



Water Resources Update

May 28, 2024





Presentation Overview

For Information and Discussion

- Progress on expanded water conservation rebates
- Proposing a new rebate program for non-residential water customers

For Information and Discussion

- Update on watershed conditions
- Continued drought preparation activities



Water Conservation Rebates

Joanne Toms, Environmental Programs Administrator





Landscape Rebate History

- 1986 – Council approved a \$100 landscape rebate for residential customers
- 2005 – Council approved updates to the landscape rebate:
 1. Increased rebate amount for residential customers
 2. Created a new rebate for non-residential customers
- 2023 – Council approved funding to expand the water conservation rebate program



Water Infrastructure Finance Authority (WIFA) Water Conservation Grant Fund

- 2024 – WIFA awarded the City of Glendale Water Services Department \$450,000 to help expand the water conservation rebate program.
 - Resolution No. R24-07



Current Water Conservation Rebate Program

REBATE TYPE	SINGLE-FAMILY RESIDENTIAL	NON-RESIDENTIAL
WaterSense Toilet	Up to \$150 \$100	Up to \$250
EnergySTAR Clothes Washer	Up to \$200	Not Available
Landscape Conversion	Up to \$3,000	Up to \$10,000
WaterSense Irrigation Technology	Up to \$250	To be proposed
Pool/ Spa Removal	Up to \$800	Not Available
Cooling Tower Technology	Not Available	Up to \$1,000

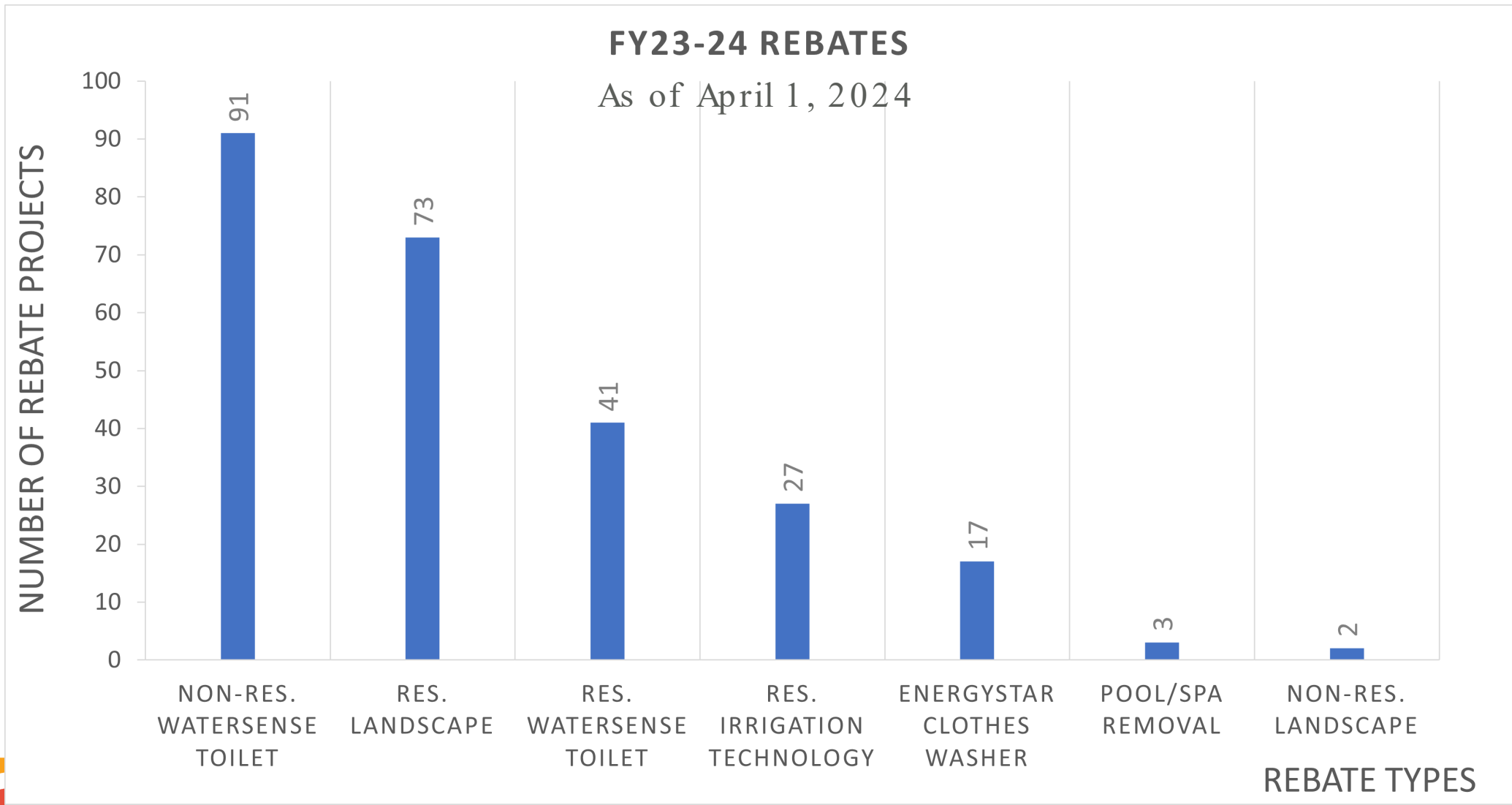
Promotion of Rebate Program

- City Website and Social Media Channels
- 2024 Clean & Green Calendar
- The Connection (City water bill insert)
- On-hold messages
- Rack Cards
- Conservation's monthly e-newsletter
- Community Events





FY24 Water Conservation Rebate Summary

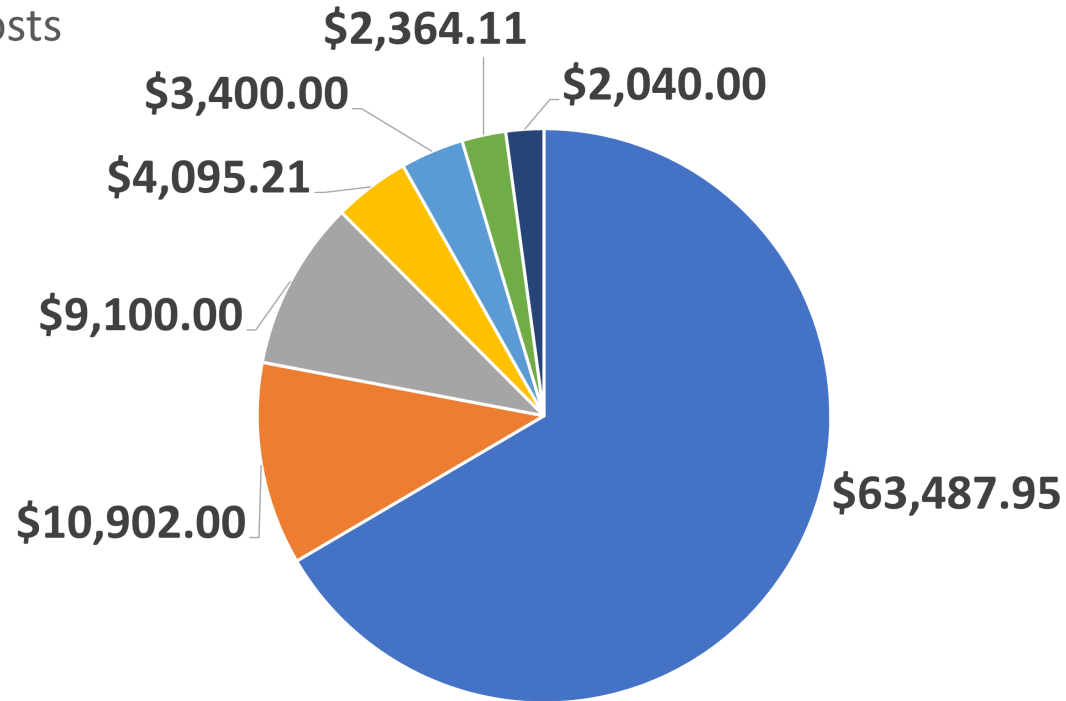




FY24 Water Conservation Rebate Summary

Rebate Costs

As of April 1, 2024



Total Rebates:
\$95,389.27

- res. landscape
- non-res. WaterSense toilet
- ENERGY STAR clothes washer
- pool/spa removal
- non-res. landscape
- res. WaterSense toilet
- res. irrigation technology



Proposed – New Irrigation Technology Rebate for Non-Residential Customers

- Pilot-tested this through a U.S. Bureau of Reclamation grant.
- Up to \$3,000 for WaterSense Certified Weather-based Irrigation Controllers.
- Up to \$1,000 for flow sensors and master valves with leak detection.
- Up to \$10,000 per customer per fiscal year.





Next Steps for Rebate Program

- Develop outreach materials and the online application for the new irrigation technology rebate for non-residential customers

- Continue to promote the City's water conservation rebates



Water Resources Update

Drew Swieczkowski, Water Resources Manager





Water Resources Topics

For information and discussion:

- 2023 Glendale Potable Water Use
- Conditions on the Salt River Project and Colorado River Systems
- Post-2026 Operations for the Colorado River
- Future Water Resource Supplies
- Next Steps



2023 Glendale Water Use

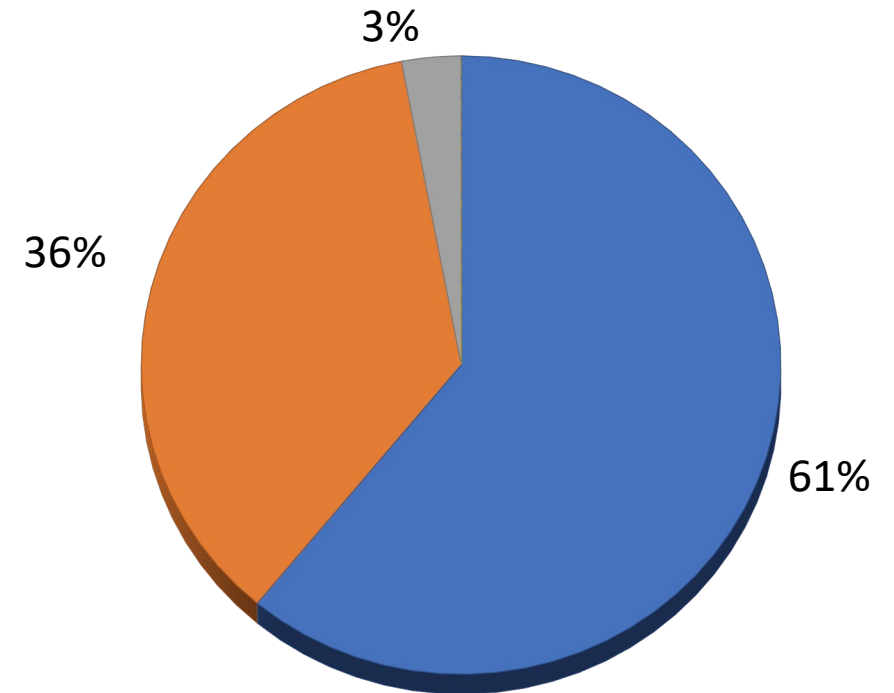
2023 Potable Water Use = 37,478 acre-feet

2022 Potable Water Use = 39,741 acre-feet

Central Arizona Project (CAP) - 36%

Salt River Project (SRP) - 61%

Groundwater (GW) - 3%



■ Salt River Project ■ Central Arizona Project ■ Groundwater



Water Use vs Water Supplies

	2022 Water Use (AF) (%)*	2023 Water Use (AF) (%)*	Annual Supplies** (AF)
CAP Water	19,508 (86%)	13,492 (60%)	22,582
SRP Water	18,200 (33%)	22,862 (41%)	55,455
Groundwater	2,033 (27%)	1,124 (15%)	7,525

*Percentage of total annual supply

**Based on 2010 Designation of Assured Water Supply from ADWR. Additional annual supplies are available but not included in this table.



Glendale Effluent Production and Use

Effluent Produced in 2023 was about 15,200 acre-feet.

- Recharge accounted for 43% of effluent use
- Reuse accounted for 57% of effluent use:
 - Arrowhead area turf, golf courses, and lakes
 - Wastewater sent to 91st Avenue Treatment Plant
 - Palo Verde Nuclear Generating Station (PVNGS)
 - Tres Rios Wetlands





Salt River Project Conditions



- 2023-24 Winter precipitation has been slightly above average.
- Salt River and Verde reservoirs are currently 92% full.
- Last year, at this time, the total system was 98% full.
- Glendale's New Conservation Space (NCS) Water is almost at capacity (27,250 acre-feet).
- The SRP System is in good shape.



Colorado River Conditions

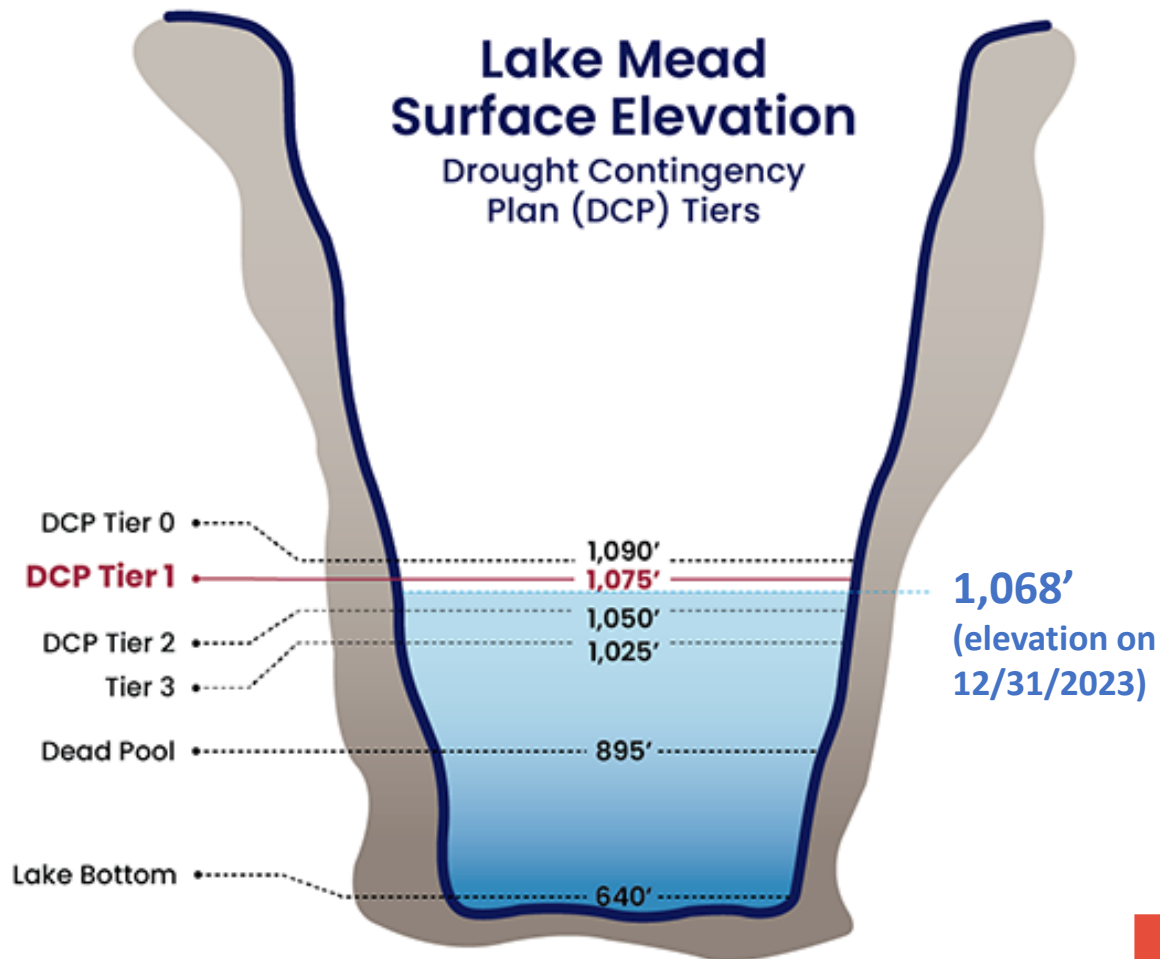
- Precipitation in the Colorado River Watershed for Winter 2023-2024 is slightly above normal.
- Spring runoff is expected to be about average.
- It is predicted that a sufficient transfer of water will occur from Lake Powell to Lake Mead in 2024 to help maintain lake water levels.
- One or more favorable years of good winter precipitation will not restore the Colorado River system.





Cuts to Arizona's Colorado River Water

CAP Delivery System under Tier 1



➤ Reclamation's April 24-month study:

- Lake Mead will be in a Drought Contingency Plan (DCP) Tier 1 shortage starting on January 1, 2025
- This is the same DCP Tier as in 2024

➤ Under the DCP, a 2025 Tier 1 shortage:

- Arizona's Colorado River supply is reduced by 512,000 acre-feet
- No reduction in Glendale's Colorado River supply due to DCP mitigation



Post-2026 Colorado River Guidelines

- Starting in 2027, new Reclamation Guidelines will be in place for the operation of Lake Powell and Lake Mead.
- Both the Upper and Lower Basin States have submitted their own proposals for the new operating guidelines.
- The Basin States, Mexico, Indian Communities, and others will all have to work together to complete the Guidelines.
- The Lower Basin Proposal shows cuts of up to 50% of Arizona's CAP water.
- Guidelines are expected to be finalized in 2025.





From Council Workshop in September 2022:

All volumes are in acre-feet

Operational Scenario*	CAP	SRP	Groundwater	Other Sources (NCS, FCS, Credits)	Total Supply	Total Demand
<u>Normal (no cuts to CAP)</u>	22,582	18,500	3,000	0	44,082	43,000
<u>20% Cut to CAP</u>	17,929	22,000	3,000	1,000	43,929	43,000
<u>50% Cut to CAP</u>	11,206	22,000	4,000	6,500	43,706	43,000
<u>75% Cut to CAP</u>	5,603	22,000	4,100	13,000	43,703	43,000

* Table shows just a few of the possible operational scenarios. Under each scenario, there is sufficient water supply to meet water demands. Also, demands may decrease due to conservation measures.



Near-Term Water Resource Supplies

➤ Water Exchanges:

- Effluent and SRP supplies for Colorado River water
- Relative low cost for conducting the exchanges
- Require IGAs with partners and agreements and permits with the ADWR, CAP and Reclamation

➤ Groundwater Wells:

- Two new wells have been drilled and are being equipped
- Two additional wells are in the CIP budget to be drilled
- Future wells are also being considered





Long-Term: Bartlett Dam Modification

➤ Current Activities:

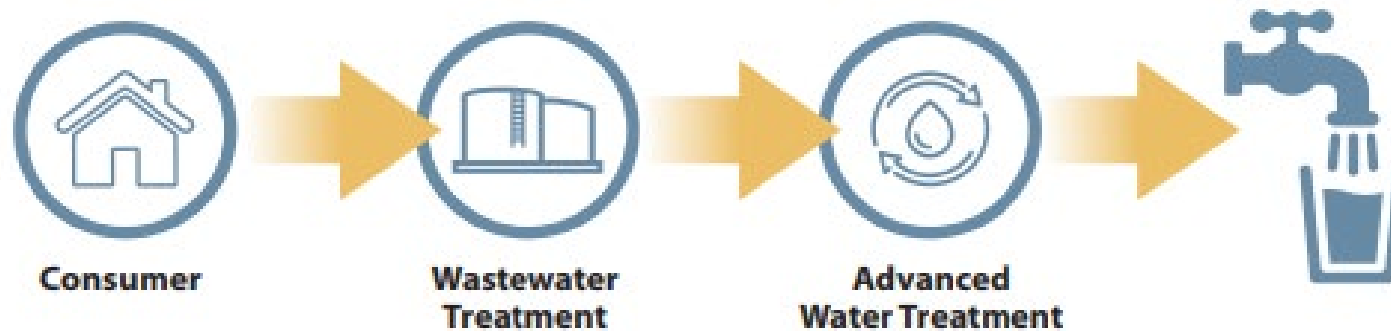
- Partnered with SRP and other entities for 4 years at \$100,000/year for the Feasibility Study
- Determined Glendale's assigned storage capacity (5,107 acre-feet)

➤ Upcoming Activities:

- Additional funds will be requested for design and construction
- Estimate of cost is between \$15 to \$20 million
- Commitment will be needed by 2026/2027
- Project is expected to be completed around 2033



Long-Term: Advanced Water Purification



- Take high-quality effluent, run it through advanced treatment processes (filtration, reverse osmosis, etc.), produce potable water.
- This process has been demonstrated to be safe and produce very high-quality drinking water.
- This supply is considered a drought resistant source due to constant production of effluent.



Advanced Water Purification

Example: City of Phoenix is leading a project for the 91st Ave Wastewater Treatment Plant

- Glendale and other water providers are considering this technology through the City of Phoenix project
- There would be an IGA for conceptual design and demonstration plan at a cost of \$150,000 to \$200,000

Potential Timeline:

- Next two to three years to decide City's participation
- Project is expected to be operational in 2035



Next Steps for Water Resources

- Continue to monitor watershed conditions and available supplies
- Continue to evaluate options for short- and long-term water supplies
- Update the City's Drought Management Plan based on new Colorado River System operating guidelines (post-2026) and present revisions to Mayor and Council at a future workshop (late 2025 or early 2026)
- Contracts and agreements will be presented to Mayor and Council for consideration in future workshops and voting meetings



Questions?

