



RECOMMENDING COMMITTEE

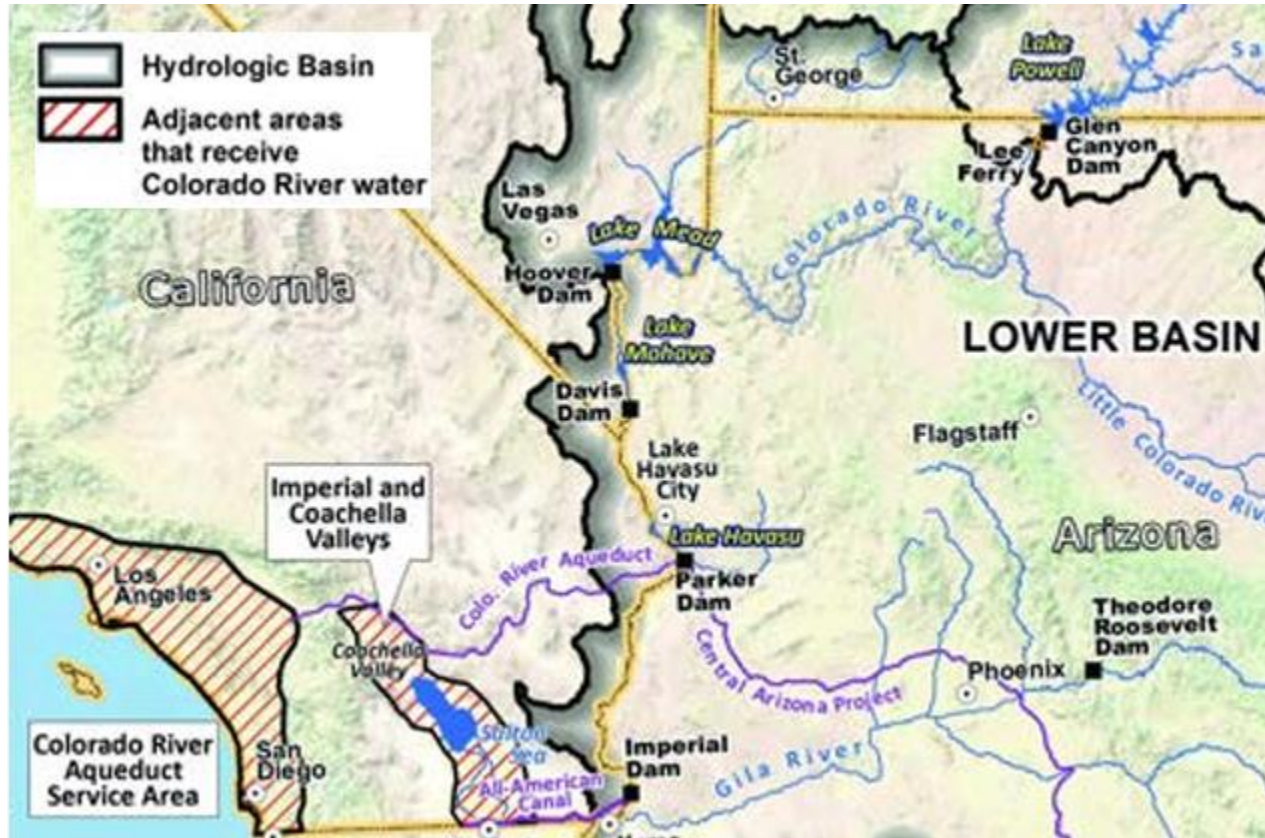
ITEM 4: BILL 2023-17

WATER CONSERVATION

Submitted after Final Agenda (City Council)
Date: 7/31/2023 Item: 23
by Staff

Submitted at Recommending Committee
Date: 7/31/2023 Item: 4
by Staff

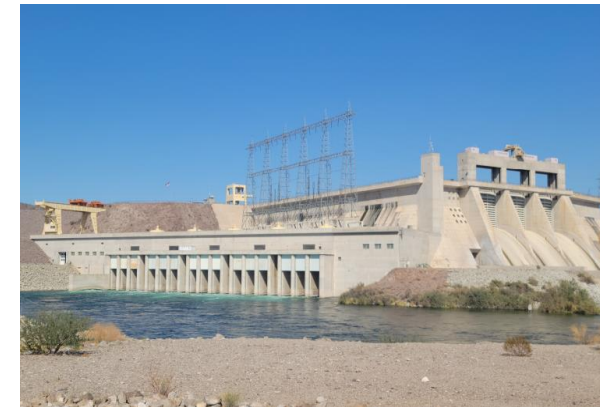
Colorado River Basin



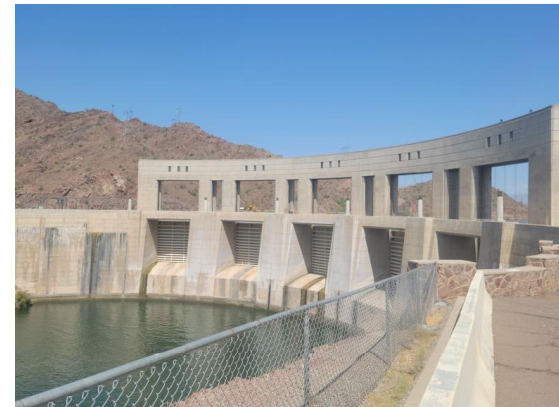
Glen Canyon / Powell



Hoover / Mead



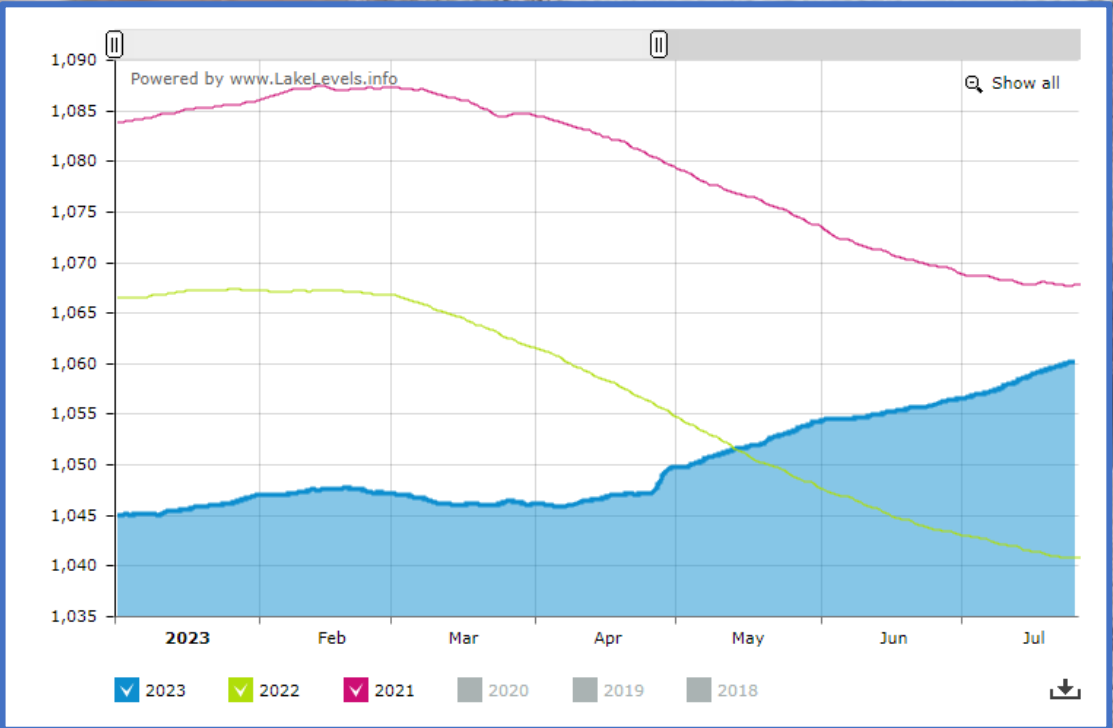
Davis / Mohave



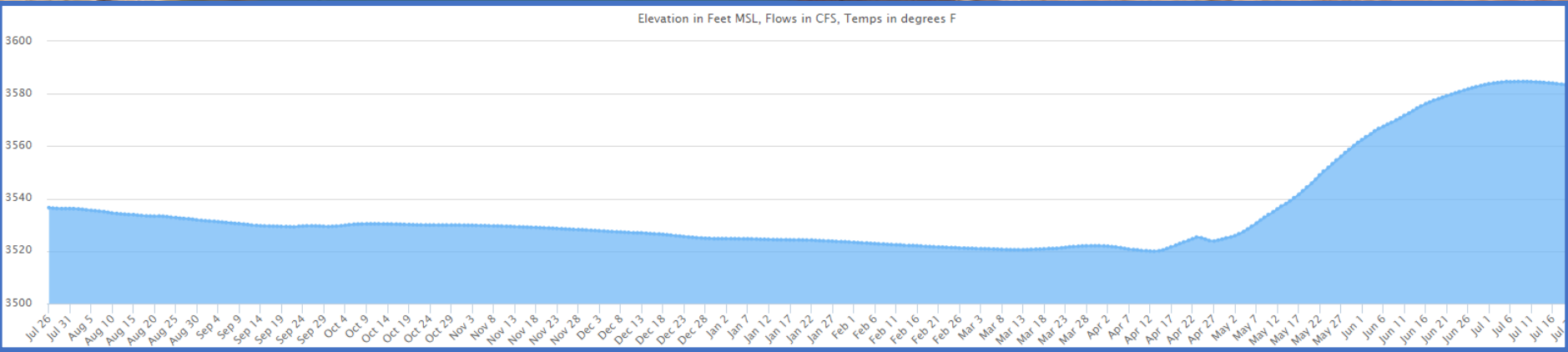
Parker / Havasu



Lake Mead



Lake Powell





Lake POWELL ELEVATIONS

FULL POOL → 3,700 Ft
Today → 3,521 Ft
4-17-23 179 ft (below full pool)

STORAGE 5,317,508 af
INFLOW 52,180 af
AVG. RELEASE 18,035 af

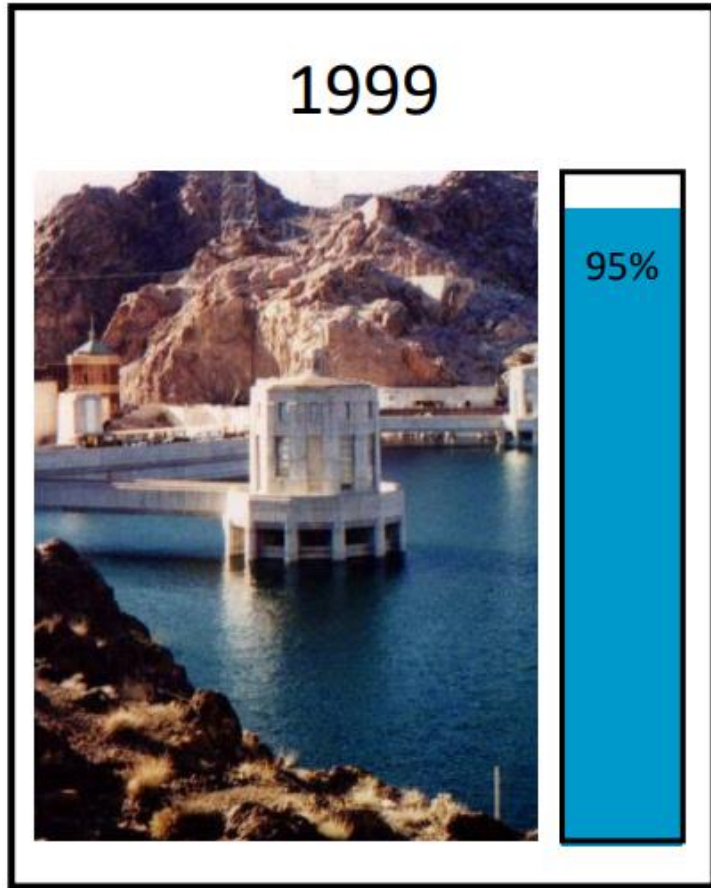
WATER TEMP 47°F
23 % of capacity

Lake Powell has officially dipped just below 3,525 feet in elevation, reflecting the Colorado River Basin's dry winter season. See chart.

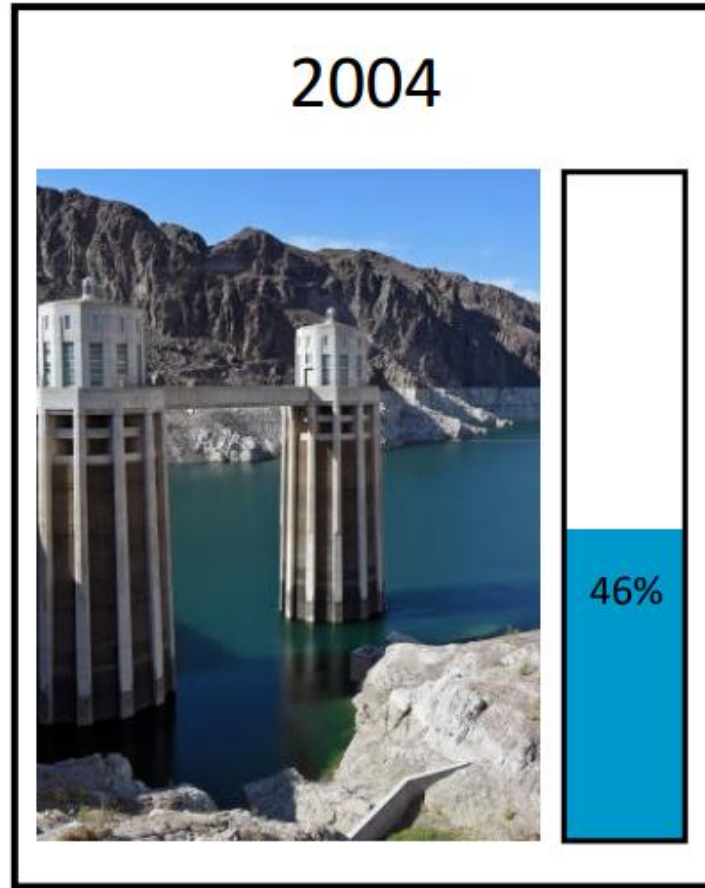


SUNRISE: 5:50 AM
SUNSET: 7:01 PM

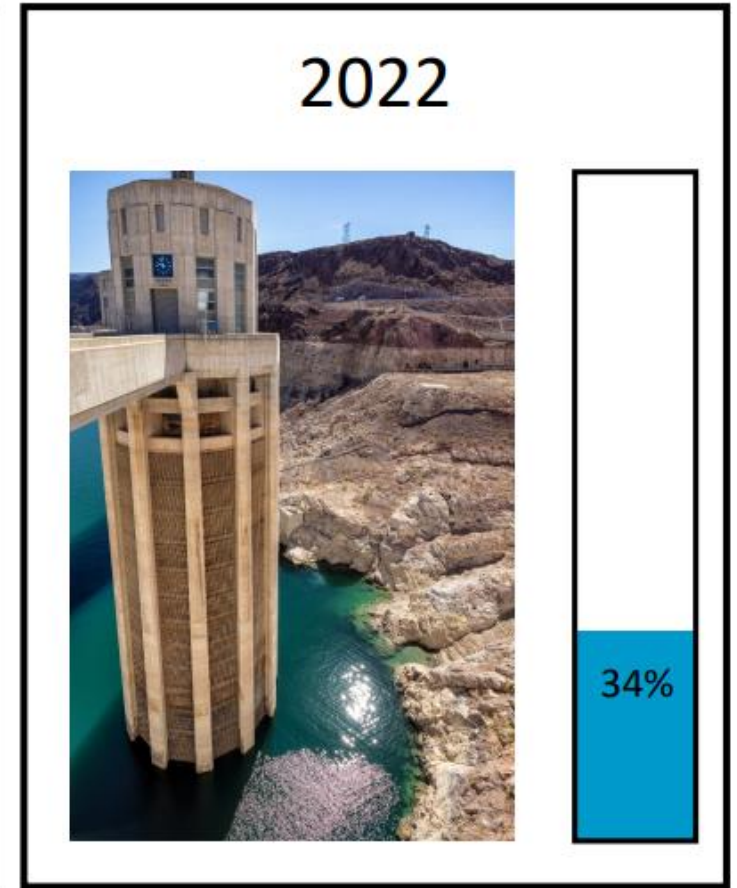
Colorado River Basin



Lake Mead full pool: 1229'

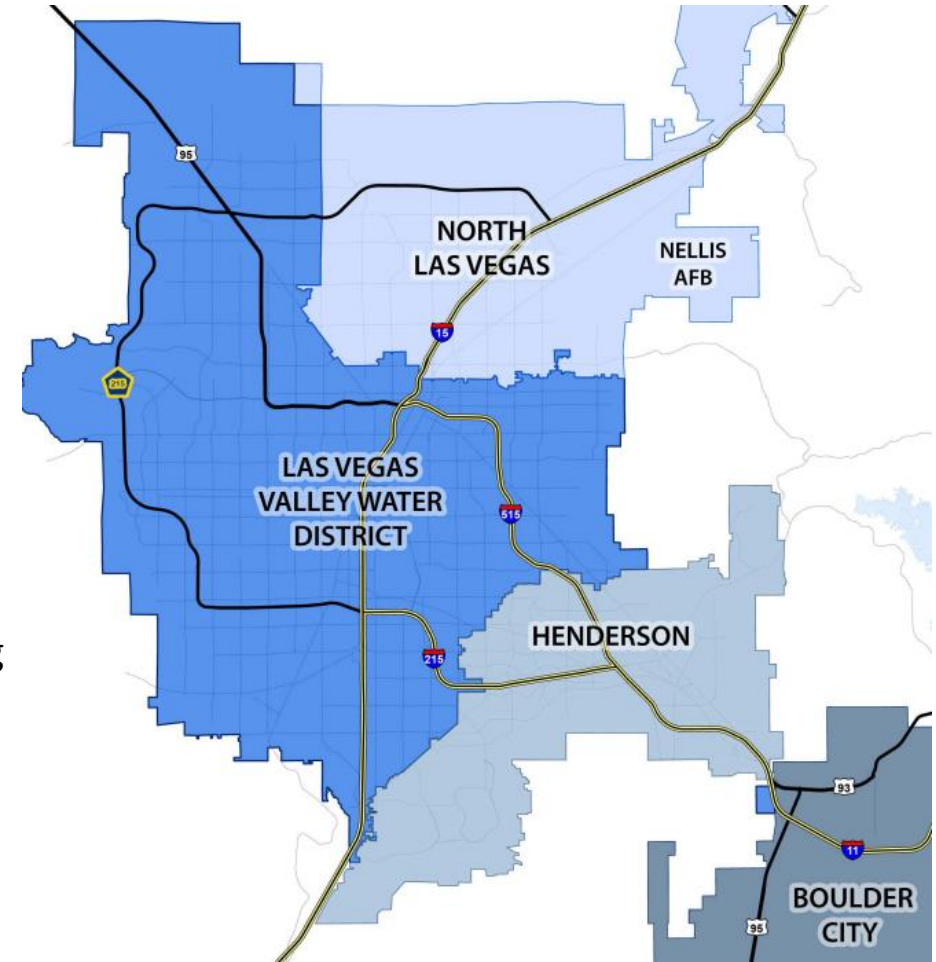


Lake Mead: 1060' (July 27, 2023) - 32% capacity



Water provision in Southern Nevada

- Southern Nevada Water Authority: wholesale water provider
 - Comprised of LVVWD, Las Vegas, Henderson, North Las Vegas, Boulder City, Clark County Water Reclamation District, Big Bend Water District)
- Las Vegas Valley Water District (LVVWD): utility
 - City of Las Vegas
 - Portions of unincorporated Clark County
- Other water service utilities
 - City of North Las Vegas
 - City of Henderson
 - City of Boulder City
 - Small systems / general improvement districts (Blue Diamond, Big Bend, Searchlight, Kyle Canyon)
- Division of Water Resources / State Engineer: NRS Title 48
 - Groundwater / wells



City of Las Vegas conservation efforts

- 2050 Master Plan Outcomes
 - Current: 104 GPCD
 - Target: 86 GPCD
- SNWA incentive program participation
 - Participation AB 356 (2021): Non-functional turf replacement at City parks and facilities
 - Evaporative cooling incentives
- Bill 2023-17: Amends LVMC Titles 14, 16, and 19
 - Fountain and water feature limits
 - Spray irrigation prohibition
 - Functional / Non-functional turf definitions
 - Evaporative cooling moratorium
 - Swimming pool size limits
 - New Golf course prohibition
 - Septic restrictions – AB 220 (2023)



	SNWA	LVVWD	Henderson	North Las Vegas	Boulder City	City of Las Vegas	Clark County
NTRAC Definitions	✓ Jan '22	✓ Apr '22	✓ Sep '22	✓ Oct '22	✓ Aug '22	📅 Aug '23	N/A
No New Grass	✓ Dec '21	✓ Apr '22	✓ Sep '22	✓ Oct '22	✓ Aug '22	📅 Aug '23	✓ Jul '22
No New Spray Irrigation	✓ Dec '21	✓ Apr '22	✓ Sep '22	✓ Oct '22	✓ Aug '22	📅 Aug '23	✓ Jul '22
SFR Pool Size Limits	✓ Jul '22	✓ Jul '22	✓ Sep '22	✓ Oct '22	✓ Aug '22	📅 Aug '23	✓ Jul '22
Golf Course Water Budgets	✓ May '22	✓ Jan '23	✓ Mar '23	✓ May 23	✓ Fall '22	N/A	N/A
New Golf Course Prohibition	N/A	✓ 2021	✓ 2021	✓ Oct '22	✓ Aug '22	📅 Aug '23	✓ Jul '22
Consistent Fountain Codes	N/A	✓ Oct '22	✓ 2023	N/A	N/A	📅 Aug '23	✓ Jul '22
Septic Prohibition	N/A	✓ 2020	Unscheduled	Evaluating consistent language	Unscheduled	📅 Aug '23	N/A
Evaporative Cooling	✓ Dec '21	✓ Nov '22	✓ Feb '23	✓ Aug '23	✓ Jan '23	📅 Aug '23	📅 Oct '23



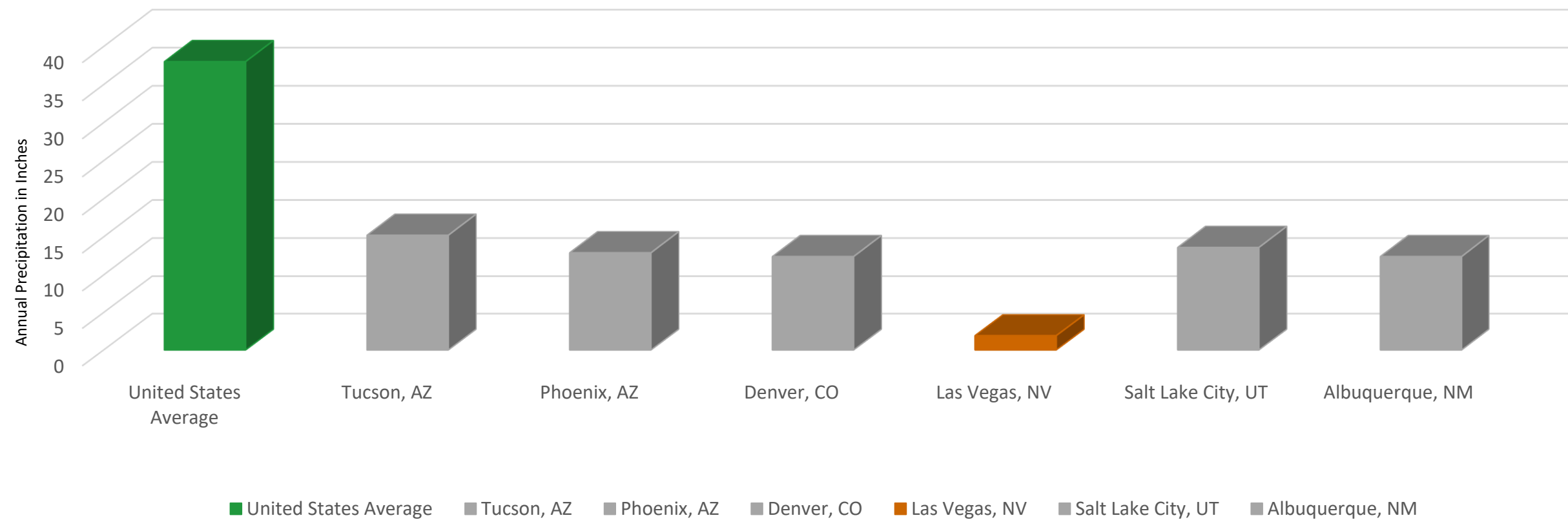


MAINTAINING A SUSTAINABLE COMMUNITY

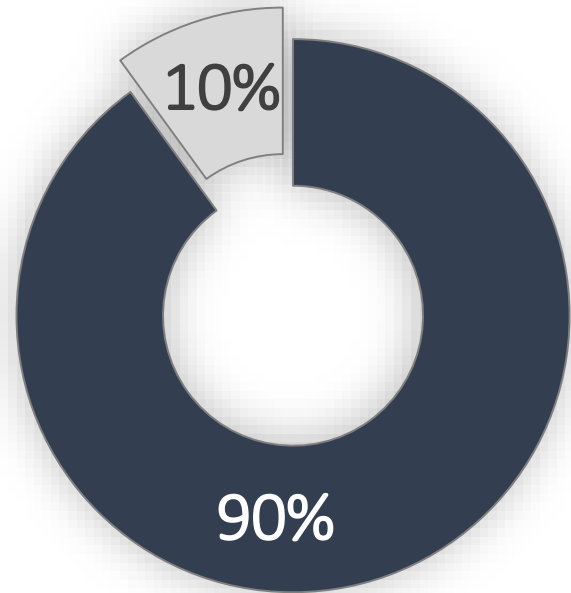


SOUTHERN NEVADA WATER AUTHORITY®

Las Vegas is the driest metropolitan area in the United States.



Las Vegas is nearly fully dependent on Colorado River resources.



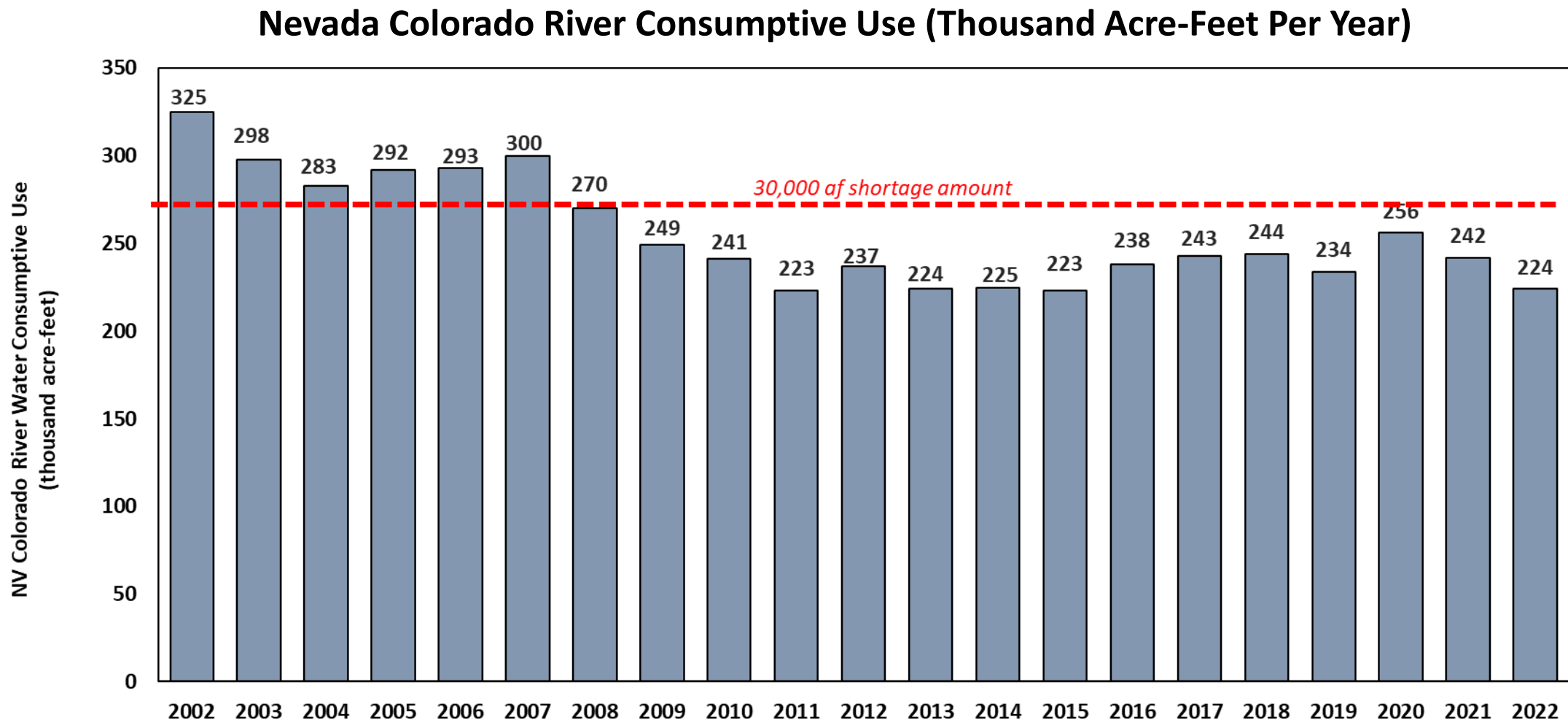
■ Colorado River ■ Groundwater



Lower Basin states are subject to Tier 2 shortages in 2023.

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

Thanks to conservation, shortages have been mitigated in the near term.



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

Southern Nevada
POPULATION



Per Capita
WATER USE

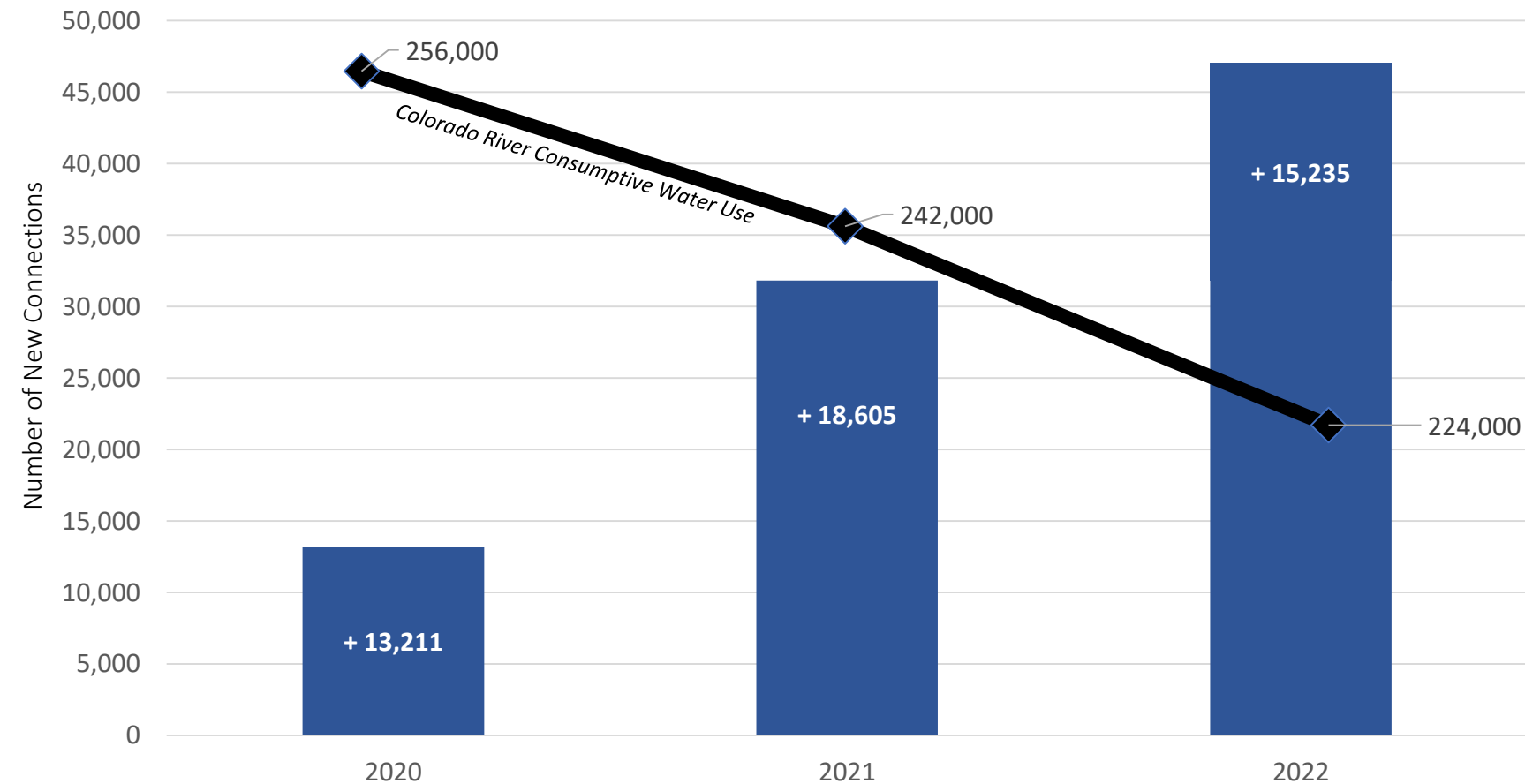


Colorado River Water
CONSUMPTION



Conservation matters.

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



Building to the Challenge

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



Lake Mead - Calville Bay Marina, 2022

14.10.030: Manmade Lakes and Manmade Decorative Water Features

New language prohibits new manmade lakes or fountains, regardless of water source or location.



Turf Regulations

**The City of Las Vegas, along with the other jurisdictions,
are making changes to grass regulations**

Existing Grass

- **Assembly Bill 356 (2021) prohibits “Non-Functional Turf” by 2027.**
- **An advisory committee outlined what constitutes “Functional” and “Non-Functional” grass**

New grass installations in new development

- **New grass is limited to certain areas and size**

EXISTING GRASS: A new law enacted in 2021 prohibits the community's water supplies from water existing Non-Functional grass by 2027.

In 2021, an advisory committee established definitions for Functional and Non-functional grass to determine what was eligible to keep, per the state law.



Non-Functional Grass

Where is Non-Functional Grass?

- Neighborhood entries
- Streetscapes
- Medians
- Roundabouts
- Non-residential applications (commercial buildings, office parks, etc.)



Non-Functional Grass - Commercial

All grass in commercial landscapes is considered non-functional



Non-Functional Grass - MultiFamily

Non-functional Grass

- Streetscape grass
- Frontage, courtyard, interior and building adjacent grass
- Grass managed by an HOA that does not provide a recreational benefit to the community

Functional Grass:

- Up to 150 square feet per dwelling, but cannot be located in parking lots, streetscapes or non-accessible areas



Functional Grass Types

Playground Turf:

- Turf in designated play areas with playground amenities on HOA- managed or owned facilities. Amenities could include slides, swings, climbing structures, etc.
- Turf must be located more than 10 feet away from a street or fenced.



Functional Grass Types

Active / Programmed Recreation Turf:

- Turf in an active or programmed recreational area within an HOA-owned or managed property, public park or water park

Must be:

- 1,500 contiguous square feet or greater
- Co-located with facilities (trash bins, benches, tables, walking paths, etc.)
- Located >10 feet from street or interior parking lot



14.11.020: Grass dimensions

New definitions ensure that new grass is large enough and installed in areas that allow for meaningful recreation.



14.11.020: Grass dimensions

Grass Dimensions:

- **Contiguous**
- **Not less than 30 feet in any dimension**
- **At least 1,500 square feet**
- **Installed on a slope less than 25 percent**
- **At least 10 feet away from street**



14.11.100: Limits to spray irrigation

New installations of spray irrigation limited only to areas where new grass is permitted.



14.11.140: New turf limitations

Grass is prohibited in all new development after September 1, 2023 except parks, schools and cemeteries.

This includes the prohibition of grass inside single family residential homes constructed after September 1, 2023.



14.10.190: Fountain prohibition

New fountains are prohibited.

Exceptions:

- **Fountains at single family residences less than 10 square feet**
- **Fountains located indoors**
- **Fountains already operating**



14.10.193: Swimming Pools

Swimming pools that exceed a combined surface area of 600 square feet at a single-family residential home are prohibited.

- Average Las Vegas pool = 470 sq. ft.



14.11.195: Golf courses

New golf courses are prohibited.



14.11.197: Septic Systems

New septic systems are prohibited.

(This supports the LVVWD's Service Rule change from December 2020)



16.24.020: Evaporative Cooling

New permits for development will not be issued after August 31 if evaporative cooling mechanisms are incorporated



Recent initiatives curb consumptive and inefficient water uses.



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

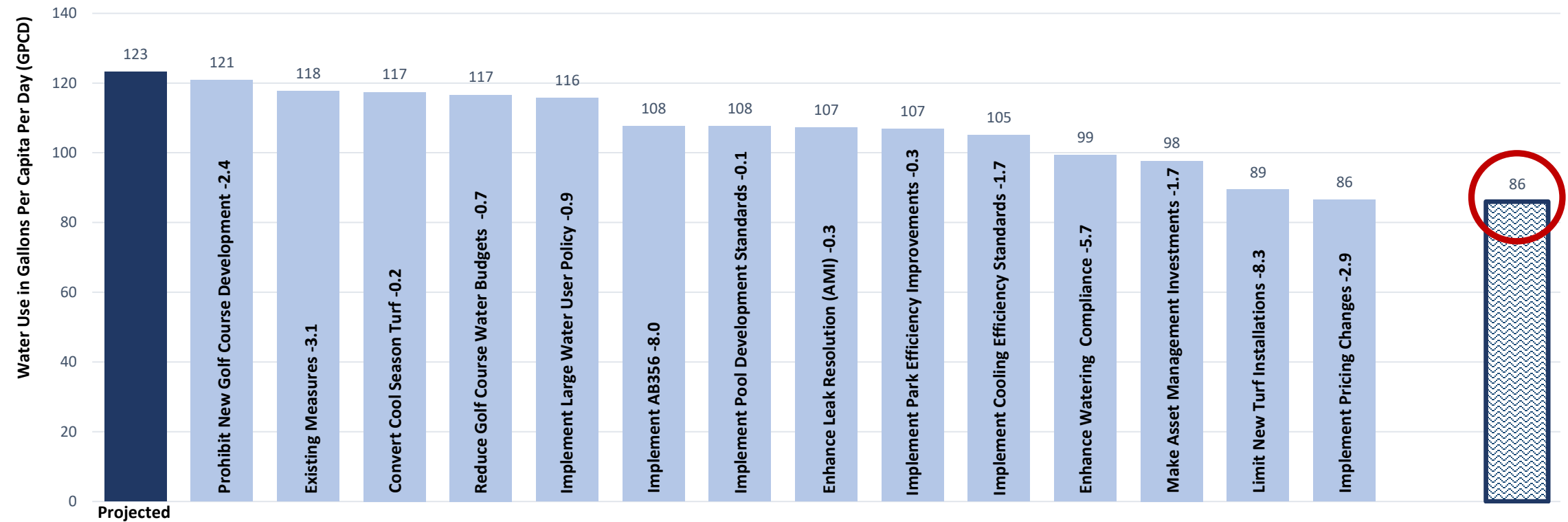


SWIMMING POOLS: New pools are limited to 600 sq. ft. surface area



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

Meeting the Conservation Goal





SOUTHERN NEVADA WATER AUTHORITY™