CITIZENS' WATER ADVISORY COMMITTEE (CWAC) AGENDA

May 10, 2022, 6:00 p.m. Aspen Room, 2nd Floor, Aurora Municipal Center or Hybrid option below

> Microsoft Teams Link: Click here to join the meeting or go to

https://bit.ly/3rvhrfn

Call in (audio only) - 720-388-8447 Phone Conference ID: 595 739 077#

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 – April 12, 2022	Chair	6:00 p.m.
2.	Introductions/Public Invited to be Heard	Chair	6:05 p.m.
3.	New/Old Business	Chair	6:10 p.m.
4.	Communications Update	Greg Baker	6:15 p.m.
5.	Quarterly Financial Report – First Quarter 2021	Jo Ann Gidding	6:20 p.m.
6.	Water Quality Overview	Sherry Scaggiari	6:40 p.m.
7.	Water Conservation Ordinance Letter of Support	Chair	7:30 p.m.
8.	Review Follow-Up Questions Generated at this Meeting	Greg Baker	7:35 p.m.
9.	Confirm Next Meeting – Tuesday, June 14, 2022	Chair	7:40 p.m.
10.	Adjourn	Chair	7:45 p.m.

Citizens' Water Advisory Committee (CWAC) Minutes April 12, 2022, 6:00 p.m.

Hybrid - via Microsoft Teams

Members Present: Angie Binder – Chair, Dick Eason - Vice Chair, Jay Campbell, Tom

Coker, Dave Patterson, Bill Gondrez, Janet Marlow, Daniel Widrich

Absent:

Staff Present: Leiana Baker, Greg Baker, Rory Franklin, Jo Ann Giddings, Fernando

Aranda, Gail Thrasher, Melina Bourdeau, Kathy Kitzmann, Alex Davis

Visitors Present:

The meeting was called to order at 6:07 p.m.

1. Approval of March 8, 2022 Minutes

The March 8, 2022, minutes were approved.

2. Introductions/Public Invited to be Heard

None.

3. New/Old Business

G. Baker gave an update on the non-functional turf item that went to WPC and they are supportive.

4. Communications Update

None.

5. Legislative Update

K. Kitzmann gave an update of the 2022 State Legislative Review.

6. Water Connection Fee Changes and Credit Card Fees

F. Aranda gave a presentation.

7. Aurora Water Drought Response

G. Baker gave an overview of the Drought Action Team. Aurora Water initiated the Drought Action Team in early 2021 with the objective of bringing together staff from across divisions to develop recommendations and propose actions to mitigate drought risks. The Drought Action Team vetted over 40 mitigation options and developed a feasible list of options to implement. The team also provided recommendations on how to improve Aurora's future drought planning and

response. The team put together a 2021 Drought Action Team report that summarized the 2021 drought conditions, Aurora's response, as well as detailed discussion of the team's recommendations. Drought conditions have improved since 2021, but the Drought Action Team continues to meet on a regular basis to monitor conditions and track progress on their recommended projects and actions.

8. Water Management Plan

G. Baker gave an overview of the Water Management Plan. Water Management Plans have been in place in Aurora since 2003. From 2004 to 2012, the plan was revised and presented to council for approval on an annual basis. In 2013, an on-going WMP was approved that is active until an amendment is required. At the time of approval, the City Council requested that Aurora Water simplify the plan's language and presentation. Based on this request, as well as lessons learned from a drought from 2012 to 2013, Aurora Water presented a WMP to be in effect beginning in 2017 that reduced the water availability stages from six to four. This resulted in the removal of several intermediate stages that projected minimal water savings, yet required substantial outreach.

9. Economic Work Group Status

J. Marlow stated, there's not much of an update. We've given Greg a couple more things that we'd like to see, some basic data.

10. Summer Tours

G. Baker will do a Doddle poll for the committee's availability.

11.	Review F	ollow-Up	Questions :	at this N	Meeting
N. T					

None.

12. Confirm Next Meeting – Tuesday, May 10, 2022 Hybrid meeting Aspen room.

10. Adjourn The meeting was adjourned at 8:28 p.m	
Angie Binder, Chair Citizens' Water Advisory Committee	
A doubted.	

This

Page

Is

Intentionally

Left

Blank

MEMORANDUM City of Aurora



Worth Discovering • auroragov.org

To: Citizens' Water Advisory Committee

Through: Marshall P. Brown, General Manager, Aurora Water

From: JoAnn Giddings, Deputy Director Water Financial Administration

Date: May 10, 2022

Subject: Quarterly Financial Report – First Quarter 2022

Highlights

Combined operating revenues (Water, Sewer, and Stormwater) through the first quarter were 1.0 percent higher than plan and 10.7 percent higher than the first quarter of 2021. Aurora Water implemented in 2022 rate increases of 3.5%, 4.0%, and 3.5% to the Water, sewer, and stormwater service respectively. The increases along with growth and a drier than normal winter helped with the increase in operating revenues compared to 2021.

Combined Development revenues (Water, Sewer, and Stormwater) in 2022 were 22 percent higher than plan and 20 percent higher than 2021. Aurora Water implemented in 2022 a 10.6% and 6.4% increase in the water and sewer connection fees no increase was adopted for the storm development fees. Along with the fees increases growth remains healthy within the City.

Operating expenses (Water, Sewer, and Stormwater combined), excluding debt service, are under the plan by \$5.9 million or 15.9 percent. Purchased Vehicle and Equipment Replacement is lower than plan due to supply chain shortages causing delays. Professional Services contract payments are lower than anticipated for the first quarter. Electricity is lower than plan due to the timing of the Homestake invoices. These underruns were offset by higher than plan Credit Cards fees (\$260,346) as well as the Joint Water Authority 2022 Assessment which was higher than anticipated (\$245,000). The budget for the Joint Water Authority was adopted after the City of Aurora's budget development process. Operating expenses, excluding debt service, were higher than 2021 (same period) by \$2.1 million or 7.3 percent.

Statements showing the budget to actual results and the year to year comparison can be found at the end of this memo on pages 9 and 10. Capital details can be found on pages 6 and 7.

Water, Sewer, and Stormwater as of End of First Quarter							
Item	YTD Plan	2022	2021	Q1 2022 vs YTD	Year Over Year		
	1 1D 1 Ian		2021	Plan	Difference		
Operating Revenue	\$41,975,485	\$42,415,171	\$38,317,431	\$439,686	\$4,097,740		
Development Revenue	12,303,351	15,065,747	12,566,204	2,762,396	2,499,543		
Bond Proceeds and Transfers	0	0	0	0	0		
Interest Income	682,401	647,563	910,729	(34,838)	(263,166)		
Total Revenue	\$54,961,237	\$58,128,481	\$51,794,364	\$3,167,244	\$6,334,117		
Operating Expense	(\$37,013,221)	(\$31,135,882)	(\$29,006,682)	(\$5,877,339)	\$2,129,200		
Capital Projects	(50,267,108)	(24,197,938)	(14,393,085)	(26,069,170)	9,804,853		
Debt Service	(9,196,109)	(9,195,883)	(9,253,168)	(226)	(57,285)		
Total Expense	(\$96,476,438)	(\$64,529,703)	(\$52,652,935)	(\$31,946,735)	\$11,876,768		

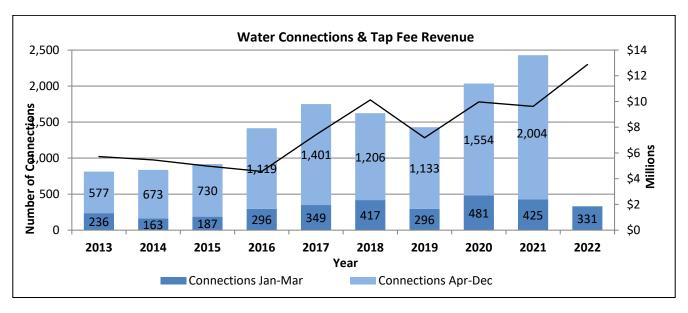
Cash Balances

Reserves detail and cash balances are shown in the table below. The debt policy reserves were updated with the 2023 debt service, 2022 operating budget and the 2021 asset information. Total cash in the water and wastewater fund decreased by \$20 million and \$6.6 million respective this is due to capital spending and the seasonal characteristics of the water revenues.

	Water	Wastewater
Total Cash	\$303.1M	\$137.3M
Reserve & Commitment Type		
Debt Service Policy Reserve (next fiscal year debt payment)	\$28.9M	\$8.6M
Operating Reserve (25% of adopted operating budget excl debt service)	\$18.9M	\$15.6M
Water Resources Reserve (\$20 Million)	\$20.0M	
Capital Reserve (0.5% of Net Fixed assets)	\$9.8M	\$3.4M
Capital and Operating Encumbrances	\$126.4M	\$73.0M
Net Restricted Bond Proceeds for Projects	\$25.5M	\$4.7M
Pass-Thru Commitments (METRO and CC Basin)		\$3.1M
WISE Liability to Denver Water	\$5.0M	
Total Reserves and Commitments	\$234.5M	\$108.4M
Cash after Reserves & Commitments	\$68.6M	\$28.9M

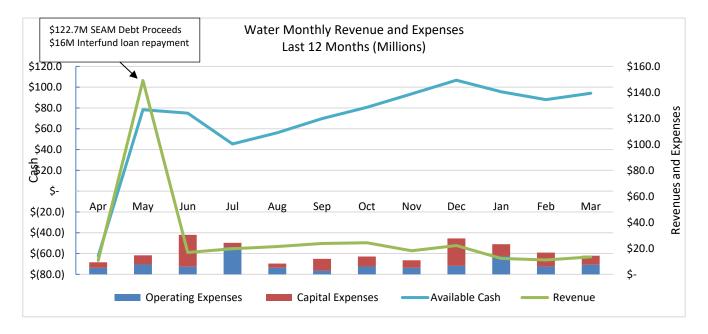
Water Connections

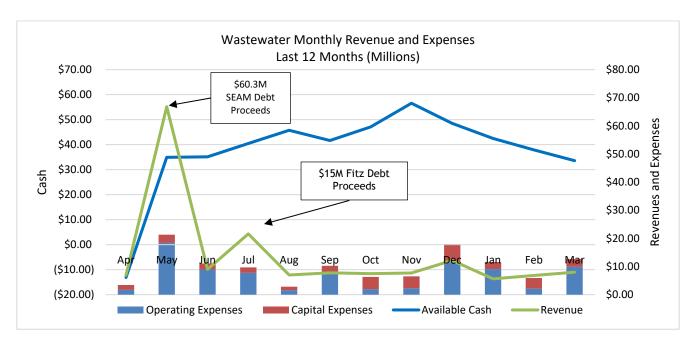
The total number of water connections (single-family, commercial, irrigation and multi-family) and the corresponding Water Connection Fee revenue for 2013-2022 are shown on the following graph. The number of water connections in the first quarter of 2022 decreased by 94 connections or 22 percent compared to the first quarter of 2021. Total water connection fee revenues in the first quarter of 2022 were \$3.2 million (34 percent) higher than in the first quarter of 2022 This was in part due to the adopted 10.6% increase in water connection fees in 2022. In the first quarter sixteen multifamily taps were added for a total of 315 dwelling units which helps explain why we saw a decrease in taps but increase in revenues. The overall growth due to development in 2022 remains healthy and at levels similar to previous years.

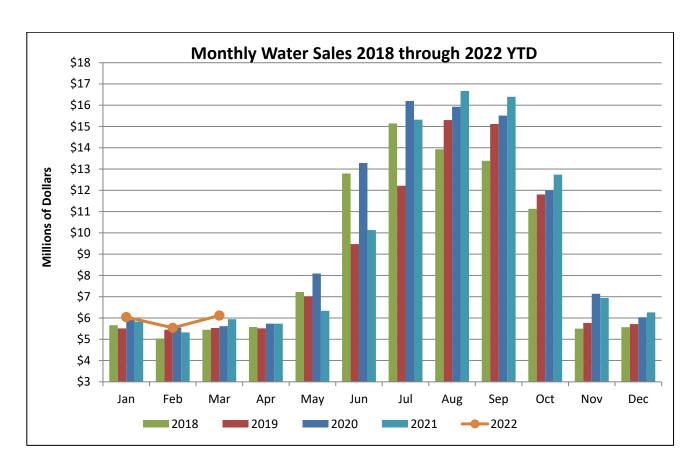


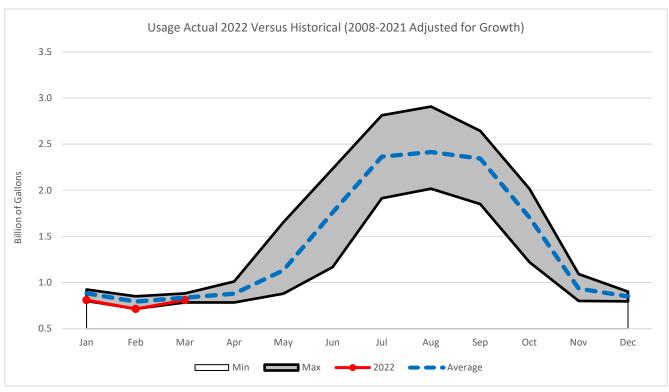
2022 Revenue, Expenses and Cash Flow

The following graphs present a summary of the last 12 months of monthly revenues, expenses, and cash flow.









Overall Capital Plan

Capital Projects Spending as of 03/31/2022						
Program	Working Budget*	YTD Spending Plan	YTD Actual Spend	Encumbered**		
Water CIP						
Operations & General Management	76,600,674	13,001,185	7,569,806	60,445,754		
Pumping	7,123,261	10,240	18,224	2,904,417		
SOS Other	51,799,729	3,534,843	1,004,490	10,916,813		
SOS Storage	43,542,945	3,920,483	490,844	7,018,129		
SOS Water	43,842,422	4,693,652	4,822,357	10,464,769		
Transmission & Distribution	40,098,504	7,545,537	2,592,428	15,760,647		
Treatment	54,527,424	1,754,290	1,066,338	11,950,718		
Water Total	317,534,959	34,460,230	\$17,564,487	119,461,248		
Sewer CIP						
Collection	75,679,807	4,802,757	1,461,807	21,135,808		
Operations & General Management	35,114,752	5,840,988	2,870,645	27,517,327		
Sewer Total	\$110,794,559	\$10,643,745	\$4,332,452	48,653,136		
Stormwater CIP						
Stormwater	22,487,826	2,045,368	597,369	8,697,862		
Operations & General Management	15,270,201	3,117,765	1,703,631	12,462,735		
Stormwater Total	37,758,027	\$5,163,133	\$2,301,000	\$21,160,597		
Wastewater Total	148,552,586	\$15,806,878	\$6,633,452	\$69,813,733		
Water & Wastewater Total	466,087,545	\$50,267,108	\$24,197,939	\$189,274,981		

^{*}Working budget includes adopted budget, carryforward, transfers, lapsed appropriations, and supplementals.

Capital Projects Spending

Several factors contributed to project delays including the current economic conditions affecting the supply chain and labor force, changing development plans impacting utility corridors, and increased permitting timelines.

Total capital spending in the Water Fund through the First quarter was \$17.6 million, which was \$16.9 million less than the year-to-date spending plan of \$34.5 million. This is due to timing differences in anticipated spending. Weather and supply chain issues contributed to delays at the South East Area Maintenance Facility (SEAM). Gun Club 60" 6th Ave-Colfax (Transmission & Distribution) was delayed due to additional developer requests. Delays at the Bureau of Land Management affected timing of permitting at Wild Horse Reservoir (SOS Storage). The 2022 Waterline Replacement is less than plan by \$1.7 million but is anticipated to be completed this year. Supply chain issues delayed the Quincy

^{**}Encumbered amounts are PO contracts that may carry multiple years.

Intertie (SOS Water) and the New Brantner Augmentation Station (SOS Other). Many of the projects in the Water Fund are encumbered for a total of \$119.5 million.

Through the First quarter, total capital spending in the Wastewater Fund was \$6.6 million, which was \$9.2 million less than the spending plan of \$15.8 million. There are also timing differences of anticipated spending in the Wastewater Fund. The South East Area Maintenance Facility (SEAM) is \$4.4 million less than plan due to weather and supply chain issues. In the Collection program, the Diversion Structure Rehab project is \$1.0 million less than plan due to contractor delays in material procurement. In addition, the Gateway Lift Station Parallel Force Main is \$0.9 million less than plan due to a determination that an increase in the size of the flow meter for now would provide the increased capacity needed. Many of the projects in the Wastewater Fund are encumbered for a total amount of \$69.8 million.

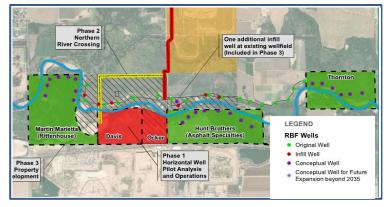
Capital Improvement Project of the Quarter North Campus Well Field Expansion

Background

The North Campus Well Field Expansion – Former Thornton Property Project (Project) will expand the City's North Campus Well Field (Well Field). Originally constructed between 2008 and 2012 under the Prairie Waters Project, the Well Field currently consists of 23 conventional vertical groundwater production wells along the South Platte River and has a current capacity of 10 million gallons per day (MGD). This project will add six new

conventional vertical groundwater production wells, extending the Well Field north along the South Platte River and increasing capacity approximately 2 MGD when it becomes operational in 2023.

Water collected at the Well Field is used to increase the firm yield of the City's water resources portfolio. Expansion of the Well Field is identified in both the City's Integrated Water Master Plan (2016) and North Campus Master Plan (2019) as a means for progressively meeting future water demands



and achieve a higher standard of drought hardening. Capacity for this anticipated expansion was designed and subsequently constructed into the Well Field's existing collection and conveyance infrastructure.

The first construction contract, which addressed drilling, completion, and pump testing of the six new groundwater production wells was completed in 2021. Now, construction under a second contract will equip the wells for full operation.

Scope of Work

This construction effort will complete the required civil, electrical, and mechanical infrastructure required to collect and convey water from the six new wells to the existing Well Field. Specifically, this work will include: installation of over 3,000 linear feet of collection piping, fiber optic and electrical conduit and lines, and gravel access roadway; installation of pumping, metering, instrumentation, and control hardware and infrastructure at each well; coordination, performance, and documentation of all SCADA requirements to be integrated into the system; and restoration/revegetation of disturbed areas. The work additionally includes replacement of 24 obsolete medium voltage switchgear cabinets at the existing Well Field to ensure power reliability to the new wells.





Representative Existing Well



2022 Financial Comparison

The following table presents a comparison of budget to revenues and expenses through the first quarter for the year 2022.

	WATER as of 03/31/2022						
Revenues & Expenses	Working Budget*	YTD Plan	YTD Actual (Accrual Basis)	% Actual to Plan			
Operating Revenue	\$140,748,853	\$23,154,747	\$23,723,510	2%			
Development Revenue	54,165,843	10,253,696	13,091,531	28%			
Interest Income	1,933,602	483,402	462,865	-4%			
Total Revenue	\$196,848,298	\$33,891,845	\$37,277,906	10%			
Operating Expense	(\$78,977,791)	(\$21,191,874)	(\$17,414,449)	-18%			
Capital Projects	(317,534,959)	(34,460,230)	(17,564,486)	-49%			
Debt Service	(28,578,370)	(7,521,263)	(7,521,263)	0%			
Total Expense	(\$425,091,120)	(\$63,173,367)	(\$42,500,198)	-33%			
Net Revenue & Expense	(\$228,242,822)	(\$29,281,522)	(\$5,222,292)				
	SEWER as of	03/31/2022					
Operating Revenue	\$53,330,062	\$12,631,042	\$12,563,903	-1%			
Development Revenue	8,311,081	1,579,259	1,723,774	9%			
Interest Income	521,180	117,000	95,942	-18%			
Total Revenue	\$62,162,323	\$14,327,301	\$14,383,619	0%			
Operating Expense	(\$49,030,333)	(\$12,138,742)	(\$11,444,852)	-6%			
Capital Projects	(110,794,559)	(10,643,745)	(4,332,452)	-59%			
Debt Service	(4,961,015)	(1,063,956)	(1,063,956)	0%			
Total Expense	(\$164,785,907)	(\$23,846,443)	(\$16,841,260)	-29%			
Net Revenue & Expense	(\$102,623,584)	(\$9,519,142)	(\$2,457,641)				
	STORMWATER	as of 03/31/2022					
Operating Revenue	\$24,758,790	\$6,189,696	\$6,127,758	-1%			
Development Revenue	2,500,000	470,396	250,442	-47%			
Interest Income	328,000	81,999	88,756	8%			
Total Revenue	\$27,586,790	\$6,742,091	\$6,466,956	-4%			
Operating Expense	(\$15,046,256)	(\$3,682,605)	(\$2,276,581)	-38%			
Capital Projects	(37,758,027)	(5,163,133)	(2,301,000)	-55%			
Debt Service	(3,936,738)	(610,890)	(610,664)	0%			
Total Expense	(\$56,741,021)	(\$9,456,628)	(\$5,188,245)	-45%			
Net Revenue & Expense	(\$29,154,231)	(\$2,714,537)	\$1,278,711				

 $[*] Working \ budget \ includes \ adopted \ budget, \ carry forward, \ transfers, \ lapsed \ appropriations, \ and \ supplementals.$

<u>Year-to-date Comparison to Prior Year (Water, Sewer and Stormwater)</u>
The following table presents a comparison of revenues and expenses through the First quarter for years 2022 and 2021.

WATER First Quarter Comparison						
Revenues & Expenses	2022	2021	% Change			
Operating Revenue	\$23,723,510	\$20,276,356	17%			
Development Revenue	13,091,531	9,826,897	33%			
Bond Proceeds and Transfers	0	0	0%			
Interest Income	462,865	625,610	-26%			
Total Revenue	\$37,277,906	\$30,728,863	21%			
•						
Operating Expense	(\$17,414,449)	(\$17,174,291)	1%			
Capital Projects	(17,564,486)	(11,174,970)	57%			
Debt Service	(7,521,263)	(\$9,000,400)	-16%			
Total Expense	(\$42,500,198)	(\$37,349,661)	14%			
Net Revenue & Expense	(\$5,222,292)	(\$6,620,798)				
SEWER Fir	st Quarter Compariso	n				
Operating Revenue	\$12,563,903	\$11,961,676	5%			
Development Revenue	1,723,774	1,988,571	-13%			
Bond Proceeds and Transfers	0	0	0%			
Interest Income	95,942	168,686	-43%			
Total Revenue	\$14,383,619	\$14,118,933	2%			
Operating Expense	(\$11,444,852)	(\$9,626,246)	19%			
Capital Projects	(4,332,452)	(2,501,759)	73%			
Debt Service	(1,063,956)	(\$101,382)	949%			
Total Expense	(\$16,841,260)	(\$12,229,387)	38%			
Net Revenue & Expense	(\$2,457,641)	\$1,889,546				
STORMWATEI	R First Quarter Compa	rison				
Operating Revenue	\$6,127,758	\$6,079,399	1%			
Development Revenue	250,442	750,736	-67%			
Bond Proceeds and Transfers	0	0	0%			
Interest Income	88,756	116,433	-24%			
Total Revenue	\$6,466,956	\$6,946,568	-7%			
•						
Operating Expense	(\$2,276,581)	(\$2,206,145)	3%			
Capital Projects	(2,301,000)	(716,356)	221%			
Debt Service	(610,664)	(\$151,386)	303%			
Total Expense	(\$5,188,245)	(\$3,073,887)	69%			
Net Revenue & Expense	\$1,278,711	\$3,872,681				

MEMORANDUM City of Aurora



Worth Discovering • auroragov.org

To: Citizens' Water Advisory Committee

Through: Marshall Brown, General Manager, Aurora Water

Alex Davis, Deputy Director of Water Resources, Aurora Water

From: Sherry Scaggiari, Interim Environmental Services Manager, Aurora Water

Date: May 10, 2022

Subject: Water Quality Overview

Purpose:

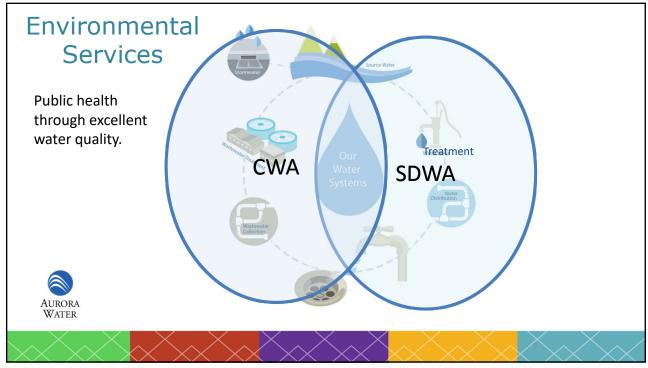
Aurora Water is responsible for compliance with many regulations that emanate from the two legislative acts - the Clean Water Act (CWA) (1972) and Safe Drinking Water Act (SDWA) (1974). This presentation will focus on Aurora Water's compliance monitoring and reporting programs. To be discussed are:

- The Water Quality lab role and function
- Mandated reporting through the Customer Conscience Report (CCR), also called the Water Quality report)
- Lead and Copper Rule Revisions
- PFAS testing
- Unregulated Contaminant Monitoring Rule (UCMR)
- Potable Reuse (both indirect and direct potable reuses)
- Municipal Separate Storm Sewer System (MS4) permitting

Action

No action required. Informational item only.

Aurora Water Water Quality Report May 2022 AURORA WATER



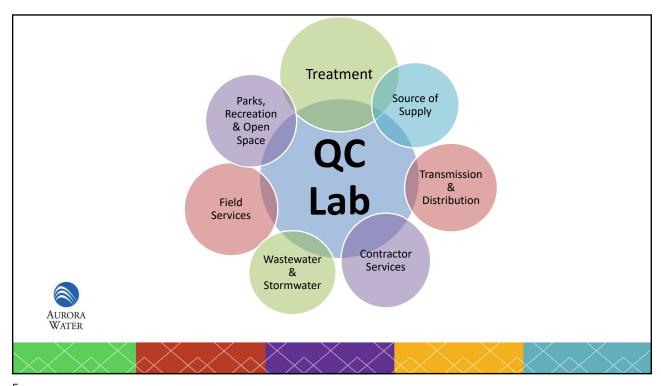


The primary function of the lab is to collect, analyze, and report samples for regulated constituents as required by the Safe Drinking Water Act, the Clean Water Act, and other





,



5

Drinking Water

- Collect, analyze, and report all samples on schedule for Safe Drinking Water Act & CDPHE Regulation 11.
- Additional samples for process monitoring from source, through the treatment plants, to the ends of the distribution system.
- Respond to additional "data vacuums" as they arise.



Drinking Water

- Public Water Systems
- City of Aurora
- Front Range Airport
- Hand pump at Spinney Reservoir.

CDPHE Reports

- 8 monthly
- 6 quarterly
- 1 semi-annually
 - 9 annually



7

Wastewater (Clean Water Act)

Collect, analyze, and report all regulatory samples on schedule for each permit.

Additional samples for process monitoring from sewage influent, through treatment, to the discharge into Sand Creek or distribution of reclaimed water.



Wastewater (Clean Water Act)

NPDES Permits

- Sand Creek Water Reuse Facility
- Binney Treated Water Discharge
- Wemlinger Treated Water Discharge
- Griswold Treated Water Discharge
- Binney Underdrain Groundwater Discharge

DISCHARGE MONITORING REPORTS (DMRs)

- 13 monthly
- 7 quarterly
- 1 semi-annually

AURORA WATER

a

Other Clean Water Work

- Aurora Water is required by Regulation 85 to monitor nutrients at locations upstream, downstream and at Sand Creek Reuse Facility's outfall.
- The South Platte Coalition for Urban River Evaluation (SP CURE) supports work related to water quality monitoring, total maximum daily load assessments (TMDL), and waste load allocations (WLA).
- The lab collects and analyzes these samples twice a month. Data is reported yearly.



Source Sampling

- □ Spinney & Rampart Reservoirs are sampled once a month.
- ☐ South Platte River upstream sites from Rampart are sampled once a quarter.
- □Quincy & Aurora Reservoirs are sampled twice per month.
- □ Cherry Creek Wells are sampled once a month.
- □ Prairie Waters (South Platte in Brighton) and North Campus wells are sampled twice per month.



11

But Wait...There's More!

- Clearwaters
- Swim Beaches
- Reuse Water
- Customer Concerns
- Sanitary Sewer Overflows



Water Quality Report

- Also called the CCR or Consumer Confidence Report
- EPA mandated report of regulated contaminants
- Currently required to be published yearly



13

Page 1

This page tells the customer about the source of their drinking water.

It also has our customer service number as well as the number for EPA.

Note, this report details data and information from the previous year.

AURORA CITY OF AURORA, COLORADO | 2022

**Tompa & White State | South Platte | Praints Water System | Information | South Platte | Praints | Prain

14

AURORA

Page 2

This page contains definitions & information about specific contaminants.

It also has an important box on how citizens can get involved.



15

GET INVOLVED

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시요

Page 2

This page starts the reporting of the regulated compounds.

We test for many more compounds but since they are not detected, we do not report them. The Quality Control Lab does about 85,000 tests each year.



Our 2022 Water Quality Report is an EPA-mandated disclosure of our 2021 performance. If you have any questions or need more information, visit our website at AuroraWater.org. DETECTED CONTAMINANTS

Page 2

Continued reporting of the regulated compounds.

In addition, we report some items customers regularly call about. These are usually inquiries about how to treat the water for fish tanks or making other beverages.

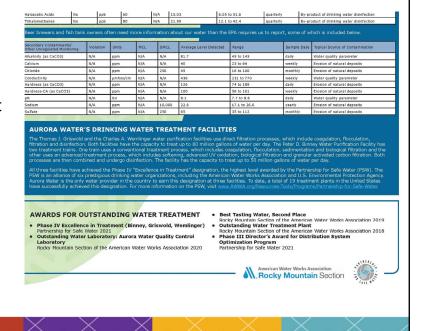




17

Page 2

Finally, we have a section talking about our treatment facilities and awards.





Lead and Copper Rule Revisions (LCRR)

The Lead and Copper Rule was revised by EPA with an effective date of October 16, 2024. The inventory of service lines should be completed prior to this date.

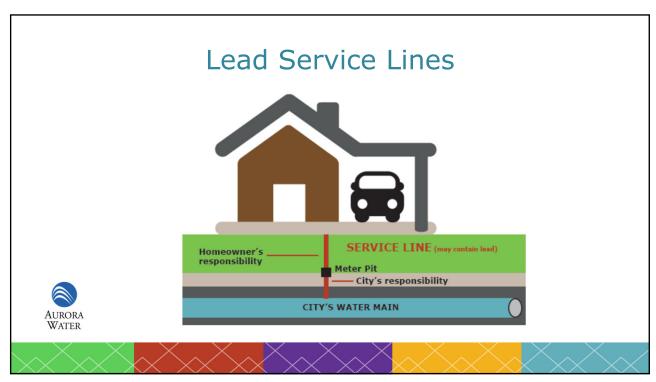


19

Lead

- Lead is not in our source water.
- It comes from premise plumbing.
- Even though the rule includes copper, we don't have to worry about excessive amounts in customer's taps in Aurora.
- We proactively treat the water to control corrosion in the distribution system.





21

Lead and Copper Sampling

- New requirement to take five 1-liter samples instead of just one.
- The 1st liter will be tested for copper and the 5th tested for lead.
- In order to insure we were compliant, we decided to start in 2021 with this format of sampling.
- We also felt it might help us understand which houses had lead service lines.



2021 PROACTIVE Lead & Copper Sampling

- Two targeted social media posts
- 169 Face-to face front door conversations
- 670 Flyers put on doors
- 5797 Postcards mailed

Only 217 households participated in sampling or



3% of those reached. We also offered a \$50 gift card.

23

Lead Results for 2021

1013 Samples Analyzed

930 samples have results less than 1 ug/L (ppb)

83 samples have results greater than 1 ug/L

Highest result is 8.53 ug/L



90th percentile level is 1.44 ug/L

Inventory of Lead Service Lines

- Evaluating houses older than 1954
- The older area of Aurora, where the majority of houses built before 1954 are located, was identified as the area where lead service lines could be present.
- The majority of addresses are between 6th Ave and 25th Ave and east to west from Yosemite to Potomac.



25

Inventory of Lead Service Lines

- LCRR definition of a "lead service line":
 - Galvanized service lines that are, or were formerly, downstream of any lead pipes will be classified as "galvanized requiring replacement or GRR". Service lines of undocumented materials, that could potentially be lead, for example, installed prior to any local or federal lead ban, will be classified as "lead status unknown". In addition to the traditional lead service line, both the "galvanized requiring replacement" and the "lead status unknown" lines will count as lead service lines in a water system's inventory.



Inventory of Lead Service Lines

The inventory, when complete, must be placed on Aurora's website along with instructions on how to use the map and information. An annual notification to all customers (renters AND owners) with lead, galvanized and unknown service lines will be required until the line is removed or verified.



27



Inventory of Lead Service Lines

- Starting in 2018, approximately 6220 homes have been identified that may have lead service lines (LSL).
- Ongoing efforts have resulted in evaluating 1220 customer-side lines.
- 390 galvanized lines requiring replacement and 43 lead service lines have been located.
- Out of the 43 LSL's identified on the customer side, 25 of them have been replaced.



29

Inventory of Lead Service Lines

- The Transmission & Distribution section of Aurora Water is currently removing Clark yokes from several meters throughout the older part of Aurora which, in some instances, allows for SL material identification to take place.
- If lead is identified, we work with the customer to remove the SL and pair that removal with city-side removal if required.
- This information will be entered into the GIS database.



Inventory Data

	Confirmed GRR	Confirmed Remaining LSL	Not Lead	Potential Remaining LSL or GRR
Aurora Side	81	removed when found	85,000	~5,524
Customer Side	390	18	84,797	~5,400



31

Lead Sampling in Schools

- The new rule requires sampling of all elementary (K-8) schools and daycares.
- This sampling is to occur at a rate of 20% per year such that sampling would be complete in 5 years.
- There is a publicly available list of licensed daycares and at last count, there were approximately 400 daycares listed in Aurora.



Lead Sampling in Schools

- The sample load for the school and daycares is expected to be about 400 samples per year based on the number of schools and required samples per school.
- Sample results and public education are required to be provided to the schools.



33

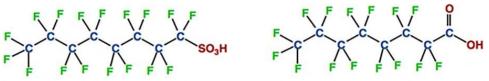
PFAS

Per- and Polyfluoroalkyl substances (PFAS) or "forever chemicals" are a group of manufactured (manmade) chemicals that have been used in industrial and consumer products since 1940s



PFAS

- Most common PFAS compounds are Perfluorooctanoic Acid (PFOA) and Perfluorooctanoic Sulfonate (PFOS) but are being phased out of production in the U.S. because of their risks
- Most PFAS compounds (including PFOA and PFOS) have a strong carbon-fluorine bond that allows them to build up and accumulate for decades instead of break down





PFOS - perfluorooctanesulfonic acid

PFOA - perfluorooctanoic acid

35

Where are PFAS Commonly Found? PFAS PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES RAINCOATS RAINCOATS NONSTICK CARE PRODUCTS RETARDANT FOAMS AURORA WATER WATER

Health Impacts of PFAS Exposure

The impacts have not been completely studied but there is evidence to show:

- PFAS can harm our heart, liver, reproductive, and renal systems
- An excess of PFAS can cause higher risks for cancer
- Exposure to high levels of PFAS can diminish the immune system and impact the antibody response to vaccines
- Increased risk of pre-eclampsia and high blood pressure during pregnancy as well as decreased infant birth weight



37

Health Based Guidelines

- 2016 EPA health advisory for PFOS and PFOA
 - Health advisory limit was set at 70 parts per trillion (ppt) for the two compounds combined. This is not an MCL (maximum contaminant level) or enforceable drinking water standard.
- PFAS Narrative Policy 20-1
 - Water quality control commission adopted CDPHE's proposed PFAS narrative policy.
 - Maintains levels described above.



PFAS in Colorado

PFAS contamination of drinking water sources in El Paso, Boulder, and Adams counties is from AFFF

- House Bills 19-1279 and 20-1119
 - Creates laws on the use, storage, distribution, and certification of firefighting foam containing PFAS chemicals
- Senate Bill 20-128
 - Collects fees from fuel transport to fund CDPHE's study of PFAS



39

Aurora Data on PFAS

- All values have been below 70ppt:
 - Source water values for PFOA+PFOS from North Campus have been from 20-30ppt.
 - Finished water values have been non-detectable to 7ppt.
- Binney has pro-actively worked with their pilot plant to determine how to optimize PFAS removal.





STEP 02 EVALUATION EPA then makes a decision on whether they should start the rulemaking process to develop a national primary drinking water regulation (NPDWR) for a specific contaminant based on three criteria: **HEALTH RISK** HIGH OCCURRENCE REDUCTION OF RISK The contaminant may The contaminant is known to In the sole judgment of the have an adverse effect occur or there is a high chance Administrator, regulation of on a person's health. that the contaminant will the contaminant presents a occur in public water systems meaningful opportunity for often enough and at levels of health risk reductions served public health concern. by public water systems.



43



Unregulated Contaminant Monitoring Rule 5 (UCMR5)

- In evaluating contaminants for UCMR 5, EPA considered the fourth Contaminant Candidate List (CCL 4) as well as contaminants nominated by the public for potential inclusion on the fifth CCL5 and other priority contaminants.
- In addition, the National Defense Authorization Act for Fiscal Year 2020 (NDAA) specifies that EPA shall include all PFAS in UCMR 5, for which a drinking water method has been validated by the Administrator and that are not subject to an NPDWR. Accordingly, UCMR 5 includes all 29 PFAS that are within the scope of EPA Methods 533 and 537.1, as well as lithium.



45

UCMR5

- The UCMR5 requires analysis of 29 PFAS compounds plus lithium.
- Aurora will be starting the required sampling and analysis in January of 2023 and take samples for four quarters.
- EPA says they will be publishing a rule for PFAS by the end of 2022 (before sampling occurs).



IPR Indirect Potable Reuse Aurora Water

IPR Prairie Waters Multi-Barrier Purification Approach Aurora has embraced indirect potable reuse since Prairie Waters came online in Riverbank filtration extracts water from alluvium, and removes nitrate, pathogens, and trace organic chemicals in about 10 days of travel time. 2010 as an indirect potable reuse system (IPR). The multi-barrier treatment employed in Chemical softening reduces hardness, calcium, manganese, iron, and scaling potential. the system include: Riverbank Filtration and Aquifer Recharge and Recovery High intensity UV light combined with hydrogen peroxide oxidizes remaining trace organics. followed by technical treatment processes like softening, UVAOP (Ultra-violet Granular filters remove remaining particles and pathogens. advanced oxidation process) and GAC (granular activated carbon) Granular activated carbon adsorbs remaining trace organics and improves taste. AURORA WATER

DPR

Direct Potable Reuse



49

DPR

- CDPHE and a stakeholder group have created a regulation for directly using wastewater.
- Many types of treatment are required in order to ensure the treatment is effective and renders a safe product for consumers.
- This is the same multibarrier approach used in IPR.
- School of Mines and Colorado Springs hosted a demonstration trailer for the community.
- Aurora Water will use at Sand Creek WRF



- Pilot treatment facility



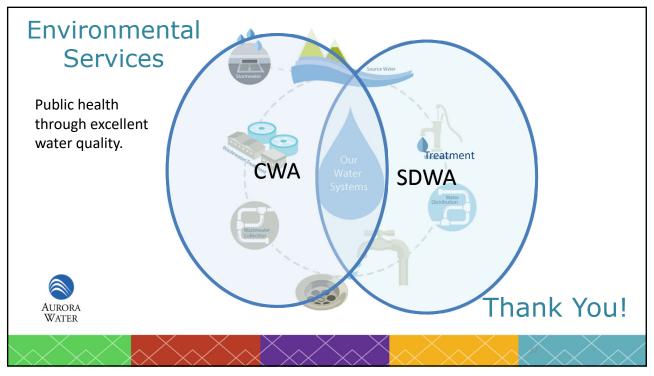


MS4 Management

- MS4 Municipal Separate Storm Sewer System
- 7 Inspectors and 1 Supervisor are responsible for:
 - insuring construction sites are protecting our storm water channels.
 - MFRCP (Municipal Facility Run-off Control Plan) inspections.
 - private and city owned pond inspections.
 - grease and sand trap inspections.
 - spill investigation and sanitary sewer overflow investigation and reporting.



51



Mayor and Members of Aurora City Council 15151 East Alameda Parkway Aurora, CO 80012

Honorable Mayor and Members of Council:

The Citizens' Water Advisory Committee (CWAC) wishes to express its support for Mayor Coffman's proposed Water Conservation Ordinance that prohibits the use of nonfunctional turf in new development. Having closely followed the challenges faced by municipalities that are highly dependent upon the Colorado River, as well as multiple years of drought across the state of Colorado, CWAC believes that prudent and sustainable action must be taken to ensure that Aurora can continue to grow in a responsible and affordable way. This ordinance provides a path to meet the water needs for that growth well into the future.

CWAC was instrumental in a public engagement effort on nonfunctional turf in 2021 and 2022 through the city's online platform, EngageAurora. This effort informed community members about Aurora Water's vast delivery system, robust conservation efforts and stresses placed on water providers across the arid west. The closing survey for this effort demonstrated substantial support for the prohibition of nonfunction aesthetic turf.

The committee has also monitored efforts by other western states to protect their communities from water shortages during times of extreme crisis and encourages the Aurora City Council to accept proactive measures such as this proposed ordinance to help protect the current residences and businesses, while allowing for the needs of future development.

Aurora has always been a leader in Colorado in responsible water management. We thank you for your continued leadership and stewardship on water issues.

Sincerely,

Angie Binder, **Chair** Richard Eason – **Vice-Chair**

Members

Jay CampbellTom CokerDennis DechantWilliam GondrezJanet MarlowDavid Patterson

Daniel Widish