

MONTHLY REPORT

October 2023



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

Making ColoradoScape the norm

The Meadows HOA, with the myriad of irrigation accounts, has acres of open spaces. However, much of these landscaped areas consist of non-functional turf. This is turf grass that is not used for relaxation or recreation. It is typically in medians, along paths



The HOA began their turf replacement several years ago, and to date, has received rebates from Castle Rock Water totaling around \$100,000. The ColoradoScape rebate can be used for removing 15,000 square feet per non-residential water account. Many of the renovated areas in the Meadows were larger than 15,000 square feet limit. Several other HOAs have taken advantage of the ColoradoScape turf replacement rebate, but not to the extent of the Meadows.

The grass mix the HOA contractor used consisted of 5 grasses. The grass varieties include Crested Wheat Grass, Sheep Fescue and Alkaligrass. There is also a rye that will germinate quickly and provide coverage while the other grasses grow in. It will eventually be choked out by the other, more regionally adaptive grasses. Their landscape contractor has good experience with turf conversion to native mixes and hopes to be

and surrounding parks. Meadows HOA has opted to tear out the water guzzling Kentucky bluegrass and replace it with a lower water use variety. In 2023, Meadows HOA removed more than 70,500 square feet of Kentucky bluegrass and planted a native blend.

Water savings was the impetus of this project and the turf replacement will realize reduced water costs for their residents and allow maintenance work to be focused on other areas. With less mowing needs, the landscape contractors can pay more attention to irrigation management, plant health and overall aesthetics for the community.



watering these areas only once a month in the seasons ahead. The contractor replaced the 6-inch sprinkler heads with 12-inch ones to allow for proper irrigation when the grasses reach their full height.

The areas will typically not require mowing, especially in the first three years of establishment. Without the weekly 'mow and blow', the landscape professionals can take more care in preventing water waste from ill functioning equipment and give attention to plant care and replacement. It is also anticipated the Meadows will continue their replacement of non-functional turf.



Additionally, this successful native grass conversion has become useful to the planning for the 2024 turf replacement program. In the past, Castle Rock Water has not allowed for residential native turf conversions, as it did not call for the removal of overhead irrigation systems. With the growing interest in native grass conversions, efforts will be made to help individual customers realize the need to make existing overhead irrigation systems appropriate for the native grass conversions. Castle Rock Water will continue to make efforts to improve this program which is designed to generate a significant water savings to the community.

Good job!

WELCOME

New Hire



Erin Evans
CIP Project Manager
Engineering

Promoted!



Mitch Horner
was promoted through
Career Progression to a
Water Plant Operator III
with his Water Treatment
B certification.

Congratulations!



Nic our SCADA
Supervisor passed his
Professional Engineer
Exam and will now be
known as **Nicolas Van
Kooten, PE!**



Spiciest	Nathan Hannick Frank Main
Most Unique	Maryjo Woodrick
Best Overall	Nathan Hannick



Good job!

Certified!



Steven Tamariz
Distribution 3 Operator
Certification



Aaron Mathewson
Distribution 1 Operator
Certification



Chad Francis
Collections 2 Operator
Certification



Dwight Keller
Collections 3 Operator
Certification



Sean Kenny
Distribution 2 Operator
Certification



Ben Powell
Collections 2 Operator
Certification



Anthony Pastorello
Certified Backflow Tester
Certification



Laura Kindt
Floodplain Manager
Certification

Good job!

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.



Mike Murphree, Water Distribution Operator, received the Water Star Award from Roy Gallea, due to his exemplary work ethic. Though Operations, is by nature on-call, Mike is always available and ready. He seems to be called out more than others and his commitment is appreciated!

High Five!



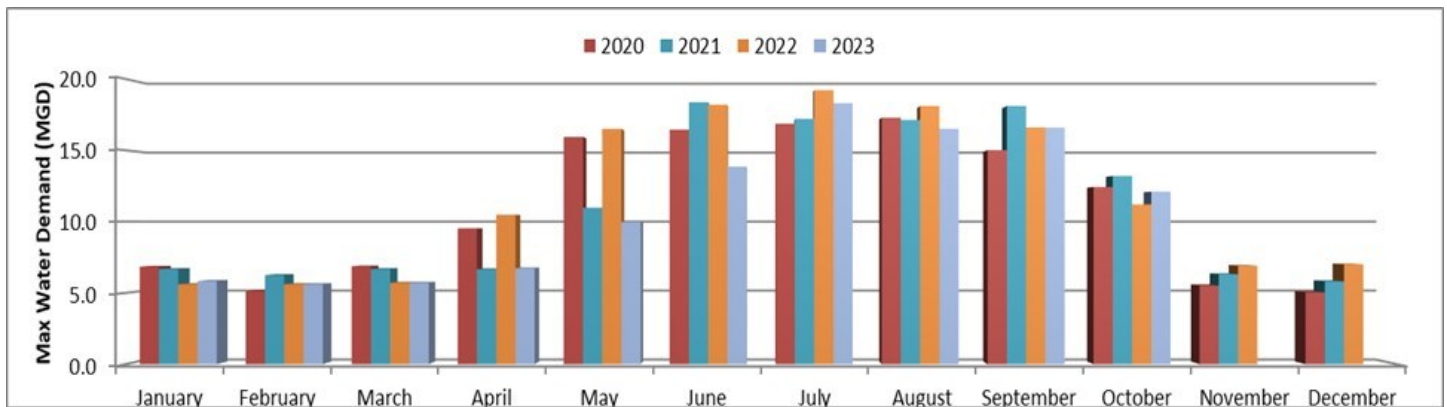
Avery Worland
Ryan Cupano
Jackson Byrnes
Zach Stubbe
Greg Swaney
Jennifer Pomplun
Jill Skelton
Susan Salvatori
Debbi Davenport
Tyler Ray
Kaitlin MacPherson
Vicki Knopp

Nichol nominated this team for a job well done on disconnects. The Billing Team generated a higher than average batch of letters with 1,148 accounts receiving disconnect notices this month compared to the 10-year average of 911 accounts for October. The team then was able to generate reminder emails to all delinquent accounts for the first time since moving to new billing system, Northstar. Due to their efforts, they were able to bring down the number of delinquent accounts eligible for disconnection to only 160 by the Monday morning of disconnect week. The Meters team was short staffed for disconnects, so Avery Worland and Jennifer Pomplun volunteered to go into the field to help disconnect. Avery, Ryan, Jackson, Zach, Jennifer and Greg disconnected all 160 properties in only two days. While disconnecting so many properties in a short time is beneficial to get disconnects over quickly, it does make for a lot of work for customer service and reconnecting properties! The CSRs took 339 phone calls in two days in response to the shut-offs, with many of those calls being difficult with upset customers. At the end of the day on Tuesday, there were still close to 50 properties still needing to be reconnected! The Meters team stayed out in the field well past 5:00 p.m. in order to get everyone who had paid reconnected on the same day as payment was received, and Jennifer continued to field calls from customers to let them know that they were on the list for reconnection and would be reconnected that evening. All in all, this team did a fantastic job on disconnections from the very first stages of generating notices to getting everyone who paid turned back on. Great job everyone!!

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:

- 12.1 million gallons/day (MGD)
- 5-year average: 12.1 MGD
- same as the 5-year average

Water Demand Total:

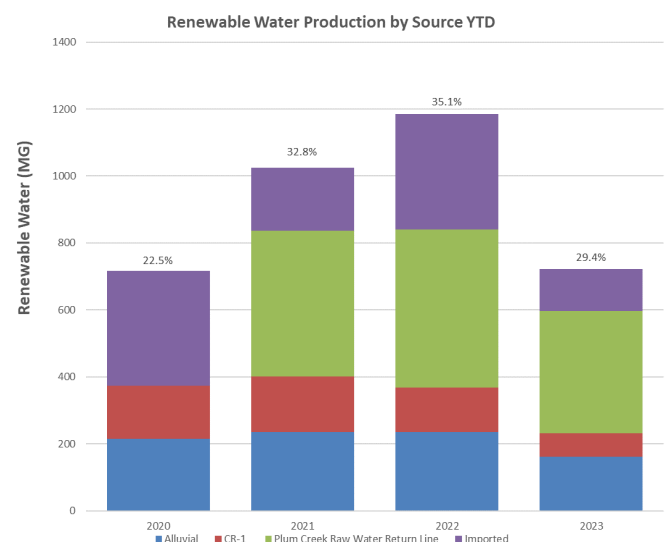
- The water demand total for October was 253.3 million gallons (MG) [777.3 acre-feet (AF)]
- 28% lower than the September 2023 total of 353.5 MG
- 0.9% decrease from the previous year's October 2022 demand of 255.5 MG

Renewable supplies

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

In total, renewable supplies accounted for 24.1% of the total water supply for the month (58 MG of 242 MG) and 29.3% of the annual water supply (720 MG of 2,459 MG)

- The CR-1 diversion produced an average of 0.61 MGD
- The PC diversion produced an average of 1.18 MGD
- The 14 alluvial wells produced an average of 0.61 MGD.
- The renewable water production average was 1.88 MGD



Our goal is to reach 75% renewable water by 2050 and 100% by 2065.

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 October 2023 is 31.9%.

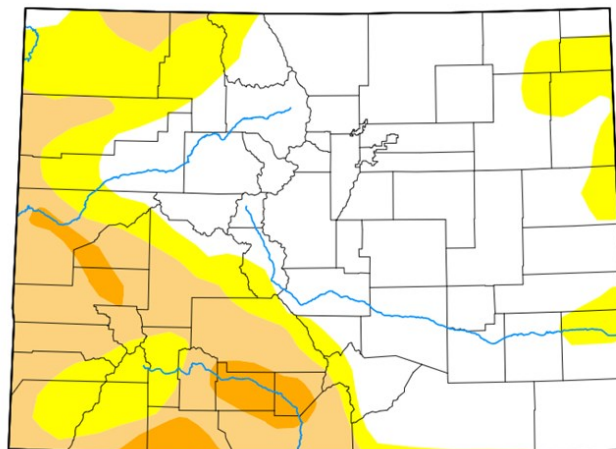
Storage

Current reservoir storage

- Chatfield Reservoir: 1,990 AF
- Rueter-Hess Reservoir: approximately 103 AF
- Castle Rock Reservoir No. 1 (CRR1): 127.72 AF

Drought

According to the most recent U.S. Drought Monitor maintained by the United States Department of Agriculture (USDA), **Douglas County is not experiencing any drought conditions**, however, 42% of Colorado is Abnormally Dry, 22% is in Moderate Drought and 4% is in the Severe Drought classification.

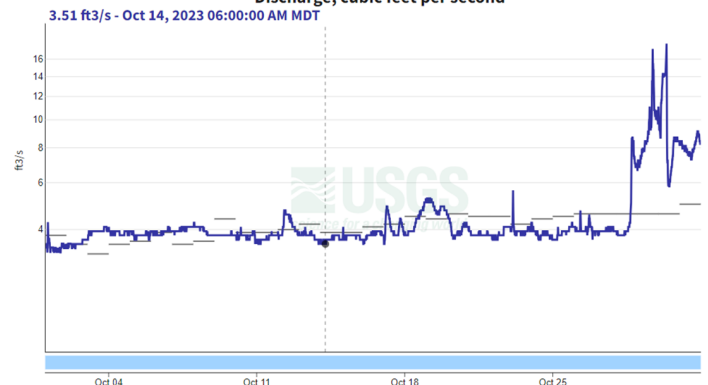


Local Plum Creek supplies

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

October 1, 2023 - October 31, 2023

Discharge, cubic feet per second



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

- Flows ranged from 3.26 to 16.48 cubic feet per second (cfs)
- The monthly average streamflow was 4.44 cfs
- The 24-year mean is 5.7 cfs

Map released: Thurs. November 2, 2023

Data valid: October 31, 2023 at 8 a.m. EDT

Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

Authors

United States and Puerto Rico Author(s):

[Brian Fuchs](#), National Drought Mitigation Center

Pacific Islands and Virgin Islands Author(s):

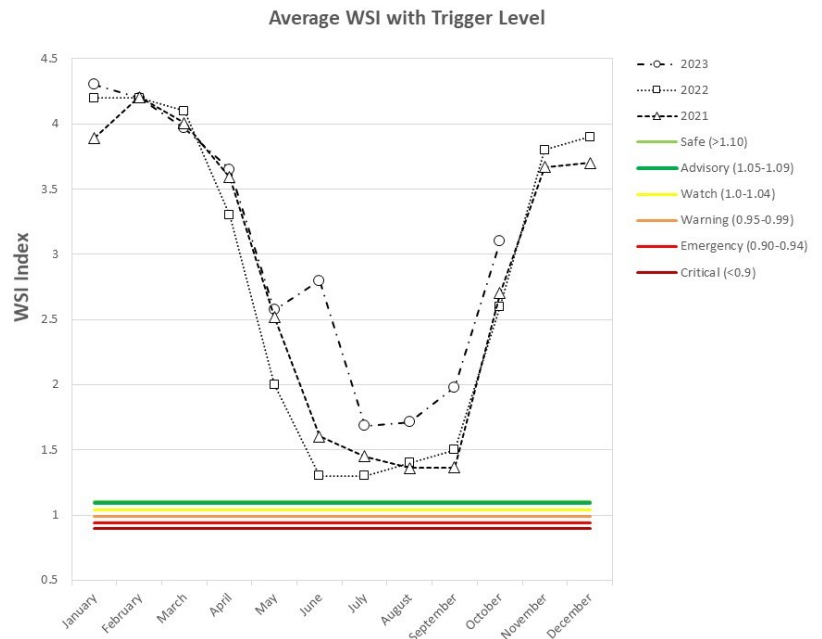
[Brad Rippey](#), U.S. Department of Agriculture

Water Resources

Water supply index

The Town of Castle Rock's Drought Management Plan uses a Water Supply Index (WSI) for the Town that accounts for local conditions relative to the Town's capability to address our water resources and daily water demands. Anything below a 1.1 will trigger a drought stage relative to its severity.

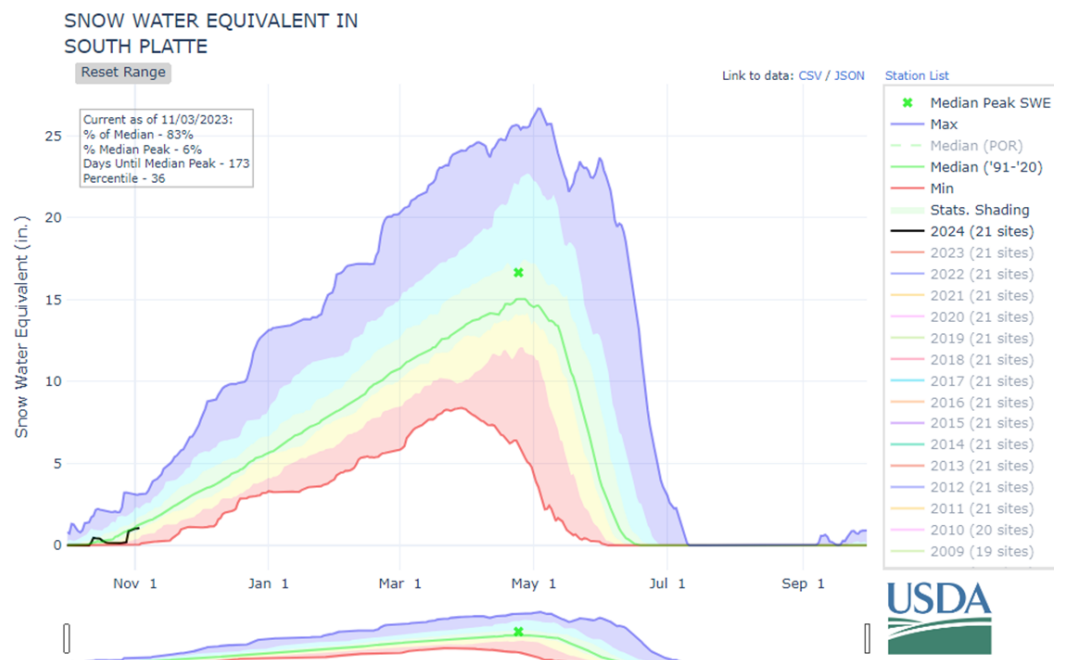
- The average WSI for October was 3.1.



Snow Pack

South Platte River Basin Snow Pack

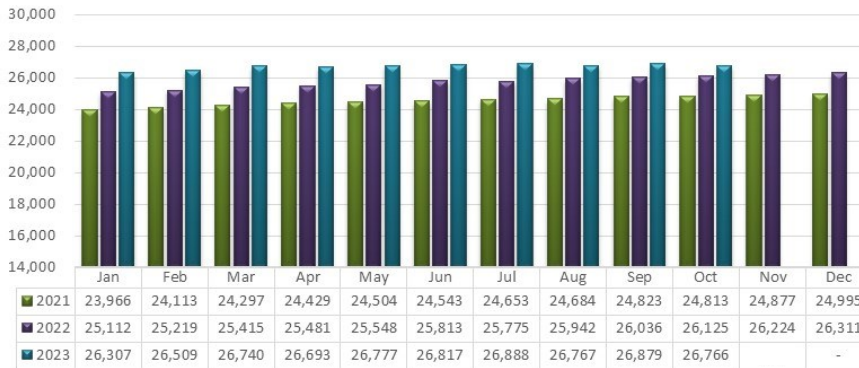
- Year-to-date precipitation at 71% of median
- Snow Water Equivalent (SWE) at 83% of median



Business Solutions

Customer Service & Billing

of Accounts Billed



CRgov.com/MyWaterBill

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.

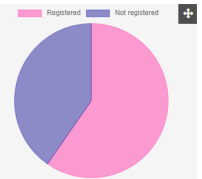
Customer Registrations

Total Customers
28968

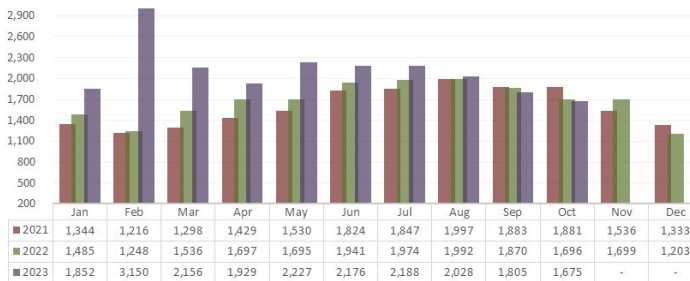
Percent Registered
59.66%

Total Registered
17282

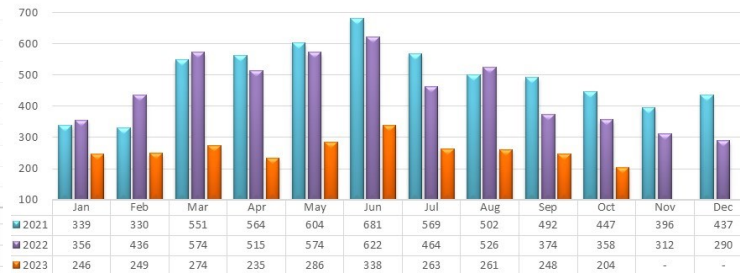
Percent Unregistered
40.34%



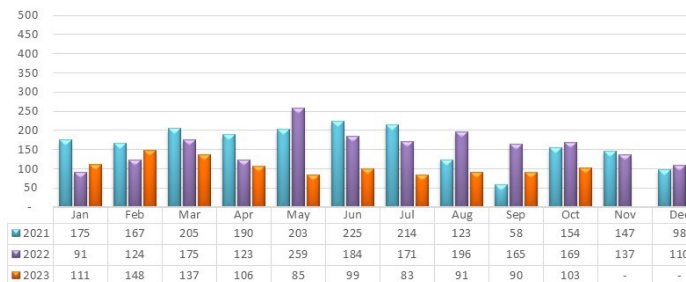
Customer Phone Calls



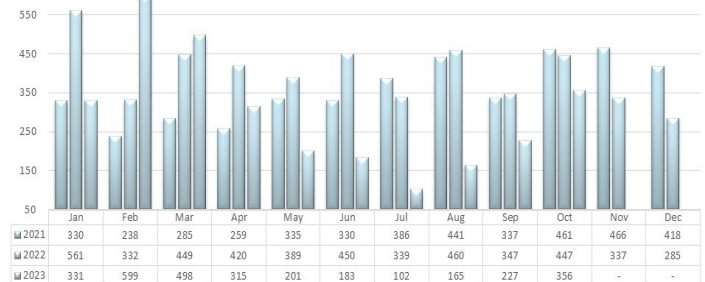
Transfers of Water Service



Walk-In Customers



Mywaterbill Email Inquiries



Customer Outreach & Education

Social media outreach

		Date	Impressions
FB	WW: Shower Better Month	10/4	1376
FB	WW: Irrigation blow out reminder	10/11	6160
FB	WW: Backflow preventer	10/18	4017
FB	WW: Sewer backup testing	10/26	1189
FB	News Release: Rebate	10/12	1269
FB	Did you know? Long term plan	10/17	5205
Insta	Plant of the month: Bee Balm	10/6	941
Insta	News Release: Rebate	10/12	4706
Email	Winterize video	10/09	12,011(60% open rate)
Email	HOA: 2024 rates	10/10	104 (57% open rate)

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.

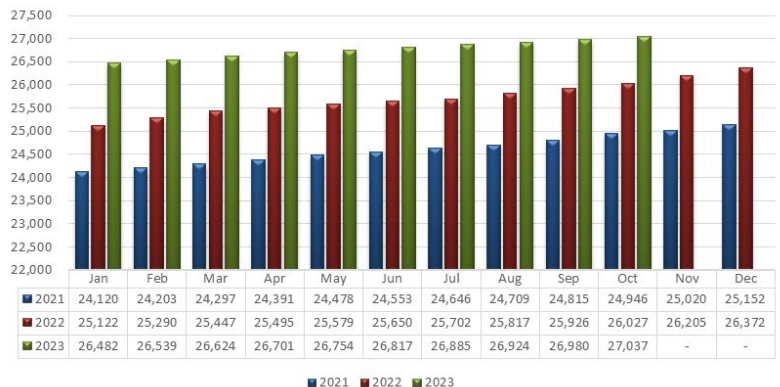
Skipped Reads

Oct.: 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.

Meters Read

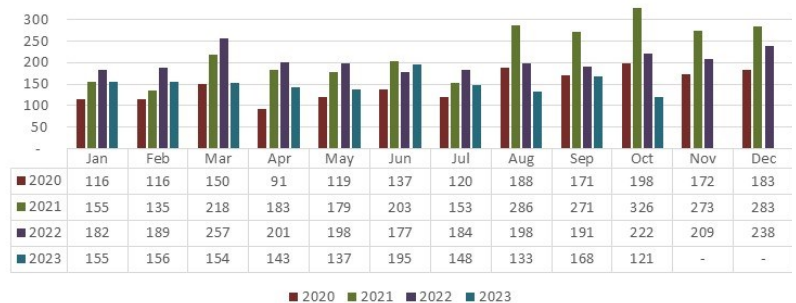


Meter Set Inspections

Re-inspections: 26%

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.

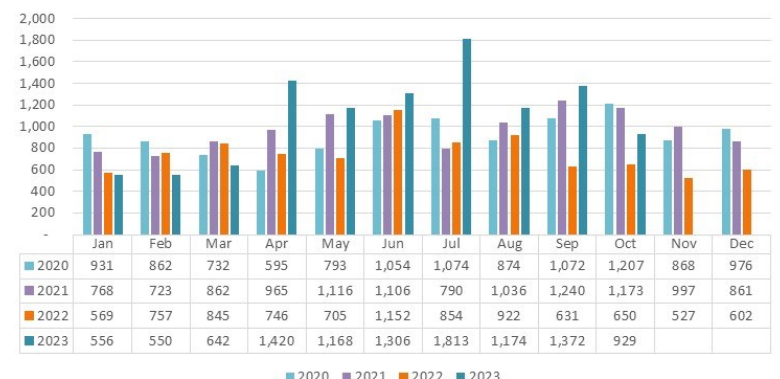
All Meter Set Inspections
(includes all re-inspections)



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.

ALL Service Work Orders



Operations & Maintenance

LEVELS OF SERVICE

October 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

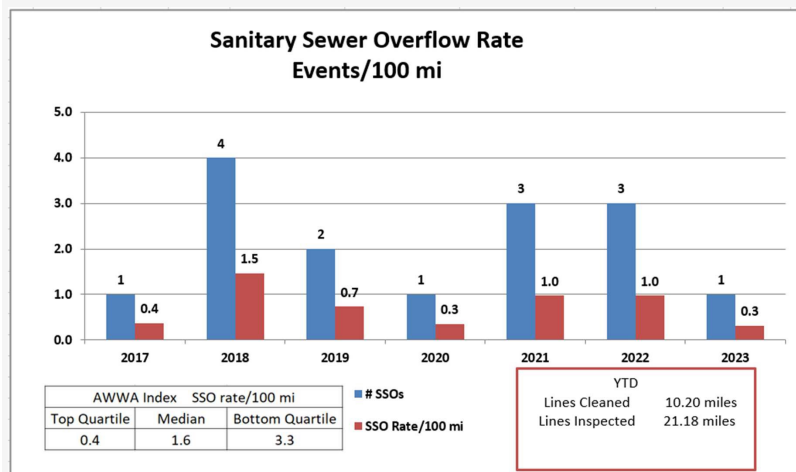
< 1% of our customers will experience less than 43 pounds per square inch (psi) of pressure at the meter during normal operations.

There were no water pressure issues in October.

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 October.



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 October.
We conducted 2 educational visits.***

Utility locates



Water locates conducted
Oct.: 1,487 locate tickets

Locating public water, wastewater and stormwater lines.



Operations & Maintenance

LEVELS OF SERVICE

October 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.

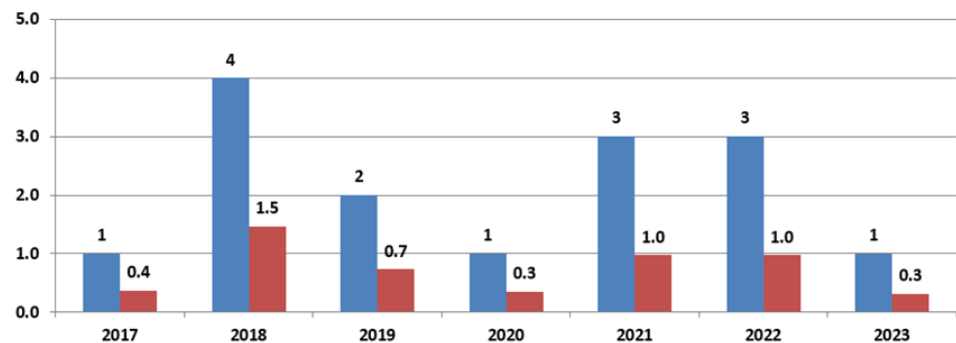


There were 2 water system integrity issues in Oct.

- There was a water main repair in Plum Creek. The Distribution team removed and replaced 25 feet of deteriorated 8" ductile iron pipe with 8" PVC pipe, which had caused three previous main breaks. A new 8" Alpha Romac gate valve was installed to provide isolation capability to the western section of the line. During this water line replacement, 27 residents were without water for five hours.
- There was a service line leak in the Cobblestone neighborhood. Nine homes were out of water for less than 30 minutes during the repair.



Sanitary Sewer Overflow Rate Events/100 mi



AWWA Index SSO rate/100 mi		
Top Quartile	Median	Bottom Quartile
0.4	1.6	3.3

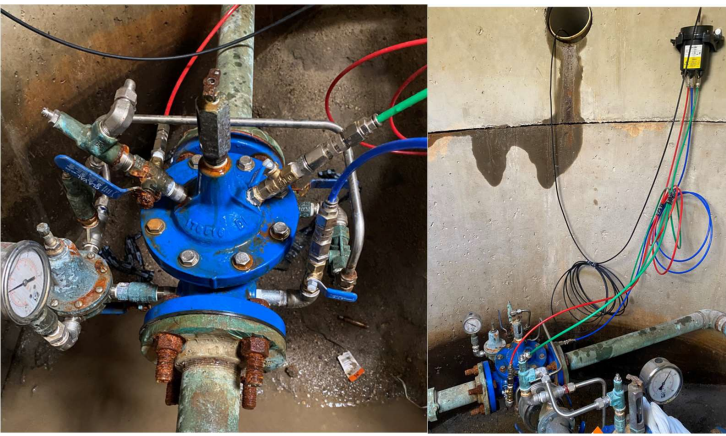
■ # SSOs
■ SSO Rate/100 mi

YTD
Lines Cleaned 10.20 miles
Lines Inspected 21.18 miles

Operations & Maintenance



The Distribution team attended the Denver area Trenching and Shoring Summit. These types of events help the team identify the best products and methods for working safely in their trenches and excavations during repairs.



Ryan Livingston's Distribution team installed the final I20 monitor at Bell Mountain Ranch. This will help identify PRV and pressure issues in the Bell Mountain neighborhood.



The Plant Maintenance crew removed the old filter and piping from the Founders well house to make room for a new SCADA cabinet



Groundwater from the Black Pine PRV was being drained into the storm sewer through the gutter. Staff was able to reroute the original drainage pattern, piping the water directly into the storm sewer manhole.