

MONTHLY REPORT

MARCH 2023



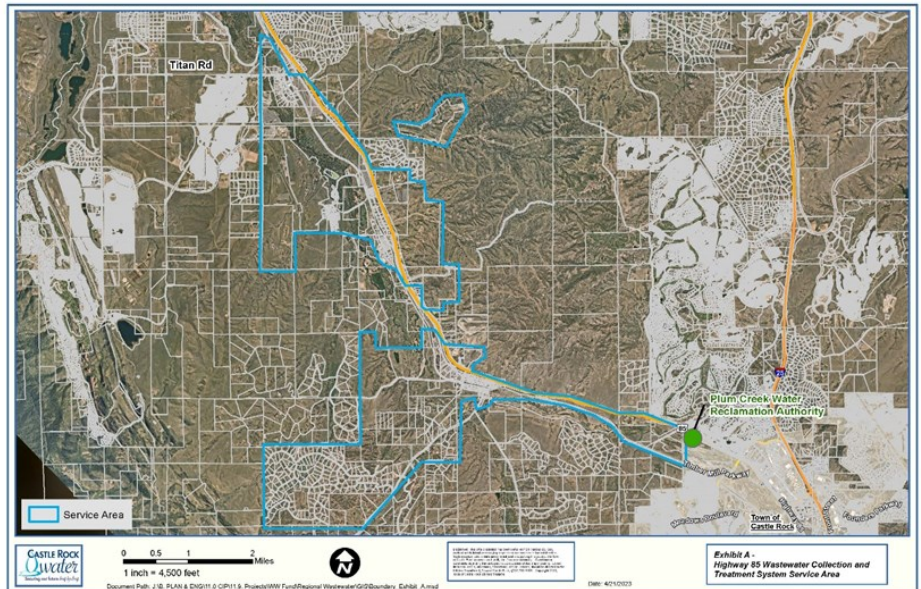
Our Vision: We will be a national leader among water utilities, focused on customer satisfaction and delivering outstanding quality and value.

Highway 85 Wastewater IGA project

An intergovernmental agreement between Castle Rock Water and Douglas County will allow the creation of a new, 11-mile wastewater collection and treatment system along the US Highway 85 corridor. This new system will improve water quality in Plum Creek and Chatfield Reservoir and stimulate economic development within the US 85 corridor.

The Highway 85 corridor is adjacent to East Plum Creek/Plum Creek that discharges into Chatfield Reservoir. The majority of wastewater treatment systems along the corridor consist of individual onsite septic tanks with leach fields that discharge to groundwater. The exception to this is that the community of Louviers has a gravity sewer collection system that treats its wastewater in a facultative pond and discharges effluent via land application. CRW will utilize \$26.8 million in American Rescue Plan Act (ARPA) funds provided through and by Douglas County to manage the project for the design and construction of infrastructure for the major wastewater components which include conveyance gravity sewers, force mains and lift stations and a wastewater treatment plant to serve the corridor. CRW will receive a 1% project management fee for its project management services for the project.

CRW will be responsible for and have oversight of the constructed system assets in the corridor to CRW for long term operation, maintenance, repair and



Highway 85 Corridor



Louviers wastewater treatment pond

replacement. CRW is to be the retail and wholesale wastewater provider in the service area which means we will develop and retain the rates and fees. CRW will charge a 10% extraterritorial surcharge for all

aspects of this service. Having this added system will contribute to economies of scale for CRW's operations over the long term, helping to spread our costs amongst a larger customer base. Additionally, the project will provide funding for a pump station that will pump reuse water back to CRW's reservoirs in Sedalia and help offset the cost of our Chatfield Pump Back system. This is a \$2 to \$4 million benefit for our long-term water plan. CRW will also receive the first 200,000 gallons of wastewater for renewable water supplies.

This project brings several benefits to Chatfield Reservoir, Douglas County, Castle Rock and the residents and businesses in the corridor. First, the untreated or poorly treated wastewater systems primarily consisting of septic tanks and open-air retention ponds will no longer be in service. This will improve the water quality in Chatfield Reservoir which is a drinking water source for CRW. It will allow all reusable water supplies used in the corridor to be captured for reuse by CRW and Dominion Water and Sanitation District. It also provides for consolidation of some of the small underfunded water and sanitation districts into more sustainable systems.

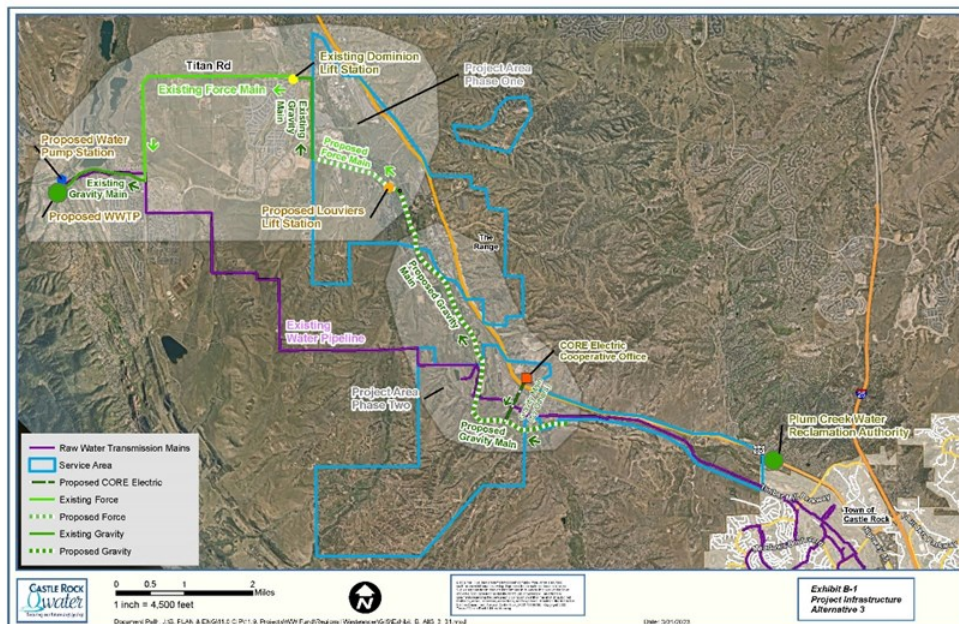
In addition to improving water quality, future projects will include a trail system along the pipeline to improve recreational opportunities, as well as, provide easement access for stormwater watershed and environmental projects. Having a

wastewater solution for Louviers, Sedalia and the existing businesses, will improve and spur the economic viability and vitality of this key transportation corridor.

There are currently three construction alternatives. The preferred one takes advantage of current stakeholder infrastructure along with terrain and energy efficiencies. For this preferred option, a wastewater treatment plant located on Caretaker Road off West Waterton Road and near the South Platte River would be built by CRW and owned and operated by DWSD. DWSD currently has infrastructure at this site. To convey Highway 85 corridor wastewater to the Caretaker Road location, it would flow through DWSD infrastructure of gravity sewers, force mains and lift stations from a future CRW owned and operated lift station in Louviers. Wastewater that would flow to the Louviers lift station would come from the Louviers community collection system and also eventually from the Sedalia area. Since the ARPA funds represent a finite amount of monies that must be spent by December 31, 2026, system development fees will provide funding for the sewer expansions to the south, north and east of Louviers. CRW will provide retail and/or wholesale wastewater service in the service area. CRW will reuse the wastewater collected and treated from the corridor via a pump station at the Dominion wastewater treatment plant site that will connect to CRW's future Chatfield Reservoir Pump Back

Project that is presently in the preliminary engineering phase. The reuse water would be stored at the CRW reservoirs near Sedalia for later treatment to potable water quality levels at the Plum Creek Water Purification Facility.

This project is a win-win for all partners in the agreement and is another example of how regional partnerships are essential. This project also aligns with CRW's mission and vision and furthers our endeavor of being a leader in the water industry.



Preferred construction alternative

Good job!

Congratulations

ON YOUR PROMOTION!



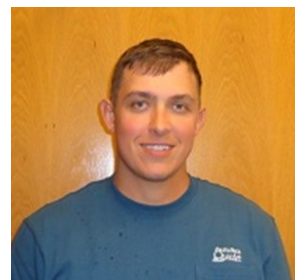
Lauren Moore
Water Resources
Project Manager



Zuzana Howard
Water Resources
Program Analyst



Laura Kindt
Stormwater
Manager



Brent Pickrell
Water Plant Operator
Supervisor

Certified!



Steven Tamariz
Colorado Collections 1 Operator



Jon Lutteman
Colorado Class A CDL License



Mitch Horner
Water Plant Operator II
(plus Water Treatment C
Operator Certification)



Scott Tait
Water Resources Project
Manager—full-time

Water Star Award

The Water Star Award recognizes a coworker within Castle Rock Water for doing an excellent job in fulfilling the Department's Vision and Mission.

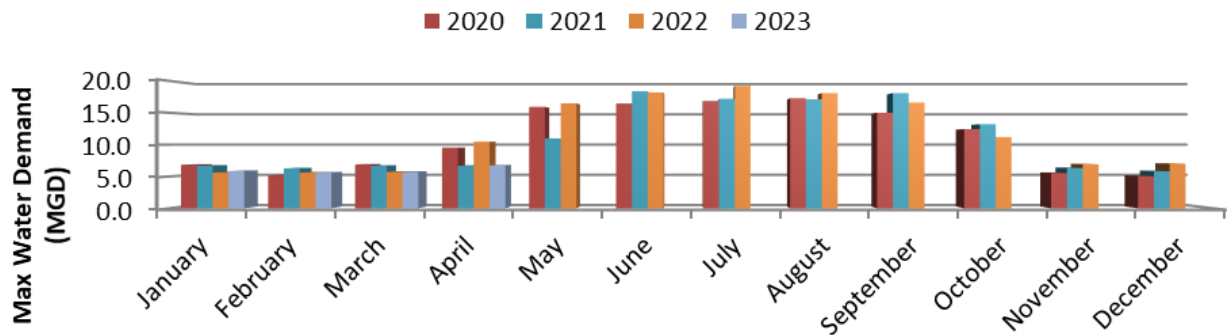
Ryan Livingston,
Water Distribution Supervisor,
received the Water Star award
from Greg in recognition of the
outstanding CDL training Ryan
coordinated and ran.



Water Resources

Water demand

Maximum demands inform us of the size of the infrastructure necessary to provide water service over short periods of time and help us to plan future water resources needs.



Max Daily Demand:

- 6.7 million gallons/day (MGD)
- 5-year average: 8.0 MGD
- 16% lower than the 5-year average

Water Demand Total:

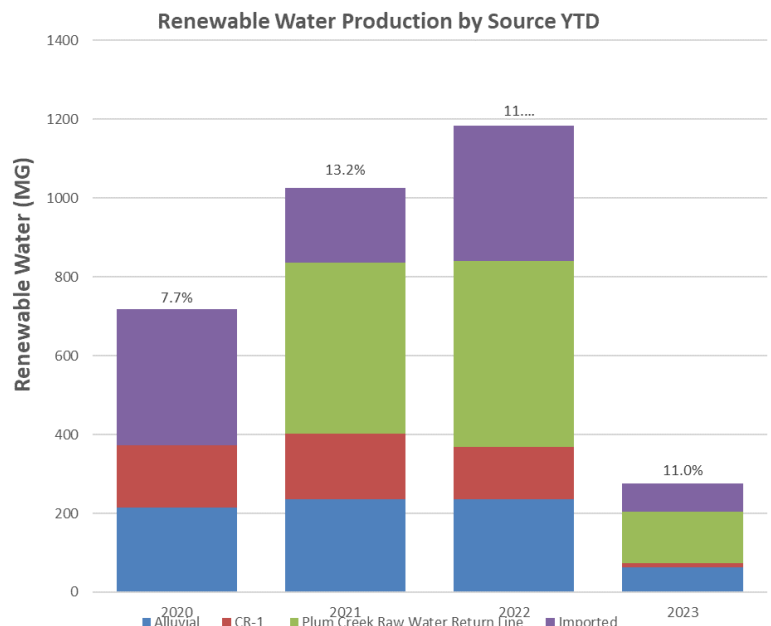
- The water demand total for April was 166.0 million gallons (MG) [509.3 acre-feet (AF)]
- 5% higher than the March 2023 total of 157.7 MG
- 17.2% Decrease from the previous year's April 2022 demand of 200.5 MG.

Renewable supplies

Renewable supplies are those water sources that are replenished by precipitation.

In total, renewable supplies accounted for 52.0% of the total water supply for the month (91.9 MG of 176.5 MG) and 44.2% of the annual water supply (276.4 MG of 624.8 MG).

- The CR-1 diversion produced an average of 0.00 MGD.
- The PC diversion produced an average of 1.77 MGD.
- The 14 alluvial wells produced an average of 0.61 MGD.
- The renewable water production average was 3.06 MGD.



Our goal is to reach 75% renewable water by 2050.

Water Resources

Reusable supplies

Reusable supplies are waters that are either from the non-tributary Denver Basin (deep wells) or imported supplies (such as WISE) that can be used over and over, to extinction. This number changes every month.

- The average reusable supplies used by Castle Rock for April 2023 is 35.1%.

Storage

Current reservoir storage

- Chatfield Reservoir: 593.97 AF
- Rueter-Hess Reservoir: Approximately 100 AF
- Castle Rock Reservoir No. 1 (CRR1): 141.79 AF

Drought

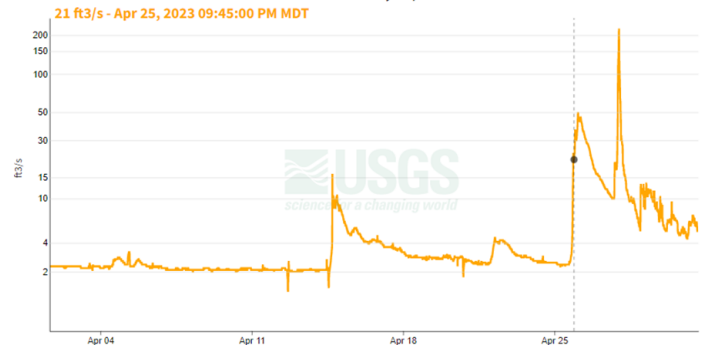
According to the most recent U.S. Drought Monitor maintained by the United States Department of Agriculture (USDA), Douglas County is experiencing **Moderate Drought (D1) conditions**.

Local Plum Creek supplies

East Plum CR Abv Haskins Gulch NR Castle Rock, CO - 06708800

April 1, 2023 - May 1, 2023

Streamflow, ft³/s ⓘ

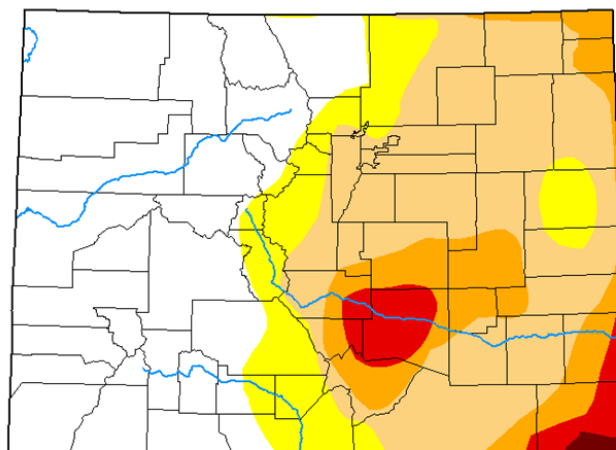


The hydrograph shows the estimated flows in the East Plum Creek basin.

- Flows ranged from 1.1 to 225 cubic feet per second (cfs).
- The monthly average streamflow was 5.4 cfs.
- The 24-year median is 22.0 cfs.

U.S. Drought Monitor Colorado

April 25, 2023
(Released Thursday, Apr. 27, 2023)
Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

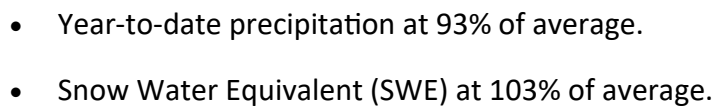
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

Water supply index

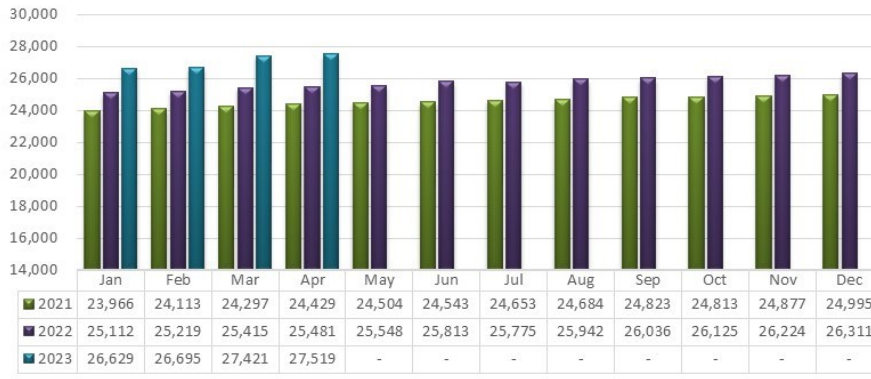
- The average WSI for April was 3.6.



Business Solutions

Customer Service & Billing

of Accounts Billed



The percentage of customers with online accounts before the conversion was 72%. Online accounts provide additional account and water department information as well as additional ways to pay.

CRgov.com/MyWaterBill

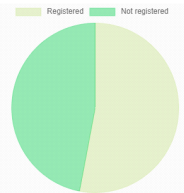
Customer Registrations

Total Customers
27129

Percent Registered
53.02%

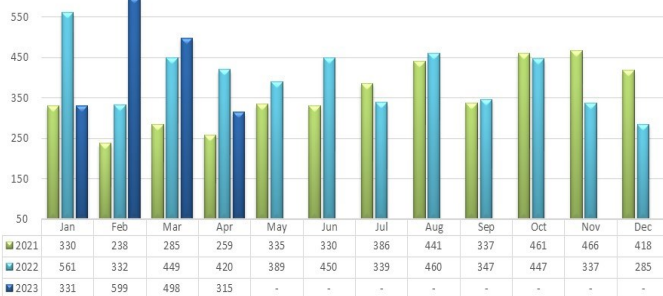
Total Registered
14383

Percent Unregistered
46.98%

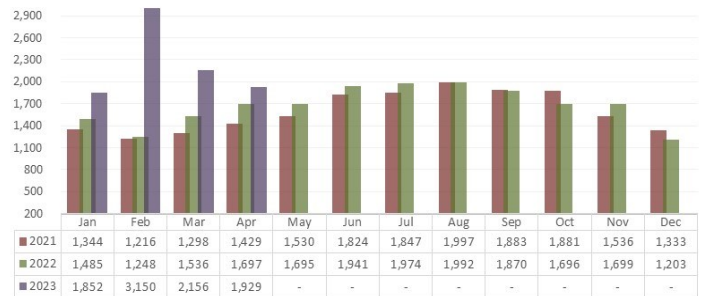


The volume of calls and email inquiries reflect the assistance provided to customers to enroll in the new online system launched 1/16/23.

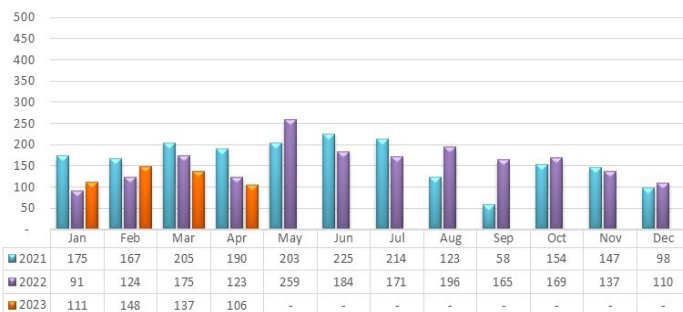
Mywaterbill Email Inquiries



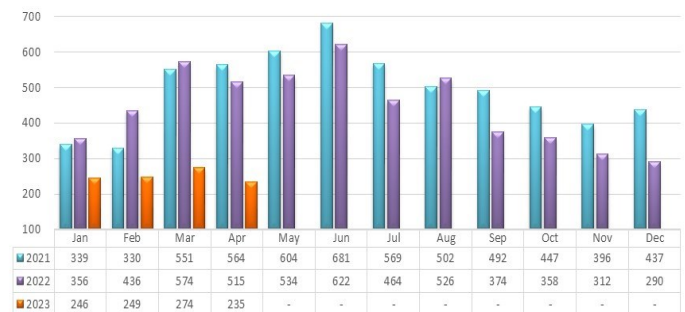
Customer Phone Calls



Walk-In Customers



Transfers of Water Service



Business Solutions

Customer Outreach & Education

Social media outreach		Date	Impressions
FB	Spring Up the Creek announcement	4/6	986
FB	ColoradoScape Contest announcement	4/7	1429
FB	Win a ColoradoScape	4/13	20063
FB	Council update: Plum Creek Water Purification Facility expansion	4/14	1015
FB	Earth Day/Poop Fairy	4/19	831
FB	Council update: IGA CRW and DC for wastewater	4/25	1417
FB	What is WaterSense?	4/26	1459
FB:video	ColoradoScape contest	4/21	322
FB:video	ColoradoScape contest	4/21	13682
Insta	Spring Up the Creek event.	4/6	1890
Insta	April's #PlantOfTheMonth	4/7	2101
Insta	ColoradoScape contest	4/28	1613
Insta:reel	ColoradoScape contest	4/7	2456
Insta:reel	ColoradoScape contest	4/21	3137
Insta:story	ColoradoScape contest	4/13	1167
			11,455
Email	ColoradoScape contest last chance	4/27	(55% open rate) 811
Email	HOA: Seminar recap	4/20	(44% open rate) 13,156
Email	Water conservation month	4/17	(65% open rate)

Next door

Members – 38,842

(.54 % increase)

34 posts – 22,238 impressions

Top performer: The most popular post for the month was a ColoradoScape reminder on April 14. The post had 6,104 impressions with 11 reactions.



The Engineering and Ops teams host a tour of CRW facilities on select Fridays for staff to become more familiar with our assets.



As part of a job shadow program, CRW took a student from the Colorado Early Colleges charter school to Meadows Water Treatment Facility.



CRW held the first of three ColoradoScape Design workshops. Between 40 to 70 people have registered for each class.



Meters



Meters Read

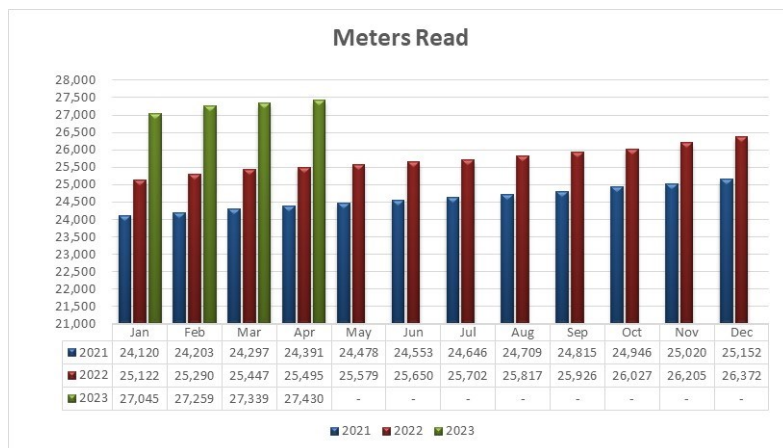
Meters are read the first two days of every month. The number of meters read continues to increase month to month and is a significant increase over last year.

Skipped Reads

Apr. 23: 0.80%

Measuring skipped reads is a strong indication of the level of preventative maintenance being done by our team. A skipped read is indicative of a problem with the metering infrastructure (i.e. battery, wiring, etc.). Fewer skipped reads means more properly working meters, which is good for all our customers.

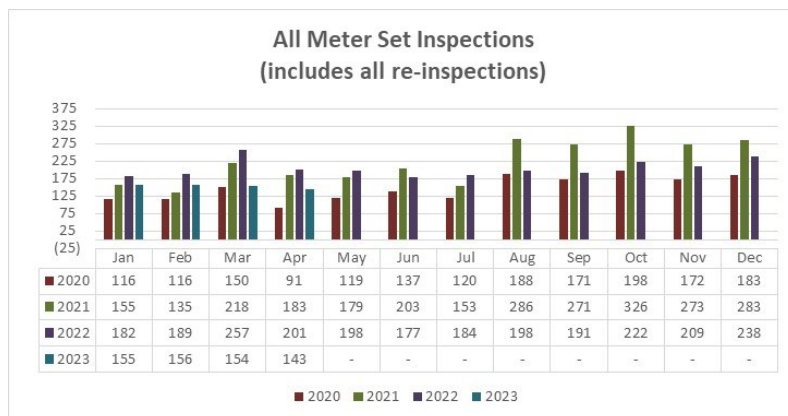
The AWWA standard is 2%, so we still continue to stay well below the industry average.



Meter Set Inspections

Re-inspections: 23%

Meter set inspections are required on all new meters installed. This ensures that the meters are installed per specifications and according to Town code. At the time of the inspection, the curb stop is tested for operability and the MXU is installed which provides reading capability for our drive by technology. Re-inspections are needed to ensure installation meets code when original inspections are failed.



Work Orders

Meter services performs a variety of service work orders every month beyond meter reading. These include curb stop maintenance, meter replacement and repair, final reads for transfers of service, disconnection and reconnections, meter set inspections, and more.

Data not available

Operations & Maintenance

LEVELS OF SERVICE

April 2023

Drinking Water Compliance

Castle Rock Water will deliver water that meets or surpasses the requirements of both Primary Drinking Water Regulations and Secondary Maximum Contaminant Levels 100% of the time.

One hundred routine samples were completed and no issues discovered.

Pressure Adequacy

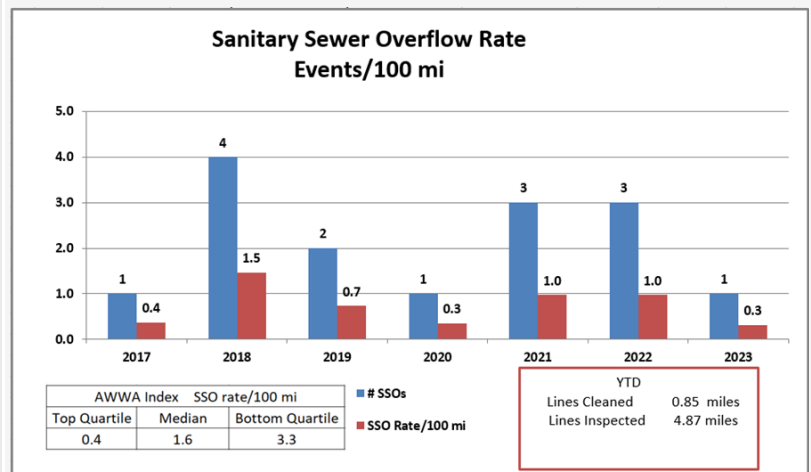
< 1% of our customers will experience less than 43 pounds per square inch (psi) of pressure at the meter during normal operations.

There were no water pressure issues in April.

Sewer System Effectiveness

<1% of our customers will experience a sewer backup caused by the utility's sewer system per year.

There were no sanitary sewer issues in April.



Water Quality Complaints

Castle Rock Water remains in the Top Quartile for water quality complaints based on the AWWA benchmarking.

***There were no water quality complaints for April.
We conducted 3 educational visits.***

Utility locates



Water locates conducted

April tickets: 1,769 tickets

Locating public water, wastewater and stormwater lines



Operations & Maintenance

LEVELS OF SERVICE

April 2023

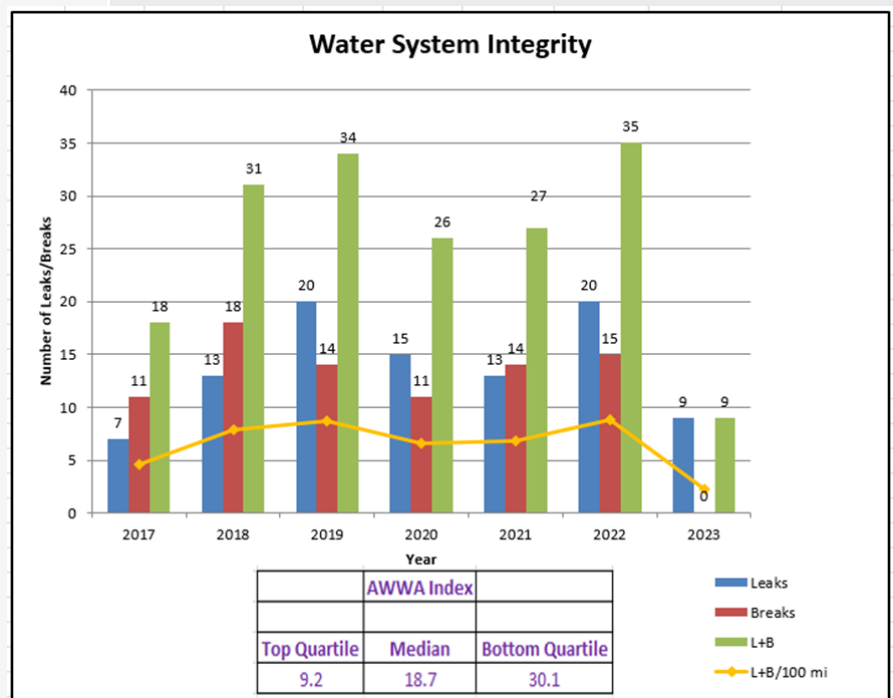
Drinking Water Supply Outages

<5% of our customers will experience water outages for one or more events totaling more than 30 hours/year.

Castle Rock Water remains in the Top Quartile for water system integrity based on the American Water Works Association benchmarking.

There were three water system integrity issues in April:

- A fire hydrant valve replacement was conducted in the Glovers Neighborhood. During the repair sixteen homes were affected with little to no pressure for less than one hour.
- There was a park Irrigation service line leak on Shire Way, six residents were affected with little to no pressure during the 30-minute repair.
- There was a leaking service line fitting that was repaired in the Glover's neighborhood. During the repair 21 homes experienced little to no pressure for less than one hour.



Operations & Maintenance

The Stormwater Team completed an outfall repair on Canyon Dr. This long process included countless weather delays. In order to rehabilitate the aged stormwater infrastructure, staff decided that the channel needed to be cleaned out, and the old rock rip rap replaced, which necessitated the removal of vegetation that had grown in the drainage. The old rap was hauled back to the yard to dry, then staff separated the rock, sediment and organics. Removing the rap also allowed staff to remove all of the sediment, that had washed in over the decades. Then the channel was cleaned and the channel walls were reshaped. Staff also decided that a check dam was needed upstream of the outfall, for proper flow and to reduce sediment buildup. A driveway, gate and steps were installed upstream of the outfall to enable ease of maintenance access. Reusing this rock significantly cut the overall cost of the project. Casey Stevenson, Ben Powell, Chad Francis, Aaron Matthewson and Rob Daniels did a great job!



The Plant Maintenance team rebuilt the valve stems and replaced the TracVac valves at PCWPF.

