

REGIONAL DROUGHT OUTLOOK AND PLANNING

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SNWA Responsibilities



CONSERVATION

Incentives, Programs,
Regulation and Pricing



WATER SUPPLY PLANNING

Developing and managing
regional water supplies



WATER QUALITY

Maintaining and
protecting water quality



INFRASTRUCTURE

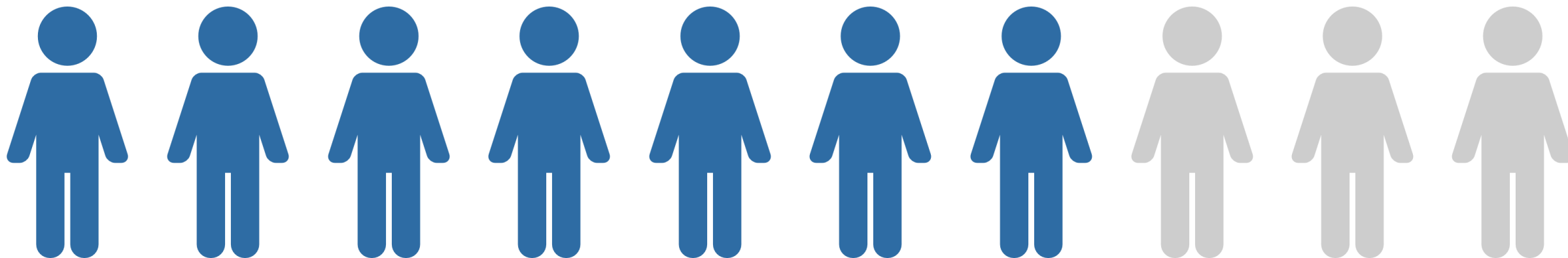
Building and operating
major facilities



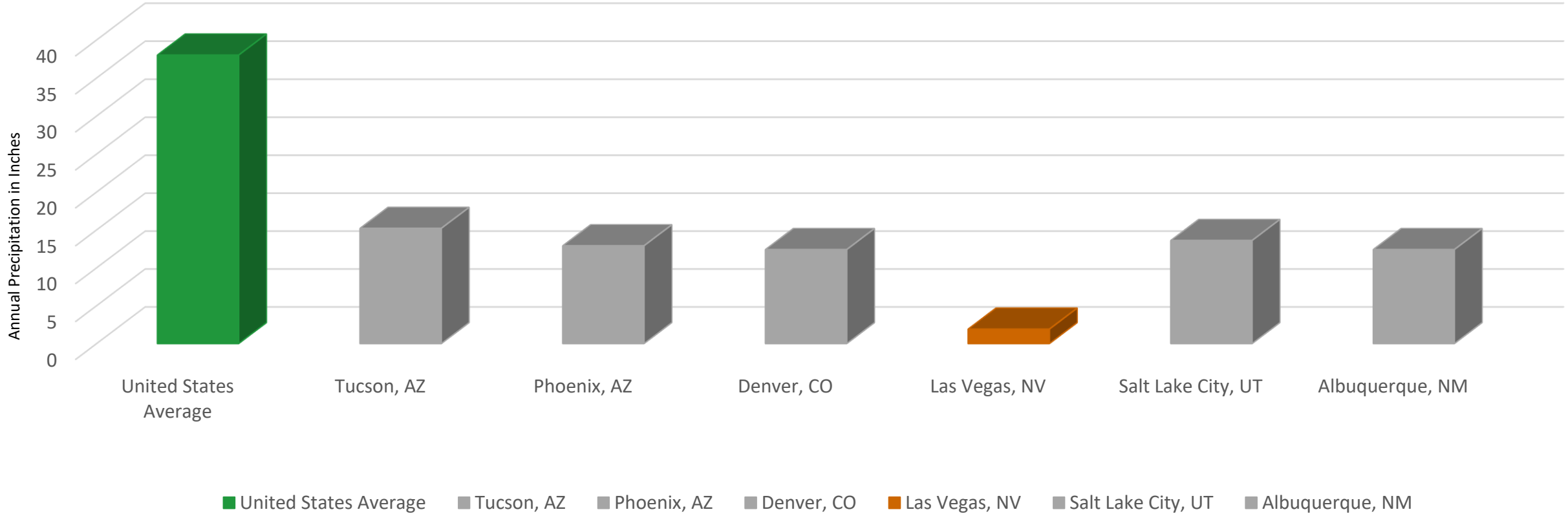
STEWARDSHIP

Protecting
environmental resources

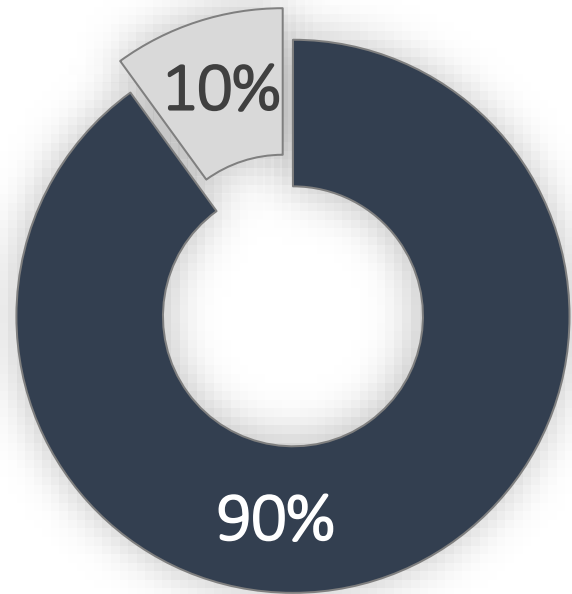
**Seven of every 10 Nevadans rely on the SNWA
to supply water to homes and businesses**



Las Vegas is the driest metropolitan area in the United States



Las Vegas is nearly fully dependent on Colorado River resources



■ Colorado River ■ Groundwater



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

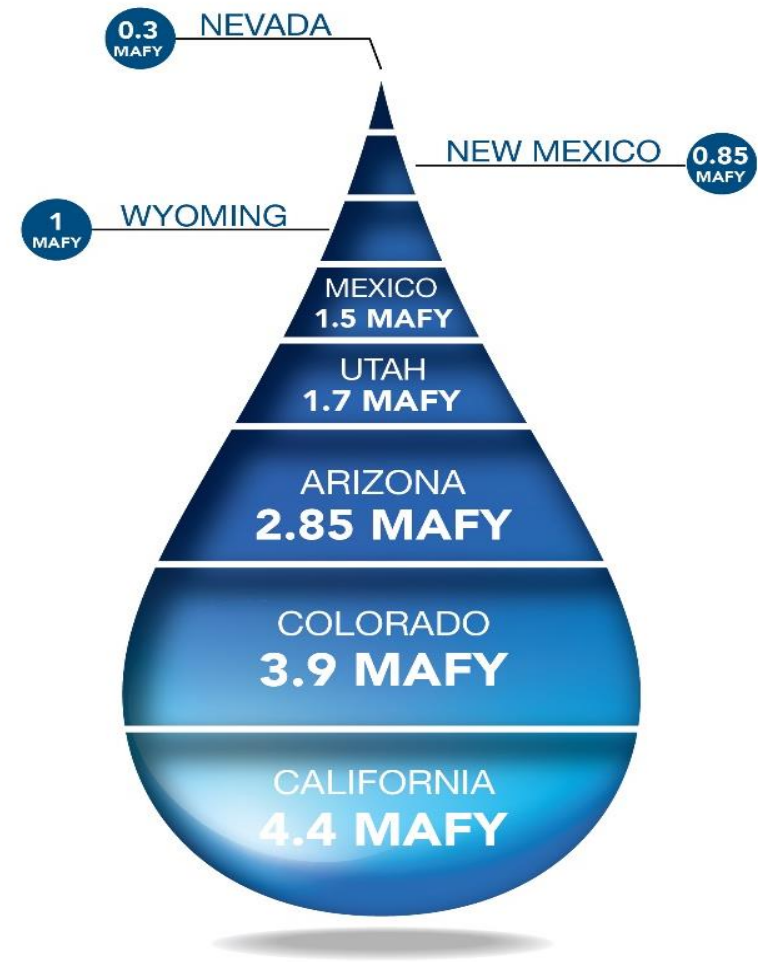
Nevada accesses its Colorado River allocation through facilities in Lake Mead.



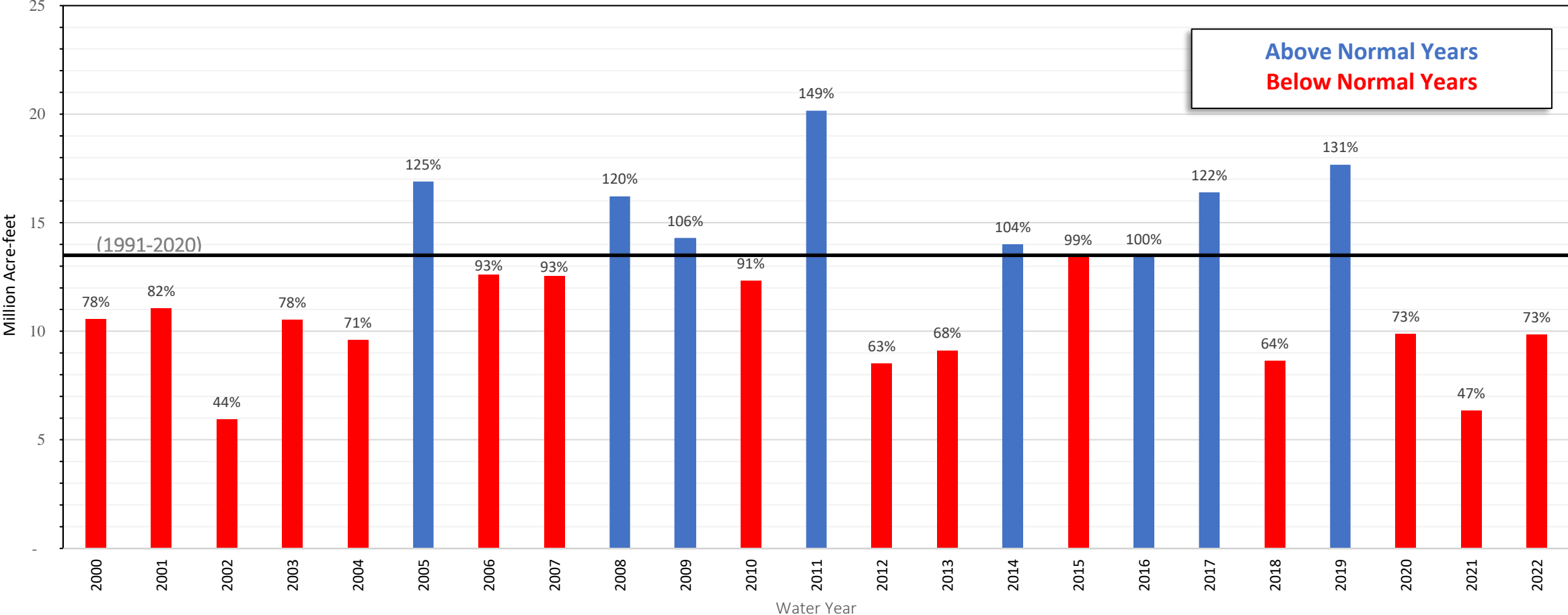
The Colorado River was allocated in 1922 through a Compact

The total volume to be divided—15 million acre-feet—was based upon average flows during the previous decade.

Allocations were based primarily on agricultural use or potential use.

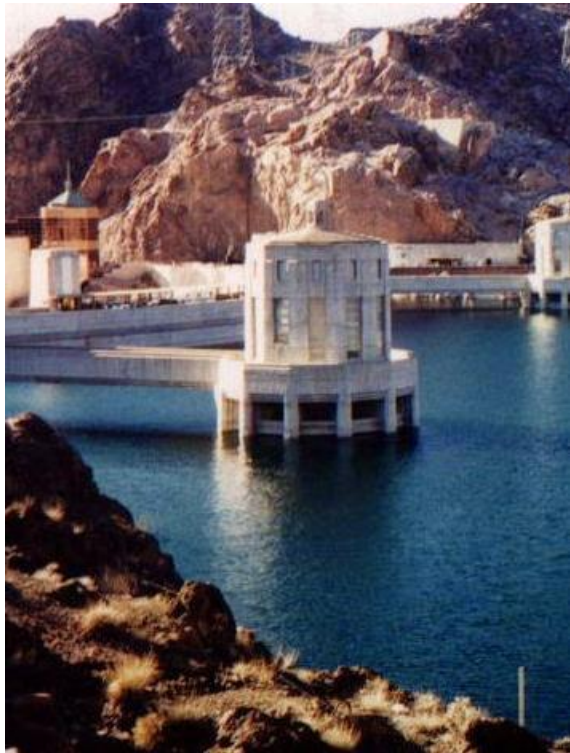


The Colorado River Basin has been experiencing significantly decreased inflows for the past two decades



Drought conditions have significantly depleted Lake Mead storage

1999



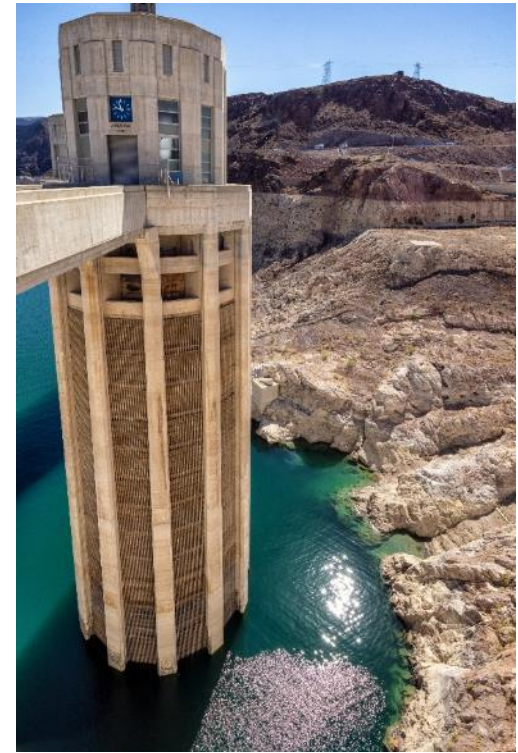
95%

2004



46%

2023



27%

Lake Mead is at significant risk of falling below 900 feet



At that elevation:

- Reservoir storage is less than 10 percent of capacity
- The SNWA's first two intakes are above the surface
- Hoover Dam is unable to release water downstream to Arizona, California or Mexico
- Hoover Dam can no longer generate power
- **Nevada's allocation will be further reduced by an undefined, potentially significant quantity**

Southern Nevada has spent decades preparing for drought



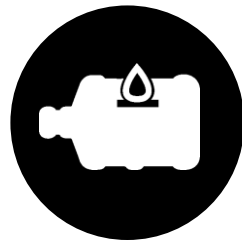
INFRASTRUCTURE

Constructing major facilities and asset management



RESOURCE PLANNING

Working with partners & developing comprehensive plans to manage supplies



WATER BANKING

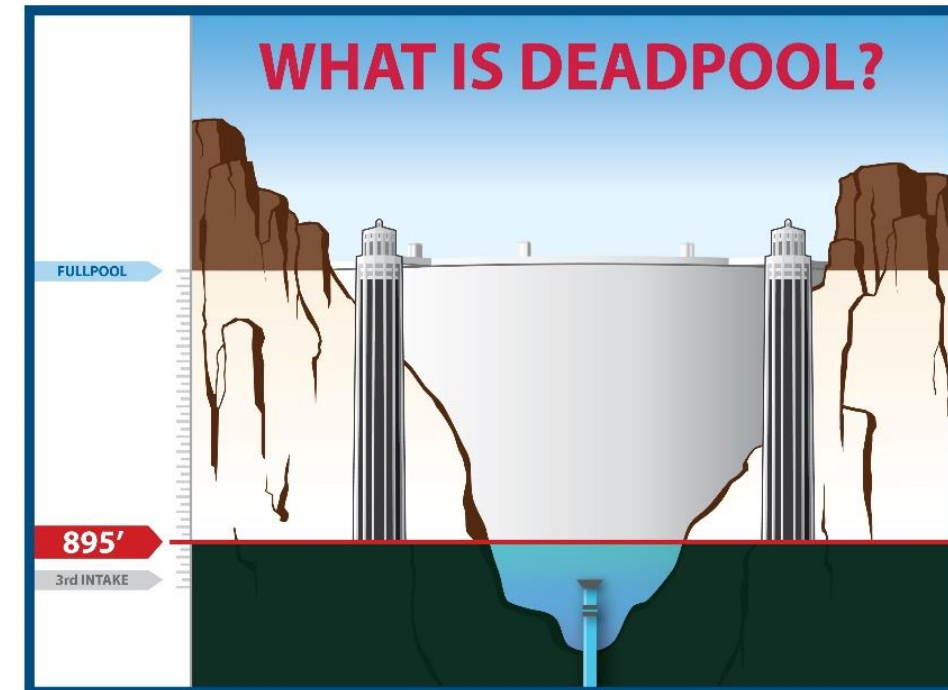
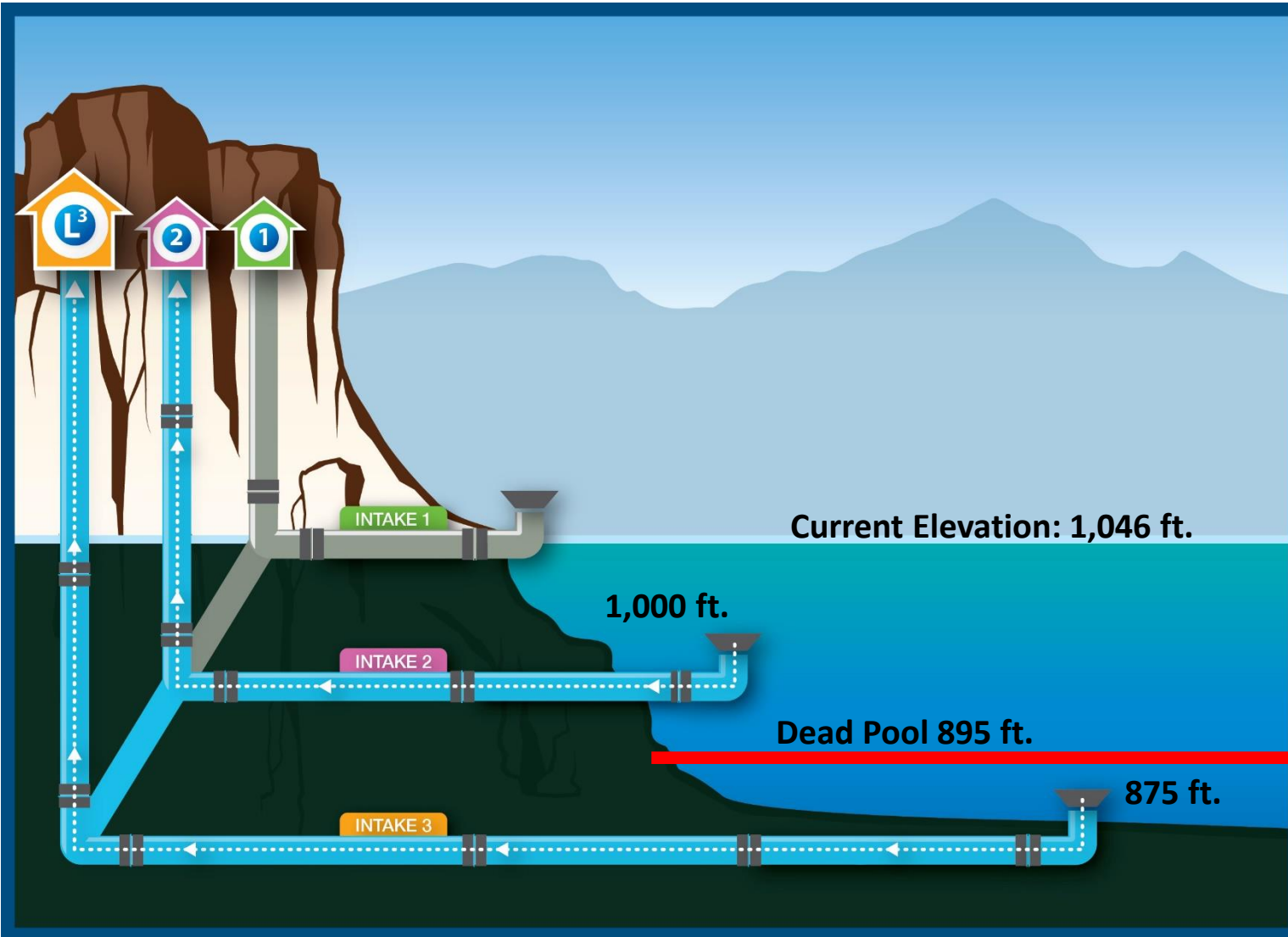
Storing water supplies for the future



CONSERVATION

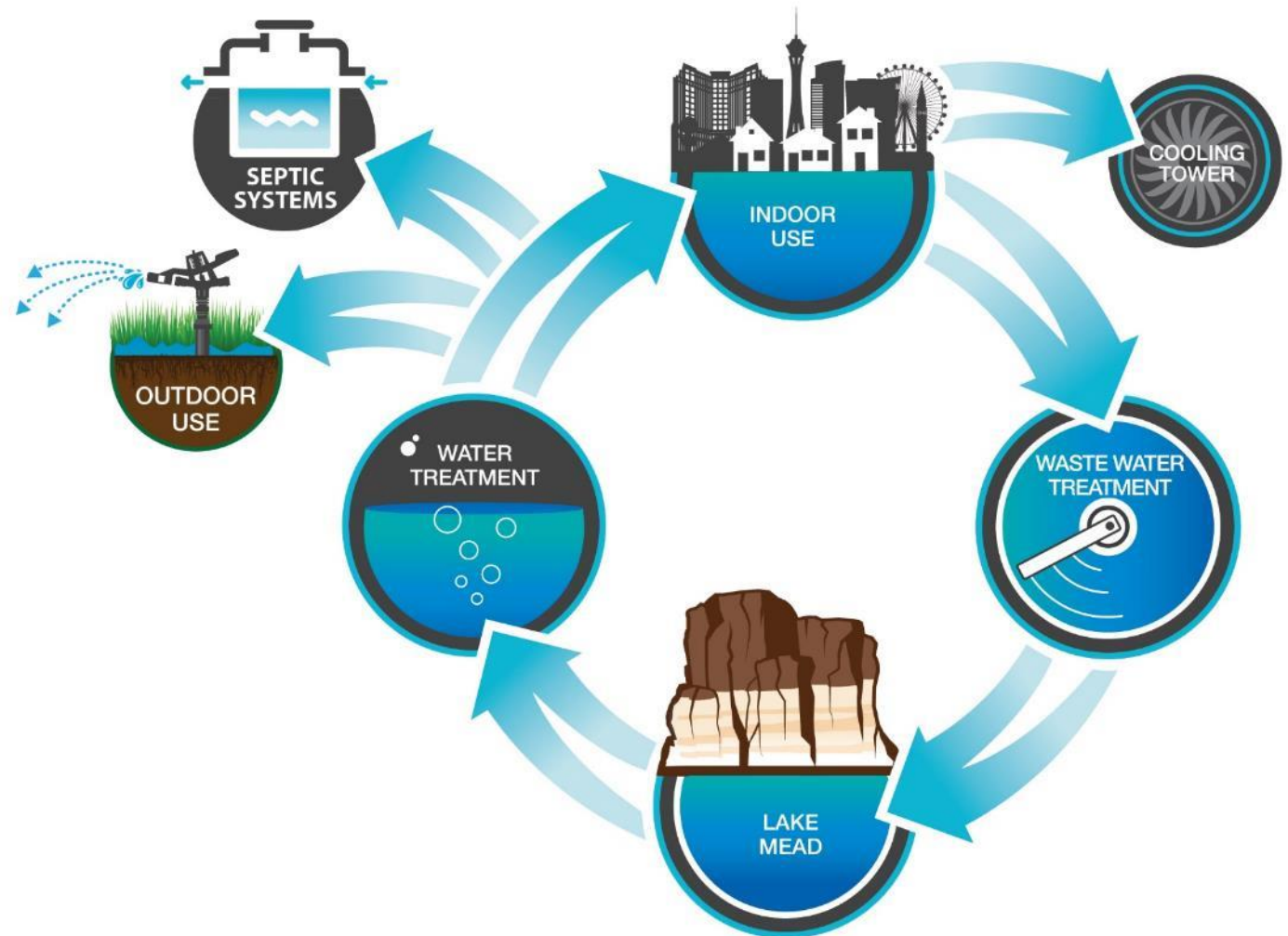
Incentives, programs, regulation & pricing

NEVADA'S ADVANTAGE: Intake No. 3 and Low Lake Level Pumping Station



NEVADA'S ADVANTAGE: Indoor water recycling

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



NEVADA'S ADVANTAGE: Consistent regional policy with policy makers enabled to make tough decisions

SNWA MEMBER AGENCIES



- **Big Bend Water District (Laughlin)**
- **Boulder City**
- **City of Henderson**
- **City of Las Vegas**
- **City of North Las Vegas**
- **Clark County**
- **Las Vegas Valley Water District**

NEVADA'S ADVANTAGE: Decades-long commitment to conservation



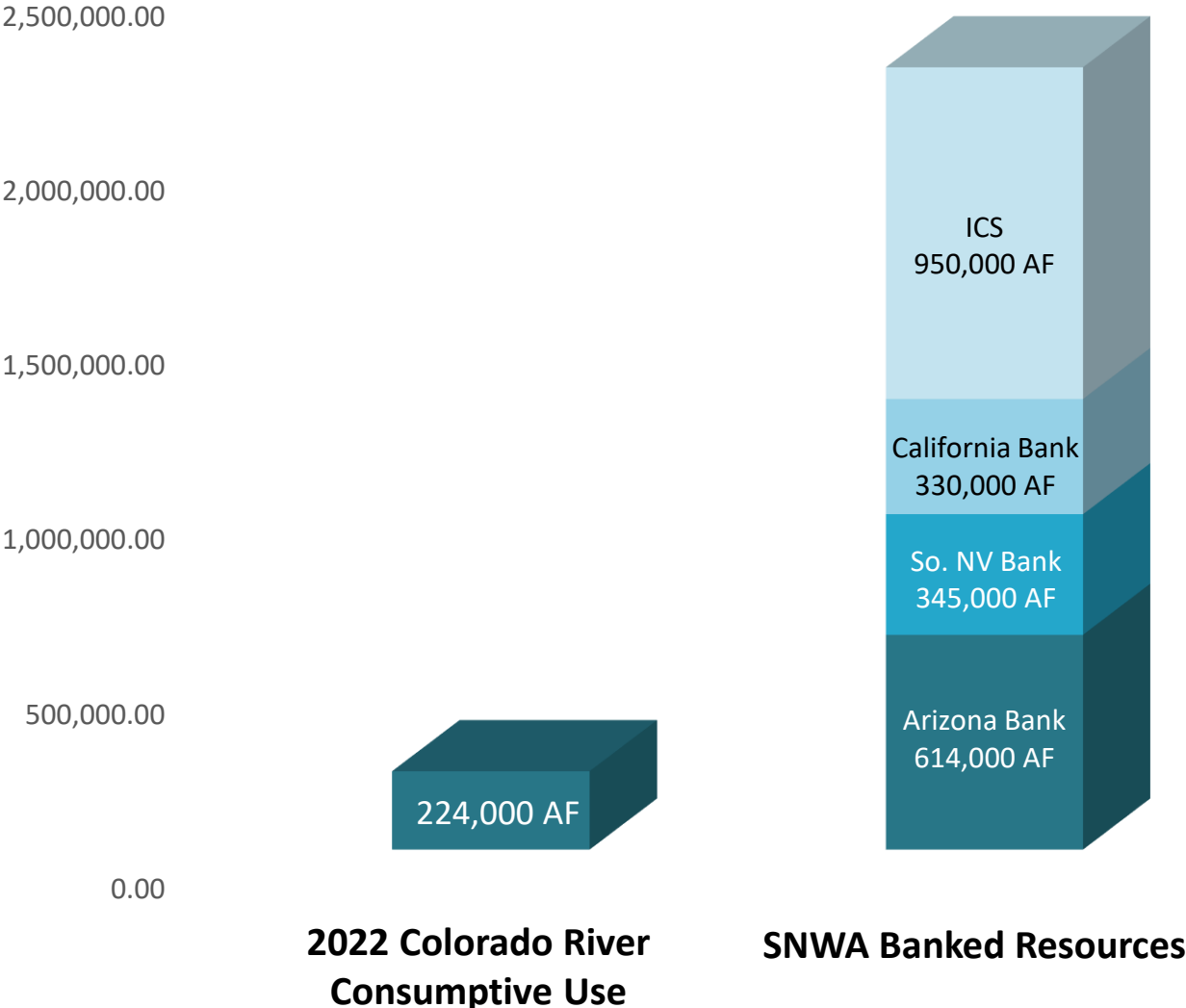
Enacted in the early 2000s:

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

Ongoing: Water Banking

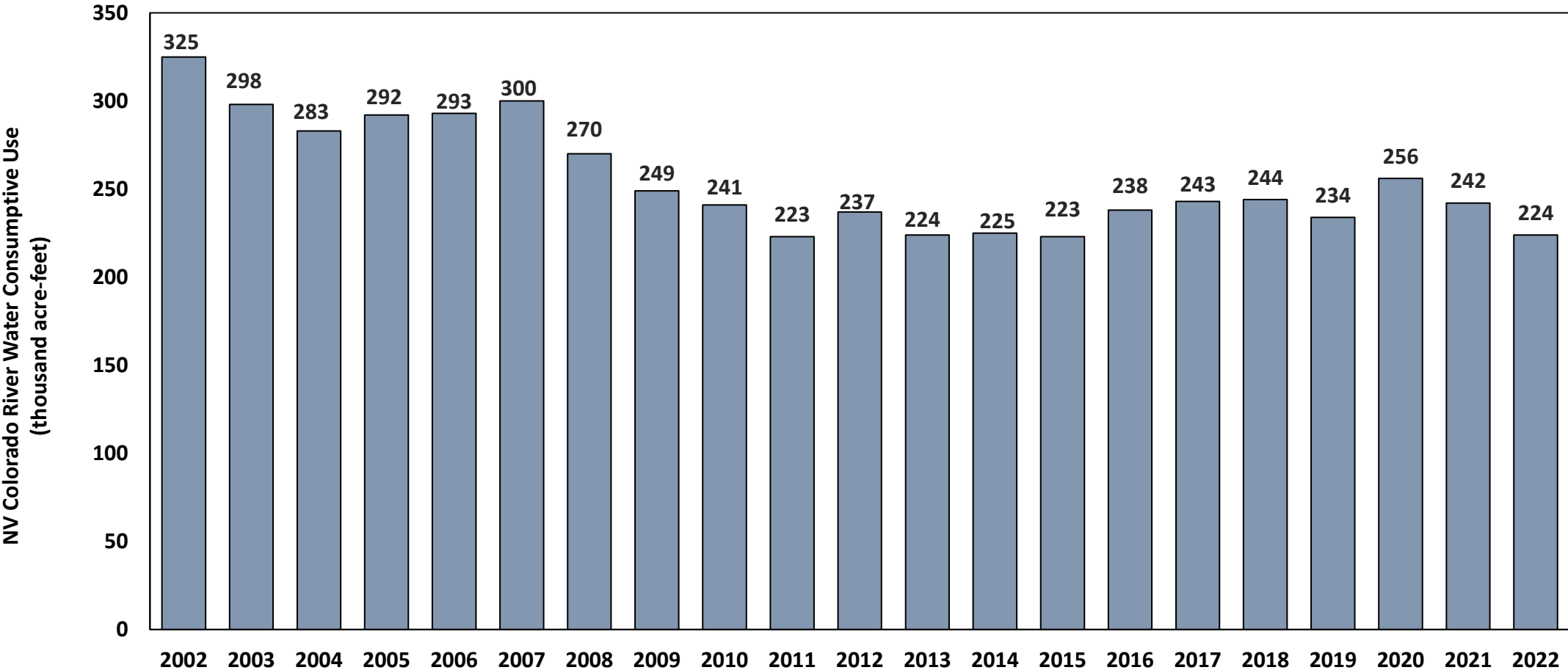
Southern Nevada has stored 2.2 million acre-feet of water.

This is more than nine times Nevada's 2022 consumptive Colorado River water use.



Thanks to conservation, Colorado River shortages have been mitigated in the near term, but there's more work to be done.

Colorado River Consumptive Use



Since 2002, Southern Nevada has been able to reduce water use while its population grew.

Southern Nevada
POPULATION



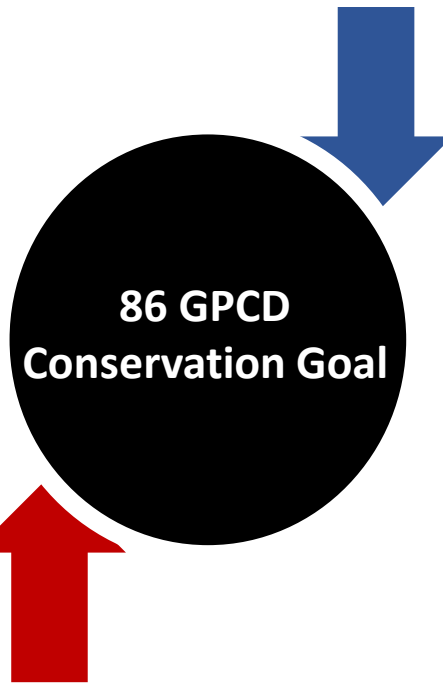
Per Capita
WATER USE



Colorado River Water
CONSUMPTION



Climate change will slow progress on water conservation.



Adaptive Management

Significant additional effort will be required to reduce consumptive water use to meet our conservation goal and maximize the availability of water supplies.

Climate Change & Aging System

Increasing consumptive water demands due to warmer temperatures, drier soils lower precipitation, and increased system loss due to aging infrastructure.

Southern Nevada's conservation goal of 86 GPCD by 2035 will keep the community on track to meet demands over the next 50 years.



NONFUNCTIONAL GRASS: AB356 prohibits nonfunctional grass by 2027



NEW GRASS: New grass installations are limited to parks, schools and cemeteries



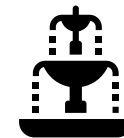
SEPTIC: Municipal water supplies cannot be discharged in septic tanks



GOLF COURSES: Golf course water budgets were reduced by one-third. No new golf courses.



EVAPORATIVE COOLING: New buildings are prohibited from using evaporative cooling



FOUNTAINS: New ornamental water features are prohibited, including resorts



SWIMMING POOLS: New pools are limited to 600 sq. ft. surface area



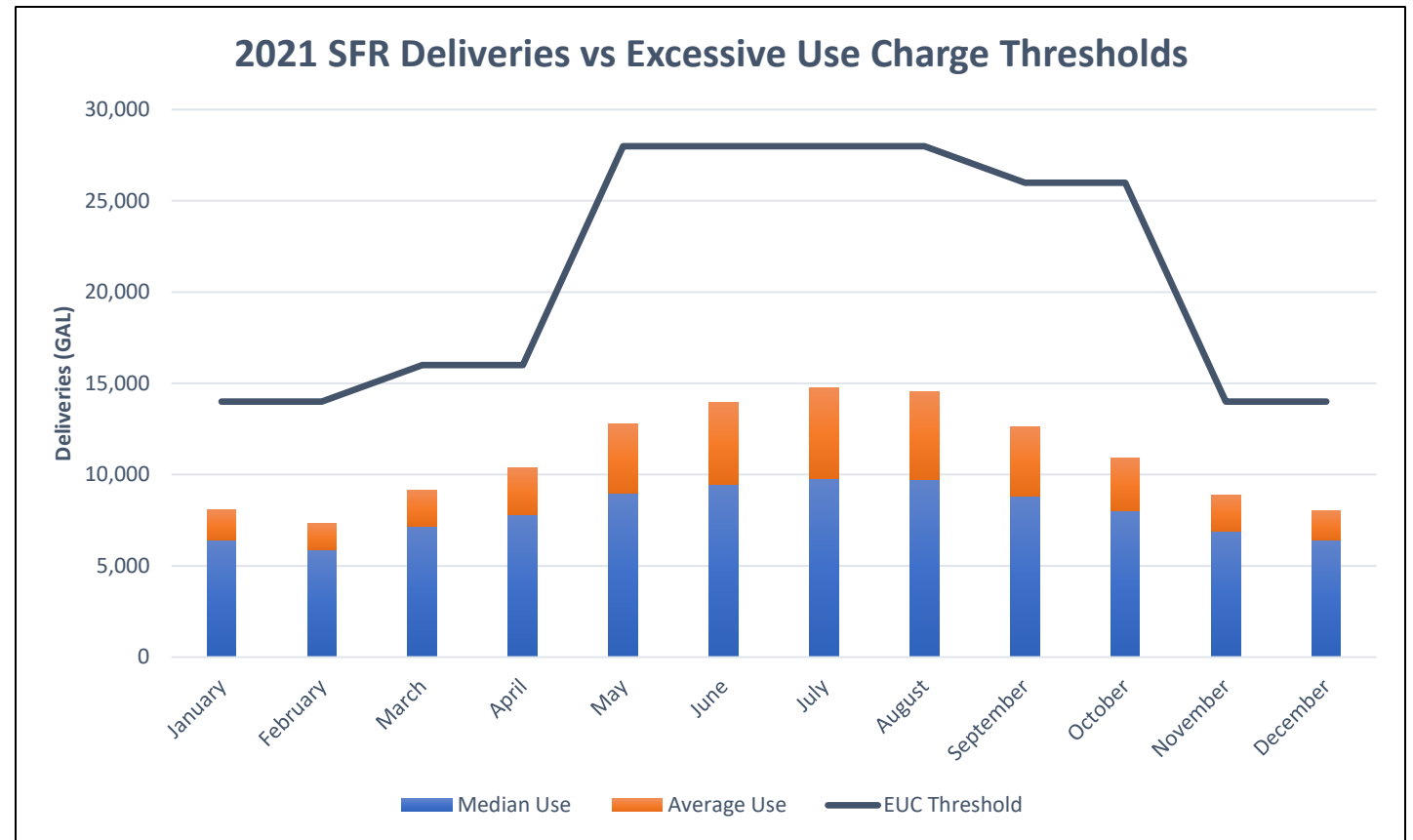
WATER PRICING: Punitive water rates for top 10% of single-family residential users

RECENT INITIATIVE: Water Pricing Changes

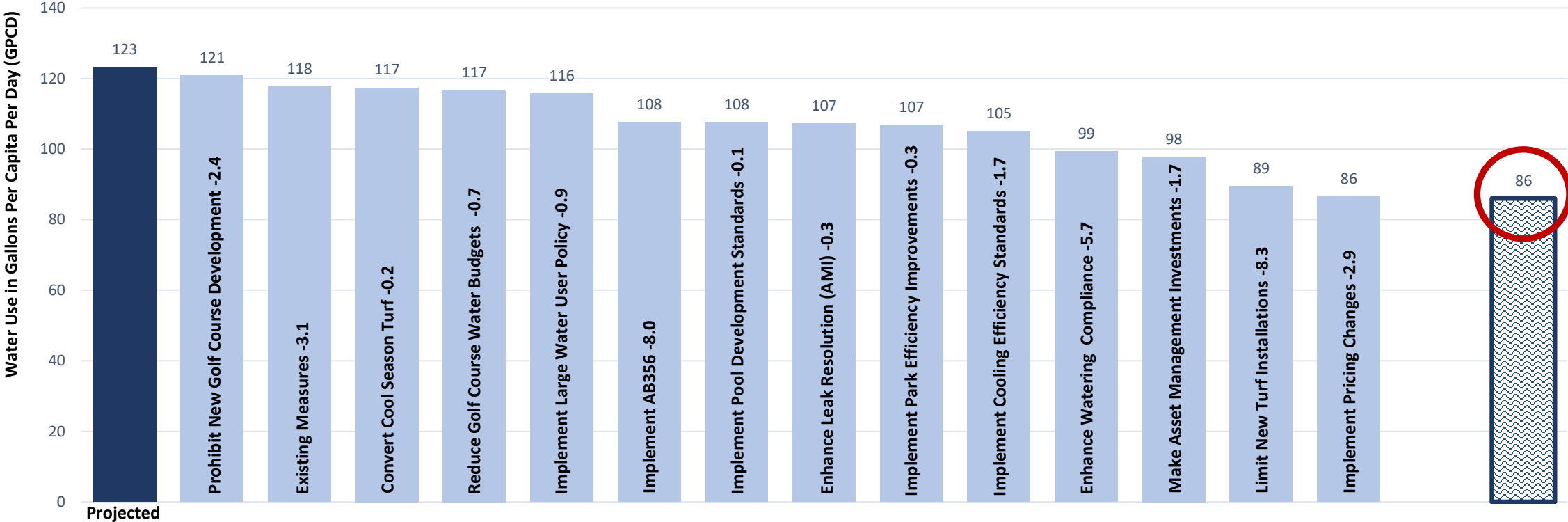
Thresholds are set at the minimum of the 10th decile (top 10%) of SFR water bills per season.

Season	Threshold (GAL)	Bills Impacted by Excessive Use Charge
Winter <i>(Nov-Feb)</i>	14,000	12%
Spring <i>(Mar-Apr)</i>	16,000	9%
Summer <i>(May-Aug)</i>	28,000	9%
Fall <i>(Sep-Oct)</i>	26,000	10%

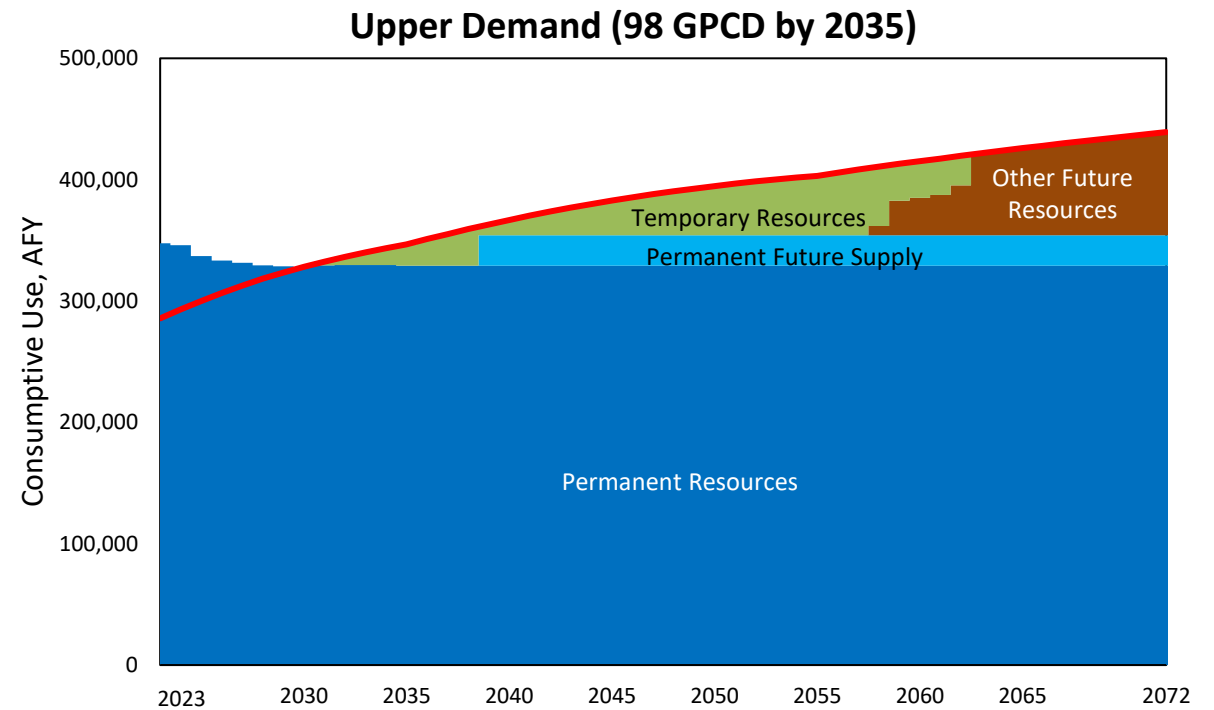
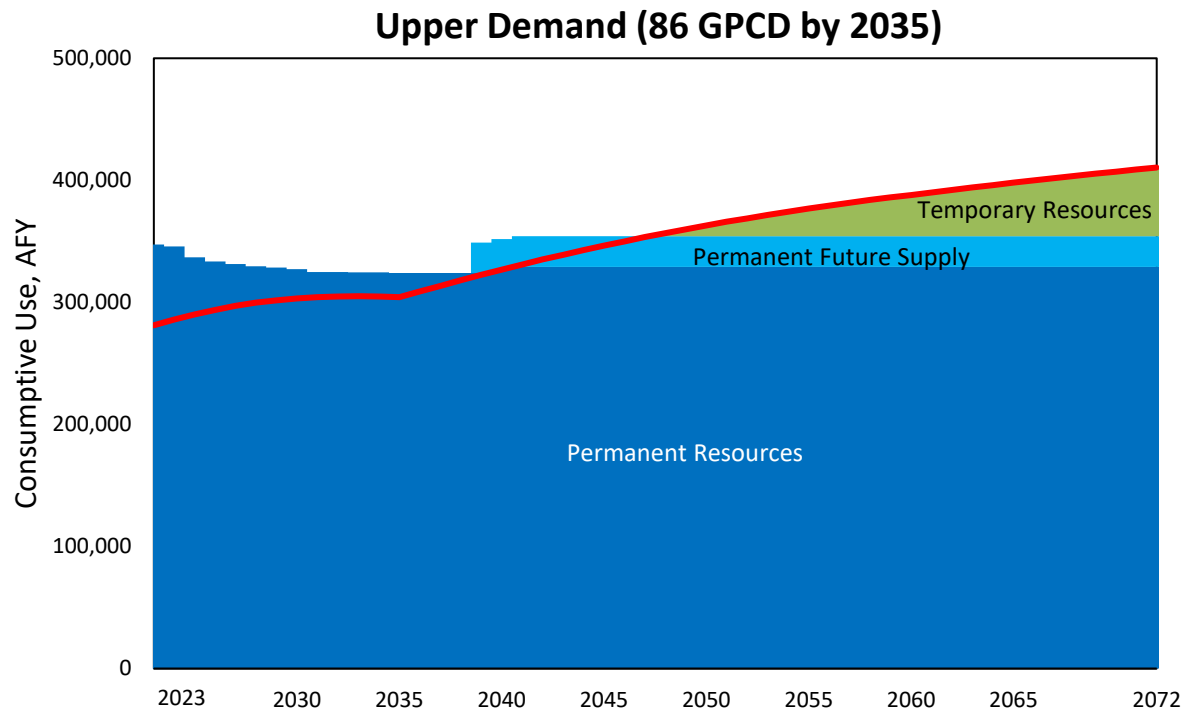
EUC = \$9.00 per thousand gallons over the threshold



Meeting the conservation goal



Reducing demands now delays need for future resources.

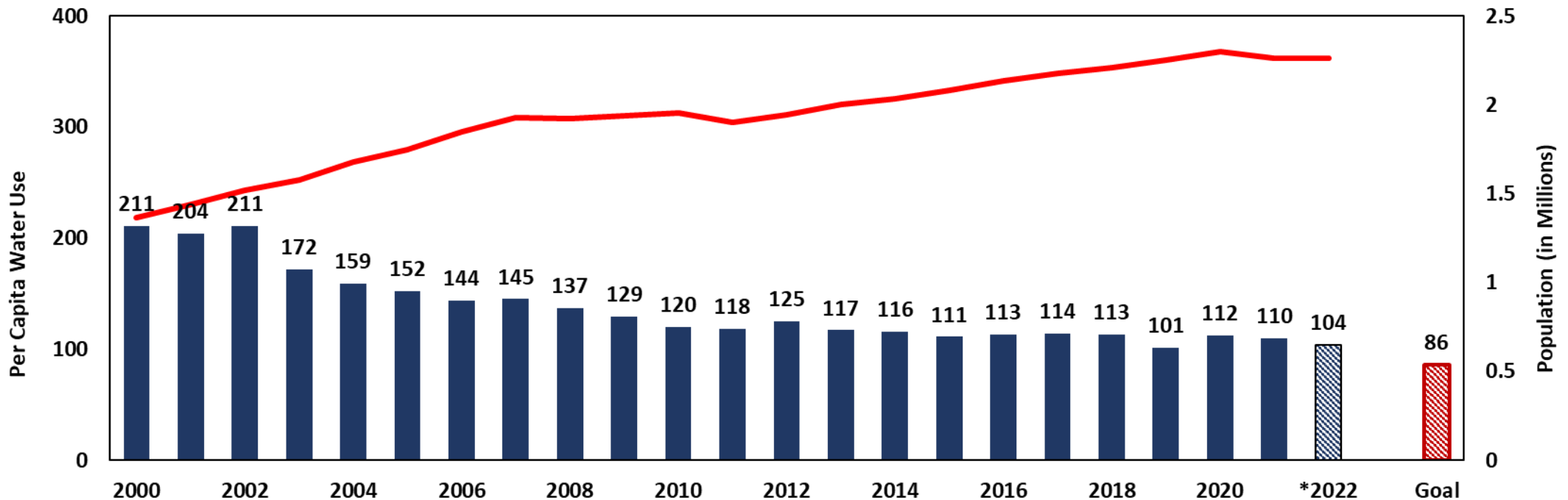


Supply and Demand Scenarios (11.0 MAFY Natural Flow)

* Scenarios assumes Permanent Future Supply comes online in 2039.

Conservation matters ... and it works!

Between 2002 and 2022, SNWA GPCD declined by 51 percent while the community's population increased by 744,000.

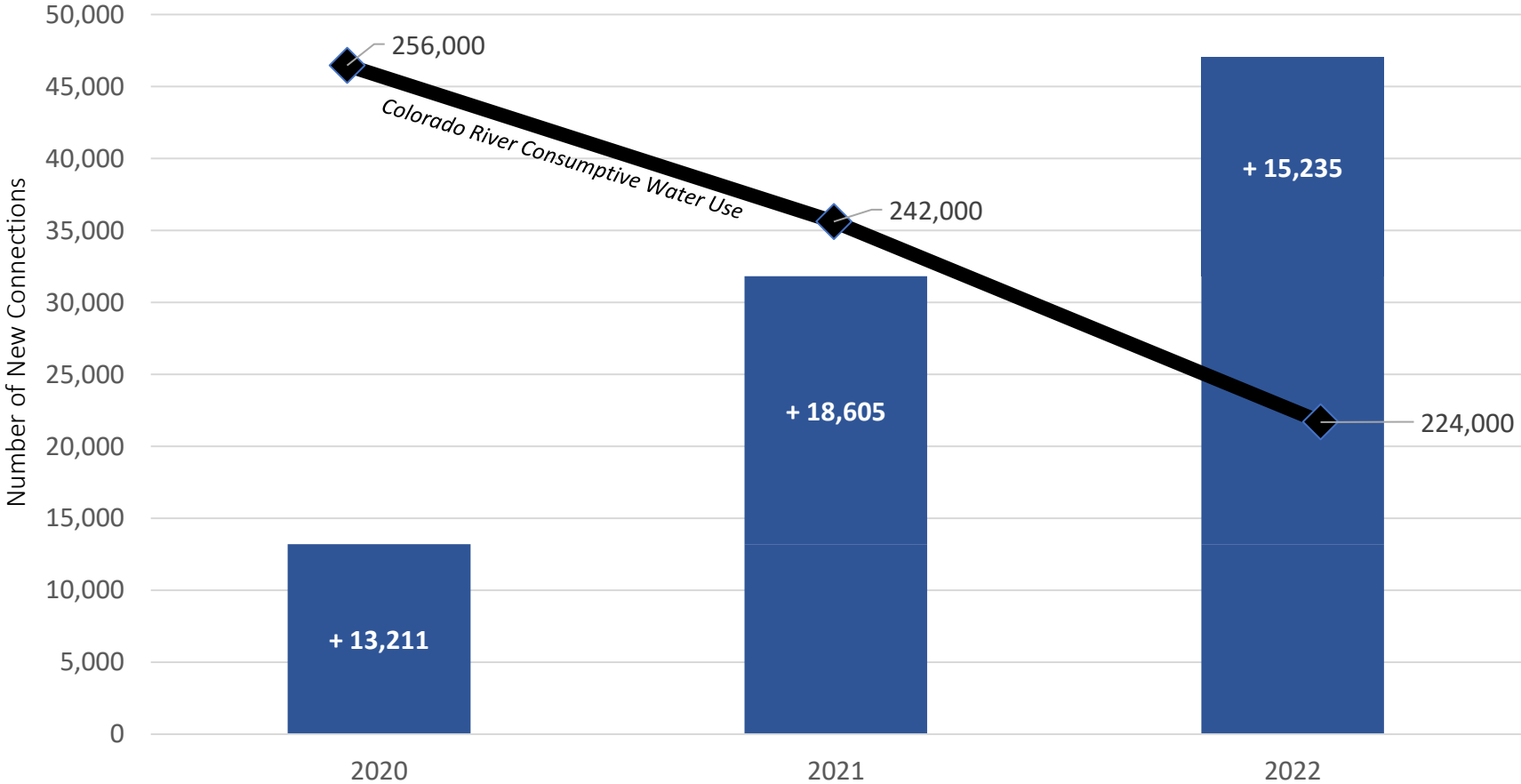


Continued progress is required to meet our conservation goal of 86 GPCD by 2035.

*2022 data is provisional and subject to change

Conservation matters – Last 3 Years

Despite the addition of more than 47,000 new connections since 2020, water use has declined by 12% in the same time period.



**Working together, we can
navigate this crisis.**

**However, our success
depends upon our
willingness to adapt.**





SOUTHERN NEVADA WATER AUTHORITY™