

# Citizens' Water Advisory Committee (CWAC) Agenda

June 13, 2023, 6:00 p.m.  
Aspen Room, 2<sup>nd</sup> Floor, Aurora Municipal Center/Hybrid

Microsoft Teams Link:  
[Click here to join the meeting](#)  
or  
<https://bit.ly/AuroraWaterAdvisoryCommittee>



Call in (audio only) - 720-388-8447  
Phone Conference ID: 532 291 8#

Members: Angie Binder - Chair, Richard “Dick” Eason -Vice Chair, Jay Campbell, Tom Coker, Dennis Dechant, William Gondrez, Janet Marlow, David Patterson, Daniel Widrich

- |    |   |              |
|----|---|--------------|
| 1. | Approval of Minutes – May 9, 2023             | Chair        |
| 2. | Introductions/Public Invited to be Heard      | Chair        |
| 3. | Communications Update                         | Greg Baker   |
| 4. | Water Fund Funding Scenarios                  | Cat Olukotun |
| 5. | Water Conservation Overview and Annual Report | Tim York     |
| 6. | New/Old Business                              | Chair        |
| 7. | Review Follow-Up Questions                    | Greg Baker   |
| 8. | Confirm Next Meeting – Tuesday, July 11, 2023 | Chair        |
| 9. | Adjourn                                       | Chair        |



**Citizens’ Water Advisory Committee (CWAC) Minutes**  
**May 9, 2023, 6:00 p.m.**  
Aspen Room/Microsoft Teams

Members Present: Angie Binder – Chair, Dick Eason - Vice Chair, Jay Campbell, Daniel Widrich, Dennis Dechant, Tom Coker

Absent: Janet Marlow

Staff Present: Alex Davis, Alex Gagliardi, Greg Baker, Rory Franklin, Sarah Young, Fernando Aranda, Kathy Kitzmann, Melina Bourdeau (Teams), Sonya Gonzalez (Teams), Gail Thrasher (Teams)

Visitors Present: None

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The meeting was called to order at 6:02 p.m.

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**1. Approval of April 11, 2023 Minutes**  
The April 11, 2023, minutes were approved.

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**2. Introductions/Public Invited to be Heard**  
None.

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**3. Communications Update**  
G. Baker informed the committee that the annual water quality report (Consumer Confidence Report) has been posted at [auroragov.org/ccr](http://auroragov.org/ccr).

G. Baker offered [eyeonwater.com](http://eyeonwater.com) as a resource to track and manage water usage.

G. Baker invited the committee to come observe the Youth Water Festival on May 18.

G. Baker gave update on the committee restructuring plan

D. Widrich asked what the current status of the reservoirs is. G. Baker stated we are at 54% capacity and snowpack is at 70%.

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**4a. Quarterly Financial Report – First Quarter 2023**  
F. Aranda, Rate Analyst, presented the Quarterly Financial Report. He discussed combined operating revenues, development revenues and operating expenses.

D. Dechant asked what the expected or planned growth rate is. S. Young estimated 1.4%.

D. Dechant asked what our plan is to increase water supply to meet the growth. S. Young and G. Baker explained that the Integrated Master Water Plan is close to being finished and that is a

100-year plan which focuses on that issue. Aurora Water plans to stay ahead of growth and that plan will be completed for presentation in the near future.

#### **4b. Capital Improvement Project of the Quarter – SEAM**

S. Young presented on the Southeast Area Maintenance (SEAM) project. She explained the need for this space as well as the history of this project so far. Design updates, pictures and videos were all presented.

D. Widrich asked if there will be a laundry facility. S. Young explained the current Uniform Service and that will continue to be used.

K. Kitzmann asked if CWAC meetings will move to SEAM. G. Baker confirmed meetings will move to the new facility.

A. Binder asked how in-person staffing has changed. S. Young explained some admin staff are preparing to be in the office more at SEAM but will still be hybrid.

D. Widrich asked if there is anything to prevent overcrowding at SEAM. He is concerned things will get pushed to this location because it has space. G. Baker and S. Young explained that the new Water facility will only fill about 1/3 of the property so there is room for additional departments to grow out there.

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### **5. Legislative Update**

K. Kitzmann summarized the first regular session of the 74th Colorado General Assembly. 612 bills and 61 resolutions/memorials were introduced this session. Aurora water is tracking about 57 bills and 2 resolutions. The presentation highlighted a few of the bills Aurora Water has interest in. Aurora Water is also monitoring the Hill v. Warsewa court case.

D. Eason asked if the Conservation Team was going to assist HOA's come up with pre-approved water-wise landscapes. G. Baker said that they may help because they do some individual designs currently. He is also hoping that developers will help with that and he will try to get additional information.

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### **6. Colorado River Update**

A. Davis provided a brief update on various issues and events related to the Colorado River. She displayed the various Colorado River basins, reviewed the compacts, laws, agreements and guidelines of the river and how those may change in the future. She explained the drought contingency plans and the Supplemental Environmental Impact Statement. Additional issues included "balancing", sustainability, system losses, shortages/reductions, tributaries, tribal rights, demand management, compensations for conservation and preservation of existing rights.

D. Dechant asked what happens when all the lawsuits start. A. Davis explained that generally they go to the Supreme Court.

D. Dechant asked if we've heard anything about Nebraska wanting to build their canal. G. Baker said they are still planning on completing the canal.

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**7. New/Old Business**

A. Binder asked about tours. G. Baker explained nothing is final yet, still being planned.

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**8. Review Follow-Up Questions**

None.

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**9. Confirm Next Meeting – Tuesday June 13, 2023.**

The next meeting on June 13, 2023 was confirmed.

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**10. Adjourn**

The meeting was adjourned at 8:26 p.m.

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Angie Binder, Chair  
Citizens' Water Advisory Committee

Adopted: \_\_\_\_\_



# MEMORANDUM



City of Aurora

Worth Discovering • [auroragov.org](http://auroragov.org)

**To: Citizens' Water Advisory Committee**

**From: Marshall P. Brown, General Manager, Aurora Water  
Cat Olukotun, Deputy Director Water Financial Administration**

**Date: June 24th, 2023**

**Subject: 2024 Proposed Rate Changes**

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Aurora Water's Financial Administration Division continually monitors and evaluates the City of Aurora's fees and rates for adequacy to fund capital and operating needs in the water, sanitary sewer, and storm drainage system. This memo summarizes the proposed changes to rates in each utility for the 2024 budget.

## Summary

The proposed 2024 budget includes an increase in rates based on the most current financial plan. Aurora Water understands the significant impacts rate increases have on our customers, and therefore, the policy of the utility is, whenever possible, to have small incremental rate increases instead of infrequent large rate increases. The proposed rate changes for 2024 are detailed below:

Utility	Revenue Increase
Water	5.0%
Sewer	7.0%
Stormwater	0.0%

## Revenue and Rate Increases

### Water

Aurora Water's current capital improvements need for operations and maintenance of the system require an average 5% increase in water revenues for the 2024 budget. The increase by customer class will vary, with single family rate increasing by 6.1%, multi-family by 0.3%, irrigation accounts by 7.8%, commercial accounts by 0.4%, hydrant accounts by 35.0% and fire protection accounts by 15.6%. Starting in 2025, Aurora Water's financial plan projects annual rate increases of 5% to continue meeting our capital, operations, and maintenance obligations as well as funding our current Capital Improvement Plan (CIP). These future increases will be reviewed annually for adjustment and will be requested through the budget process.

### Sewer

Aurora Water's sewer rates are adjusted based on the cost for sewer infrastructure maintenance and operations, along with the costs passed through from Metro Water Recovery for the treatment process. Currently, Metro Water Recovery projects a 7% increase for 2024, followed by a 6% rate increase in 2025, and a 5% increase in 2026 and beyond. Aurora Water sewer rate is aligned with that of Metro Water Recovery since they are the utility's wastewater treatment provider.

**Stormwater**

Aurora Water’s is not proposing a rate increase in 2024 for stormwater. However, the utility projects the need for annual increases of 3.0% starting in 2025. Future rates will be reviewed annually for adjustment and will be requested through the budget process.

**Residential Rate Structure**

In 2021 Aurora Water adjusted the residential class water rate structure. Staff developed a multi-year plan that would keep rates at the existing levels for several years for customers with usage of 5,000 gallons and below by changing the “tiers” and implementing the increases to usage above 5,000 gallons. This plan aimed to provide a strong conservation message to large users, while also continuing to provide affordability to low users.

The current residential rate structure plan is based on assumptions and projected needed increases developed through Aurora Water’s financial plan. Changes in some of the underlining assumptions (usage patterns, droughts, growth) as well as changes in the financial plan will impact the plan. Aurora Water will continue to review the financial plan and assumptions at every rate adjustment with the goal of modifying the plan as little as possible.

Aurora Water’s proposed 2024 residential rate increase is the the fourth adjustment in the phased-in plan. The rate is designed to recover 6.1% more revenue than the 2023 rate, with no rate change for usage below 5,000 gallons.

Tier	Existing	Proposed	Difference
Tier 1 / 0-5 Kgal	\$5.63	\$5.63	\$0.00
Tier 2 / 6-10 Kgal	\$6.63	\$6.85	\$0.32
Tier 3 / 11-20 Kgal	\$7.63	\$8.50	\$1.15
Tier 4 / 21Kgals+	\$12.00	\$13.90	\$2.35

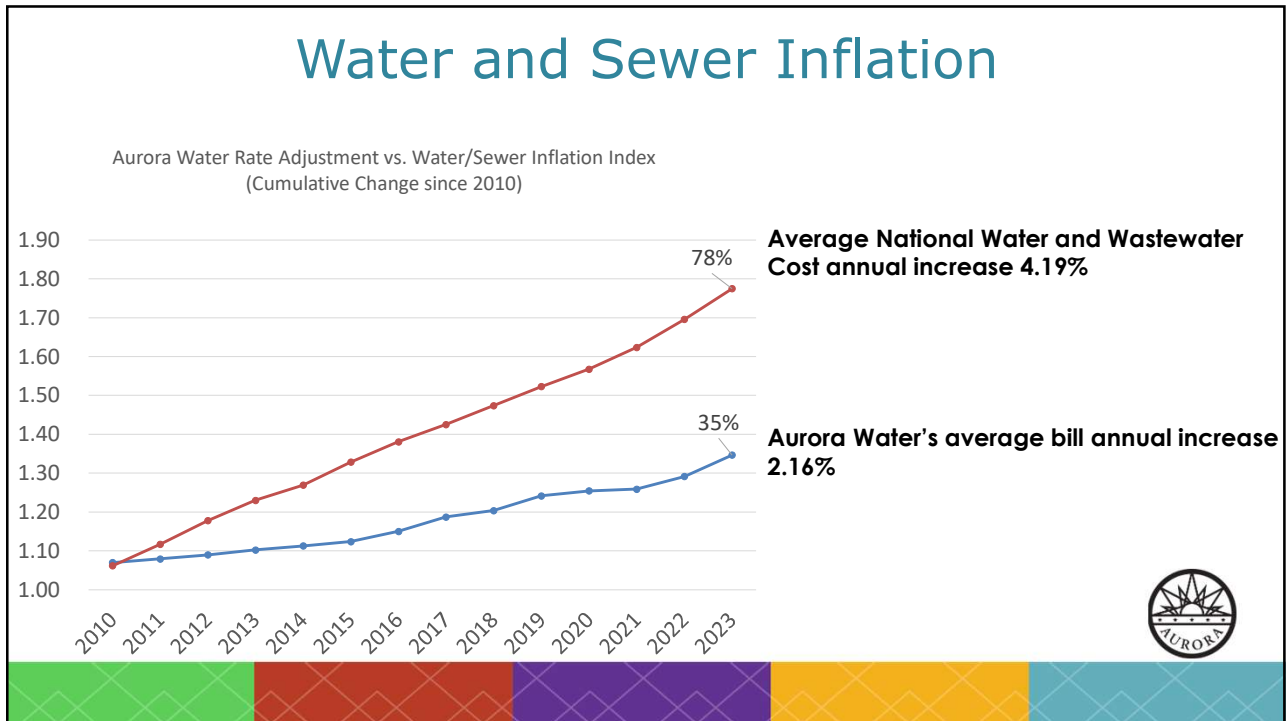
The proposed rate also includes a 5.0% increase in the monthly service charge. The average residential customer is projected to see a monthly increase of \$3.73 (3.9%), of which \$1.83 is sewer (assumes 5,000 of winter quarter average usage), and \$1.90 is water. Even with these changes, Aurora Water’s utility rates continue to be very affordable when compared to other utilities in the front range.







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## Water Utilities Are Among the Most Capital Intensive in the World\*



**\$0.20**



**\$0.61**



**\$0.45**



**\$0.79**



**\$3.73**

\$ invested in physical assets for every \$1.00 in revenue

\*based on most recent 12 months reported on SEC 10K report



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## WATER UTILITIES INVESTMENT IN ASSETS FOR EACH \$1.00 IN REVENUE

**Aurora Water \$12.79**

**Denver Water \$10.01**

**Private W&WW \$5.26**



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# Rate Adjustments

## Proposed Rate Revenue Adjustments

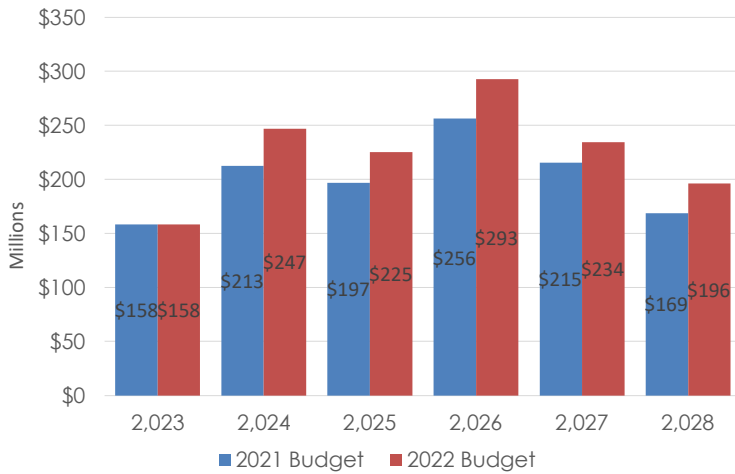
Utility	2023	2024	2025	2026	2027	2028
Water	4.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Sewer	5.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Stormwater	3.5%	0.0%	3.0%	3.0%	3.0%	3.0%



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# What Changed?

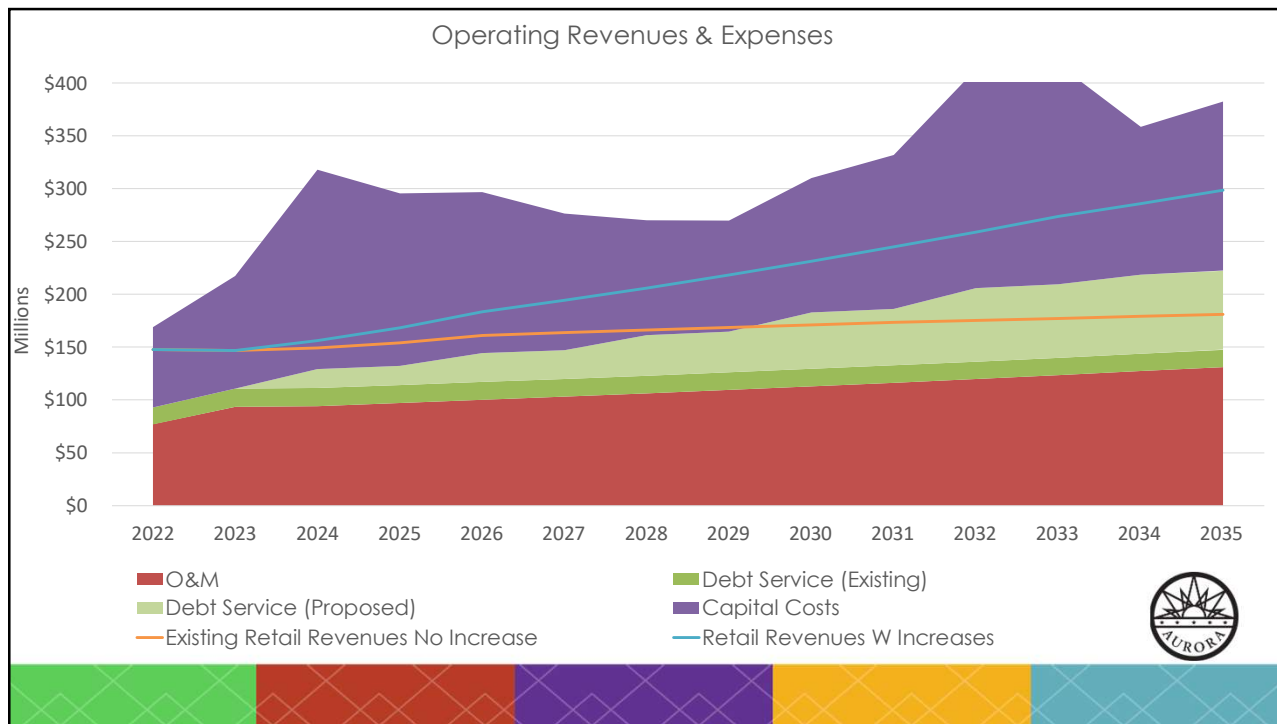
## Capital Improvement Plan



- 2023-2028 CIP \$1.35 billion
- \$145M in Additional Capital Expenses
- Inflation in capital cost (Over 13% since 2020 in Denver ENR CCI)
- Projects can't be delayed for AW to maintain level of service
- System Improvements - \$771.86 Million
- Growth - \$605.72 Million



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### Proposed Water Revenue Adjustments by Class (Millions)

Customer Class	Revenues under Existing Rates	Revenues under Proposed Rates	Difference %
Single Family Residential	\$64.19	\$68.13	6.1%
Multi-Family 2+ Units	25.38	25.46	0.3%
Irrigation	15.2	16.38	7.8%
Commercial	24.9	24.99	0.4%
Hydrant	3.81	5.14	35.0%
Fire Protection	0.36	0.42	15.6%
<b>Totals</b>	<b>\$133.8</b>	<b>\$140.51</b>	<b>5.0%</b>

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# Proposed 2023 Rates

## Monthly Service Charges – Res, COM, MF, 5% Increase – IRR 7%

Meter	Residential, Commercial, Multi-Family Class			Irrigation Customers		
	Existing	Proposed	Difference	Existing	Proposed	Difference
5/8" & 3/4"	\$13.51	\$14.19	\$0.68	\$12.91	\$13.81	\$0.90
1"	\$20.66	\$21.69	\$1.03	\$18.91	\$20.23	\$1.32
1 1/2"	\$32.58	\$34.21	\$1.63	\$28.90	\$30.92	\$2.02
2"	\$46.90	\$49.25	\$2.35	\$40.91	\$43.77	\$2.86
3"	\$85.04	\$89.29	\$4.25	\$72.90	\$78.00	\$5.10
4"	\$127.95	\$134.35	\$6.40	\$108.89	\$116.51	\$7.62
6"	\$247.18	\$259.54	\$12.36	\$208.88	\$223.50	\$14.62
8"	\$505.74	\$531.03	\$25.29	\$328.84	\$351.86	\$23.02

## Block 1 Volumetric Rate

Class	Existing Rate	2024 Proposed	Difference	% Difference
Multi-Family 2+ Units	\$5.98	\$5.98	\$0.00	0.0%
Irrigation	\$7.76	\$8.28	\$0.52	6.3%
Commercial	\$6.29	\$6.30	\$0.01	0.1%



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# Proposed 2023 Rates Continued

Fire Line	Fire Protection (16%)			Hydrant Meter (35%)		
	Existing	Proposed	Difference	Existing	Proposed	Difference
2"	\$2.42	\$2.79	\$0.37	\$12.74	\$22.50	\$9.88
3"	\$5.28	\$6.11	\$0.83	\$80.81	\$112.64	\$32.60
4"	\$9.51	\$11.00	\$1.49			
6"	\$21.14	\$24.44	\$3.30			
8"	\$36.24	\$41.89	\$5.65			
10"	\$57.38	\$66.33	\$8.95			
12"	\$75.50	\$87.27	\$11.77			
Rate Per 1,000 Gallons				\$10.19	\$13.73	\$3.54



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# Proposed Residential 2023 Water Rates

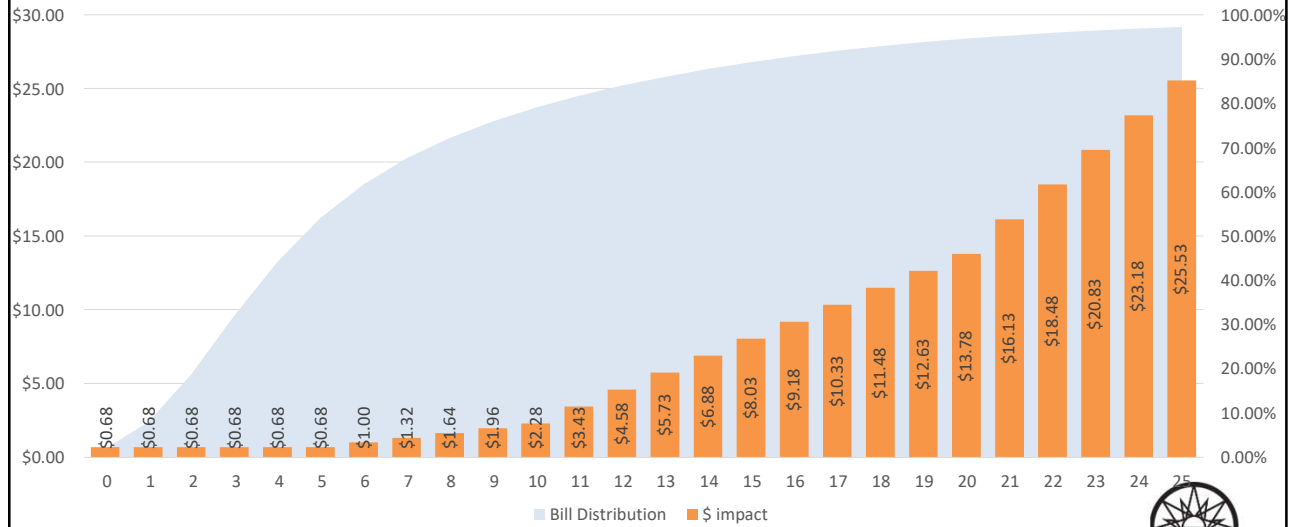
Tier	Existing	Proposed	Difference
Tier 1 / 0-5 Kgal	\$5.63	\$5.63	\$0.00
Tier 2 / 6-10 Kgal	\$6.63	\$6.85	\$0.32
Tier 3 / 11-20 Kgal	\$7.63	\$8.50	\$1.15
Tier 4 / 21Kgal+	\$12.00	\$13.90	\$2.35

- Consistent with the multi-year phase-in plan
- No increase on the first 5K gallons
- Promotes affordability for low users



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# Residential Monthly Bill (Water Only) Impact



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## Residential Monthly Bill (Water Only) Impact

Tier	Usage	Existing Bill	Proposed Bill	Difference
Winter Usage	5,000	\$41.66	\$42.34	\$0.68
Average Usage	8,000	\$61.25	\$62.89	\$1.64
Average Summer Usage	13,000	\$96.96	\$102.09	\$5.73
High Usage	25,000	\$204.56	\$231.09	\$25.53



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## Sewer and Storm Revenue Increase

- Capital projects and new debt requires additional revenue adjustments
- Metro's rate increases 7% 2024, 6% 2025, 5% after
- General Inflation in capital projects and operating costs
- Sewer Capital Projects (2023-2028)
  - Total CIP \$246M - \$118.5M System Improvements – \$127M Development
  - 1<sup>st</sup> Creek Interceptor – (\$54M)
  - Sand Creek Interceptor – (\$11.2M)
  - SENAC Creek Interceptor – (\$54M)



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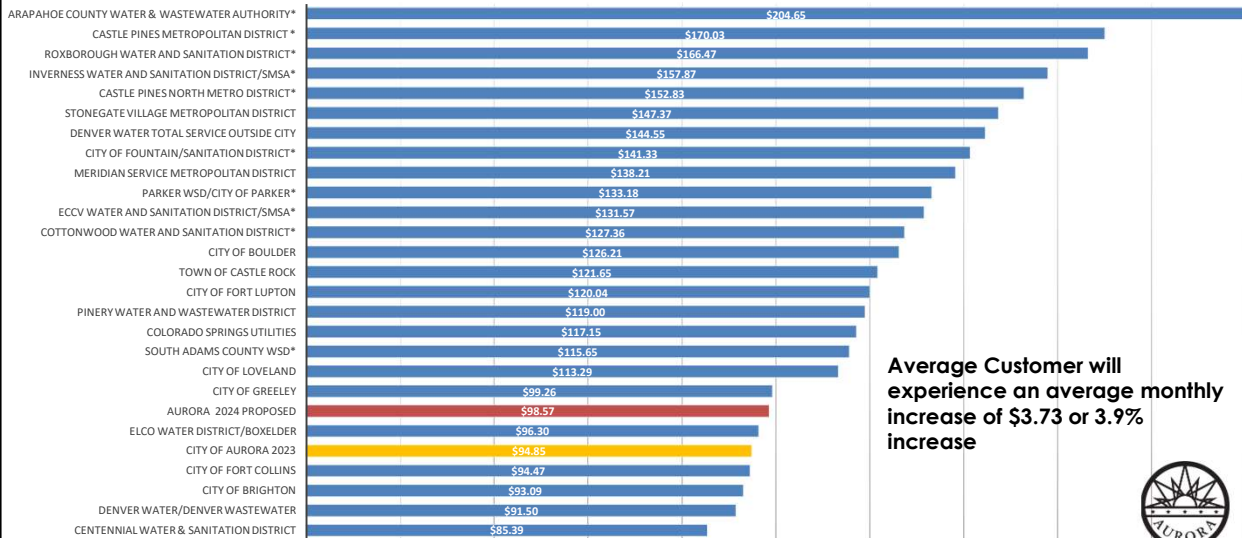
# 2023 Proposed Sewer (7%) & Storm (0%) Rates

Meter	Residential, Commercial, Multi-Family Class		
	Existing	Proposed	Difference
5/8" & 3/4"	\$4.68	\$5.01	\$0.33
1"	\$11.70	\$12.52	\$0.82
1 1/2"	\$23.39	\$25.03	\$1.64
2"	\$37.43	\$40.05	\$2.62
3"	\$81.88	\$87.61	\$5.73
4"	\$233.95	\$250.33	\$16.38
6"	\$467.90	\$500.65	\$32.75
Volumetric Rate Per 1,000 gallons*	\$4.30	\$4.60	\$0.30
<b>Storm Water</b>			
Existing	Proposed	Difference	
First unit	\$11.21	\$11.21	\$0.00
Additional unit	\$8.83	\$8.83	\$0.00

\*Sewer Usage is determined by Winter Quarter Average  
Average Residential Customer with 5 Kgal WQA will see an increase of \$1.83



## Monthly Average Water, Sewer & Storm Bill Comparison 2023 - (88,000 gallons a year, 4 people house, 7,700 sq. ft. lot size, 4,230 Irrigable Area, \$418K Assessed Value)



Average Customer will experience an average monthly increase of \$3.73 or 3.9% increase



# Questions?







**To:** Citizens’ Water Advisory Committee

**Through:** Marshall P. Brown, General Manager, Aurora Water  
Alexandra Davis, Assistant General Manager, Water Supply and Demand

**From:** Tim York, Water Conservation Manager

**Date:** May 24, 2023

**Subject:** Water Conservation Annual Report

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**Purpose:**

Each year the Water Conservation staff provides an update on programs and projects from the previous year. Staff will provide CWAC with an update on programs showing the water savings for 2021 indoor and outdoor programs. Staff will present highlights of 2021 programs and initiative updates. While the included document shows data on each specific program, the presentation will focus on the overall numbers, touching on specific highlights and points of interest.

**Action Required:**

No action at this time is required. This presentation is purely informative in nature.

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# Water Conservation Programs

*Citizens' Water Advisory Committee – June 13, 2023*

*Tim York*

*Water Conservation Manager*



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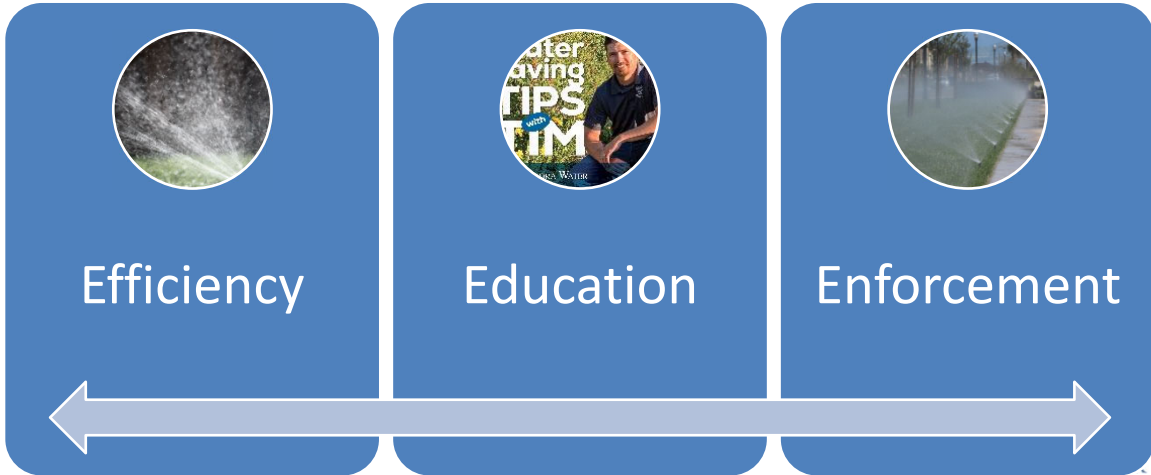
## Agenda

- Program History & Team
- Conservation Programs Overview
- Program Performance Review
  - Participation and Consumption Change
  - Efficiency Analysis
  - Waste Intervention
- New in Conservation



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# What is Conservation?



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Aurora's Water Conservation team is one of 3 platinum recognized teams in the country.



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# Conservation Programs

- AMI Leak Notification and Investigations
- Code/Ordinance Development
- Commercial Washer Rebates
- Community Gardens
- Conservation Education
- Dreamscape Giveaway – New 2021
- Greatscapes – Income Qualified Landscape
- High Use Outreach and Investigations
- Indoor Water Assessments
- Irrigation and Soil Inspections
- Irrigation High-Efficiency Component Rebates
- Irrigation Plans Review
- Know Your Flow
- Large Property Watering Variance Program
- Low-income Water Efficiency Program
- Outdoor Water Assessments
- Smart Irrigation Controller Rebates
- Ultra-high Efficiency Toilet Rebates
- Water Management Plan Enforcement
- Water-wise Landscape Designs
- Water-wise Garden
- Water-wise Landscape Rebates
- Water-wise Neighbors – New 2021
- Z-zone Program

*\* Programs in BLUE are outdoor use focused or inclusive*



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# Conservation Programs



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## Toilet Rebates

- 1.6 gpf or greater to 0.8 gpf toilets
  - Up to \$100 per toilet
  - 2 per household per 10 years; Multi-family units also eligible
- Low Income Program:
  - Up to 2 toilets, 2 showerheads, 3 aerators free
  - Labor included
  - Income based (60% median or LEAP qualified)



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## Indoor Water Assessments

- Free
- Specialist reviews fixtures, behavior
- Works with customer to identify:
  - Fixture shutoffs
  - Main water shutoff
  - Opportunities to reduce water use



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## Water-wise Landscape Rebate

### Residential

- Low Water-use Landscape: \$4,000
  - \$1,000 for labor and/or equipment rental
- Min. 500 square feet
- Backyards are ineligible

### Commercial/Multi-Family

- Same options with rebate value dependent on conservation analysis.



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## Outdoor Water Assessments

- Free assessment of irrigation system
- Detailed, personal reports
- Customer is eligible for irrigation rebate
  - Not required for smart controller or rain sensor rebate



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## Irrigation Rebates

- Residential HE Components
  - \$9 per pop-up (max 50)
  - \$12 per rotor (max 50)
  - \$6 per nozzle (max 50)
  - Spray to drip conversion, \$75 per zone (max 3)
- Commercial/Multi-family
  - \$100 per zone up to 150 zones



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Smart Attributes  
Zone 1: Zone 1

Zone Smart Watering Details

- Soil Type Clay Loam
- Plant Type Cool Turf
- Sprinkler Type Spray
- Sun/Shade Partial Shade
- Slope 0-3%
- Head Count 7 Spray heads
- Catch Cups 0 cups configured
- Watering Schedule

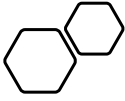
## "Smart" Technology Rebates

- Rain Sensors
  - Wired/wireless
- Residential
  - Up to \$200 for controllers
  - Single payment
- Commercial/Multi-family
  - Dependent on cost and potential savings
  - Max rebate is agreement dependent
  - Multi-year payback



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## Greatscapes

Income qualified

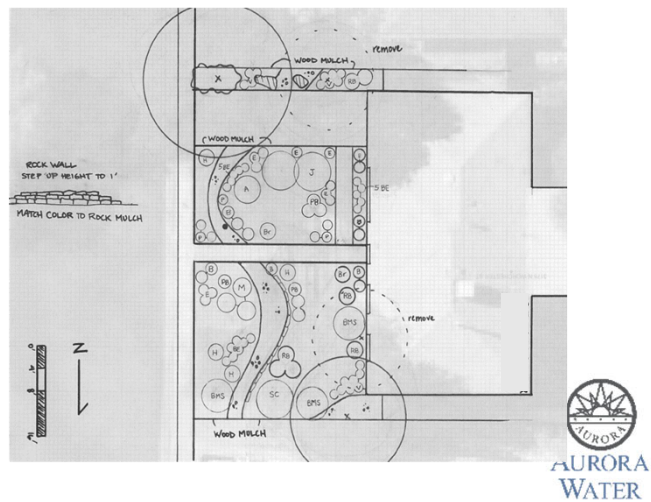
- Free water-wise landscape design and installation
  - No irrigation
- Community Works
  - Non-profit career prep and placement
- Partnership allows us to reach more residents
- \$45K budget
  - Approximately 6 residents/year



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## Landscape Designs

- Free
- Designed by professional designer or Landscape Architect
- Homework required
- Allows homeowners to become familiar with effort level



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## Water-wise Garden

- 6 acres formal beds
- Volunteer program
- Labeled/themed beds
- Active & passive spaces
- Outdoor activity/meeting space for AMC campus

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## Community Gardens

- 21 active community gardens
  - 15 public, 10 on city property
- Aurora Community Garden Network
  - Meet twice annually
  - Service projects and educational events

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## Water Management Plan

Water monitors look for non-compliance/water waste issues.

Educate customers on best practices.


- No watering more than 3 days/week or between 10am-6pm
- Permit required for sod/seed installation  $\geq 250$  sq. ft.
- Must repair or discontinue use of broken systems which cause excessive water waste.

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## Irrigation Plans Review

- Non single-family irrigation design plans review
  - Hydraulic integrity
  - Components
  - Layout

Plans Reviews 2013 - 2021



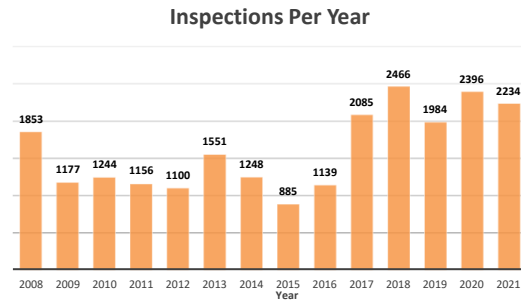
Year	Plan Sets	Total Sheets
2013	29	128
2014	46	248
2015	57	327
2016	50	310
2017	48	334
2018	61	407
2019	75	586
2020	52	426
2021	71	536



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# Soil and Irrigation Inspections

- New irrigation systems and soil amendment inspections
  - Material standards
  - Plan conformance
  - Quantity
  - Till depth



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## Conservation in New Development

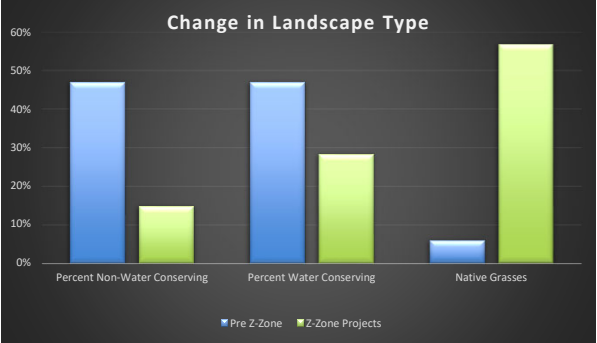
- Z-Zone Tap Fee for Irrigation Meters
  - No Fee for native grass areas
  - 3 year allocation for establishment of plant material
  - Allocation is reduced by volume of water assigned to the Z-Zone areas
  - If exceeded, Capital Recovery fee added

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# Conservation in New Development

- Z-Zone Program
  - 83 total projects
- Conservation and Planning work together to ensure water-wise practices are implemented in new code.



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# Targeted Efficiency Educational Programs



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## KNOW YOUR FLOW

- Educate residents on efficient water use
- 2,356 participants
- Weekly recommended irrigation schedule
- Monthly water use report
  - Recommended water use vs. actual water use

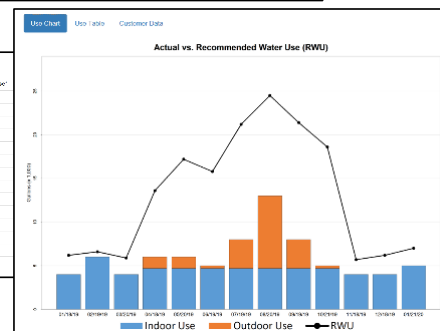
[www.aurorgov.org/KnowYourFlow](http://www.aurorgov.org/KnowYourFlow)

Use Chart   Use Table   **Customer Data**

The information below is used to calculate your household's recommended water use. Visit [this website](#) for more information on the calculation methods, and please call (720.859.4375) or e-mail us if any information below has changed.

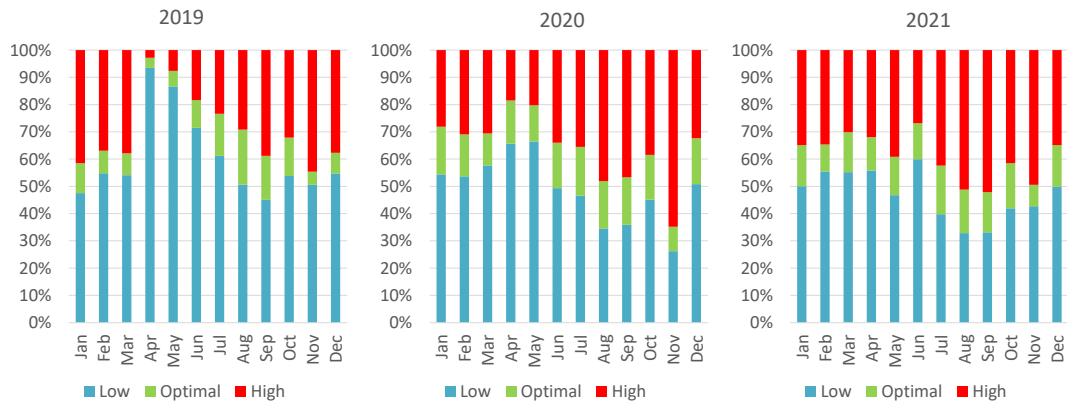
- Billing Period: 12/18/19 to 01/21/20
- Number of Days: 34
- Number of people: 5
- Square feet of turf grass: 4773
- Square feet of water-wise landscape: 201

Household	Use Table	Customer Data				
Billing Period	Total Use*	Total RWU**	Indoor Use*	Indoor RWU**	Outdoor Use*	Outdoor RWU**
12/18/19 - 01/21/20	4	4.2	4	4.2	0	0
02/18/19 - 02/25/19	2	6.9	2	6.9	0	0
02/18/19 - 02/25/19	4	5.9	4	5.9	0	0
02/18/19 - 02/25/19	6	1.6	7.7	3.9	1.5	1.5
04/18/19 - 04/25/19	6	1.2	4.7	8.9	1.2	1.2
02/22/19 - 06/19/19	2	12.8	4.7	6.2	6.3	6.3
02/18/19 - 02/25/19	2	21.4	4.7	6.2	3.3	3.3
02/18/19 - 02/25/19	63	31.5	7.7	6.5	6.5	6.5
02/18/19 - 02/25/19	8	7.4	7.7	3.2	3.5	3.5
02/18/19 - 02/25/19	3	14.6	4.7	8.9	8.9	8.9
02/18/19 - 02/25/19	4	5.7	4	5.7	0	0
11/18/19 - 12/18/19	4	6.2	4	6.2	0	0
02/18/19 - 02/25/19	5	7	5	7	0	0
<b>Total (last 12 mos.)</b>	<b>71</b>	<b>101.7</b>	<b>33.2</b>	<b>75.0</b>	<b>15.1</b>	<b>15.1</b>



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# Know Your Flow



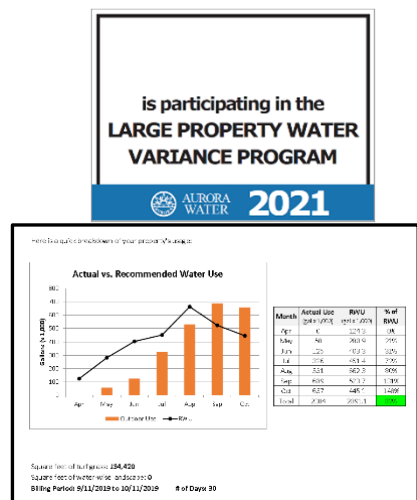
Low – 90% of recommended or lower  
 Optimal – 90%-110% of recommended  
 High – 110% of recommended or higher



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# Variance Program

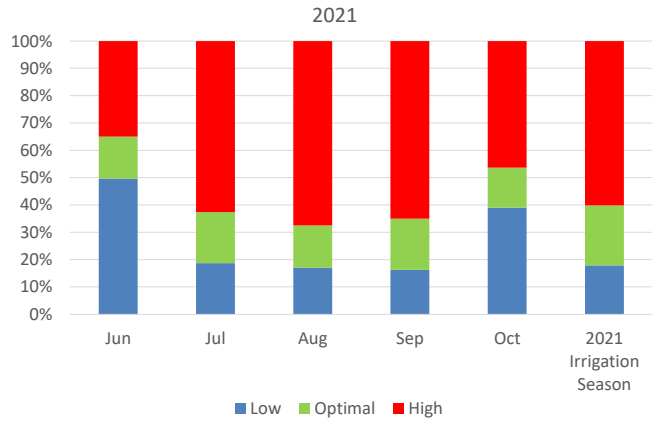
- Variance for irrigating seven days/week (not between 10 a.m. – 6 p.m.)
- Monthly report card
- Commercial
- HOA Common Space
- Irrigation efficiency plans



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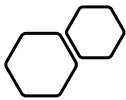
# Large Property Watering Variance



Low – 90% of recommended or lower  
 Optimal – 90%-110% of recommended  
 High – 110% of recommended or higher



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## Classes

- In-person
- Self paced (online)
- Topics:
  - Water-wise landscape
  - Vegetable gardens
  - DIY projects
  - Understanding water use
  - Much more

[www.aurorawater.org/waterclasses](http://www.aurorawater.org/waterclasses)



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# Program Performance Review Participation and Consumption Change



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## Programs Included

### Indoor

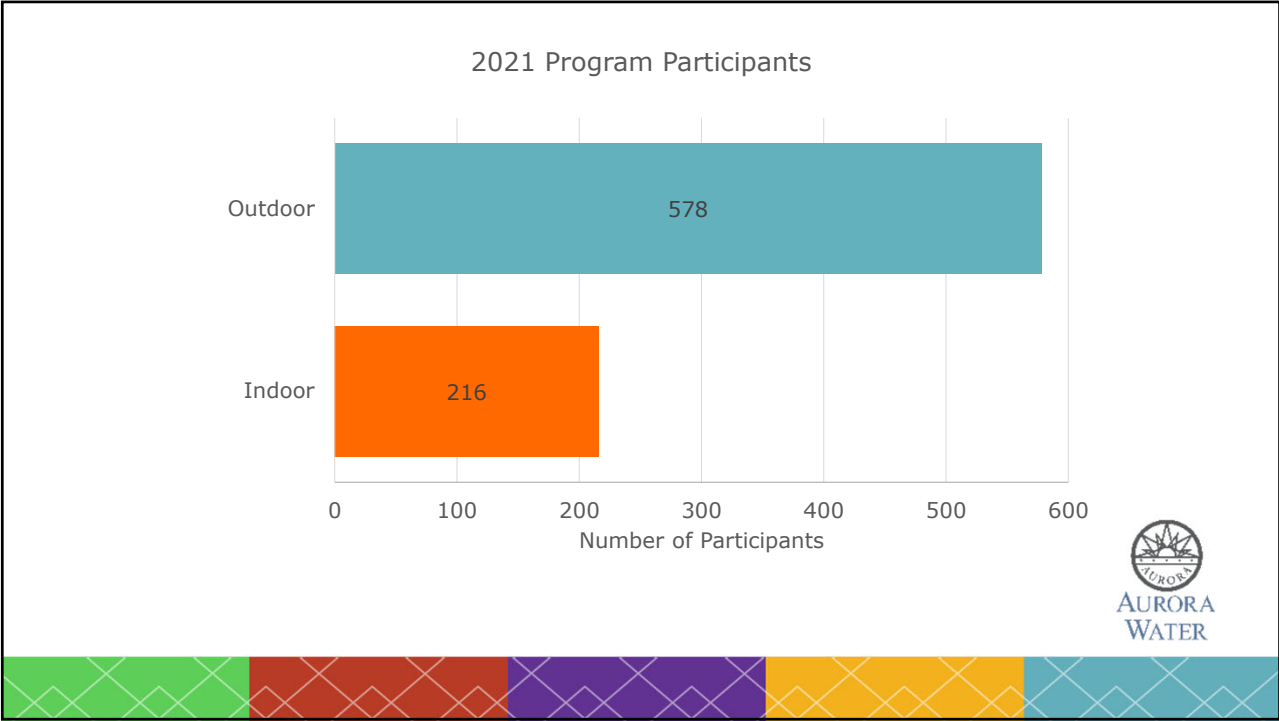
- Multi-family and HOA
- Commercial, Industrial and Institutional (CII)
- Indoor Water Assessments (IWA)
- Toilet Rebate
- Large Property Toilet Rebate

### Outdoor

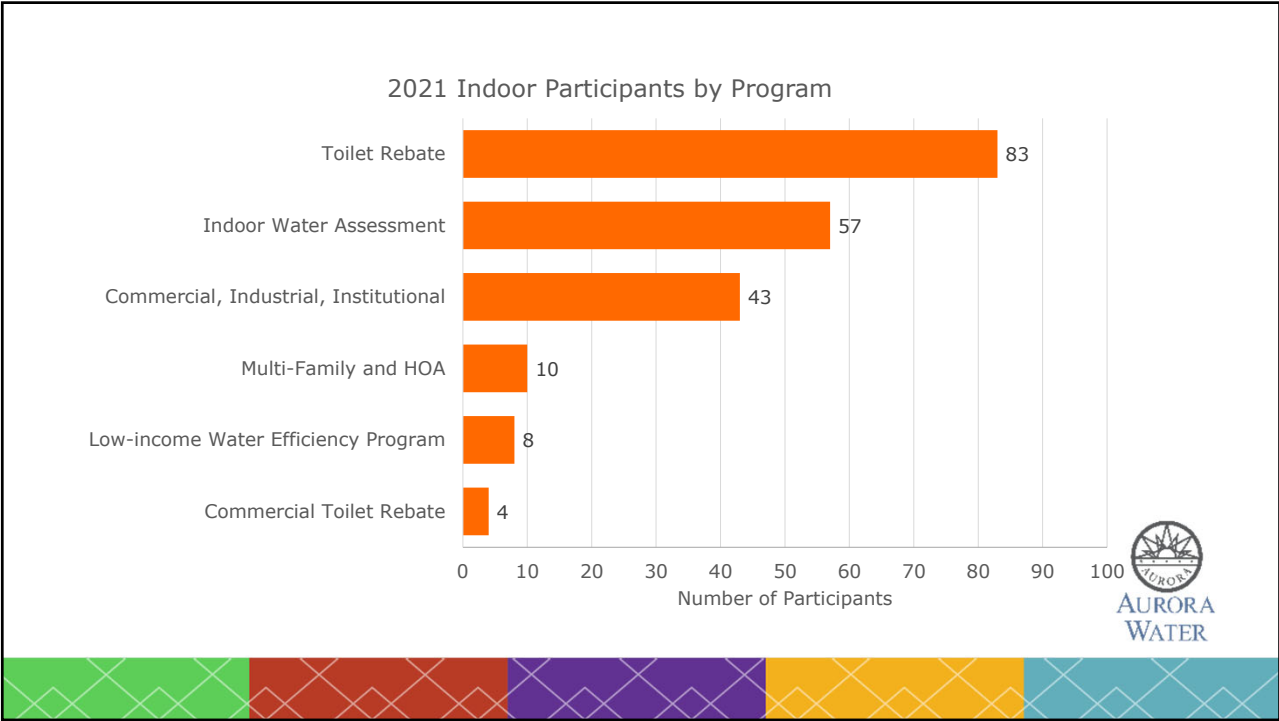
- Large Property Watering Variance Program (Variance)
- Outdoor Water Assessments (OWA)
- Smart Controller Rebate
- Water-wise Design Consultation
- Water-wise Landscape Rebate



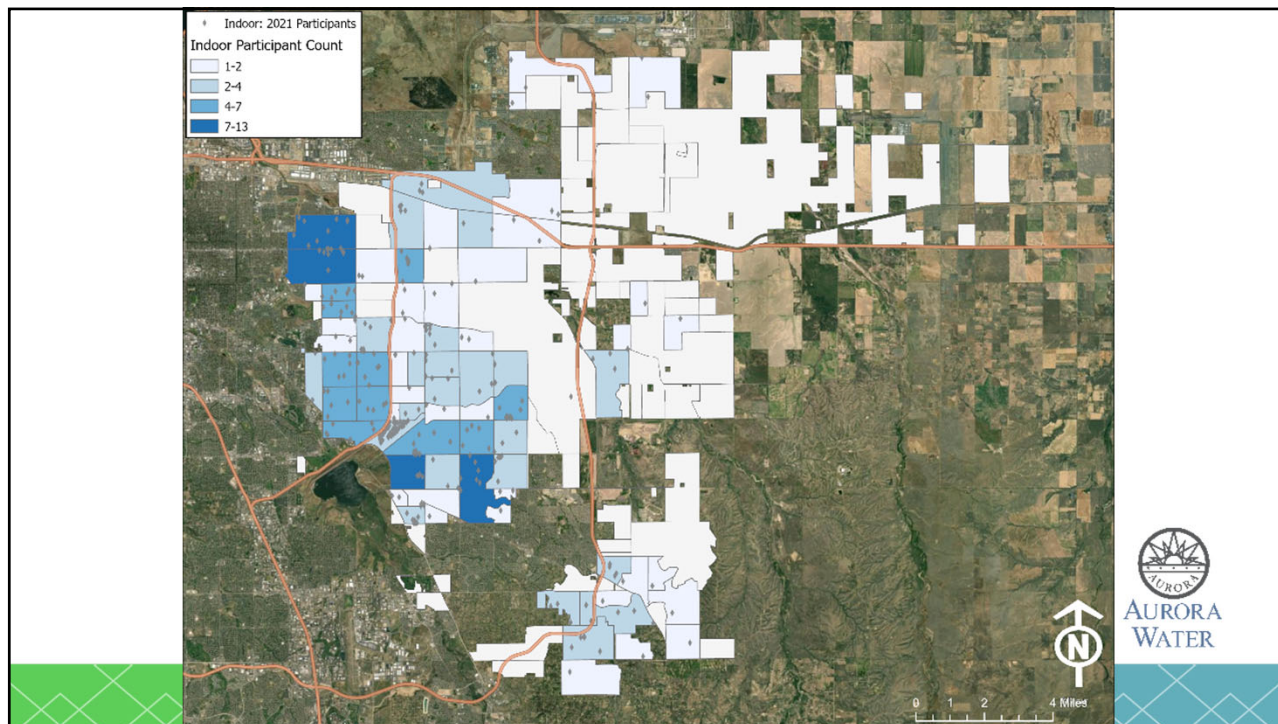
32



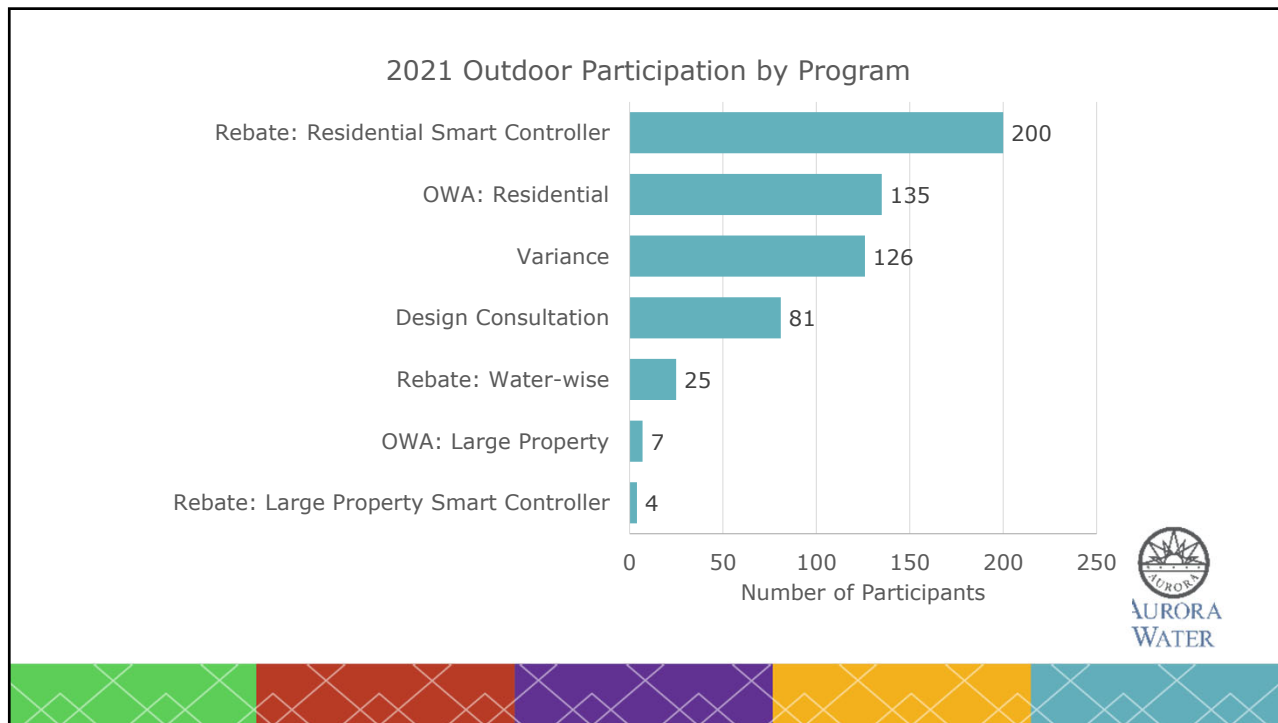
33



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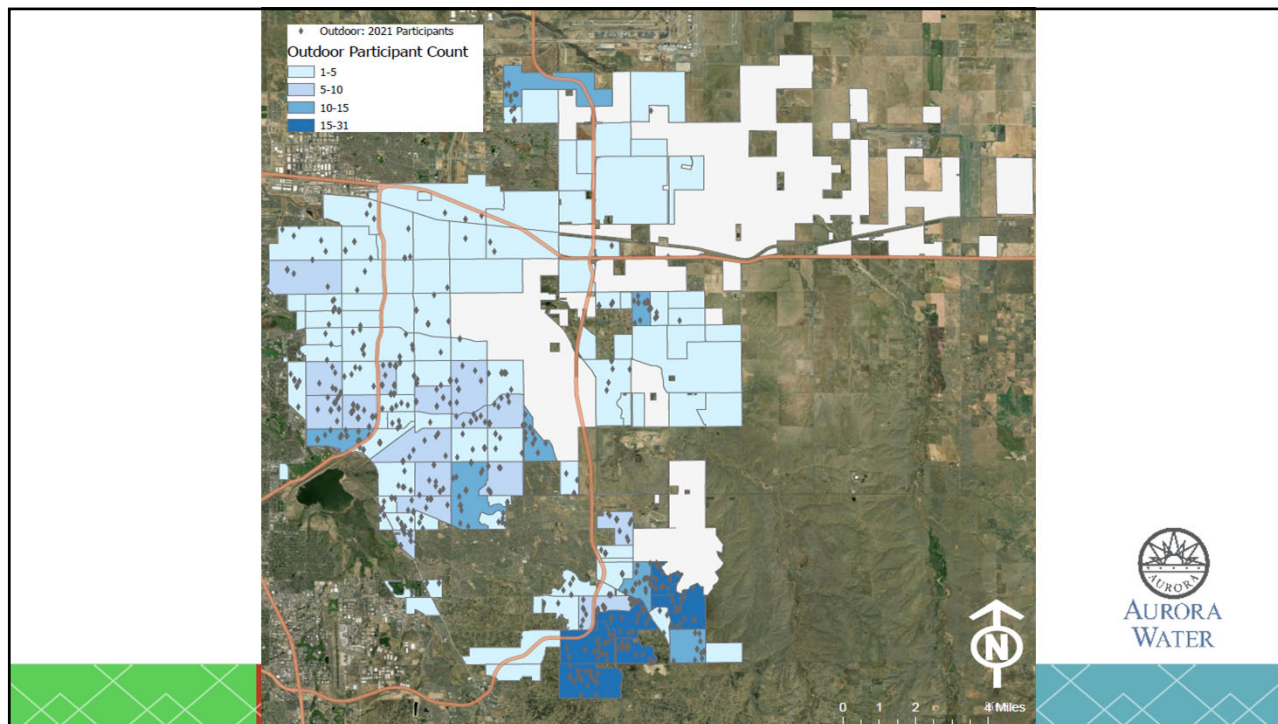


35

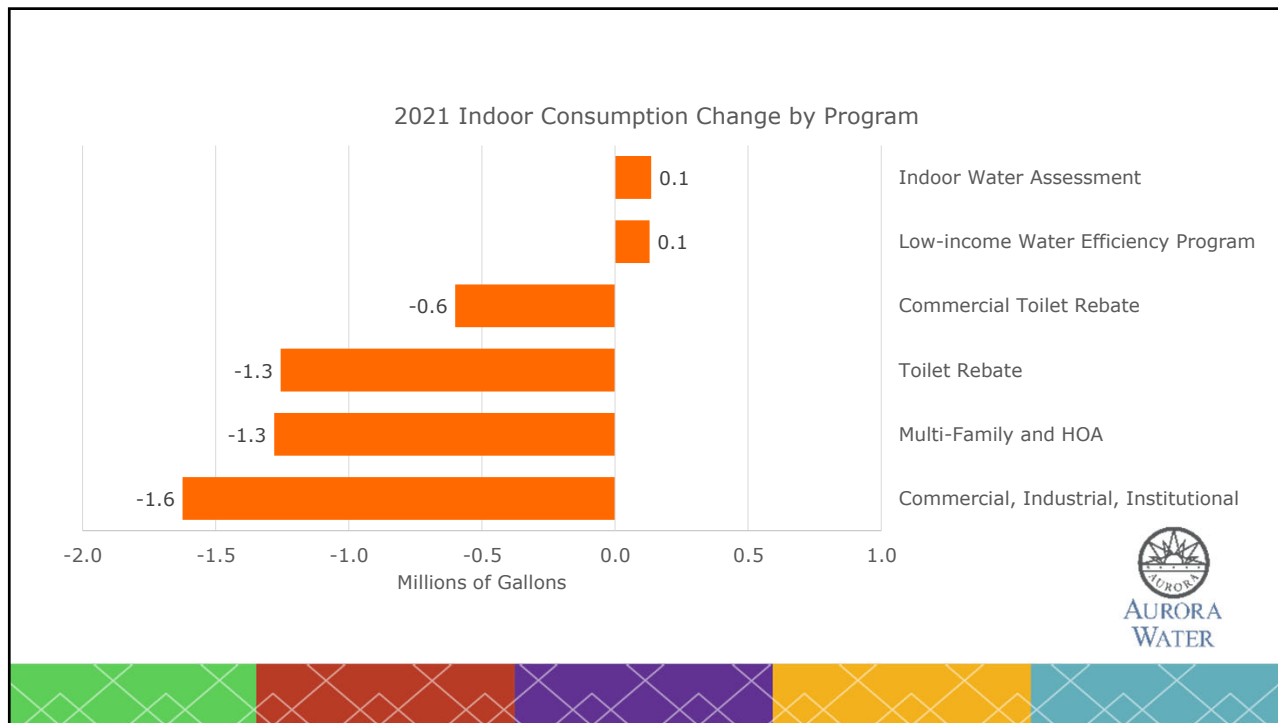


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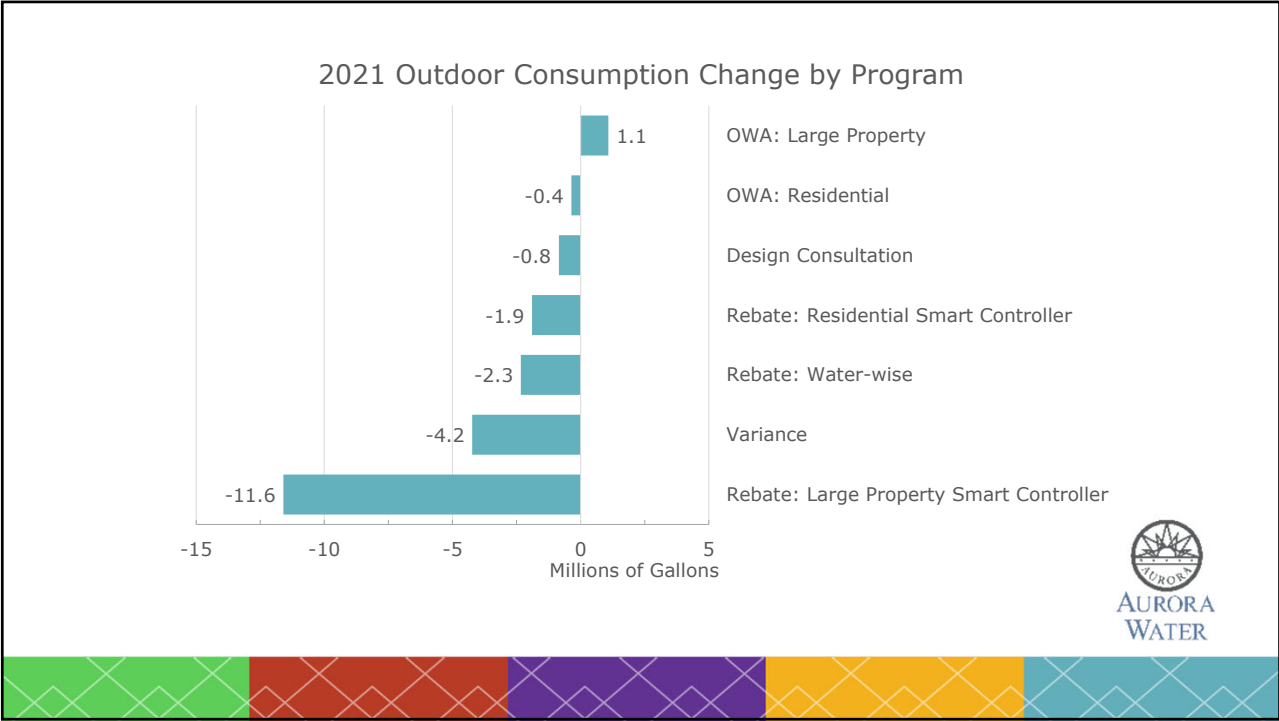


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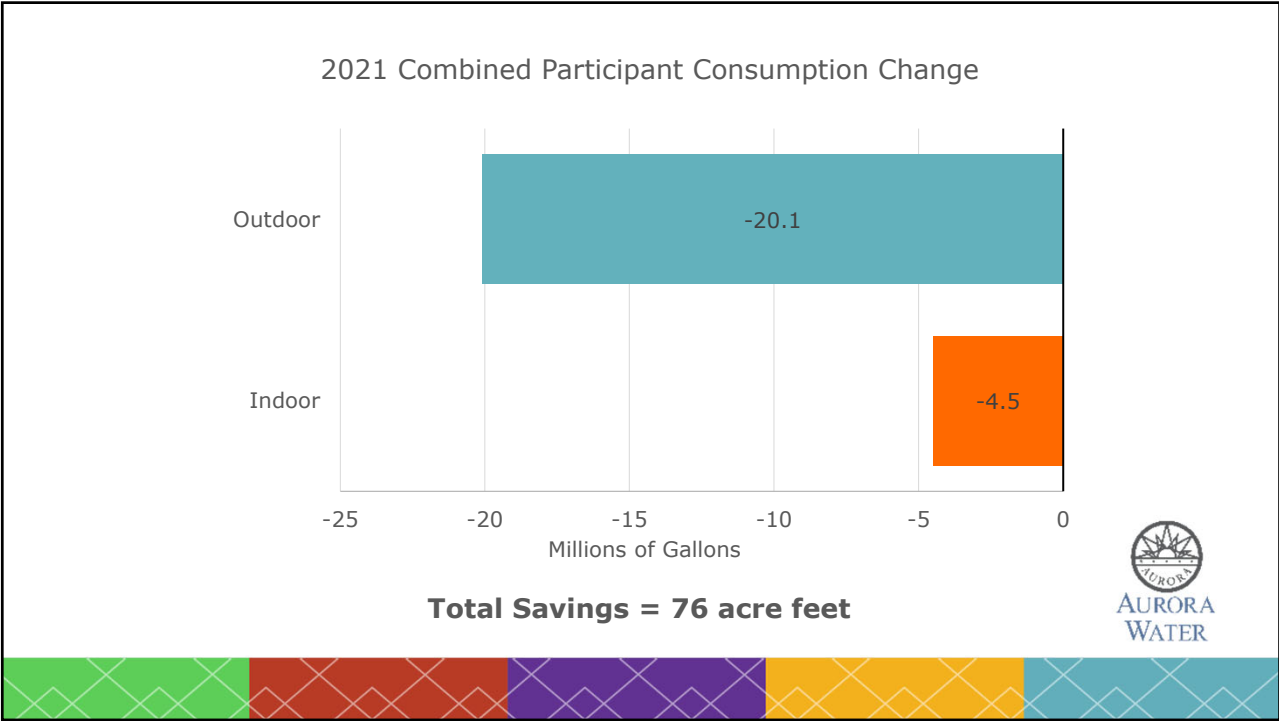


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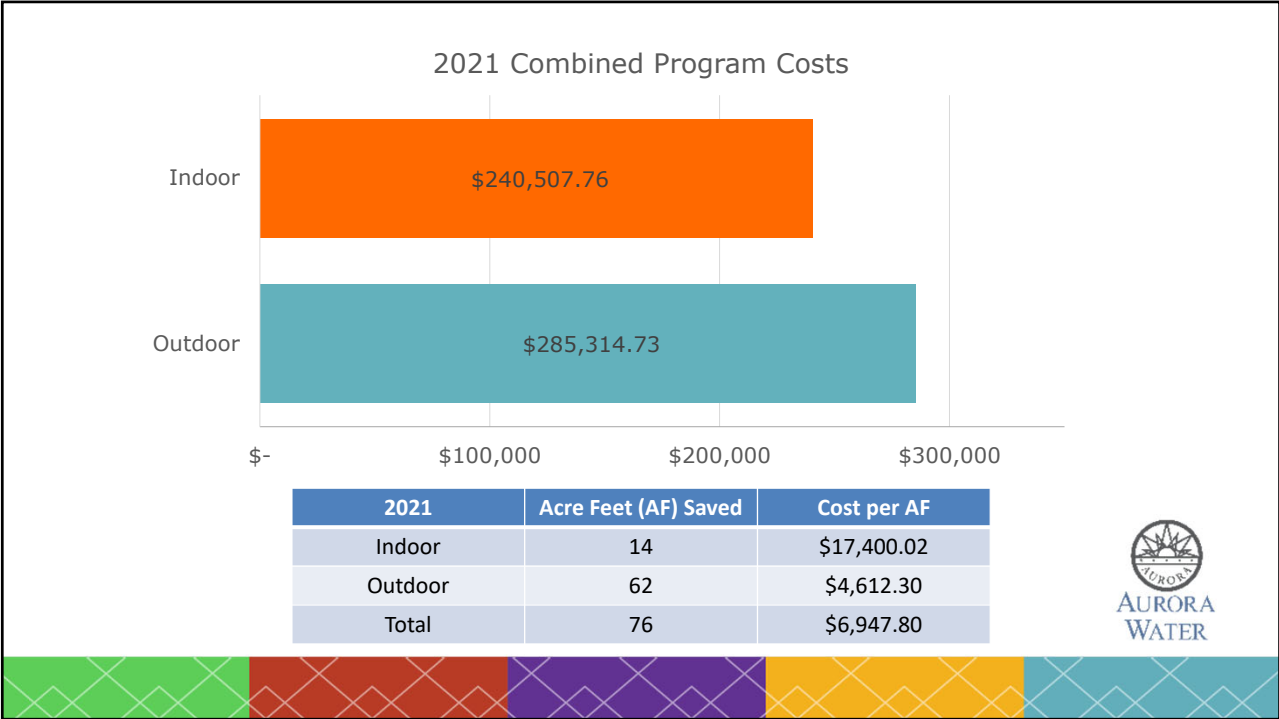




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# Waste Intervention

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## Water Management Plan

- Enforcement of water wasting restrictions:
  - Customer Contacts
  - Non-compliance – irrigating between 10 a.m. and 6 p.m. OR more than 3 days/week
  - Water Waste – visible waste of significant amounts of water

	Count	Change in Consumption (gal)*
Customer Contact	701	-2,108,000
Non-compliance	313	-204,000
Water Waste	51	-2,695,000
* Consumption change compares month of violation to month after		



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## High Use Letters

- Consumption is 200% of the same month from the previous year
- 200-250 customers per month

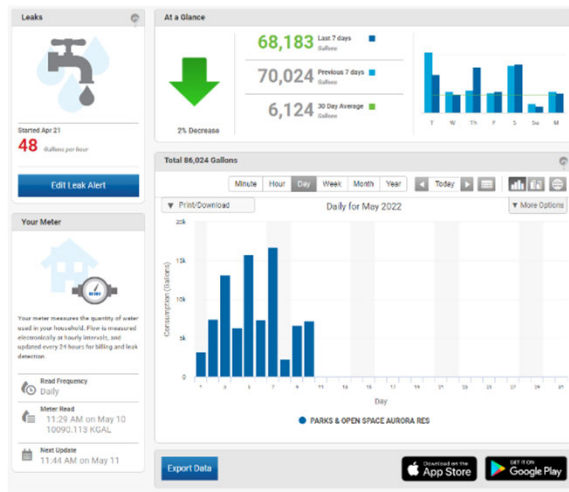
Customer Class	Letters Sent		Change in Consumption (gal)*	
	2020	2021	2020	2021
Commercial	580	718	-14,964,000	-12,751,000
Irrigation	12	0	111,000	0
Multi-family	46	76	73,000	-2,754,000
Residential	1,372	1,515	-10,257,000	-14,953,000
<b>Total</b>	<b>2,010</b>	<b>2,116</b>	<b>-25,037,000</b>	<b>-30,458,000</b>
*change in consumption compares month of high use to month after receiving letter				



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# AMI Advanced Metering Infrastructure

- 51,000 AMI accounts (54% customers)
- EyeOnWater
  - Customer portal
    - Leak alerts
    - Usage spikes
  - 2,569 users
  - 5% of AMI accounts



[AuroraGov.org/Meters](http://AuroraGov.org/Meters)



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# AMI Leak Detection Cases

- 500-1000 leak notifications/day
- Cost-Benefit Study (2021)
  - \$50 cost per hour
  - 11,952,000 gals estimated savings per month
  - \$126.09 per acre foot saved

Sample Cases of Leak Alerts			
Customer Class	Leak Detected (gal/hr)	Investigation	Savings (gal/month)*
Residential	342	Stuck toilet flapper in rarely used basement bathroom	246,000
Multi-family	260	Plumbing leak under ground floor apartment	100,000
Commercial	1,288	Improper irrigation schedule, broken irrigation valves, broken toilets	927,000
Irrigation	1,319	Broken irrigation valve, zone running in retention pond area	950,000

\*Savings assume issue goes unnoticed



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# New in Conservation



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## Colorado Senate Bill 23-178 Water-wise Landscaping in HOA Communities

- HB 21-1229
  - Covenant controlled communities cannot prohibit water-wise landscapes
  - *Can* enforce design and aesthetic standards
- SB 23-178
  - Cannot prohibit nonvegetative turf grass in backyards
  - Cannot require hardscape on more than 20% of landscaped area
  - Cannot prohibit vegetable gardens
  - Provide at least 3 water-wise design options
- Aurora Water Conservation
  - Template for HOA water-wise regulations

[HOA NAME]

**DESIGN AND INSTALLATION REQUIREMENTS FOR WATER-WISE LANDSCAPES (XERISCAPES)**

I. Water-wise Landscapes  
 A water-wise landscape, also known as xeriscape, is one that uses a variety of low-water plants, mulches, and high-efficiency irrigation compatible with water conservation. The following guidelines will allow residents to develop attractive, low-water landscapes. For the purpose of definition, "plants" may mean perennials, ornamental grasses, shrubs, groundcovers or trees unless otherwise stated.

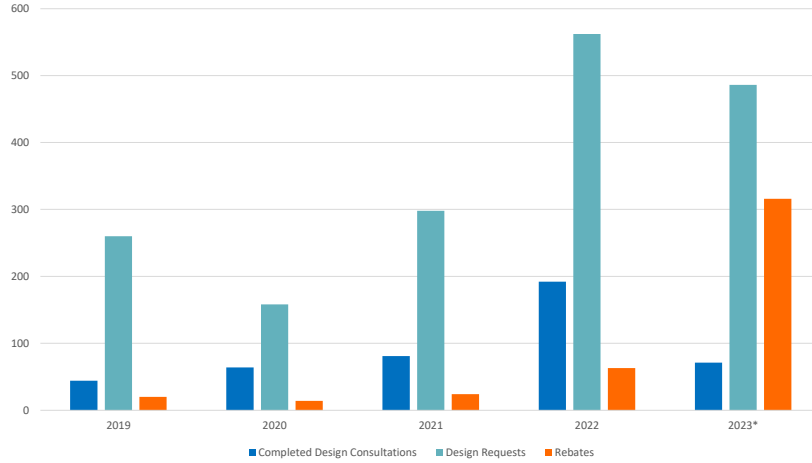
All projects must follow this policy and the standards set in the city of Aurora's [Unified Development Ordinance Section 4.7 Landscape, Water Conservation, Stormwater Management](#) ("UDO").

[LANDSCAPE COMMITTEE NAME] ["Committee"] will review all [FRONT/PUBLIC FACING /OTHER] water-wise designs for compliance with this policy.

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# Water-wise Landscape Boom

Water-wise Programs



\*2023 Rebates show in progress projects, not approved



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# Conservation Impact



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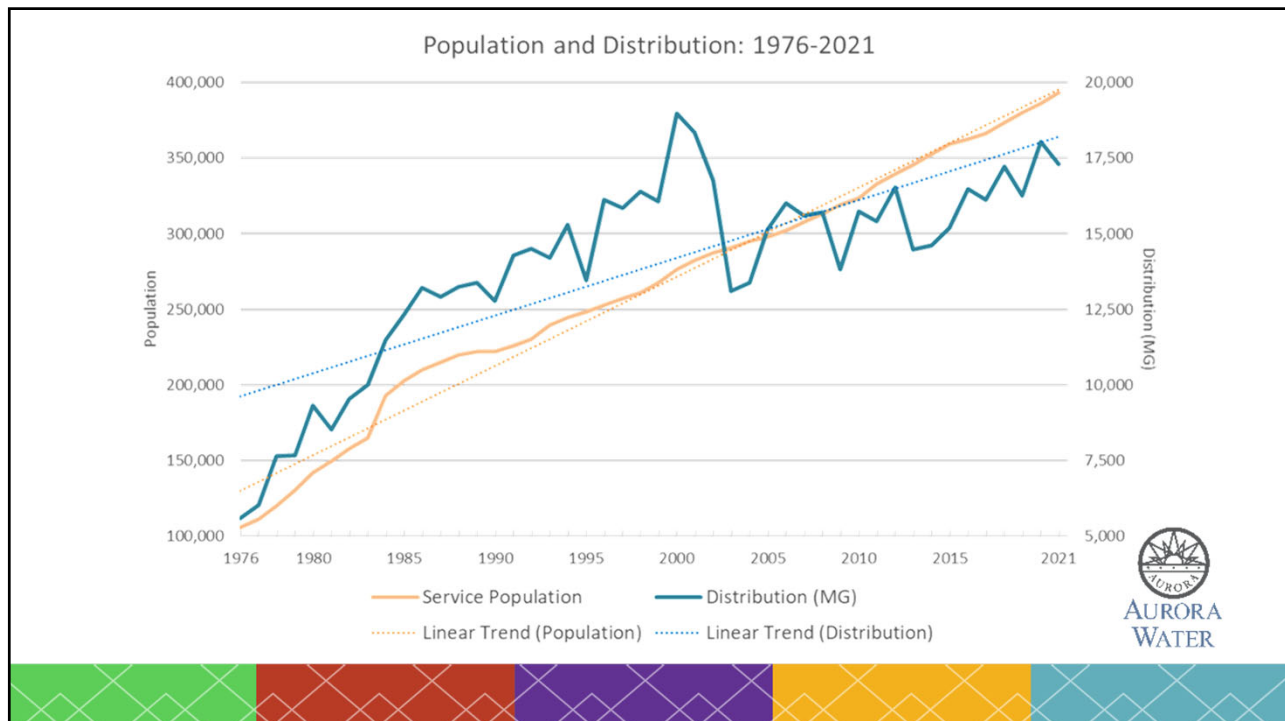
# Total Estimated Consumption Change

58,301,000 gal  
 179 Acre Feet  
 \$9,134.17 per acre foot

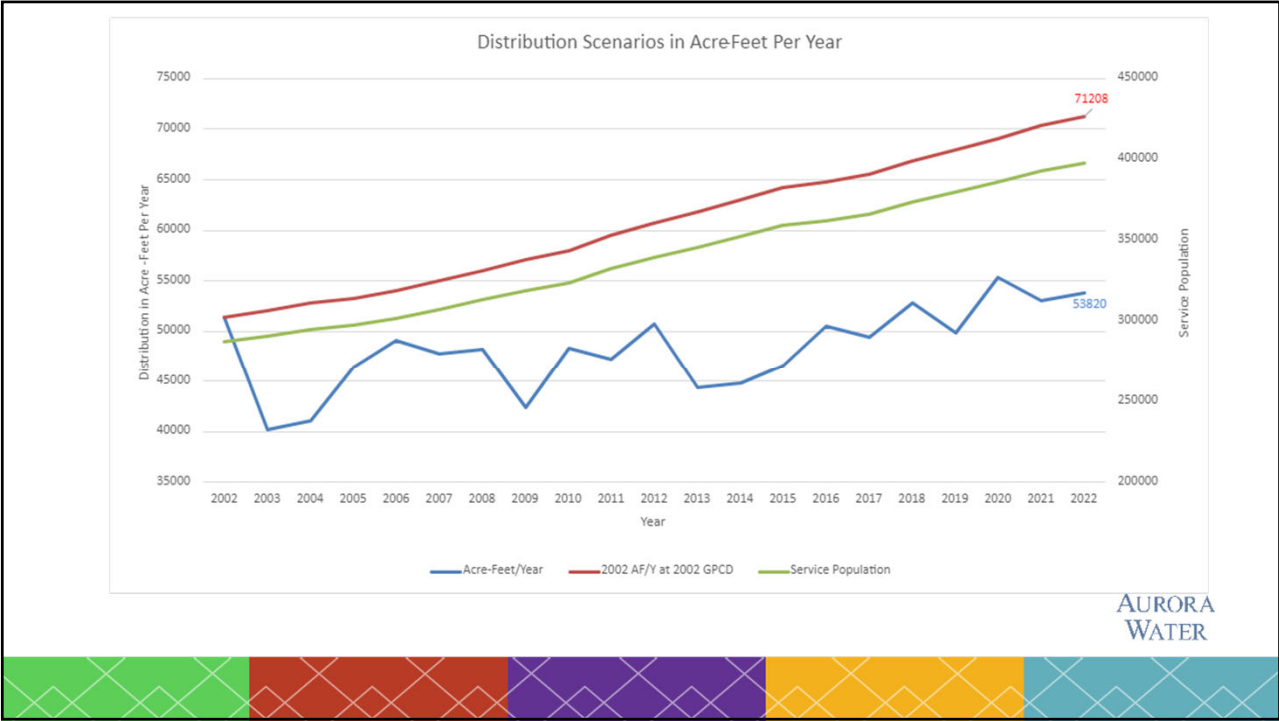
- Does not include AMI Leak Response. Includes high use letters, WMP enforcement and conservation programs. Includes all 2021 conservation expenditures.



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Questions?



AURORA WATER

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