



Water Resources Update

Including Tier 1 Colorado River Shortage

City Council Workshop September 28, 2021





Purpose

- For information and discussion
- We will cover:
 - City's water supplies
 - Current conditions for SRP and CAP, including Tier 1 shortage on the Colorado River
 - City's Drought Management Plan
 - City's water conservation programs

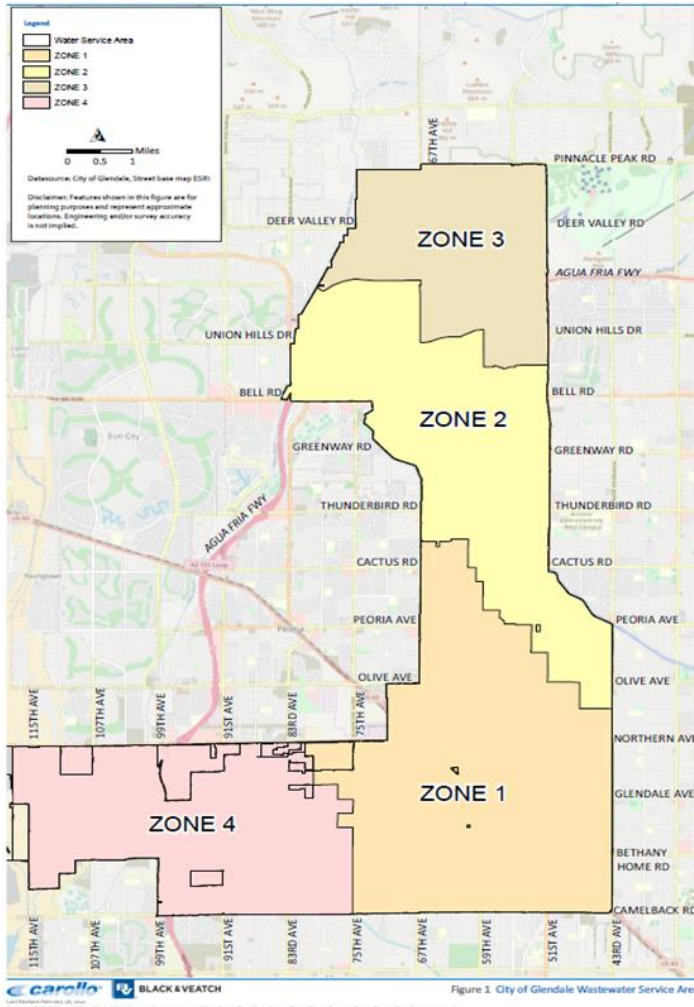


We're Prepared...

- Glendale has a strong water portfolio
- We have planned for a shortage on the Colorado River system
- We are continually planning for our water future



City's Water Service Area

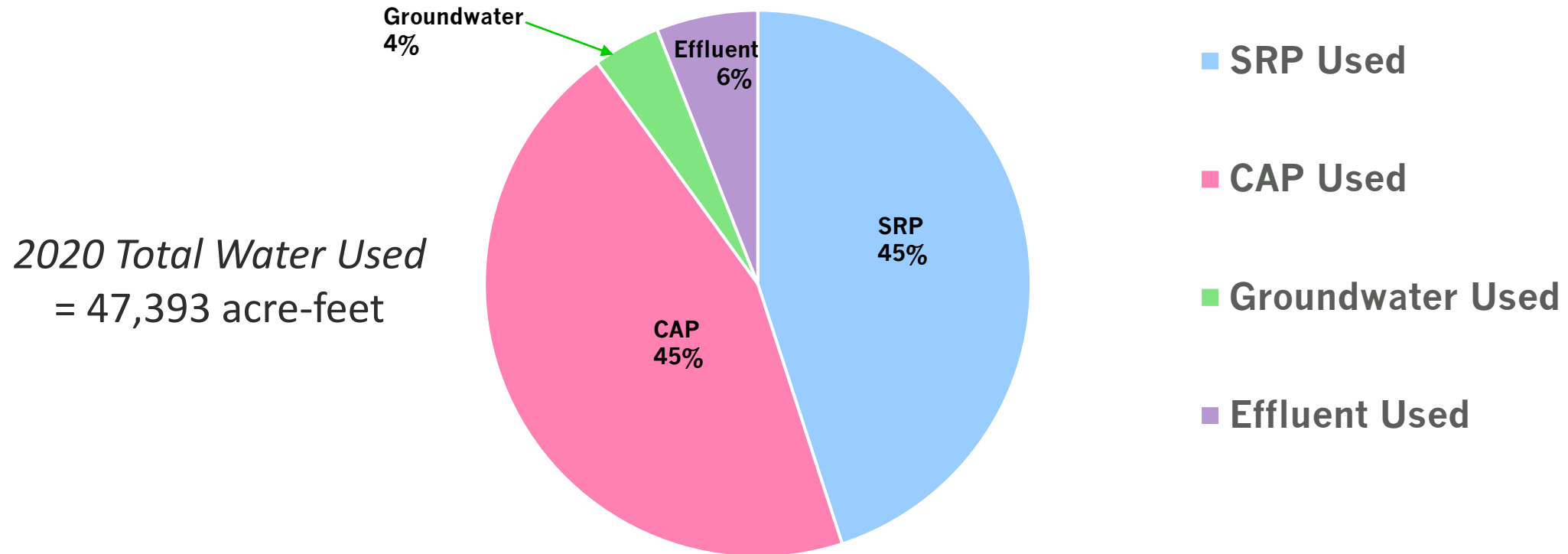


- Serve residents and businesses east of 115th Ave
- 100-year Designation of Assured Water Supply from the Arizona Department of Water Resources



Glendale Water Use

Water Use for 2020

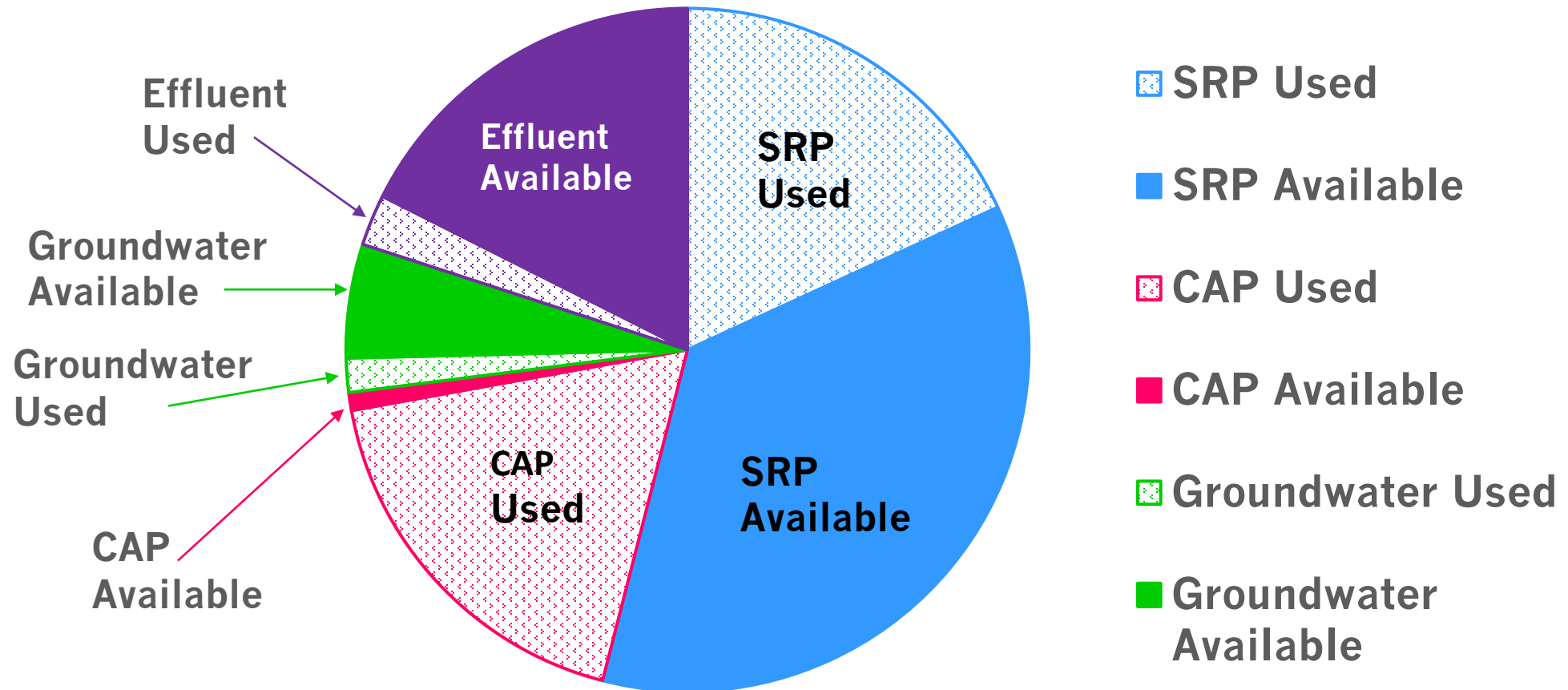


- 1 acre-foot = 325,851 gallons
- 1 acre-foot can supply a Glendale family of four for one year with some left over



City's Supply vs 2020 Use

City's Assured Water Supply vs Use in 2020



Total Supply: 117,496 AF



Glendale Water Resources

CAP Water
(Colorado River)

SRP Water
(Salt and Verde Rivers)

Groundwater



= One water system

We use all sources throughout City

SRP Supply Overview

- Salt River reservoirs are currently 74% full
- Verde River reservoirs are currently 50% full
- Total system is 71% full compared to same time last year at 85% full
- Monsoon season helped, but winter runoff needed to fill reservoirs
- For 2022, more SRP groundwater will be used for delivery





Colorado River Shortage

Arizona will be in a Tier 1 shortage in 2022

- As projected by the Bureau of Reclamation's August 24-Month Study
- Based on water level elevation in Lake Mead on December 31, 2021

Tier 1 Reductions take place starting on January 1, 2022 :

- Reduction to Arizona's Colorado River Supply
- Reductions taken from CAP

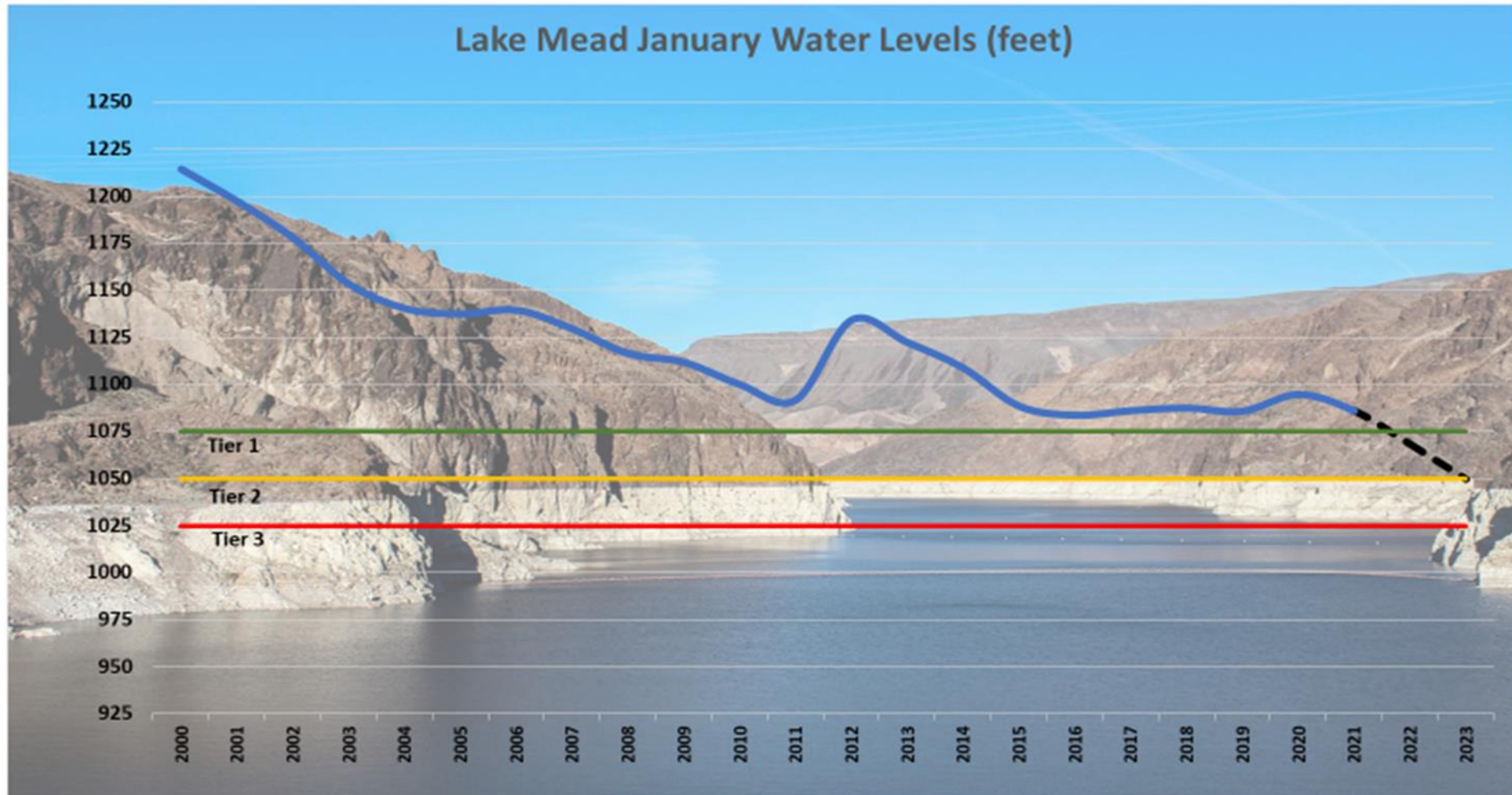


Supply Reductions to Arizona

	2021	2022			
Shortage Tier	Tier 0	Tier 1	Tier 2a	Tier 2b	Tier 3
Lake Mead Elevation	≤ 1090'	≤ 1075'	≤ 1050'	≤ 1045'	≤ 1025'
Total CAP Loss for Arizona	192,000 AF	512,000 AF	592,000 AF	640,000 AF	720,000 AF
Total CAP Loss for City of Glendale	0 AF	0 AF	171 AF	341 AF	682 AF

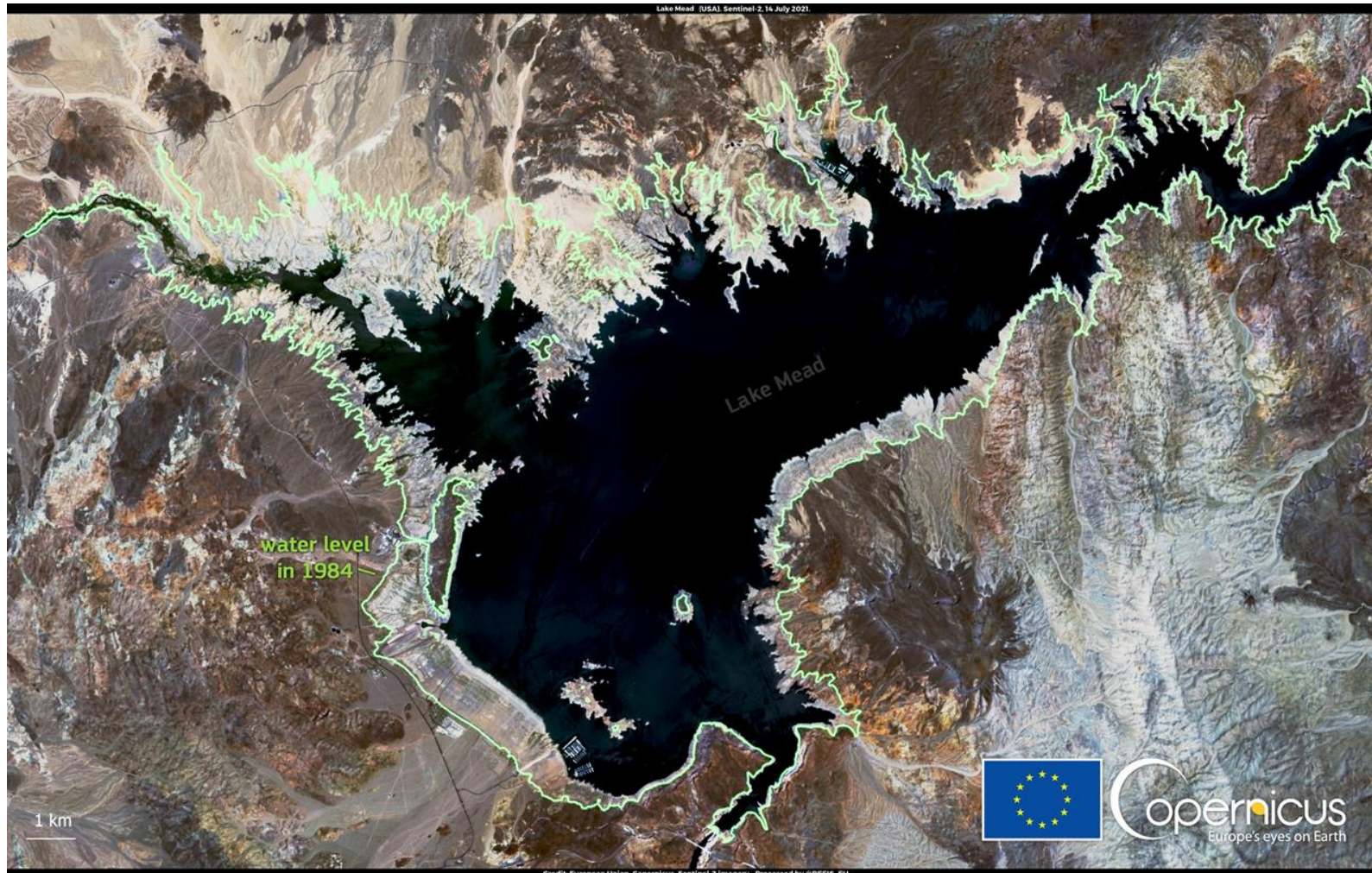


Lake Mead Water Level Declines





Lake Mead Water Level Declines

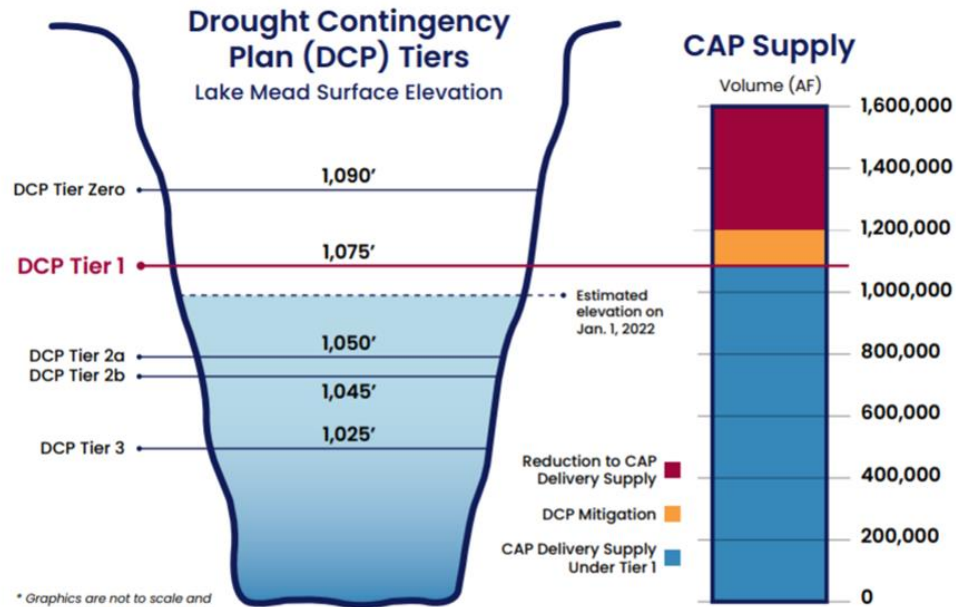


Green line depicts Lake Mead's shoreline in 1984 compared to the current extent of the lake in 2021

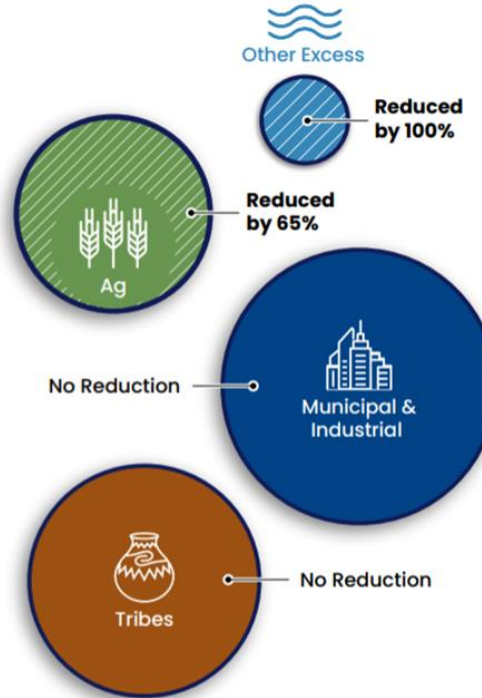


Tier 1 Shortage

Tier 1 Shortage: CAP Reductions



2022 Reduction to CAP Users After DCP Mitigation



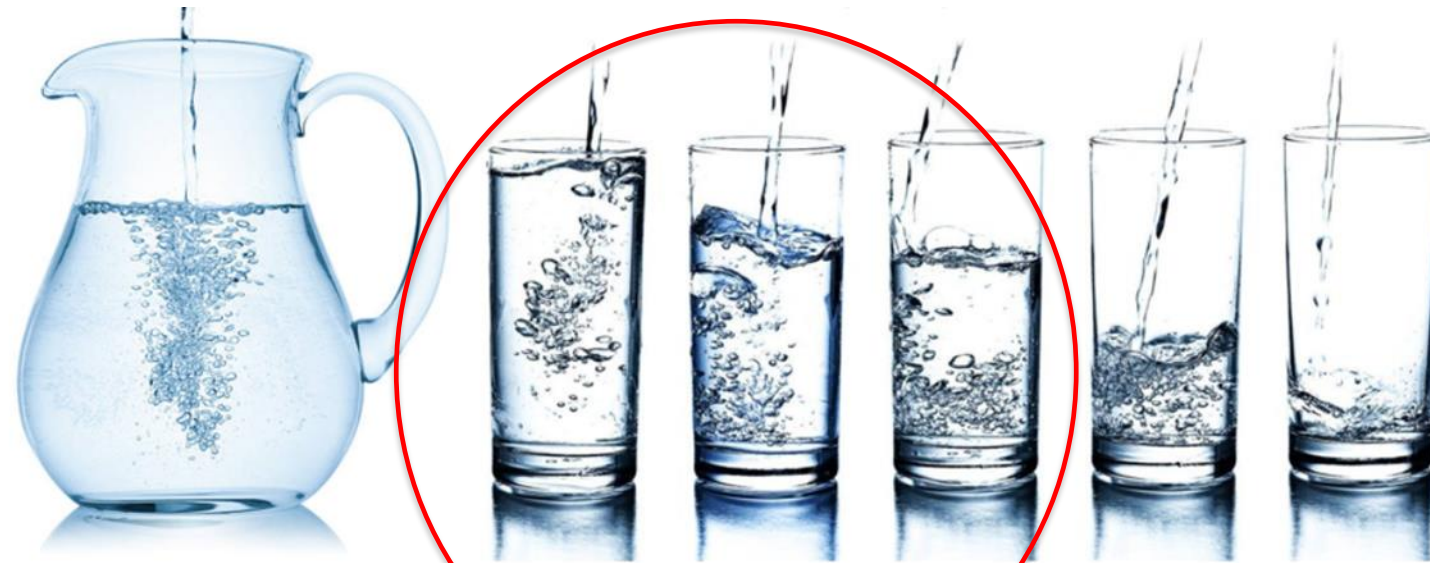
- Currently there is high probability that a Tier 2 shortage will occur in 2023.
- The 24-month study projects Lake Mead's elevation to drop to 1030 feet. Therefore, the Lower Basin States must meet with the Secretary of Interior.
- Goal is to prevent the lake from dropping below an elevation of 1020 feet.

* Graphics are not to scale and serve only as a representation.

To learn more, please visit: www.cap-az.com/colorado-river-shortage

CAP Priority System

Glendale's CAP Supplies are higher priority



CAP Colorado River Water

Priority 3

M&I

NIA

Ag

**Other
Excess**

High

CAP Priority

Low

M&I = Municipal and
Industrial

NIA = Non-Indian
Agriculture



Glendale Impacts

- No cut to Glendale's Colorado River supplies for 2022
- What happens if shortage continues after 2022?
 - Arizona's Drought Contingency Plan covers most losses through 2025
 - Only a small loss to Glendale's lower priority water
 - Less than 3% of our water portfolio
 - Impacts after 2025 – to be determined



Drought Management Plan

- It's a plan to prepare and respond to water shortages.
- Water Reduction Measures
- In the City Code – Chapter 33
- Updated in 2016
- Currently reviewing and updating



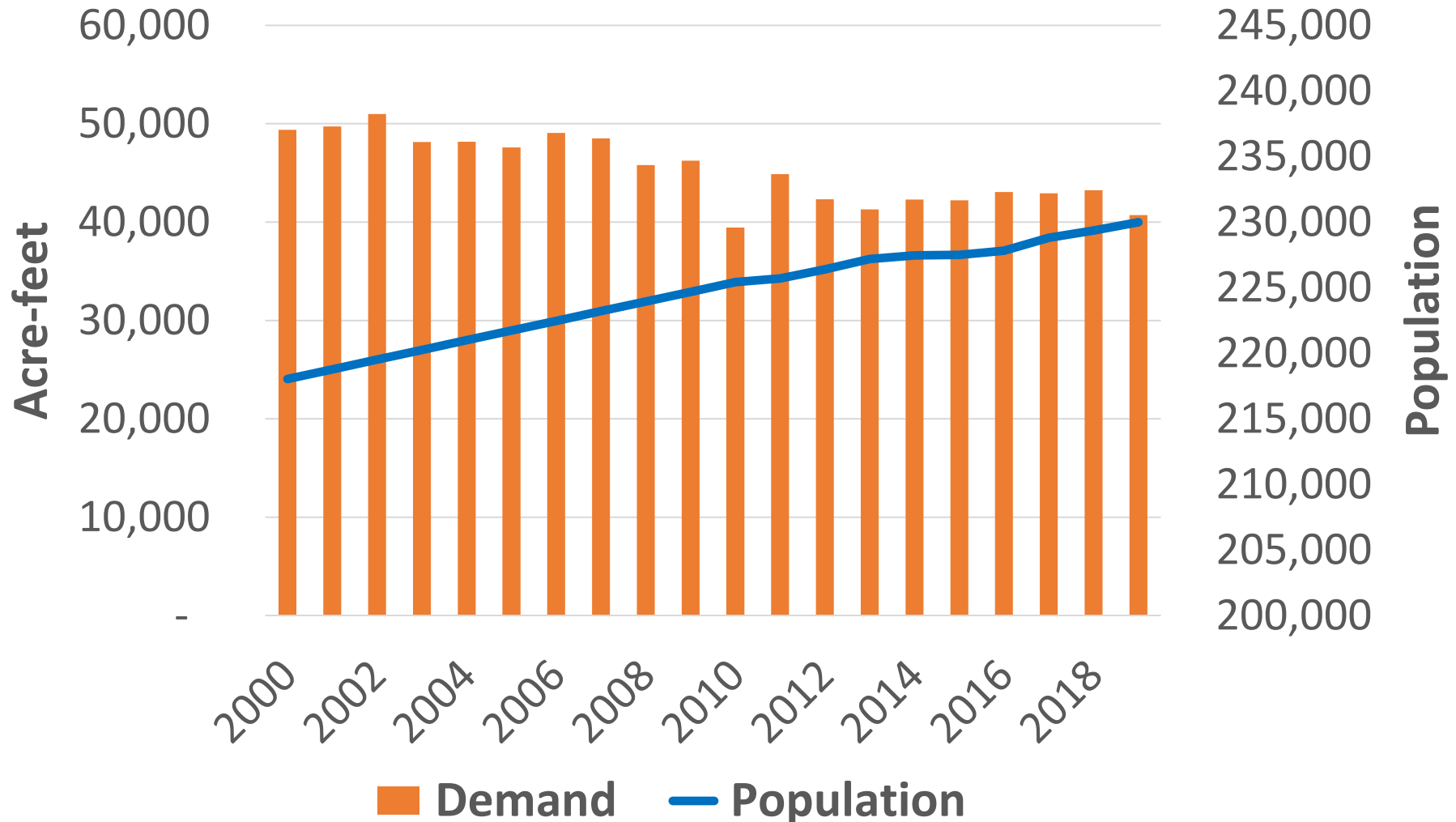


Drought Stages in the Plan

- Drought stages are based on water supply reductions.
- Water supply and demand may change, so there is flexibility in the drought stage triggers.
- Stages 1 & 2 – voluntary for customers.
- Stages 3 & 4 – mandatory for customers.



Water Demand and Population





Water Conservation Programs

Maintain Best Management Practices:

1. Public Awareness
2. Education (Youth & Adult)
3. Landscape Rebate Program
4. Landscape Consultations & Water Budgets
5. Water Efficiency Assessments
6. Water Waste Investigations
7. Xeriscape Demonstration Garden

www.glendaleaz.com/waterconservation



Landscape Rebate Program

- Single-family homes – Up to \$750
- New single-family homes – \$200
- Non-residential customers – Up to \$3,000





Glendale Water Efficiency Program

Number of participants and potential water savings:

- 17 city facilities, 2.1 million gallons of water
- 22 businesses, 8.2 million gallons of water





NEW! Federal WaterSmart Grant

- Encourage municipal and non-residential customers to create water-efficient landscapes and meet the City's water conservation goals.



Questions?

