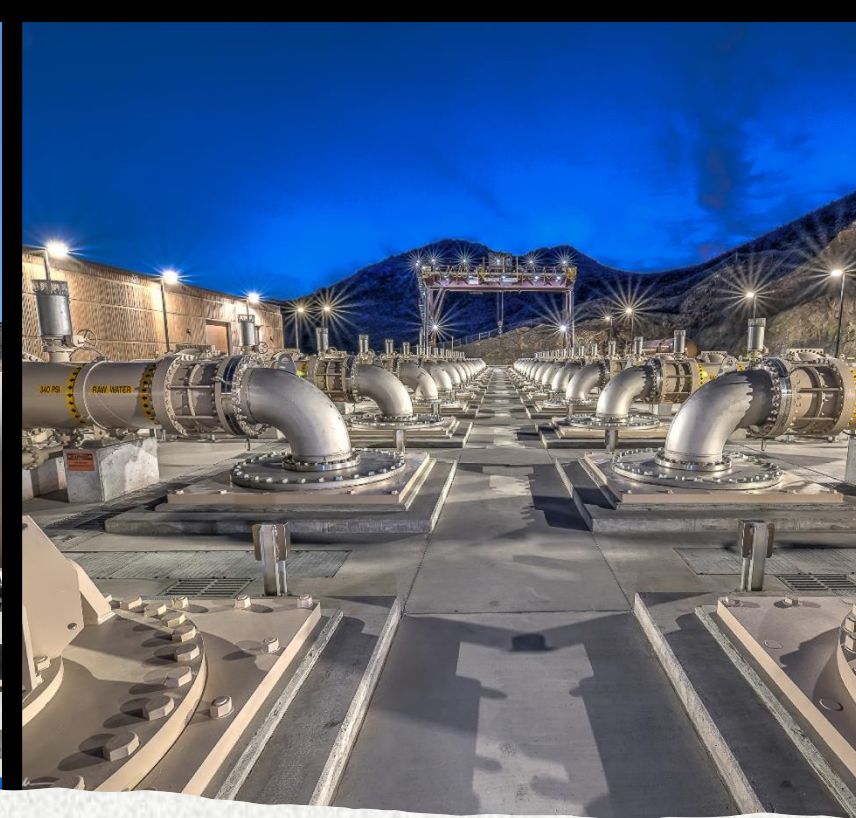
Budgeted at \$650 million
Estimated cost: \$522 million



L3PS FOREBAY

This was the underground excavation of the forebay which is now filled with water





LOW LAKE LEVEL PUMPING STATION

Construction was completed in 2020 and
put into operation in April 2022



RESOURCES

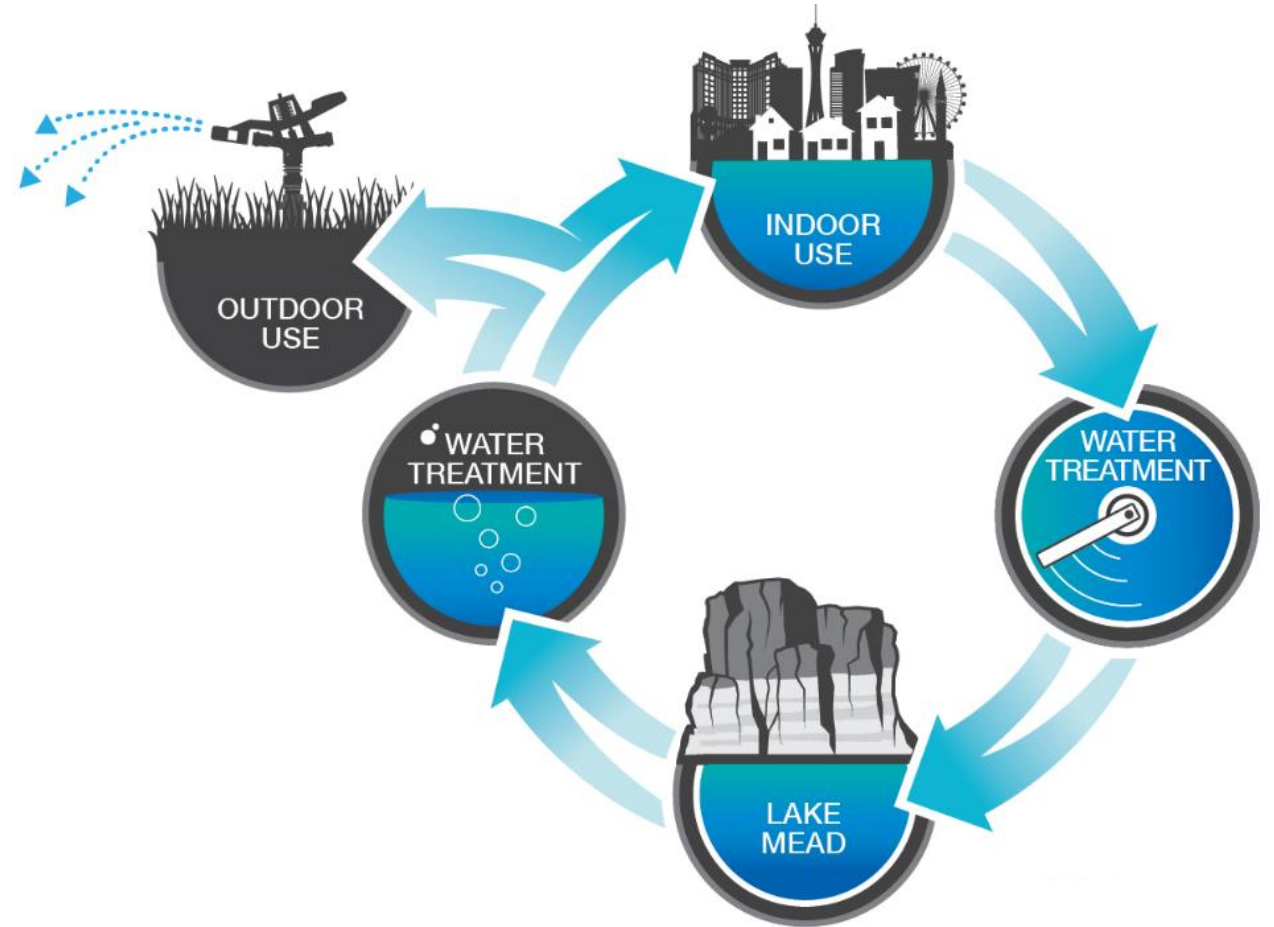
Between water banks and agreements among other Colorado River users, Southern Nevada has *2.1 million acre-feet of water stored for future use.*

That amount represents the amount needed to meet demands in Southern Nevada for more than next 8 years.



RETURN-FLOWS

Southern Nevada recycles 99% of water used indoors, thereby extending the availability of its resources.



The Water Smart Landscapes program pays residents and businesses to convert grass to more water-efficient plants and trees.



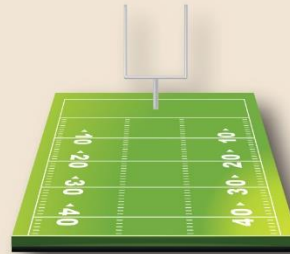
WATER SMART LANDSCAPES PROGRAM FACTS

202 MILLION

Square feet of grass has been replaced with water-smart landscaping since 1999

THAT'S EQUIVALENT TO:

Enough grass to cover more than



3,519

FOOTBALL FIELDS

OR

Rolling an 18" wide strip of sod



103%

AROUND THE EARTH

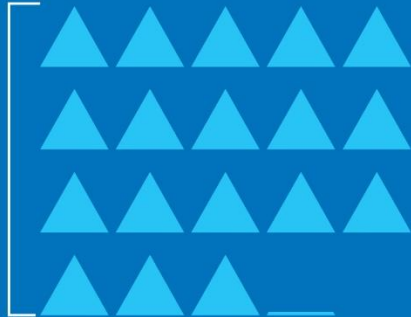
163 BILLION

Gallons of water saved to date.

That's enough water to fill the Luxor Hotel Pyramid

453

TIMES



The community has adopted a “culture of conservation” through programs, rebates, policies and education.



DO YOU KNOW
WHEN TO WATER?

Season	Dates	Frequency	Notes
SPRING	MAR 01 - APR 30	3 DAYS A WEEK	NEVER ON SUNDAY
SUMMER	MAY 01 - AUG 31	6 DAYS OR LESS A WEEK	No Watering from 11am-7pm. NEVER ON SUNDAY
FALL	SEP 01 - OCT 31	3 DAYS A WEEK	NEVER ON SUNDAY
WINTER	NOV 01 - FEB 28	1 DAY A WEEK	NEVER ON SUNDAY

Find your assigned days at SNWA.com

  SOUTHERN NEVADA WATER AUTHORITY



REPORT WATER WASTE AS IT HAPPENS



Report water waste.



WATER PATROL
LAS VEGAS VALLEY WATER DISTRICT

WATER WASTE PATROL WILL BE IN YOUR AREA

HOW CAN YOU AVOID A WATER WASTE FINE?

Follow your mandatory watering schedule	Fix broken sprinklers, emitters and leaks	Keep water from running off property
<p>SPRING 3 DAYS A WEEK</p> <p>FALL 3 DAYS A WEEK</p> <p>SUMMER 6 DAYS A WEEK</p> <p>WINTER 1 DAY A WEEK</p>		

Water waste and usage are high in your neighborhood.

LAS VEGAS VALLEY WATER DISTRICT

- **Examples of Water Waste:**

- Watering on Sunday
- Spraying in the street
- Sprinklers on between 11 AM and 7 PM in the summer
- Draining pools in streets

- **Report online at SNWA.com or call 702-258-SAVE**

HOW YOU GROW MAKES THE DIFFERENCE:

Southern Nevada consumptively used about 27 billion gallons less water in 2021 than in 2002, despite adding 750,000 new residents and serving nearly 40 million annual visitors.



Building to the conditions – Water Scarcity

No one would question developing to earthquake safety standards in San Francisco or hurricane standards in Florida.

In Southern Nevada, water scarcity is our natural disaster



CONSERVATION INITIATIVES – AB356

Non-functional turf removal





What is nonfunctional turf?

- Streetscape turf
- Median turf
- Residential community entry turf
- Turf at commercial and industrial properties
- Turf on slopes
- Narrow or small areas of turf

May also include:

- Multifamily turf
- HOA managed turf

Consumptive Use: New turf installations



In Dec. 2021, the SNWA Board approved a resolution supporting the prohibition on new turf installations in all new development except in schools, parks and cemeteries.

NO NEW GOLF COURSES

The Las Vegas Valley Water District will not provide municipal water service to new golf courses in its service area.



LIMIT POOL SIZES

Some area pools exceed 3,000 square feet and evaporate more than 145,000 gallons of water per year.

Reducing pool size will reduce wasteful development practices and reduce consumption due to evaporation.



Consumptive Use: Evaporative cooling

Behind irrigation, evaporative cooling represents the largest consumptive water use.

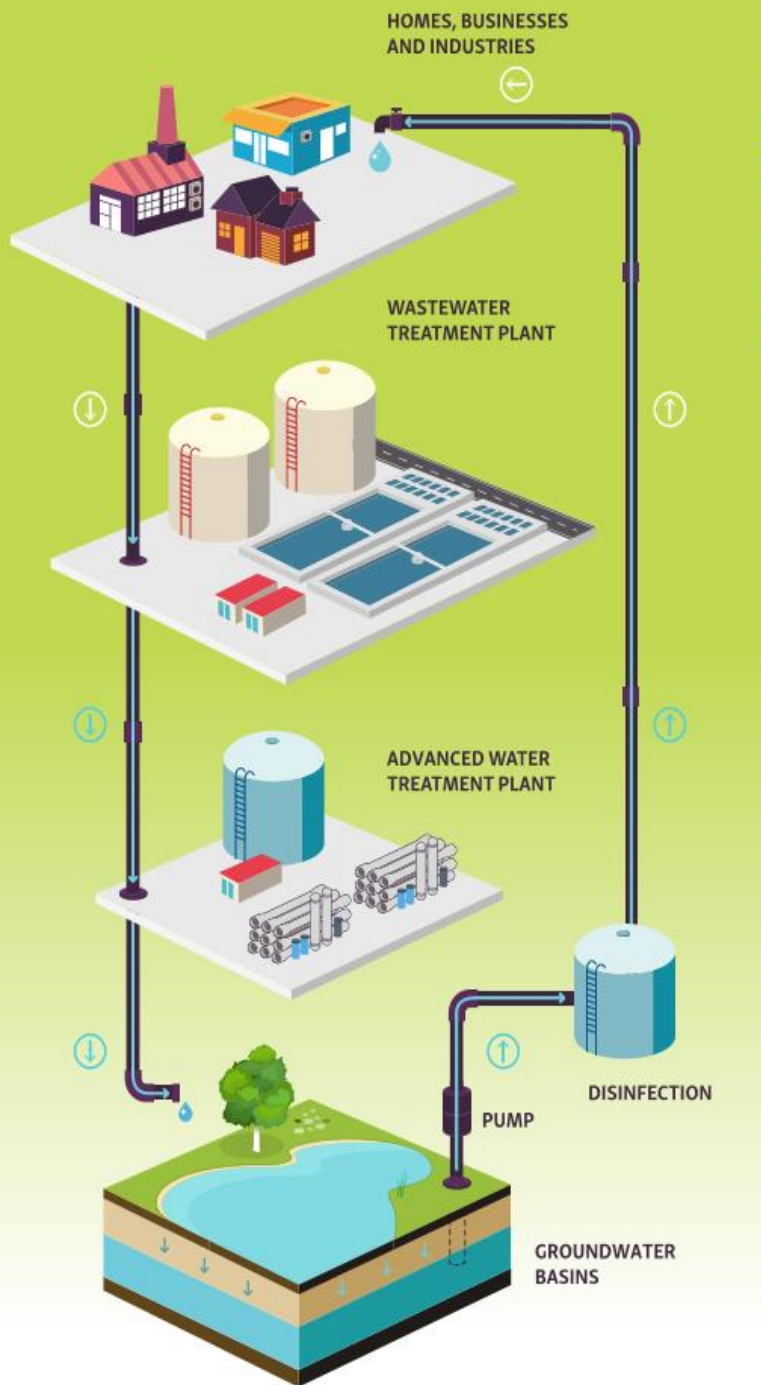
In Dec. 2021, the SNWA Board adopted a resolution that would propose a moratorium on cooling towers and water-cooled HVAC systems.



CONSERVATION RELATED RATE CHANGES

Excessive Use Charge and Tier Equalization will effectuate measures that reduce, mitigate or prohibit the consumptive use of the community's largest water users.





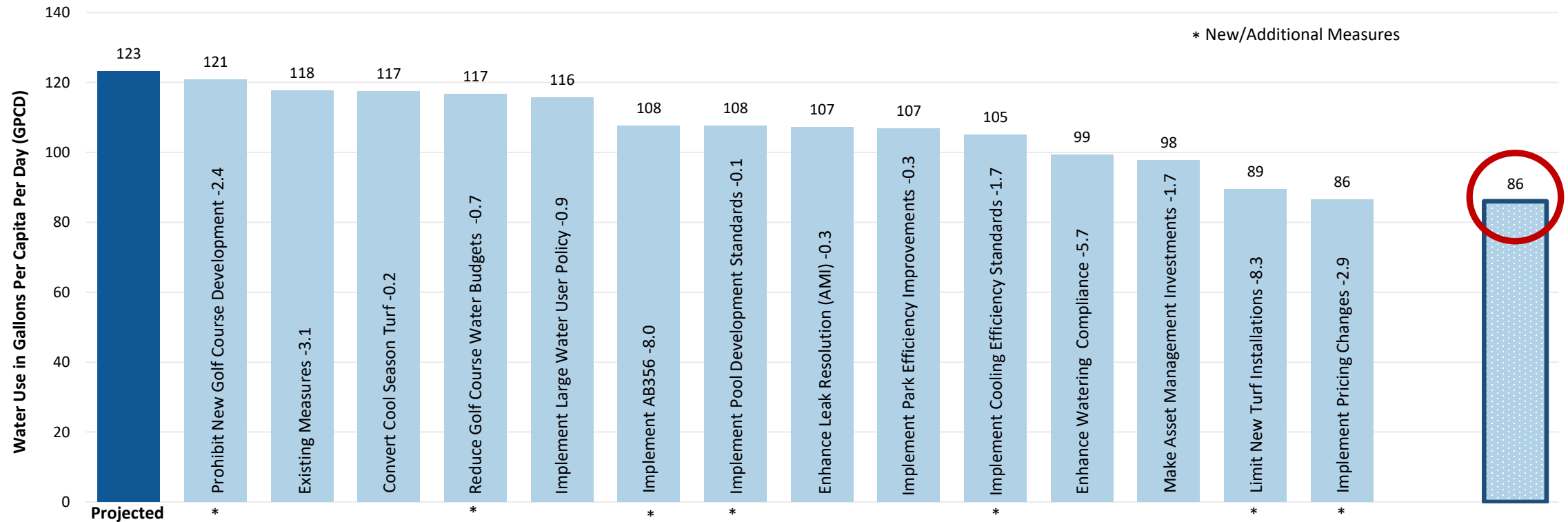
FUTURE RESOURCES

Metropolitan Water District of Southern California – Recycled Water Project

Additional water resources are needed to meet Southern Nevada's long-term demands.

- The SNWA has been successful working with Colorado River partners to manage shared resources
- An opportunity to invest in a new, large Southern California water recycling project could yield 25,000 acre-feet per year
- Future projects take time to evaluate, negotiate, fund and construct

Achieving higher levels of efficiency will extend the availability of current resources and reduce the need for temporary and future resources.



Southern Nevada Population and Water Conservation 2002-2021

Southern Nevada
POPULATION



Per Capita
WATER USE



Colorado River Water
CONSUMPTION



**Continue to be a leader in
water conservation.**

CONSERVATION INITIATIVES



- 1. Remove ornamental turf**
- 2. Change your clock**
- 3. Report Water Waste**



SOUTHERN NEVADA WATER AUTHORITY