



THE PIPELINE

ACWWA Info Fresh from the Source

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Quarter II
June 2019



JWPP Update

ACWWA's Joint Water Purification Plant (JWPP) was shut down in December 2018 to convert it from a microfiltration (MF) treatment process to a blended Reverse Osmosis (RO)/(MF) treatment process. The JWPP is jointly owned and operated by ACWWA and Cottonwood Water and Sanitation District.

Water supplied to the JWPP is from ACWWA's Cherry Creek alluvial wells

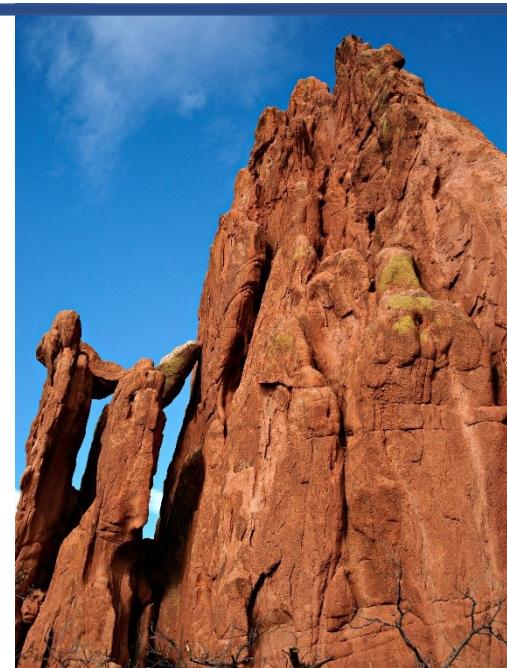
that come from the subsurface stream flow of Cherry Creek.

This water is treated using a combination of RO membranes and MF membranes to remove minerals from the subsurface water supply. The water goes through a high-pressure boost to help separate these dissolved solids from the purified water, which is called permeate. The RO permeate is then blended with MF water to produce a high-quality water that is processed further prior to going to ACWWA's potable water distribution system

Next, the RO and MF water is treated by an Advanced Oxidation Process (AOP) that is a combination of chemical addition and ultraviolet light oxidation to help remove residual chemical compounds from the water. The water is then disinfected and pumped into the distribution system for use by ACWWA's customers. This water treatment process is an exceptionally advanced method that will allow ACWWA's customers to receive very high-quality water.

ACWWA Flow Connecting Pipeline Update

ACWWA is helping to construct the final portion of a 15,000-foot-long 24" pipeline required to bring full ACWWA Flow water capacity to ACWWA's service area. ACWWA has partnered with East Cherry Creek Valley Water and Sanitation District (ECCV) to provide the capacity of ACWWA's 5.25 million gallons per day (MGD) of treated water from the ECCV Northern Treatment Plant in Brighton. This pipeline project has been five years in the making. The pipeline and improvements were completed in four different phases to save costs by partnering with other projects. For example, ACWWA partnered with the City of Centennial for the Arapahoe Road Widening Project, adding 4,000 ft. of 24" pipe under Arapahoe Road, and joined in when Southeast Metro Stormwater Authority (SEMSWA) was constructing a stream stabilization project along Piney Creek, where 600 Ft. of pipe was installed under the stream bed. The total pipeline project will cost approximately \$8 million dollars over five years, with an estimated savings of \$4 million from taking advantage of multiple strategic partnering opportunities.





Summer Water Conservation

As a reminder, beginning May 1st, ACWWA will have implemented Stage 1 Water Conservation Measures as defined in ACWWA's Water Conservation Response Plan. The primary component of Stage 1 is a voluntary every third day watering schedule, as outlined in the calendar below. The full text of the Water Conservation Response Plan can be found on our website under the Water Efficiency tab (acwwa.com/water-efficiency). ACWWA advises watering before 10am and after 6pm. Thank you for doing your part; we look forward to a good year of using this water wisely.

May 2019						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June 2019						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July 2019						
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	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August 2019						
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				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

0 – 30	Water on	
31 – 60	Water on	
61 – 99	Water on	

ACWWA Works to Understand Water Loss

In 2019, ACWWA will be participating in the Colorado Water Loss Initiative (CWLI) sponsored by the Colorado Water Conservation Board (CWCB). The initiative provides training and technical assistance for the American Water Works Association (AWWA) M36 Water Audits and Loss Control Program.

The AWWA M36 methods are the recommended best practice in North America for supporting utilities like ACWWA in decision-making for water loss control and revenue recovery. Each year, millions of gallons are lost nationwide to leakage, meter error, and water theft.

This program will give ACWWA tools to identify its losses and a means to cost-effectively address them.

Several ACWWA staff members from Operations, Engineering, and Customer Service attended the Stage 1 Water Loss Audit Workshop held at the AWWA headquarters in April. The workshop introduced attendees to the M36 program and focused on familiarizing attendees with the water audit software.

One of the main takeaways of the training was data validity. How accurate is our data? What steps are we taking to ensure its accuracy and how can we improve it?

These are questions that most utilities may not ask, but inaccurate data leads to faulty evaluations.

As part of this first water audit, ACWWA will be looking at data source reliability, which will help develop a plan to move forward with increasing our water distribution efficiency. With more complete, consistent, and accurate data, ACWWA will be able to make more informed and cost-effective improvements to our system.

The Water Loss Program will give ACWWA more insight into which infrastructure areas are most in need of capital investment and improvement.

A Day in the Life of... *Jason*



Jason has worked at ACWWA for almost three years. He is a man with many talents and responsibilities.

Working in Customer Service and Billing, Jason answers customer inquiries, processes adjustments, checks out equipment, and addresses billing concerns.

Born and raised in Cincinnati, Jason has also lived in New Orleans and Philadelphia. He is currently finishing two degrees at Colorado Christian University, one in Information Technology and the other in Divinity.

"My job involves doing many different things, and no two days are the same," Jason said. "That's what I love."

Jason spends his time handling work orders, processing final bills, reporting water usage reads, conducting hydrant meter billing, and interacting with customers.

He also works closely with our field operations staff whenever they may have technical issues.

"We have about 5,000-6,000 accounts in our billing system, and our field techs are hard at work. So, there's a lot to stay on top of."

Jason is a tech guru as well as a movie buff. There is never a dull moment with Jason around, and he never has dull moments either.

Still, it's rare to catch Jason with anything but a smile on his face. A glowing example of positivity and happiness, Jason lights up the days of ACWWA employees and customers alike.

When asked about his job, Jason replied, "I do what I do because I really enjoy it."

Another Successful Audit at ACWWA

ACWWA's auditors, RubinBrown, completed their audit of ACWWA's 2018 financial statements in early April 2019. RubinBrown issued an unmodified opinion on ACWWA's statements. This means that an independent review of ACWWA's books found that the financial statements present fairly, in all material respects,

ACWWA's financial position at December 31, 2018 and December 31, 2017. ACWWA's audited financials can be found at

<https://www.acwwa.com/DocumentCenter/View/1133/2018-Audited-Financial-Statements>



CUSTOMER INFO & ONLINE BILLING

Customer convenience is important to ACWWA. We know that your time is valuable, and because we would like to make things as efficient as possible. We ask you to share your email address with ACWWA. By doing so, customers can get notifications and monthly invoices the same day they're released. Send your email info to billpay@acwwa.com.

Paying your bill has become easier at ACWWA. Simply log on to acwwa.com and click on Customer Resources → "Online Account Inquiry" or "Pay My Bill" to view your statement & make payments. If you've never logged in or don't know your password, please contact us at (303) 790-4830.



Bee Friendly Flowers

According to the U.S. National Agricultural Statistics, the honey bee population has declined from about 6 million hives in 1947 to 2.4 million hives in 2008. That's a 60% reduction in bees!

So why should we as humans care? What would happen to the world and to people without these little creatures?

Well, bees are critically important pollinators. Without bees, our world would be devoid of fruit, vegetables, nuts and seeds. As those food items disappear, the animals who eat them would die out, and thus, we as humans would die out. Even Albert Einstein recognized that if bees disappeared from Earth, "humanity would last no more than 4 years."

This bee crisis has been going on for several years, but with more people planting bee-friendly gardens and even venturing into bee keeping themselves, it is possible to reverse the damage that has already been done. In order to secure a habitable world and stave off starvation for future generations, it's our responsibility to help the bees out.

So what can we do to save the bees? One thing Coloradans have done is plant more "bee-friendly" plants and flowers.

Highlandbeekeepingclub.org lists a variety of things you can plant to help the bees:

Daisies	Daffodils	Foxglove	Echinacea
Hollyhocks	Honeysuckle	Lavender	Cosmos
Lamb's Ear	Lilacs	Marigolds	Cardoon
Fruit Tree's	Milkweed	Mint	Calendula
Morning Glory	Roses	Redbuds	Bergamot
Mums	Snapdragons	Tulips	Lantana
Sunflowers	Zinnias	Honeysuckle	Sumac
Rocky Mtn. Bee Plant (Cleome Serrulata)		Wisteria	Sedums



This list only represents a few bee-friendly plants but is more specifically tailored for Colorado.

To help the bees, one very important thing to keep in mind is what chemicals you use in your garden. **Never use pesticides.** Bees are highly sensitive to even organic pesticides. Just by avoiding the use of pesticides in and around your garden, you can save bees.

By doing some research, it's easy to discover which plants bloom during the various seasons and make sure you have a bee-friendly garden year-round.

To learn more about the loss in bee population, check out this article by Business Insider.
It can be found at www.businessinsider.com/the-world-without-honeybees-2013-6