

CITIZENS' WATER ADVISORY COMMITTEE (CWAC) AGENDA

November 10, 2020, 6:00 p.m.

Webex

Public Participation through call in number (listen only)

1-720-650-7664

Access code: 146 311 7675

Members: Janet Marlow-Chair, Tom Coker-Vice Chair, Angie Binder, Jay Campbell, Richard Eason,
William Gondrez, David Patterson

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|--|-----------------------|-----------|
| 1. Approval of Minutes September 8, 2020 | 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 | Jo Ann Giddings | 6:20 p.m. |
| 6. COVID Testing in Wastewater | Sherry Scaggiari | 6:35 p.m. |
| 7. Godfrey Ditch Project | Dan Gallen | 6:50 p.m. |
| 8. Environmental Education & Outreach Annual Report | Natalie Brower-Kirton | 7:05 p.m. |
| 9. 2020 Application & Interview Process | Greg Baker | 7:30 p.m. |
| 10. Reminder - Chair/Vice-Chair Election in January | Greg Baker | 7:35 p.m. |
| 11. Review Tentative 2021 Meeting Dates/Times | Greg Baker | 7:40 p.m. |
| 12. Review Follow-Up Questions Generated at this Meeting | Chair | 7:45 p.m. |
| 13. Adjourn | Chair | 7:50 p.m. |

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CITIZENS' WATER ADVISORY COMMITTEE (CWAC) MINUTES

September 8, 2020, 6:00 p.m.

Members Present: Janet Marlow (Chair), Tom Coker (Vice-Chair), Jay Campbell, Richard Eason, David Patterson, Angie Binder

Absent: William Gondrez

Staff Present: Dan Mikesell, Sean Lieske, Greg Baker, Andrea Long, Rory Franklin, Sandy Moore, Swirvine Nyirenda, Elizabeth Roberts

Visitors Present: None.

The meeting was called to order at 6:01 p.m.

1. Approval of Minutes –July 14, 2020

The July 14, 2020 minutes were approved.

2. Introductions/Public Invited to be Heard

None.

3. New/Old Business

None.

4. Communications Update

G. Baker stated, he has added the CWAC group in forwarding all articles released regarding Aurora Water. He also discussed the Denver Post article that was recently released pertaining to the Whitney Reservoir. He reached out to the writer to request corrections and will follow-up.

G. Baker also explained that The Examiner is a new online publication who may publish future articles on water.

5. Council Budget Presentation Recap

J. Marlow reviewed the annual CWAC budget to City Council via WebEx. Through the course of the discussion Council Member Gruber asked, if the committee was concerned about the availability of water to meet growth? J. Marlow responded, that she felt comfortable that we are meeting growth at this point.

Mayor Coffman also wanted follow-up regarding the Denver Post Whitney Creek article during the budget overview. M. Brown responded, that he would bring an update to Council on the status of the Eagle River Memorandum of Understanding which references Whitney Creek. G. Baker stated, he would do the same for CWAC.

6. PFAS Regulation Update

S. Lieske provided an update on a new policy from the Water Quality Commission concerning the Perfluorooctanoic Acid (PFOA) and the Perfluorooctane Sulfate (PFOS) man-made chemicals. S. Lieske gave a brief background on the PFOA and PFOS chemicals and how they are a huge pollutant to the environment. He went on to explain that the new policy, Policy 20-1, was created by the Water Quality Commission and will require sampling discharge water for the compounds. Because of the new policy, he expects there will be new legislation to follow.

D. Eason asked, are we able to process the samples in our own laboratories? S. Lieske responded by stating that unfortunately, we do not have the analytical capabilities to test for these compounds in-house and will have to send the samples out to private labs for evaluation.

7. Quincy Reservoir Water Quality Update

S. Lieske presented an update on Quincy Reservoir. In his explanation, he informed the committee that there was still a comprehensive study in progress to determine what will happen with Quincy Reservoir long-term. Meanwhile, there are measures being taken to treat the reservoir for ongoing water quality issues related to a toxic bloom of blue-green algae. In the short-term, Hydrogen Peroxide has been added to the reservoir to kill the toxic algae both in 2019 and 2020, which has helped in the interim while searching for a more long-term solution. In October, there will be an aluminum sulfide treatment to the reservoir that will prevent the algae from returning for five to ten years. While the aluminum sulfide treatment is being injected into the reservoir, it will need to be closed for approximately two weeks.

R. Franklin stated, that because the reservoir is a public amenity, public outreach will be necessary. There will be signage on the entrances explaining the closures, mailers will be sent to residents within a five-mile radius, a public notice will be posted through the Aurora Sentinel, and informational fliers will be available at the reservoirs main entrance. The purpose of the outreach is to inform the public about the ongoing issues with Quincy Reservoir and the reasoning behind the two-week closure.

8. First Creek Interceptor System

A. Long gave a presentation of the Aurora Water sanitary system and the purpose and goals of the First Creek Interceptor System. The primary goal of the First Creek Interceptor System is increasing the capacity for the First Creek Basin with the added benefit of eliminating the need for

lift stations which can be costly to maintain and upgrade. The First Creek Interceptor System will be a gravity system that flows northeast toward Metro Wastewater Reclamations Districts (MWRD) northern treatment plant. The timeline is aggressive with the hope of going live by 2024. This new system will allow for continued growth throughout the City because of the increased capacity.

D. Eason asked, do we need to obtain additional right-of-way's, or is this within existing right-of-way's? A. Long stated, that we will need to obtain land acquisition easements because the project will entail going through businesses and private properties.

A. Binder asked, if the current Hite Metro plant is at capacity? And if that is why they built a new facility? A. Long stated, that she was unsure about why the new facility was built but surmised that it was likely for growth and to free up space at their original facility. D. Mikesell added, that by moving flows from the northern plant, it will defer costs that are happening at the Hite facility. The new facility will also be able to handle more flows from the northeast area including: Denver, Aurora, Commerce City, Brighton, and South Adams County.

9. Proposed Half-Day Committee Workshop

G. Baker asked, if a half-day workshop with more in-depth presentations, including: rates, water leases and water acquisitions, would be something the committee might be interested in since the water tour was cancelled this year? He also stated, it would be an outdoor activity to ensure everyone's safety, possibly at the Aurora Reservoir.

J. Campbell and D. Eason both approved. G. Baker requested the committee submit a few dates so he can coordinate a day and time.

A. Binder suggested a presentation of the drought. G. Baker stated there will be a very in-depth presentation on and about drought for the October CWAC meeting.

J. Marlow requested making a trip to Binney if that was still a possibility. G. Baker replied, that he would like to discuss with D. Mikesell and his staff to see if that was something they would be comfortable with. D. Mikesell added, the timing will be a key factor as the facility closes the second week of October. He stated that he would coordinate with G. Baker to see if they could come up with a good date before the closure otherwise there will be virtually no processes to see.

10. Review Follow-Up Questions at this Meeting

None.

11. Confirm Next Meeting

The next regular meeting will be held Tuesday, October 13, 2020, remotely via WebEx.

12. Adjourn

The meeting was adjourned at 6:57 p.m.


Janet Marlow, Chair
Citizens' Water Advisory Committee

Submitted by Sandy Moore
Administrative Specialist, Aurora Water

Adopted: _____



To: Citizens' Water Advisory Committee

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

From: JoAnn Giddings, Deputy Director Water Financial Administration _____

Date: November 10, 2020

Subject: Quarterly Financial Report –Third Quarter September 2020

Highlights

Combined operating revenues (Water, Sewer, and Stormwater): Through the third quarter were 5.7% higher than plan and 8.5% higher than through the third quarter of 2019. The increase from 2019 is due to customer growth, a very dry spring and summer, and the approved 4% sewer rate increases implemented in 2020.

Combined Development revenues (Water, Sewer, and Stormwater) in the third quarter of 2020 were 19% higher than plan and 50% higher than for the same period in 2019.

Staff is continuing to monitor the revenue collected during this uncertain time. Customers have continued to make payments on their accounts, although at a slower rate than in past years.

Operating expenses (Water, Sewer and Stormwater combined), excluding debt service, are under plan by \$7.7 million or 8.1 percent. This variance is mainly driven by lower than anticipated expenses in Supplies and Services due to the timing of Professional & Technical Services, as well as lower than anticipated Utilities for Homestake electricity costs. Operating expenses, excluding debt service, were higher than 2019 (same period) by \$0.7 million or 0.8 percent. The debt service is lower due to a prepayment made in 2019. Statements showing the budget to actual results and the year to year comparison can be found at the end of this memo on pages 8 and 9. Capital details can be found on pages 5 and 6.

Water, Sewer, and Stormwater as of End of Third Quarter					
Item	YTD Plan	2020	2019	Q3 2020 vs YTD Plan	Year Over Year Difference
Operating Revenue	\$155,595,050	\$164,422,672	\$151,576,519	\$8,827,622	\$12,846,153
Development Revenue	37,065,098	44,210,690	29,497,731	7,145,592	14,712,959
Bond Proceeds and Restricted Assets	0	0	0	0	0
Interest Income	1,991,385	3,799,086	4,466,236	1,807,701	(667,150)
Total Revenue	\$194,651,533	\$212,432,448	\$185,540,486	\$17,780,915	\$26,891,962
Operating Expense	(\$95,221,929)	(\$87,512,458)	(\$86,845,887)	(\$7,709,471)	\$666,571
Capital Projects	(90,615,504)	(109,725,441)	(56,697,109)	19,109,937	53,028,332
Debt Service	(22,685,820)	(23,628,940)	(67,253,206)	943,120	(43,624,266)
Total Expense	(\$208,523,253)	(\$220,866,839)	(\$210,796,202)	\$12,343,586	\$10,070,637

Cash Balances

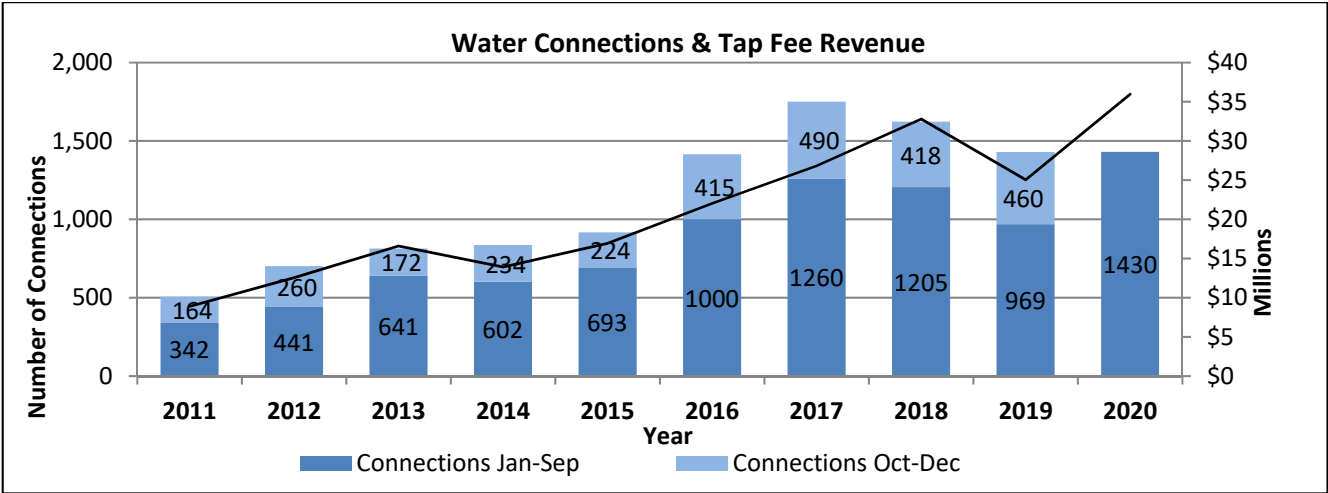
Total cash in the Water Fund decreased in the Third quarter by \$23.3 million. The decrease is associated with purchases of water rights. Total cash in the Wastewater Fund increased by \$300 thousand in the third quarter. Reserves detail and cash balances are shown in table below.

	Water	Wastewater
Total Cash	\$168.7M	\$84.3M
Reserve & Commitment Type		
Debt Service Policy Reserve (next fiscal year debt payment)	\$22.9M	\$3.3M
Operating Reserve (25% of adopted operating budget excl debt service)	\$17.3M	\$14.5M
Water Resources Reserve (\$20 Million)	\$20.0M	
Capital Reserve (0.5% of Net Fixed assets)	\$8.8M	\$3.0M
Capital and Operating Encumbrances	\$90.7M	\$27.9M
TOD Incentive Program*	\$2.2M	
Pass-Thru Commitments (METRO and CC Basin)		\$3.7M
WISE Liability to Denver Water	\$5.0M	
Loan Proceeds for SEAM		\$6.6M
Total Reserves and Commitments	\$166.8M	\$58.9M
Cash after Reserves & Commitments	\$1.8M	\$25.3M

* \$1.0M of the TOD Incentive has been approved and waiting for Developer to submit building permit

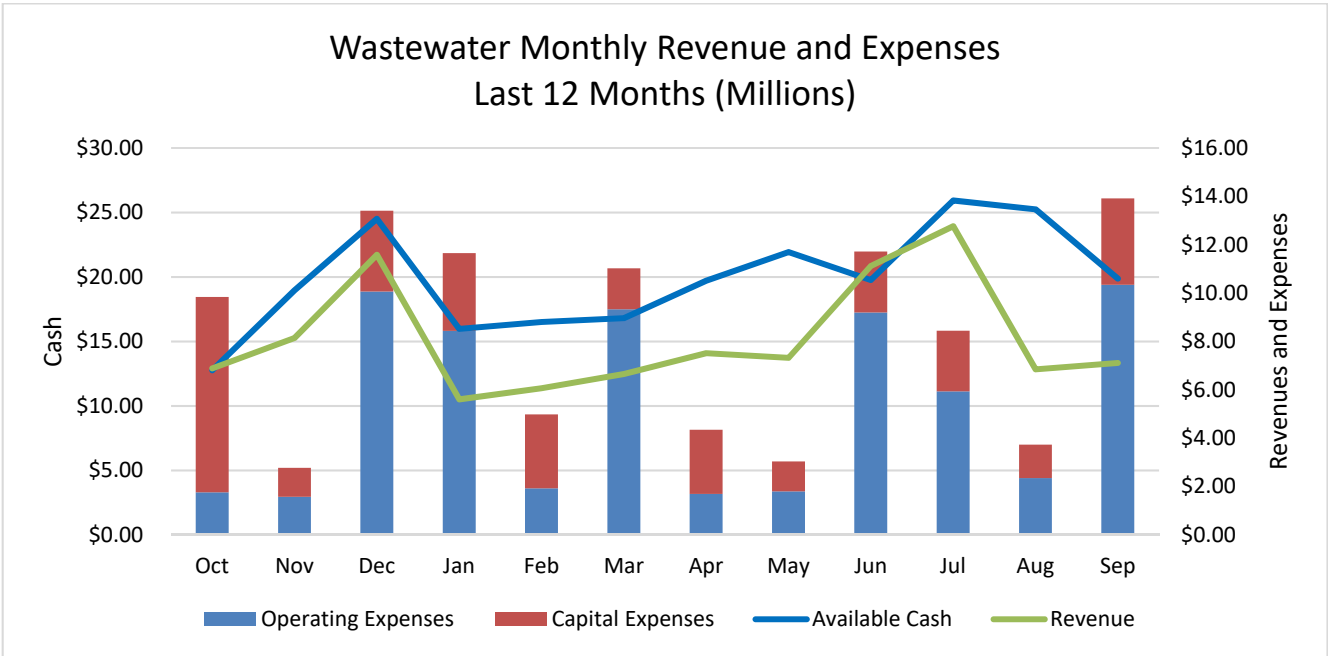
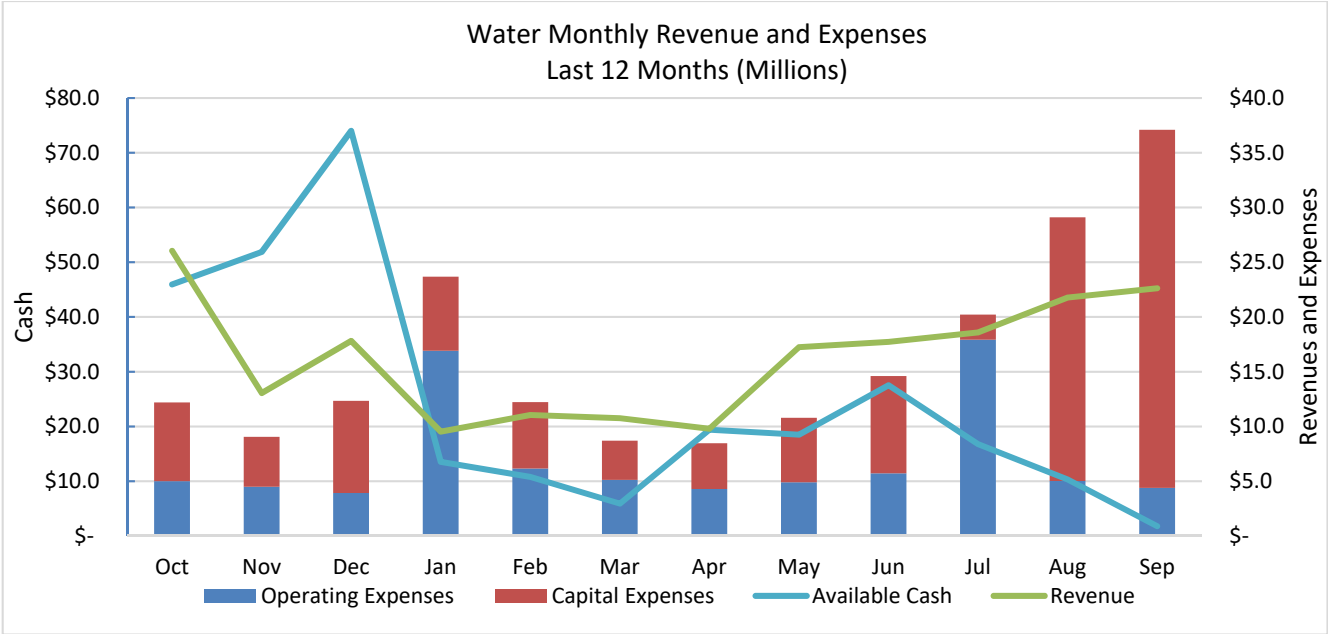
Water Connections

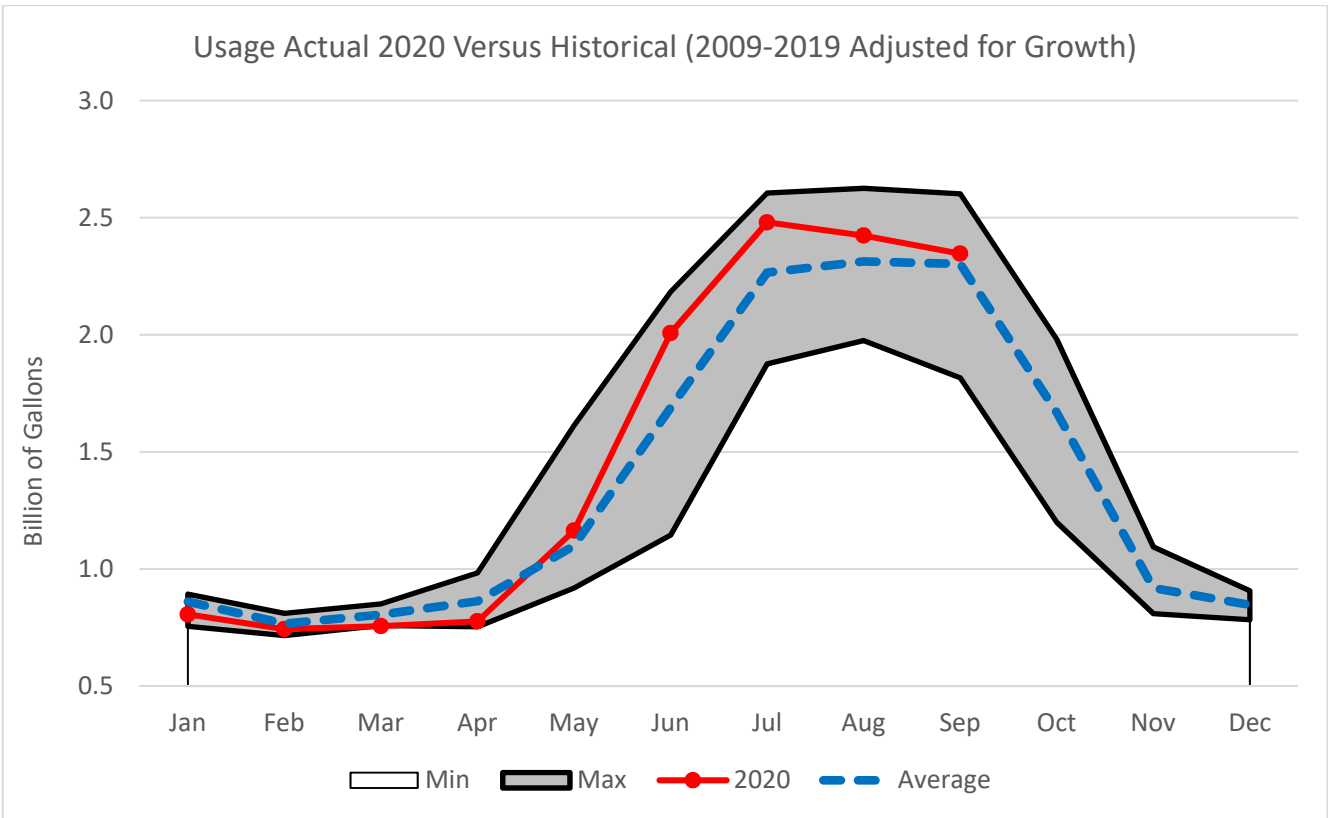
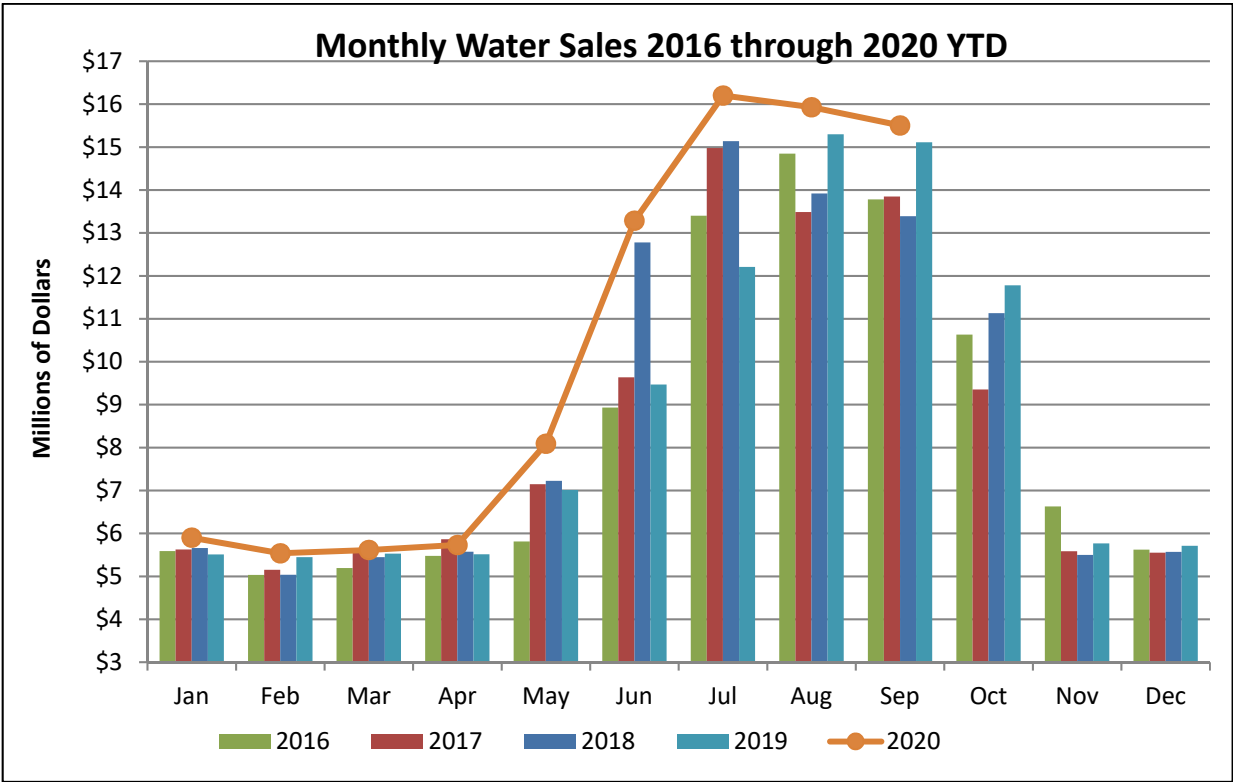
Total number of water connections (single family, commercial, irrigation and multifamily) and the corresponding Water Connection Fee revenue for 2011-2020 are shown on the following graph. The number of water connections through the third quarter of 2020 increased by 461 connections or 48 percent compared to the same period in 2019. Total water connection fee revenues through the third quarter of 2020 were \$10.9 million (44 percent) higher than through the third quarter of 2019. The overall growth due to development is still above the ten-year average. Development in the City through September of 2020 has not seen any downturns due to COVID-19.



2020 Revenue, Expenses and Cash Flow

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





Usage adjusted for the growth in accounts has been above the 10-year average in the months of May through September. Usage in the winter months was below average which reflects the observed trend of more efficient indoor usage. April was below average and close to historical minimums this reflects the reduced usage during the lockdown in the commercial class.

Overall Capital Plan

Capital Projects Spending as of 09/30/2020

Program	Working Budget*	YTD Spending Plan	YTD Actual Spend	Encumbered**
<u>Water CIP</u>				
Operations & General Management	36,155,195	1,967,809	4,581,902	16,149,879
Pumping	9,885,614	6,474,897	5,095,652	7,460,689
SOS Other	30,543,389	9,345,396	2,701,710	3,827,725
SOS Storage	36,929,781	10,571,037	830,960	6,839,802
SOS Water	39,413,614	51,158,879	49,210,185	13,337,248
Transmission & Distribution	39,719,845	25,399,196	9,347,888	17,568,585
Treatment	45,905,646	25,290,765	17,763,540	19,955,367
Water Total	238,553,084	130,207,979	\$89,531,837	\$85,139,295
<u>Sewer CIP</u>				
Collection	19,591,866	13,964,642	6,098,340	9,338,677
Operations & General Management	17,448,758	1,367,723	1,889,501	10,409,958
Sewer Total	\$37,040,624	\$15,332,365	\$7,987,841	\$19,748,635
<u>Stormwater CIP</u>				
Stormwater	49,465,335	23,159,629	11,558,733	18,495,354
Operations & General Management	5,293,116	636,029	647,031	3,295,251
Stormwater Total	54,758,451	\$23,795,658	\$12,205,764	\$21,790,605
Wastewater Total	91,799,075	\$39,128,022	\$20,193,605	\$41,539,240
Water & Wastewater Total	\$330,352,159	\$169,336,002	\$109,725,442	\$126,678,535

*Working budget includes adopted budget, carry forward, transfers, lapsed appropriations, and supplementals.

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

Total capital spending in the Water Fund through the third quarter was \$89.5 million, which was \$40.7 million less than the year-to-date spending plan of \$130.2 million. This is due to timing differences of anticipated spending. The New Transmission & Distribution Water Main project is \$9.9 million less than planned. This variance is due to property acquisition issues related to a new 60" water main at 6th Ave and Colfax being split into two sections which delayed construction until the first quarter of 2021. The Griswold Water Plant Renovation project is \$9.7 million less than planned. This variance can be attributed to the Surge Tank construction being delayed until 2021 due to design taking more time than anticipated. In addition, the Source of Supply – Storage program is under plan by \$9.7 million due to timing issues that delayed the project for a feasibility study at Wild Horse Reservoir and land acquisition at Clare South Platte Storage. Many of the projects in the Water Fund are encumbered and spending is expected to continue to increase. Current Water Fund encumbrances are \$85.1 million.

Through the third quarter, total capital spending in the Wastewater Fund was \$20.2 million, which was \$18.9 million less than the spending plan of \$39.1 million. There are also timing differences of anticipated spending in the Wastewater Fund. The largest variance occurred within the Stormwater program. The Fitzsimmons Peoria Stormwater Outfall Project was \$4.6 million less than plan. This can be attributed to less expenditures than anticipated for phase 4 of the project. In the Collection program, reimbursements were \$2.8 million less than plan due to the Green Valley Ranch Sewer Interceptor Reimbursement being moved to the first quarter of 2021 from 2020. In addition, Interceptor Rehab is underspent by \$3.0 million due to timing issues related to the Cured-in-Place-Pipe (CIPP) at 33rd Place and 30th Ave.

Capital Improvement Project of the Quarter Tollgate Creek Stream Restoration

The Tollgate Creek Stream Restoration project originated out of a channel aggradation study initiated by Aurora Water in 2015. Aggradation occurs when sediment is deposited in stream corridors and can cause rise in the floodplain. This study evaluated channels within the City of Aurora and identified East and West Tollgate Creek around Chambers Road and First Street as high priority reaches in need of rehabilitation. Design and permitting occurred over the next several years to improve the floodway and overall stormwater conveyance in the identified reaches. Upon approval of plans and permitting, the project moved into the construction phase in early 2019 and is now nearing completion.

In addition to improving the functionality of the stream network, this project will also be followed by a Letter of Map Revision (LOMR). The LOMR will change the Federal Emergency Management Agency (FEMA) Floodplain and ultimately remove 17 structures, consisting of 39 dwelling units, from the floodplain.



The following table present a comparison of budget to revenues and expenses through the third quarter for year 2020.

WATER as of 09/30/2020				
Revenues & Expenses	Working Budget*	YTD Plan	YTD Actual (Accrual Basis)	% Actual to Plan
Operating Revenue	\$128,634,325	\$100,817,051	\$109,362,783	8%
Development Revenue	46,217,956	30,802,982	36,581,957	19%
Bond Proceeds and Restricted Assets	-	-	-	0%
Interest Income	2,118,180	1,588,635	2,671,413	68%
Total Revenue	\$176,970,461	\$133,208,668	\$148,616,153	12%
Operating Expense	(\$73,842,817)	(\$53,567,342)	(\$46,136,024)	-14%
Capital Projects	(238,553,085)	(130,207,979)	(89,531,836)	-31%
Debt Service	(20,373,574)	(19,537,368)	(20,386,050)	4%
Total Expense	(\$332,769,476)	(\$203,312,689)	(\$156,053,910)	-23%
Net Revenue & Expense	(\$155,799,015)	(\$70,104,021)	(\$7,437,757)	
SEWER as of 09/30/2020				
Operating Revenue	\$51,253,967	\$37,577,406	\$36,638,293	-2%
Development Revenue	7,140,141	4,762,113	6,528,530	37%
Bond Proceeds and Restricted Assets	0	0	0	0%
Interest Income	520,360	299,997	664,230	121%
Total Revenue	\$58,914,468	\$42,639,516	\$43,831,053	3%
Operating Expense	(\$45,017,310)	(\$32,259,083)	(\$32,892,673)	2%
Capital Projects	(37,040,624)	(15,332,365)	(7,987,841)	-48%
Debt Service	(2,272,759)	(2,257,668)	(2,286,064)	1%
Total Expense	(\$84,330,693)	(\$49,849,116)	(\$43,166,578)	-13%
Net Revenue & Expense	(\$25,416,225)	(\$7,209,600)	\$664,475	
STORMWATER as of 09/30/2020				
Operating Revenue	\$22,934,112	\$17,200,593	\$18,421,596	7%
Development Revenue	2,000,000	1,500,003	1,100,203	-27%
Bond Proceeds and Restricted Assets	0	0	0	0%
Interest Income	137,000	102,753	463,443	351%
Total Revenue	\$25,071,112	\$18,803,349	\$19,985,242	6%
Operating Expense	(\$13,972,695)	(\$9,395,504)	(\$8,483,761)	-10%
Capital Projects	(54,758,451)	(23,795,658)	(12,205,764)	-49%
Debt Service	(901,310)	(890,784)	(956,826)	7%
Total Expense	(\$69,632,456)	(\$34,081,946)	(\$21,646,351)	-36%
Net Revenue & Expense	(\$44,561,344)	(\$15,278,597)	(\$1,661,109)	

*Working budget includes adopted budget, carry forward, transfers, lapsed appropriations, and supplementals.

The following table presents a comparison of revenues and expenses through the third quarter for years 2020 and 2019.

Year-to-date Comparison to Prior Year (Water, Sewer and Stormwater)			
WATER Third Quarter Comparison			
Revenues & Expenses	2020	2019	% Change
Operating Revenue	\$109,362,783	\$100,042,163	9%
Development Revenue	36,581,957	25,419,230	44%
Interest Income	2,671,413	3,241,883	-18%
Total Revenue	\$148,616,153	\$128,703,276	15%
Operating Expense	(\$46,136,024)	(\$46,739,897)	-1%
Capital Projects	(89,531,836)	(44,128,528)	103%
Debt Service	(20,386,050)	(64,068,538)	-68%
Total Expense	(\$156,053,910)	(\$154,936,963)	1%
Net Revenue & Expense	(\$7,437,757)	(\$26,233,687)	
SEWER Third Quarter Comparison			
Operating Revenue	\$36,638,293	\$34,989,139	4.7%
Development Revenue	6,528,530	3,560,469	83%
Interest Income	664,230	724,490	-8%
Total Revenue	\$43,831,053	\$39,274,098	12%
Operating Expense	(\$32,892,673)	(\$32,557,137)	1%
Capital Projects	(7,987,841)	(6,100,855)	31%
Debt Service	(2,286,064)	(2,284,357)	0%
Total Expense	(\$43,166,578)	(\$40,942,349)	5%
Net Revenue & Expense	\$664,475	(\$1,668,251)	
STORMWATER Third Quarter Comparison			
Operating Revenue	\$18,421,596	\$16,545,217	11%
Development Revenue	1,100,203	518,032	112%
Interest Income	463,443	499,863	-7%
Total Revenue	\$19,985,242	\$17,563,112	14%
Operating Expense	(\$8,483,761)	(\$7,548,853)	12%
Capital Projects	(12,205,764)	(6,467,726)	89%
Debt Service	(956,826)	(900,311)	6%
Total Expense	(\$21,646,351)	(\$14,916,890)	45%
Net Revenue & Expense	(\$1,661,109)	\$2,646,222	



To: Citizens' Water Advisory Committee

Through: Marshall Brown, General Manager, Aurora Water
Dan Mikesell, Director of Operations, Aurora Water

From: Sherry Scaggiari, Environmental Compliance Principal

Date: November 10, 2020

Subject: COVID Testing in wastewater

Background

This presentation will provide information regarding tracking wastewater samples for COVID-19 in Aurora and across the state. The projects are in the beginning stages of analysis, but epidemiologists hope to use the data to track spikes in COVID-19 cases.

Action

Informational item only. No action required.

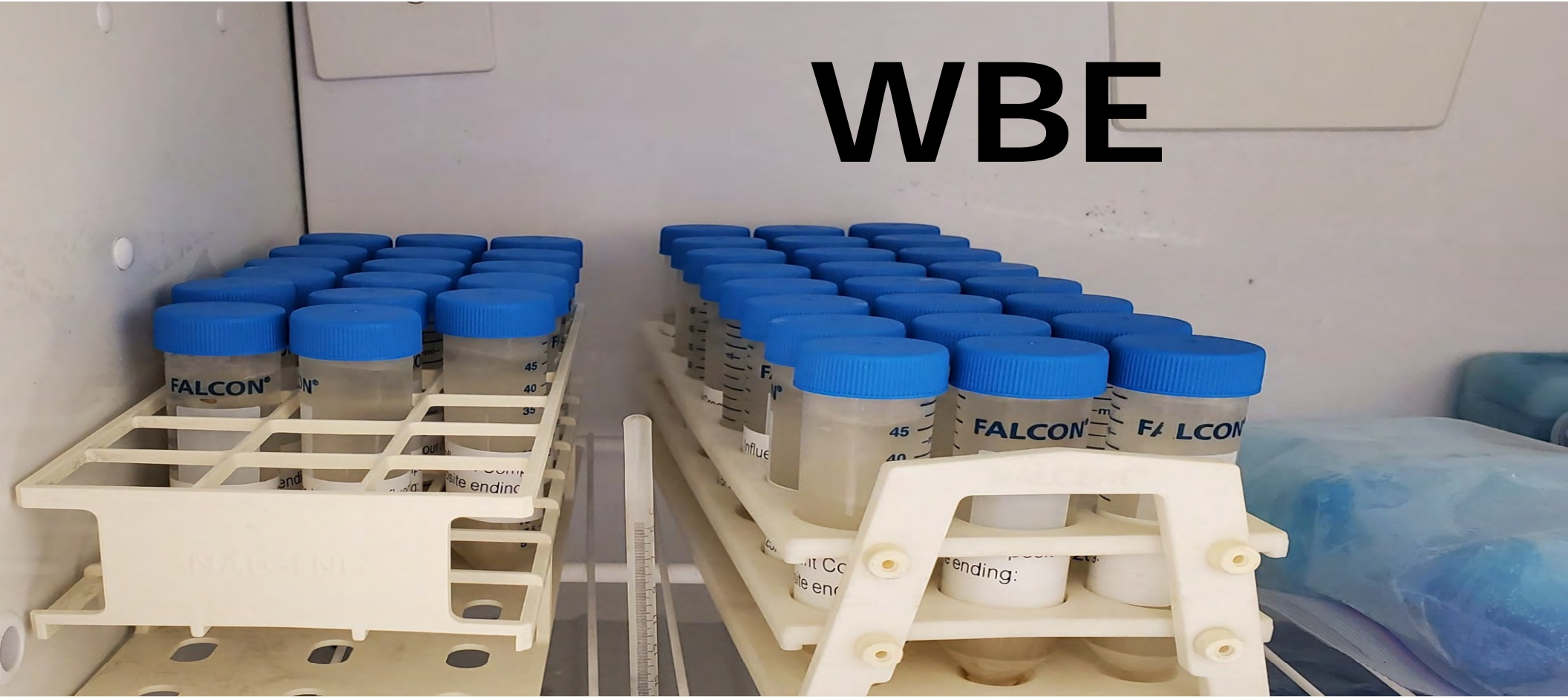
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Sherry Scaggiari,
Environmental Compliance Principal, Environmental Services
Aurora Water



WBE



Wastewater-Based Epidemiology

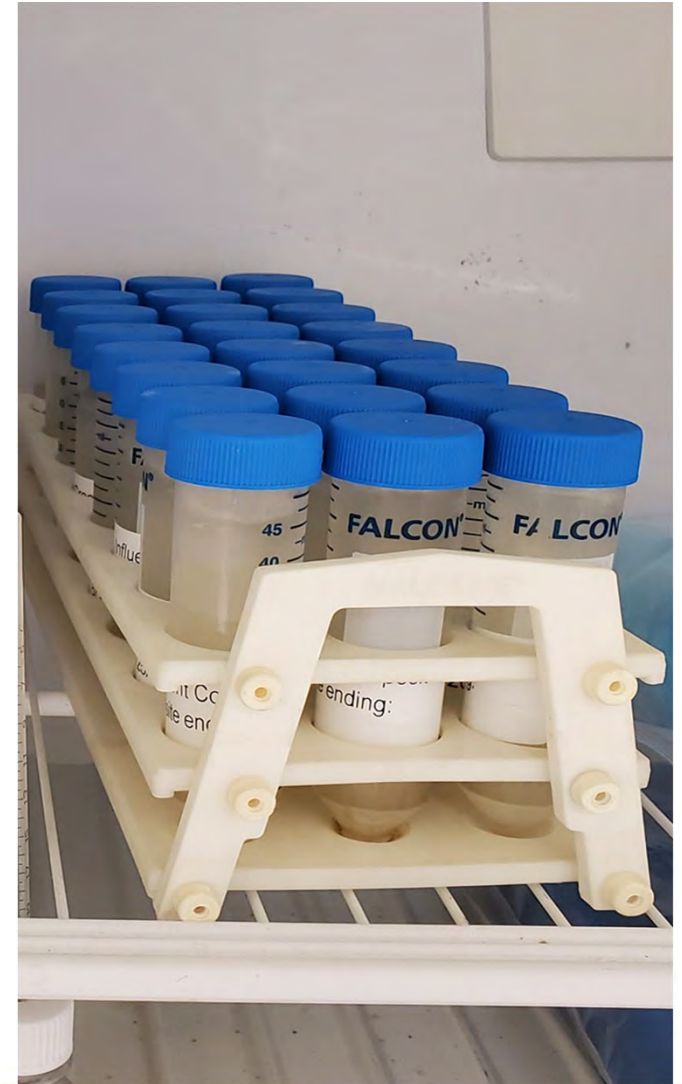
WBE

WBE is an epidemiological approach that has potential to complement current infectious disease surveillance systems and can be an early warning system for disease outbreaks.



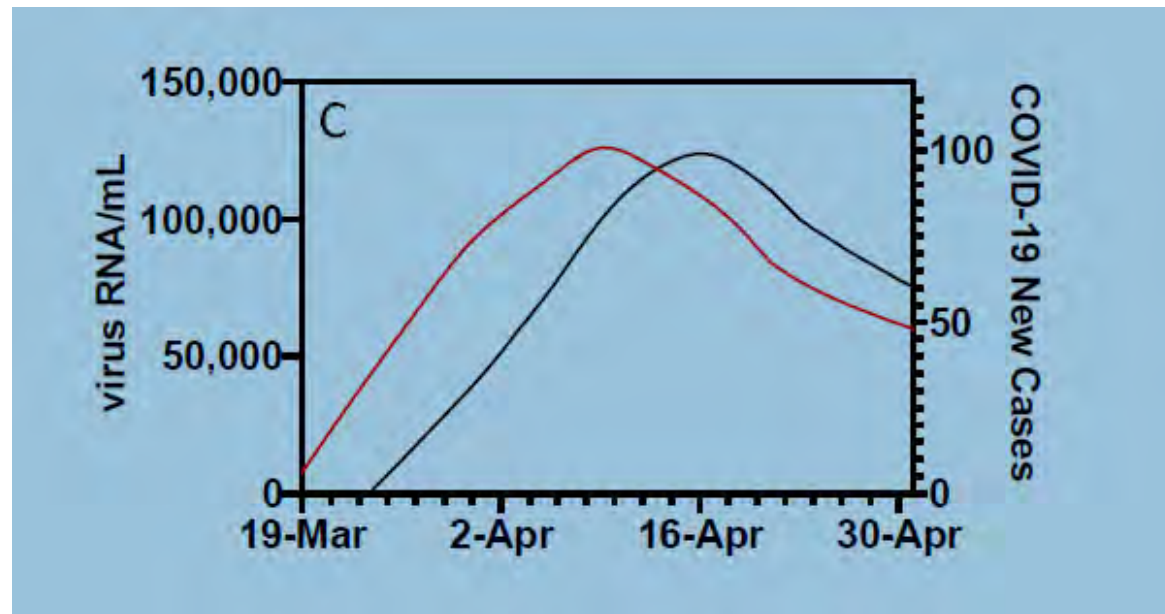
WBE

Through the analysis of population pooled wastewater, the emergence of new disease outbreaks at the community level can be monitored comprehensively and can serve as a leading indicator at a relatively low cost.



WBE

Viral shedding within the stool of those who are infected with SARS Co-2 begins to show several days before the onset of symptoms.



WBE

Wastewater surveillance is not a new area of research.

It has been critically important in detecting the presence of poliovirus to support the Global Polio Eradication Initiative.

Used to investigate opioid use in communities.



Colorado Department of Public Health (CDPHE)

Who is leading the effort?

The Colorado Department of Public Health and Environment is leading this effort through its Clean Water Program, which includes acting as the liaison between the collaborative and state epidemiologists.

Who is paying for the effort?

CDPHE has secured the funding for the project from Federal COVID-19 funding sources.



In the news...

CDPHE requests \$520,000 to fund a 52-week program that would provide twice per week sampling and reporting of SARS-CoV-2 RNA concentration in wastewater influent that could be used by CDPHE's DCPHR Epidemiology Unit, Incident Response and Local Public Health Authorities.

This leverages over \$150,000 in investment from in-kind efforts (covering all sampling and other costs at the wastewater system level) as well as \$30,000 in direct cash funding from the wastewater treatment plants for lab equipment for CSU's and Metro State's start-up costs.

<https://coloradosun.com/2020/07/21/poop-early-coronavirus-warning-colorado-wastewater/>



AURORA
WATER

Arapahoe County

Who is leading the effort?

Arapahoe County is also doing a project essentially the same but only the county. We are sending them samples as well.

Who is paying for the effort?

Arapahoe county is utilizing Cares Act monies.



Laboratory

Who is testing the samples?

Colorado State University and Metro state University have developed the method necessary for this testing.

GT Molecular is testing the samples from Arapahoe County.



Participants

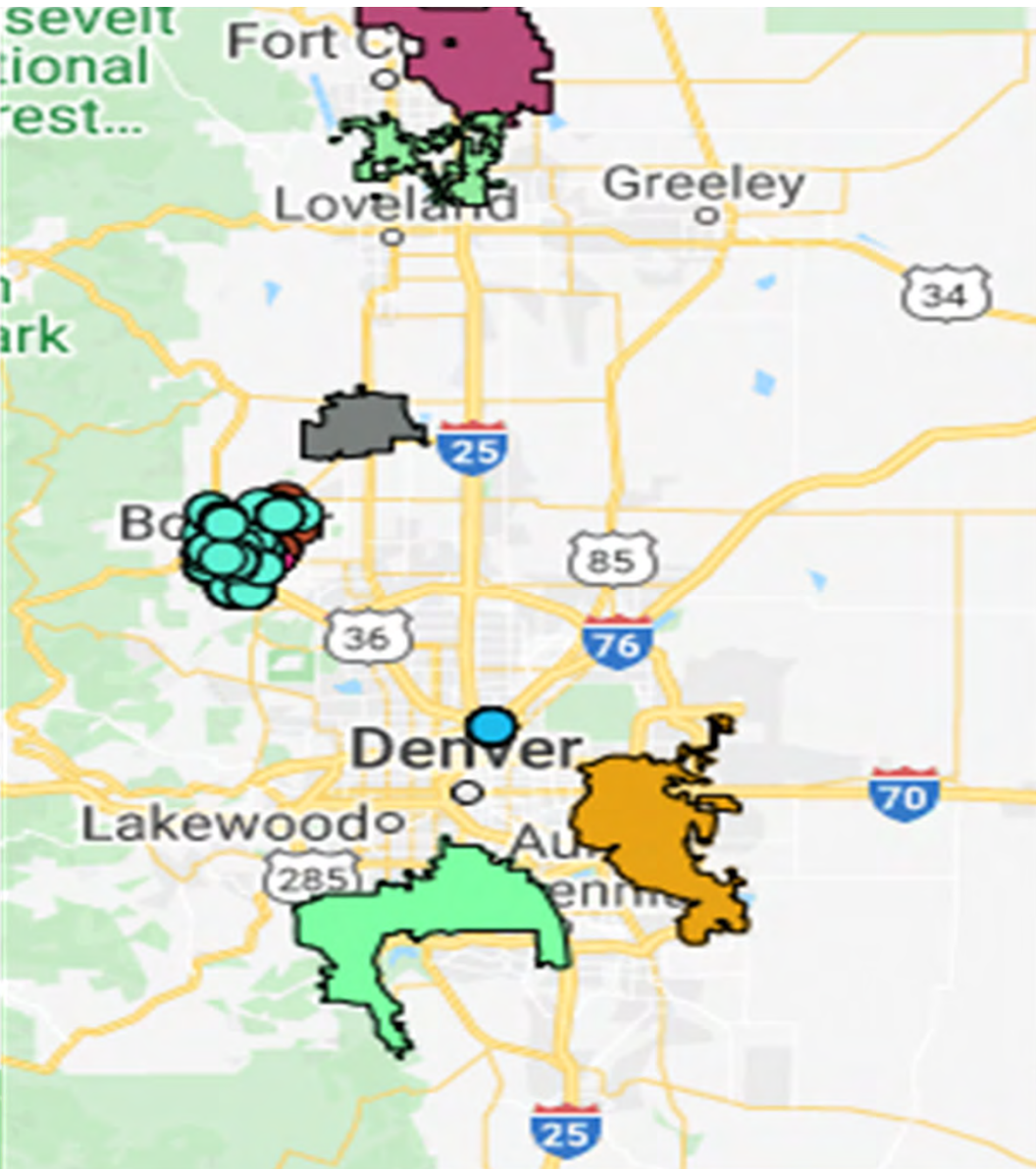
Over 60% of Colorado's population will be represented.



Participating Facilities

	Facility	Identifier	Facility Name and Sampling Point
1	Aurora	SCWRF	Sand Creek Water Reuse Facility
2	Boulder	BWRRF	Boulder Water Resource Recovery Facility
3	Broomfield	BRWTP	City of Broomfield Wastewater Treatment Plant
4	City and County of Denver		
5	CO Springs - JD Phillips	CSU-JDP	Colorado Springs Utilities-JD Phillips
6	CO Springs - Las Vegas	CSU-LV	Colorado Springs Utilities-Las Vegas
7	Estes Park	EPSD	Estes Park Sanitation District
8	Upper Thompson	UTSD	Upper Thompson Sanitation District
9	Fort Collins - Boxelder	BSD	Boxelder Sanitation District
10	Fort Collins - Drake	DWRF	Drake Water Reclamation Facility
11	Fort Collins - Mulberry	MWRF	Mulberry Water Reclamation Facility
12	Longmont	LONWTP	City of Longmont Wastewater Treatment Plant
13	Louisville	LOUWTP	City of Louisville Wastewater Treatment Plant
14	Metro Wastewater - North Hite	MWRD-NPI	Metro Wastewater Reclamation District-North Primary Influent
15	Metro Wastewater - South Hite	MWRD-SPI	Metro Wastewater Reclamation District-South Primary Influent
16	Pueblo	PWRF	Pueblo Water Reclamation Facility
17	SPWRP	SPWRP	South Platte Water Renewal Partners
18	South Fort Collins	SFCSD	South Fort Collins Sanitation District
19	South Adams County	SACWSD	South Adams County Water and Sanitation District



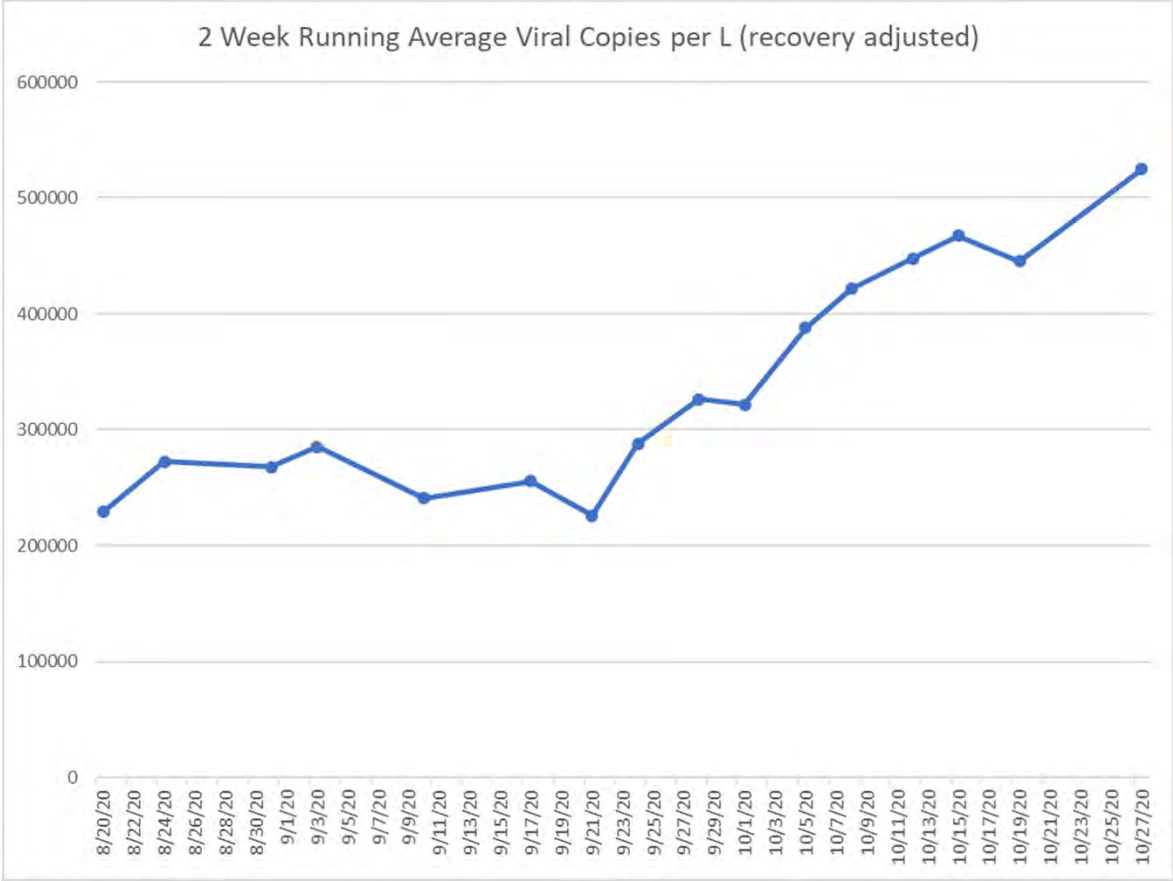


Data

Working on matching census/county data to service area boundaries.

Results will be a trend and not absolute number of cases.







To: Citizen Water Advisory Committee (CWAC)

Through: Marshall Brown, General Manager, Aurora Water
Alex Davis, Deputy Director, Water Resources

From: Daniel Gallen, Water Resources Specialist

Date: November 10, 2020

Subject: CWAC Godfrey Ditch Presentation

Background

The Godfrey Ditch Company, located on the South Platte River near the town of LaSalle, is a ditch system of interest to the City of Aurora. Presently the City of Aurora is a 1/3 owner in the Godfrey Ditch. At a future date and time the City will conduct a change of use and location of use Water Court case proceeding in order to utilize the Consumptive Use (CU) portion of the City’s Ditch Company share ownership. This new source of supply will help meet future water demands for the City, through the Prairie Waters North Campus infrastructure.

The Godfrey Ditch is in the process of rebuilding its river diversion on the South Platte River. This project is being funded through grants secured through the Department Of Local Affairs. This presentation will highlight the project needs and scope, as well as Aurora Water’s future use of this system.

Action

No action is required. Informational item only.

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Godfrey Ditch Company

Dan Gallen

Water Resources Specialist

November 10, 2020



Godfrey Ditch Company

Aurora Presently owns:

- 58 of 160 shares = 36%
- Active negotiations:
 - Evans 25 shares = 52% ownership (83/160 shares)

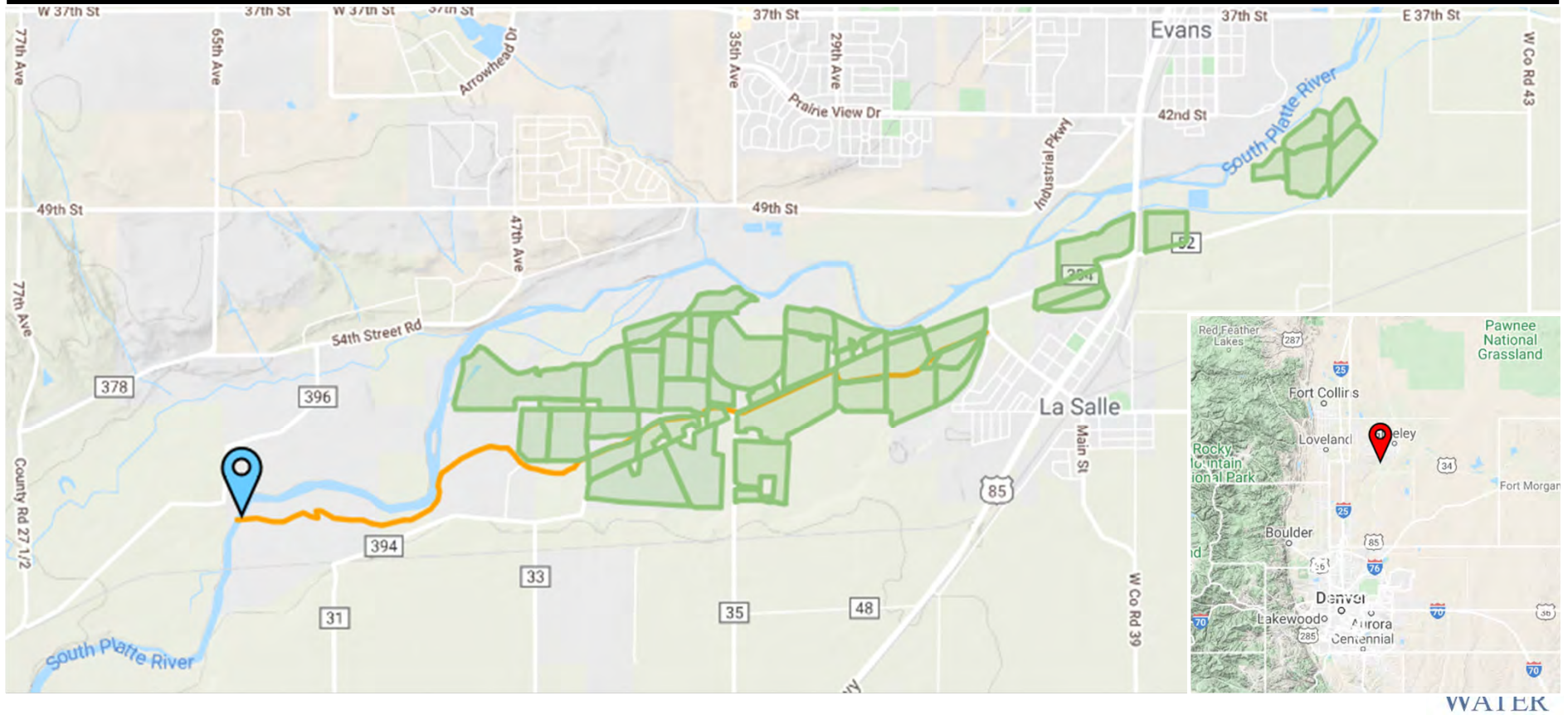


The Godfrey Ditch History

- Incorporated March 8, 1870
- Recorded Appropriations Dates:
 - March 10, 1870 26.88 cfs
 - March 15, 1873 30.83 cfs
- Formerly known as the “Section No. 3 Ditch Company” and later incorporated as the Godfrey Ditch Company, effective February 5, 1910
- Approximately 4 miles in length the Godfrey Ditch has irrigated up to approximately 2,000 acres of land for “agriculture, milling, & dairying purposes.”



General Location Map



River Diversion Project Scope of Work

- Removing the existing diversion structure
- Constructing a new diversion structure and connecting it to the existing Godfrey Ditch infrastructure, to include fish and boater passage
- Partially remove an existing berm to reconnect to the floodplain
- Restoring natural floodplain contours
- Grading portions of the South Platte River channel and conducting bank stabilization work
- Revegetate the construction footprint, removal of weeds and phreatophytes



Former Diversion Structure

- Before Project



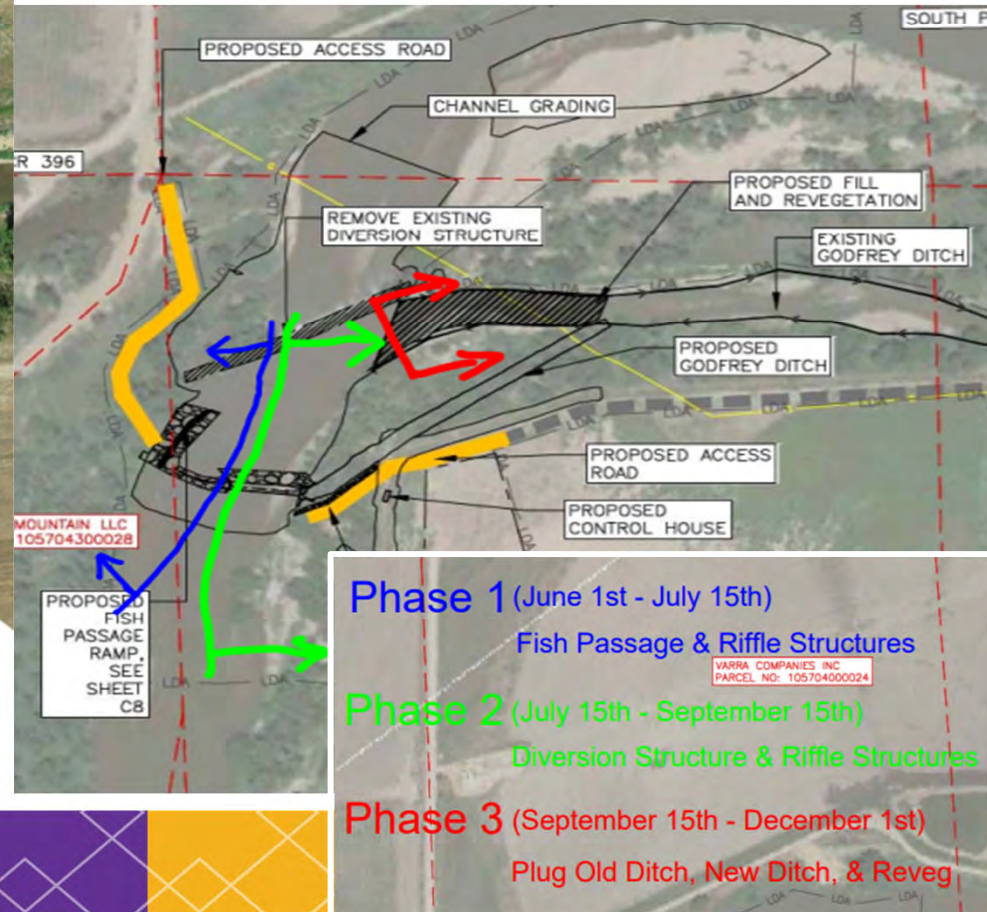
- Company Challenges



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Diversion Structure Current status



Questions?



WATER





To: Citizens' Water Advisory Committee

Through: Marshall Brown, General Manager, Aurora Water
Greg Baker, Manager of Public Relations, Aurora Water

From: Natalie Brower-Kirton, Environmental Education & Outreach Program Manager

Date: November 10, 2020

Subject: Environmental Education & Outreach Annual Report

Purpose:

Aurora Water has provided water education and outreach programs for the community in many forms reaching a wide range of community members for over twenty years. The goal of the Water Education and Outreach team is to provide consistent, creative and impactful education and outreach programs that promote water literacy, water conservation, water pollution prevention and water stewardship in Aurora. Over time programs have continued to grow with the team reaching over 17,000 students and adults during the 2018-2019 school year. This year has been a very different experience. Staff presented highlights of the Education team's work during the COVID-19 pandemic at the May 12, 2020 CWAC meeting. This presentation will include the year-end report for the 2019-2020 school year.

Action Required:

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

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Education & Outreach Program Update

2019-2020 School Year &
Fall 2020

Natalie Brower-Kirton

Environmental Education and Outreach Program Manager



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Environmental Education and Outreach

Mission: *To provide consistent, creative and impactful education and outreach programs that promote water literacy, water conservation, water pollution prevention and water stewardship in Aurora.*

Driving Excellence

- We drive the excellence of Environmental Education in Colorado creating programs that impact behavior change.

Fostering Collaboration

- We foster water education in Aurora through professional affiliations, partnerships and collaborative projects both internally, within other City of Aurora Departments and with external organizations

Educating the Community

- We educate the community on multiple aspects of water at all levels through programs that lead to the efficient use and protection of water.



Aurora Water Education and Outreach Current Programs

- Youth Education
- Teacher Continuing Ed
- Education & Outreach for Residents

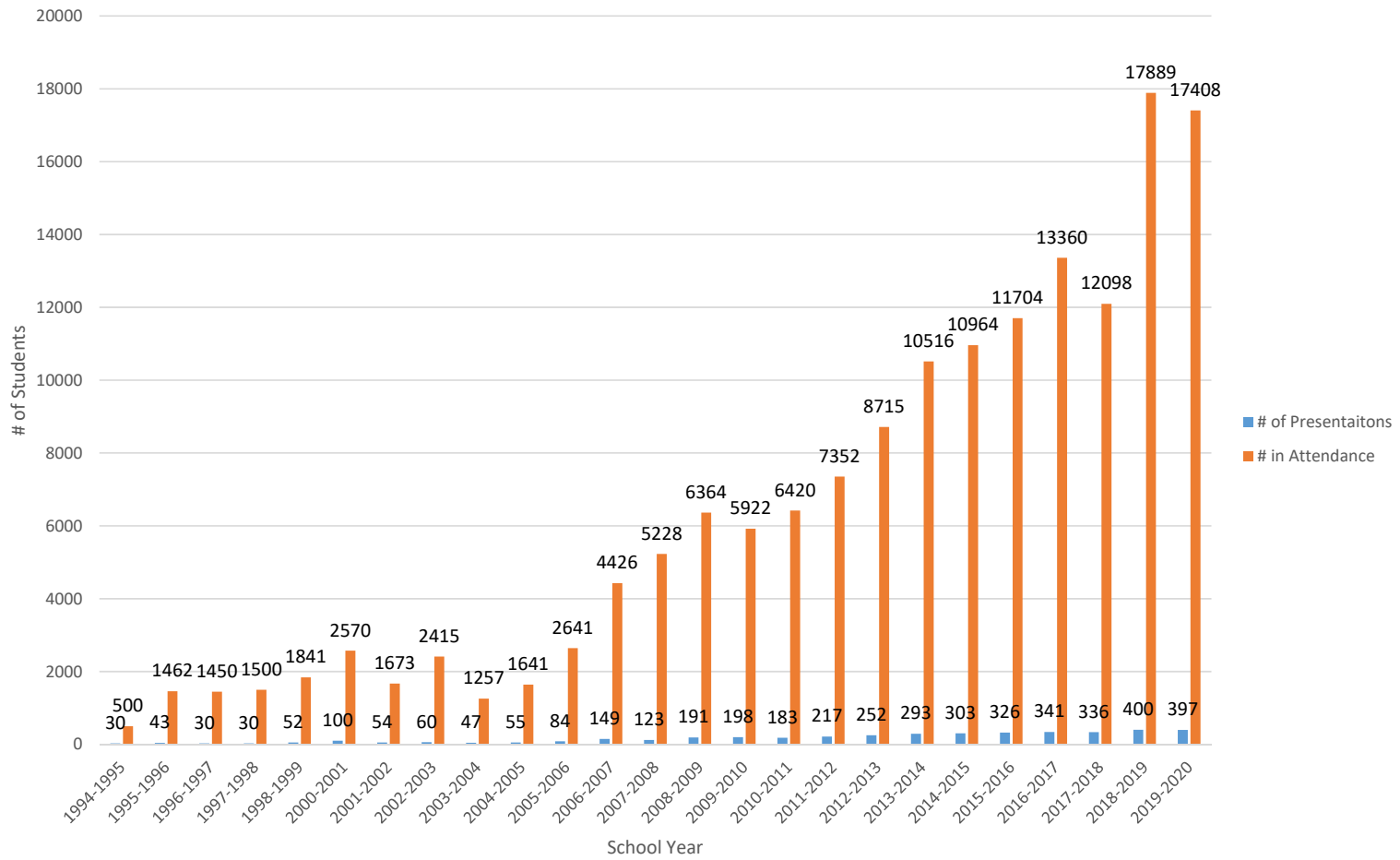


Youth Education 2019-2020 School Year

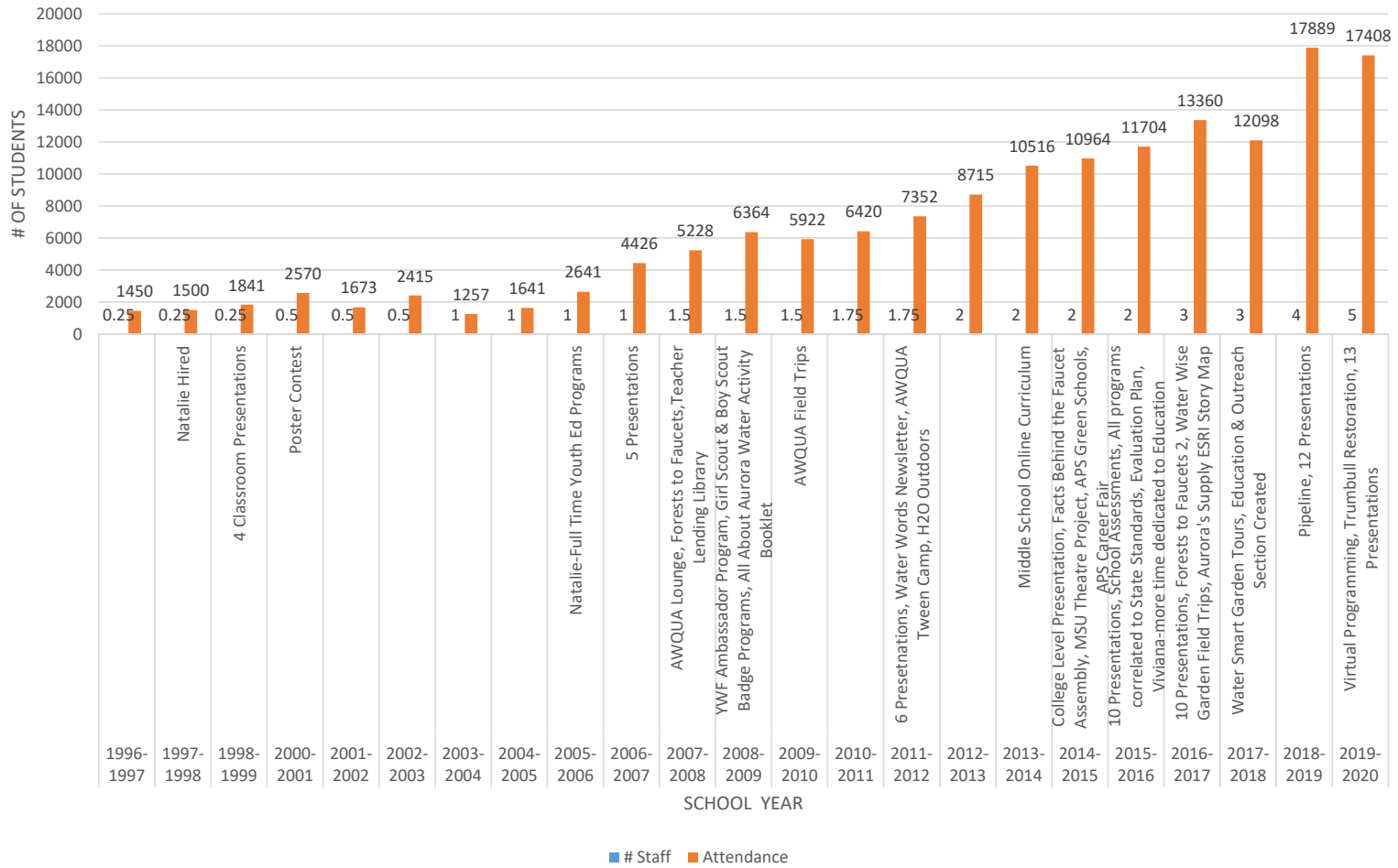
- Classroom Presentations
- Assembly Presentations
- Career Information Fairs
- Field Trips
- Pipeline-Careers in Water
- Teacher Resource Library



Youth Education Programs 1994-2020



Aurora Water Education Program History



Youth Education Programs 2019-2020

- 13 Classroom Presentations
 - New: “Muck Up, Clean Up”
 - High School Environmental Science
- 2 School Assemblies
 - Facts Behind the Faucet
 - Water in the Ol’ West
- 2 Career Information Fairs
- Field Trips
 - Youth Water Festival- Virtual
 - Aurora Reservoir & Senac Nature Center
 - Water Smart Plants Tour
 - Keystone Science School-H2O Outdoors



Classroom Presentations & Assemblies Career Information Fairs

WATER is a precious resource in Aurora. We teach kids to make the most of every drop.

If I Was a Fish (Preschool-Grade 1) *(We know this isn't grammatically correct, but you get the idea.)*
What would you need if you were a fish? Clean water! Explore the importance of this natural resource through movement and songs like "We Need Water to Survive," "If I Were a Fish" and "The Water Cycle." Learn about the water cycle, where we get our water and how kids can help protect it.
30 minute program, can be presented to 1-4 classes at once

Water Heroes (Grade 1-3)
It takes a lot of interesting people with cool jobs to provide water to Aurora. Learn about the people in our community who bring water to your faucet. During this presentation, students dress up in costumes and act out the water supply process.
30 minute program, can be presented to 1-4 classes at a time

Water & Weather (Grade 2)
What does our weather have to do with our water? Everything! Learn fun facts about the water cycle, where your drinking water comes from and how we measure snow.
30 minute program, can be presented to 2 classes at a time

Conservation Capers (Grade 3)
Students learn more about the source of their water, water conservation techniques and how to do a home water assessment.
30 minute program, can be presented to 1-2 classes at a time

Water - Keep it Clean! (Grade 3-5)
How much water is on earth? What is a watershed? Take a look at a watershed model to understand how kids can help protect the environment and our water from non-point and point-source pollution.
40 minute program, can be presented to 1 class at a time


Aurora's Water History (Grade 4)
When did the city of Aurora become a city? How did we first get our water? How did people get the news about Aurora Water's history throughout the years? In this activity students will role play, acting as different characters, and report Aurora Water's history throughout the last 100 years.
50 minute program, can be presented to 1 class at a time

We All Live Downstream (Grade 5-6)
We all live in a watershed. Learn about the watersheds where your water comes from and how to protect them from pollution.
50 minute program, can be presented to 1-2 classes at a time

Conservation Challenge - Rebate Game (Grade 6-8)
Learn about the source of your water and form teams of "families" that compete to save the most water in the Conservation Challenge game.
30-45 minute presentation, can be presented to 1-2 classes at a time

The Facts Behind the Faucet (Grade 6-8)
We turn on the tap, drink it, bathe in it and flush it. Students learn about global water issues, our water system from source to tap and how they can be the most efficient water users.
40-60 minute program, can be presented to 1-6 classes at a time

Aurora's Water Supply + Careers in Water (Grade 9-12)
Learn about Aurora's water system and the types of careers involved in the water industry.
30-45 minute program, can be presented to 1-2 classes at a time




Classroom Presentations 2019-2020

Presentation/(Grade)	Total Number of Presentations	Number of Presentations Conducted Virtually	Students in Attendance
If I was a Fish (P-1 st)	45	8	1,905
Water Heroes (1-3)	26	2	995
Water & Weather (2)	23	7	865
Conservation Capers (3-8)	31	5	897
Water: Keep it Clean (3-8)	51	2	1,290
Aurora's Water History (4)	19	0	472
We All Live Downstream (5-8)	34	0	902
Careers in Water/Career Fairs (6-12)	24	0	3,735
Muck Up- Clean Up (9-12)	8	0	218
Water Conservation & Climate Change (9-12)	5	0	50
Total:	266	24	11,329

Field Trips 2019-2020

Field Trip	# of Presentations	Virtual	# of Students
Water Smart Plants Tour	33	0	825
H2O Outdoors Water Camp (High School)	25	0	119
Water Festival Ambassador	6	6	450
Water Festival	10	10	1,600





School Assemblies 2019-2020

Assembly	Total Number of Assemblies	Number of assemblies conducted Virtually	Students in Attendance
Water in the Ol' West	9	0	1,027
Facts Behind the Faucet	45	1	2,058
Total:	54	1	3,085

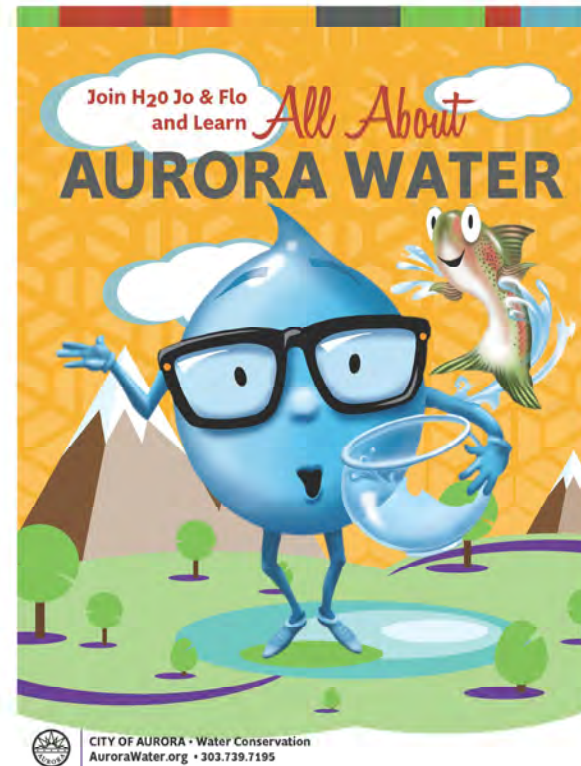
Youth Education Program Totals 2019-2020

Total Number of Programs	Number of Programs Conducted Virtually	Students in Attendance
397	165	17,408



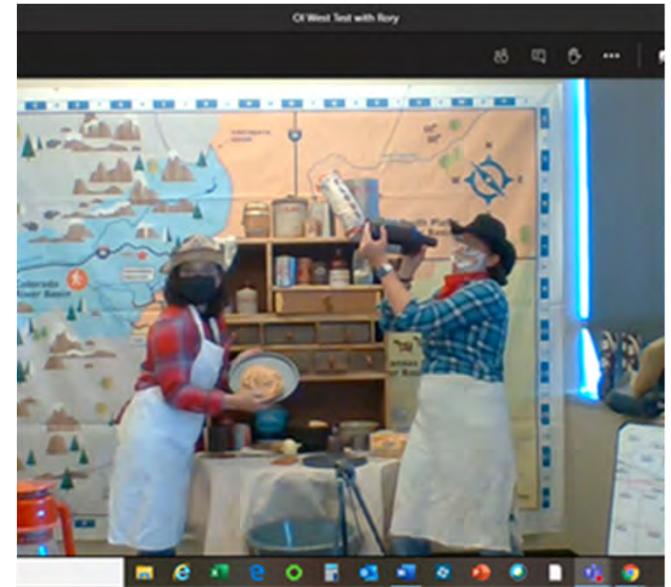
Spring 2020 Virtual Programs

- Created Nine new Virtual Presentations
- Where Does our Water Come From? Virtual Tour
- Online version of “All About Aurora Water”
- Parents: Summer Resources on Website



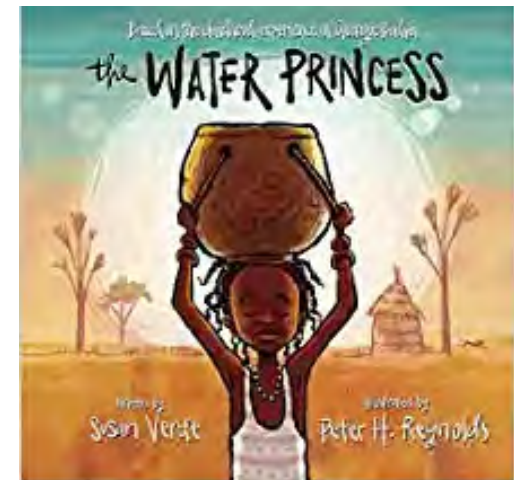
Fall 2020

- Virtual - Asynchronous
- Live Virtual - Synchronous



Fall 2020

- New Presentations
 - Storytime with Aurora Water
(*Preschool-2nd Grade*)
 - Sunny takes a Walk on the Water Side
Puppet Show
(*Preschool*)
 - Climate Change & Watershed
(*High School*)



Teacher Continuing Education

- Forests to Faucets: Aurora's Water Resources
 - 3 Day Project WET and Project Learning Tree Workshop
- Forests to Faucets II: Conservation Cultivation
 - 1 Day Project Wet Workshop



July
7-9

Forests to Faucets

- 3 days
- Different locations
- PLT & Project WET curriculum
- Watershed concentration

July
21

Forests to Faucets 2

- 1 day
- Aurora Reservoir
- Project WET curriculum
- Climate Change concentration



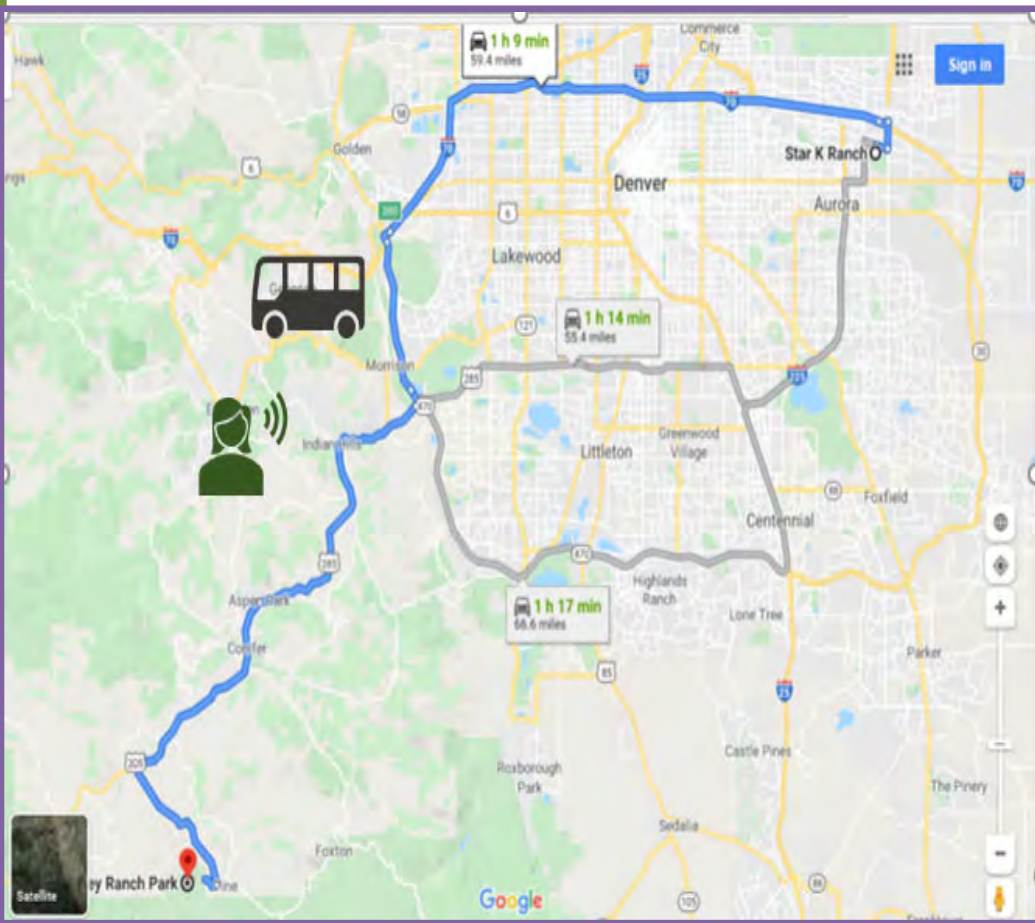
2019



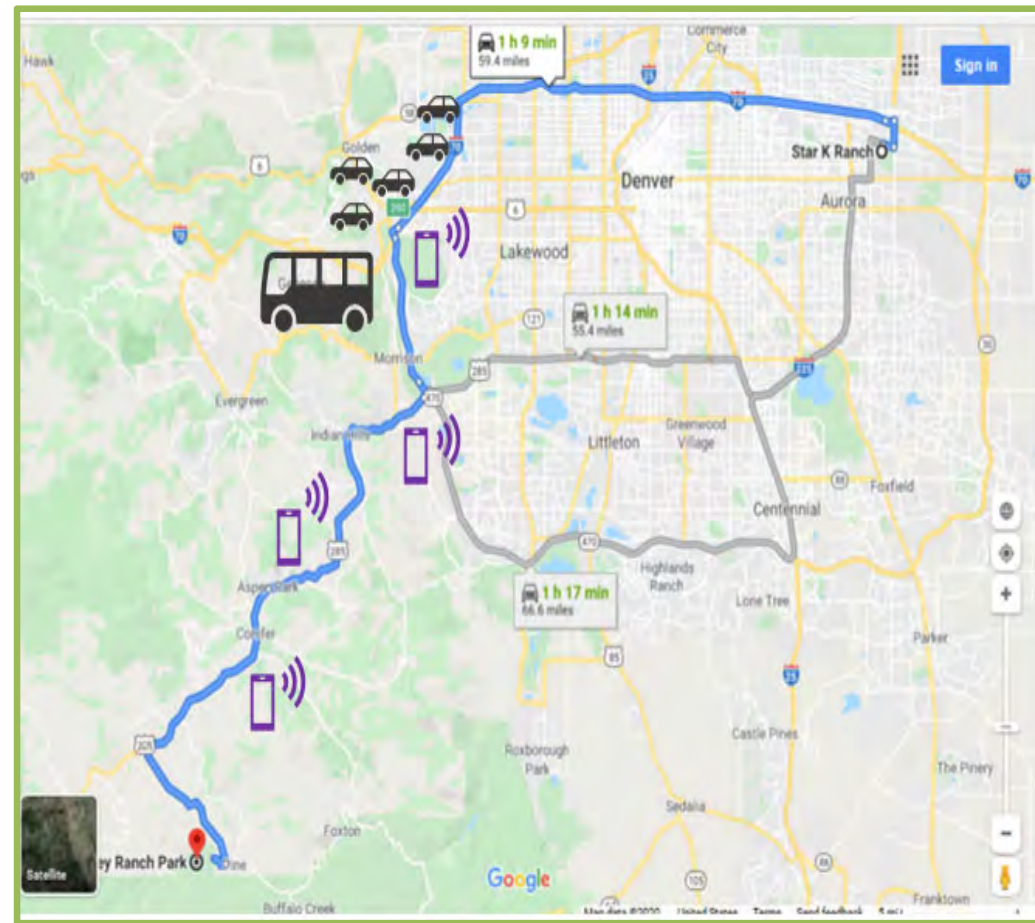
2020



2019



2020





Forests to Faucets

Exploring the South Platte Watershed



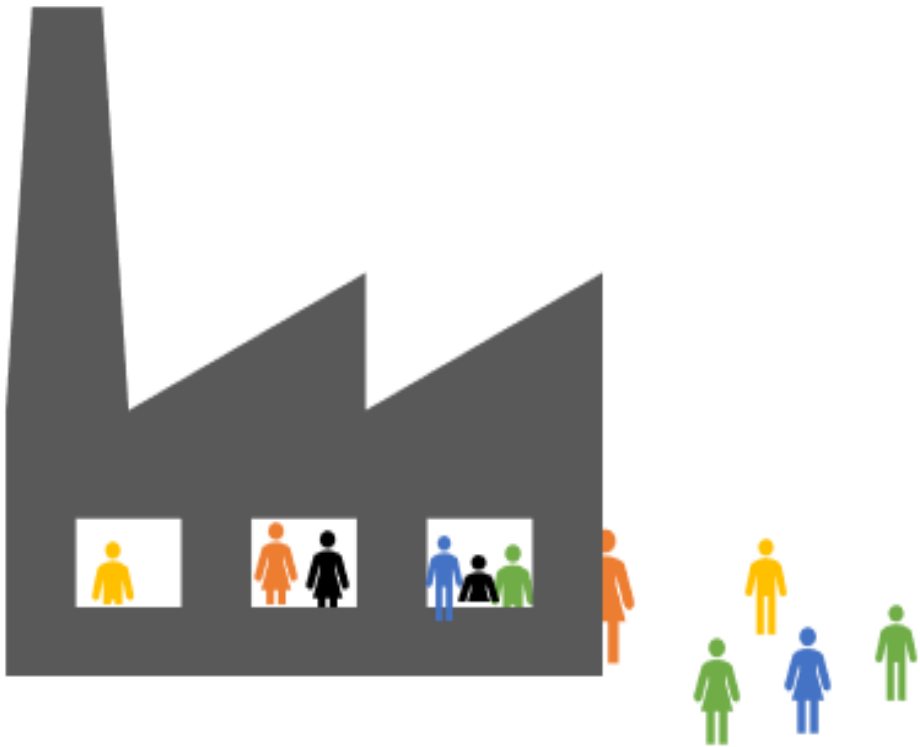


Trumbull Experimental Forest Trail Restoration



2019

2020



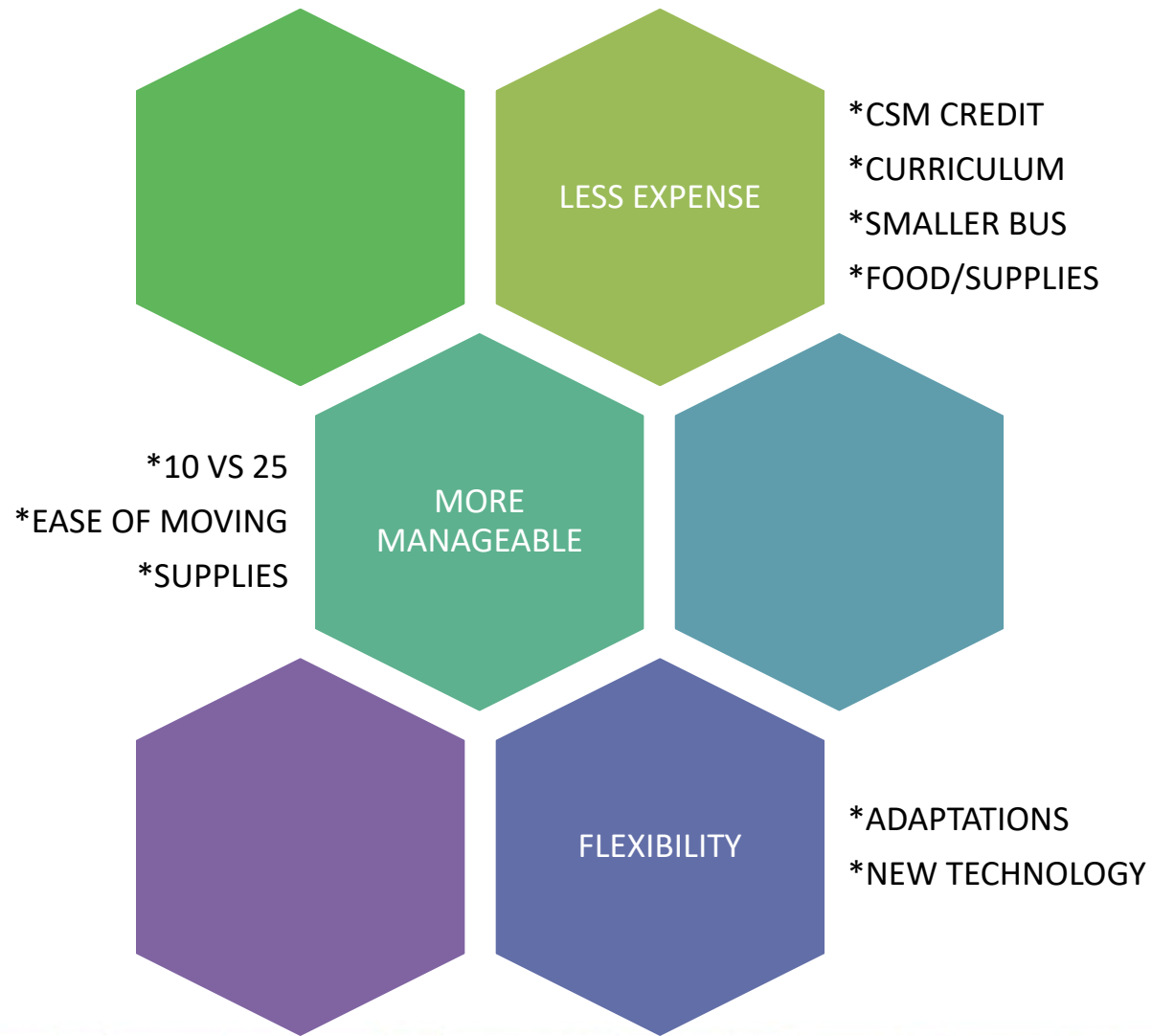
2019



2020



PROS



FORESTS TO FAUCETS

Great job adopting materials to social distancing and COVID-19.

The instructors were great. They all brought their expertise and made the 3 days fun and interactive.

The information presented expanded my knowledge of water & water related activities through hands-on, excellent activities. Received wonderful resources. Excellent class!

The curriculum & activities were well presented. I loved "Seeing Watershed" & am excited to try it.



FORESTS TO FAUCETS 2

Great activities to deepen students understanding of water conservation.

The instructors are fabulous and fun ladies.

Fabulous job – appreciate your knowledge & wealth of resources.

The engagement within activities is amazing. Hands-on experiences make this workshop 😊



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Education & Outreach Water Conservation Classes

WATER CONSERVATION CLASSES

Registration is required for all classes • Call 303.739.7195 or visit AuroraGov.org/WaterClasses to register or to learn more about our classes.
Increase your water efficiency. Fix your sprinkler system. Get a robot. Learn how with Aurora Water.

BUILD YOUR OWN DRIP SYSTEM

Water-efficient drip irrigation systems are great for gardens of all types. You'll learn how to design, construct and maintain your new system in this hands-on class.

DISCOVER WATER-WISE PLANTS*

Get to know our top recommended plants. We'll take a tour of the city's Demonstration Garden and learn about these favorite trees, shrubs, perennials and grasses.

DIY SPRINKLERS SYSTEM*

Tune up your sprinkler system for maximum efficiency and learn how to check for leaks in this hands-on class. Get to know your system components and learn how to program your clock. Yes, you can ask about your specific system.

DIY WATER-WISE LANDSCAPE DESIGN

Learn how to plan and draw your own water-wise landscape. After March 19, these parts will be combined into one class.

Part One: Learn basic principles of design and draw your site map.
Part Two: Get started on your design.

GROW FOOD, SAVE WATER

Veggies thrive on 30 percent less water than your lawn. This course covers design and implementation of a vegetable garden. The class on March 11 will include a guest speaker on composting.

LOW-WATER TREES*

Get to know the low-water, drought-tolerant trees that thrive in our climate. This class will introduce you to many species and their unique features. Learn how to properly maintain your trees year-round for optimal health.

MAKE COMPOST, SAVE WATER

Adding compost will significantly improve your soil and reduce the amount of water you use. We'll walk you through the steps.

SEASONAL GARDEN MAINTENANCE*

We'll teach you how to care for your landscape year-round in this hands-on class. You'll see demonstrations on managing trees, shrubs, perennials and grasses in the city's Demonstration Garden.

WATER-WISE LANDSCAPE BASICS

Find out how to convert your lawn into a beautiful, low-water landscape without breaking the bank.

WATER-WISE LANDSCAPE START TO FINISH*
Discover the ins and outs of converting your lawn into a low-water landscape with this hands-on class. We'll talk about turf removal, irrigation and how to choose plants. We'll also show you site layout and proper planting techniques.

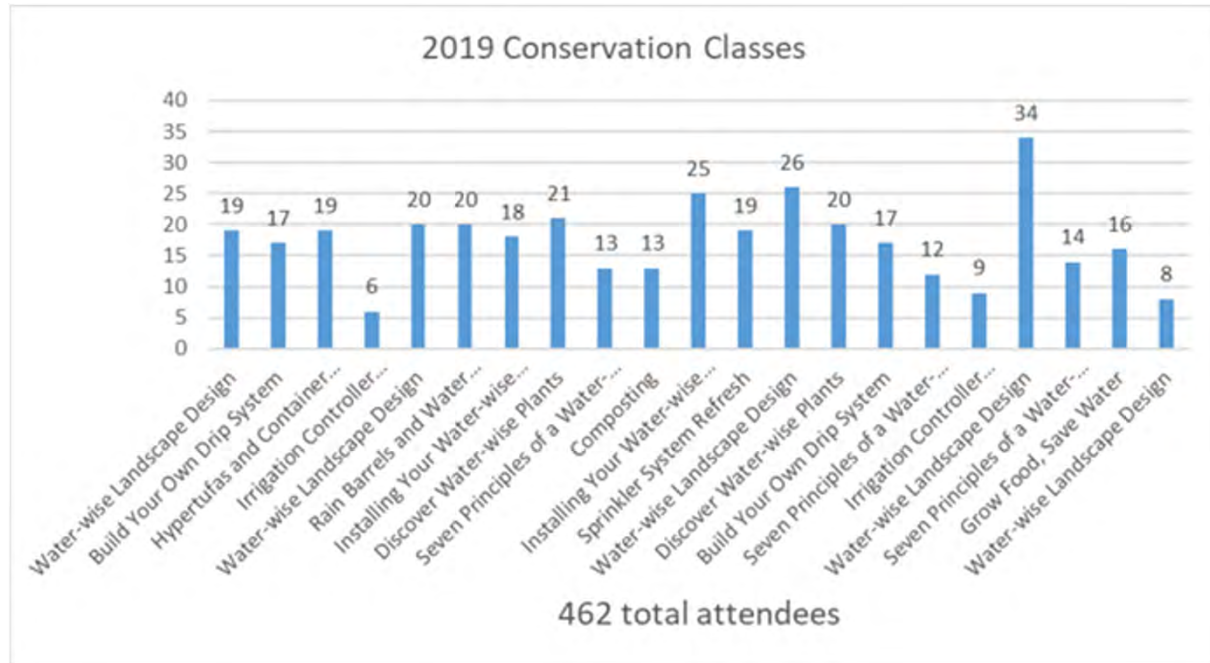
*Denotes outdoor class held rain or shine. Please dress appropriately.

Volunteers are always welcome in the Aurora Water-wise Garden.
For information, call 303.739.7195.

FREE DESIGN CONSULTATION SERVICE
Rather than designing your own landscape, have our professional designers do it for you. To participate, take the DIY Water-wise Design class listed above. When you've finished your homework from the class, call us to schedule a design consultation.



AURORA WATER
Water Conservation • 15151 E. Alameda Parkway, Ste. 3228
conservation@auroragov.org • 303.739.7195
AuroraWater.org



**AURORA
WATER**

Education & Outreach

Spring 2020 - Water Conservation Classes



Live WebEx Classes

- Intro to Water-wise Landscape
- Grow Food-Save Water
- Irrigation System Tune-Up

Online Course

- Introduction to Xeriscape





- A Water Education Guide for Colorado
- Plan for reaching the “Outreach, Education and Public Engagement” goals of the Colorado Water Plan – Sustainable Water 2050
- Core Collaborator in the creation of the Plan- 2019, Endorsed- 2020



2021 CWAC Meeting Dates

January 12

February 9

March 9

April 13

May 11

June 8

July 13

August 10

September 14

October 12

November 9

December 14 (Interviews)