

MONTHLY REPORT

August 2023



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

Emergency Sodium Hypochlorite Tank Replacement at Ray Waterman

In September 2022, plant operators found that the 2,000-gallon sodium hypochlorite tank in the east bulk tank room in the Ray Waterman chemical building was leaking at the bulkhead pipe connection. After further inspection, it was found that the 21-year-old plastic tanks in both chemical room were brittle and beginning to buckle.

Plant mechanics stopped the leak but could not implement a permanent fix. New Fiberglass Reinforced Tanks (FRP) were ordered from Municipal Treatment Equipment (MTE) but they had to be manufactured in segments small enough to pass through the man doors of the chemical rooms and be assembled in place. The tanks were ordered and a fiberglass installer scheduled to complete the work in October 2023.

In July 2023, the tank started leaking again, smack in the middle of high demand season. The situation was declared an emergency. MTE scrambled and found an available fiberglass installer from Oklahoma and plant staff hired Garney Construction to demo the tank and replace the piping once the new FRP tank was installed.

The new tank was installed and placed into service within one week of first finding the leak. The second tank is still scheduled to be replaced in October 2023.

The cost for the emergency work increased the original price of \$69,178 by an additional \$23,000, with a total cost of \$92,178.



Cracks forming on tank bulkhead



Original plastic Hypo tank



Newly installed Hypo tank

Good job!

WELCOME

New Hires



Brian Kelley
Senior Plan Review
Engineer



Alexandra Daws
Water Operator I



Yusuf Adeniji
Water Plant Operations
Seasonal Maintenance I

Certified!



Steven Tamariz
Colorado Collections II
Operator Certification



Ben Powell
Colorado Collections I
Operator Certification



Sean Kenny
Colorado Collections II
Operator Certification

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.



Jill Skelton, Customer Service Representative, was awarded the Star Award from Julia for her dedication, thoroughness and friendliness. Jill makes sure everyone gets the right information, effortlessly fields calls and calmly handles any situation. Jill is greatly appreciated.

Good job!

High Five!



Chad Francis
Ben Powell
Aaron Mathewson
Rob Daniels

On a recent visit to show new hires the stream gage along East Plum Creek Trail, a large pile of debris was observed blocking the stream and preventing accurate reads from the gage. Rob Daniels and his team were notified of the debris and worked quickly to get this cleaned up by the next day. A big thanks to our team for responding so quickly to ensure that we are maximizing our water rights!

Jill Skelton
Tyler Ray

Both showed excellent engagement with our Mission and Vision by responding to my question regarding water rights in my recent update to staff.

Bryan McCullah

Bryan stopped his work on Thursday to help with a state of the town video being done by the Mayor. Bryan agreed to be on camera and play an important role in the video without any notice showing his commitment to the team and his ability to deal with change. This kind of commitment to doing whatever needs to be done is part of how we become a National Leader.

Field trip to Parker Midsection Pipeline



Employee appreciation event

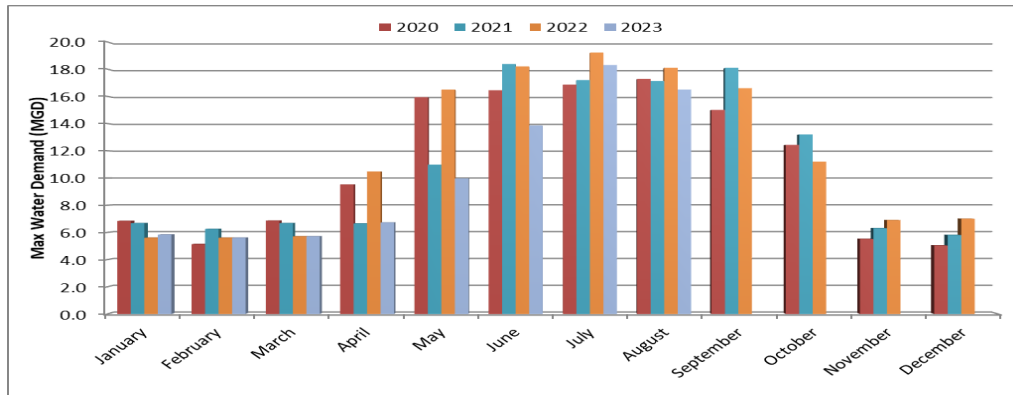
Castle Rock Water raised \$300 for the Help and Hope Center during the August Dunk Tank event.



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:

- 16.5 million gallons/day (MGD)
- 5-year average: 17.0 MGD
- 3% lower than the 5-year average

Water Demand Total:

- The water demand total for August was 415.1 million gallons (MG) [1,273.9 acre-feet (AF)]
- 6% lower than the July 2023 total of 443.7 MG
- 9.7% Decrease from the previous year's August 2022 demand of 459.9 MG.

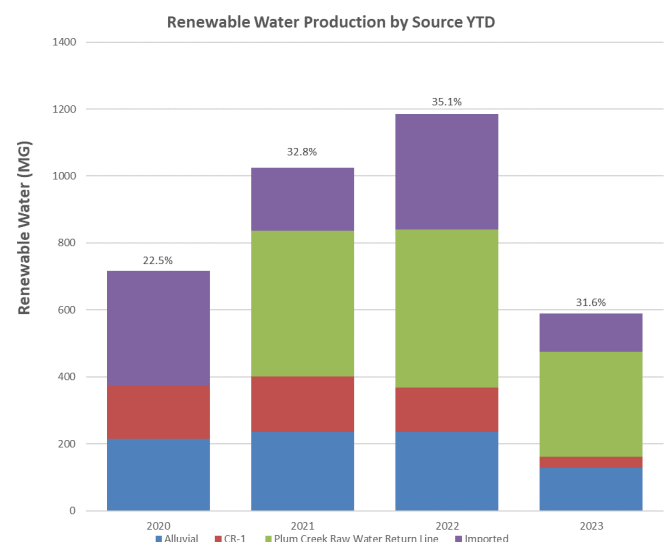
Renewable supplies

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

In total, renewable supplies accounted for 20.9% of the total water supply for the month (72 MG of 347 MG) and 31.6% of the annual water supply (589 MG of 1,862 MG).

- The CR-1 diversion produced an average of 0.0 MGD
- The PC diversion produced an average of 1.50 MGD
- The 14 alluvial wells produced an average of 0.46 MGD
- The renewable water production average was 2.33 MGD

Note: Because of the high surface stream flows in East Plum/Plum Creek, CR-1 and the PC Diversions experienced some damage and sedimentation issues which limited the amount of water production that otherwise could have occurred.



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 August 2023 is 52.6%

Storage

Current reservoir storage

- Chatfield Reservoir: 2,000.00 AF
- Rueter-Hess Reservoir: 107.00 AF
- Castle Rock Reservoir No. 1 (CRR1): 87.39 AF

Drought

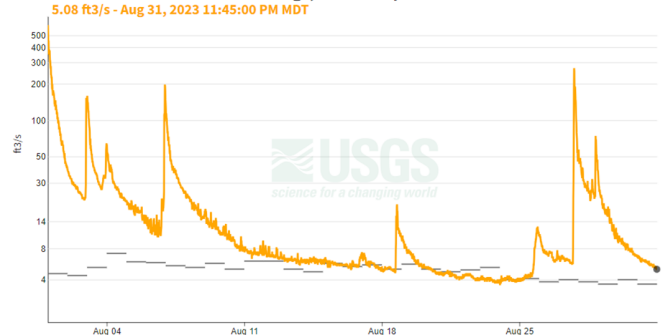
According to the most recent U.S. Drought Monitor maintained by the United States Department of Agriculture (USDA), **Douglas County is not experiencing any drought conditions**, however, 29.32% of Colorado is Abnormally Dry, 13.97% is in Moderate Drought and 0.93% is in the Severe Drought classification.

Local Plum Creek supplies

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

August 1, 2023 - August 31, 2023

Discharge, cubic feet per second

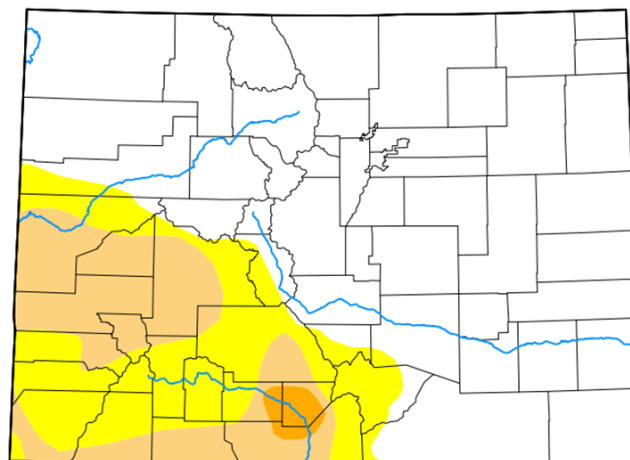


The hydrograph shows the estimated flows in the East Plum Creek basin.

- Flows ranged from 3.65 to 596 cubic feet per second (cfs)
- The monthly average streamflow was 18.8 cfs
- The 24-year mean is 4.7 cfs

U.S. Drought Monitor Colorado

August 29, 2023
(Released Thursday, Aug. 31, 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>

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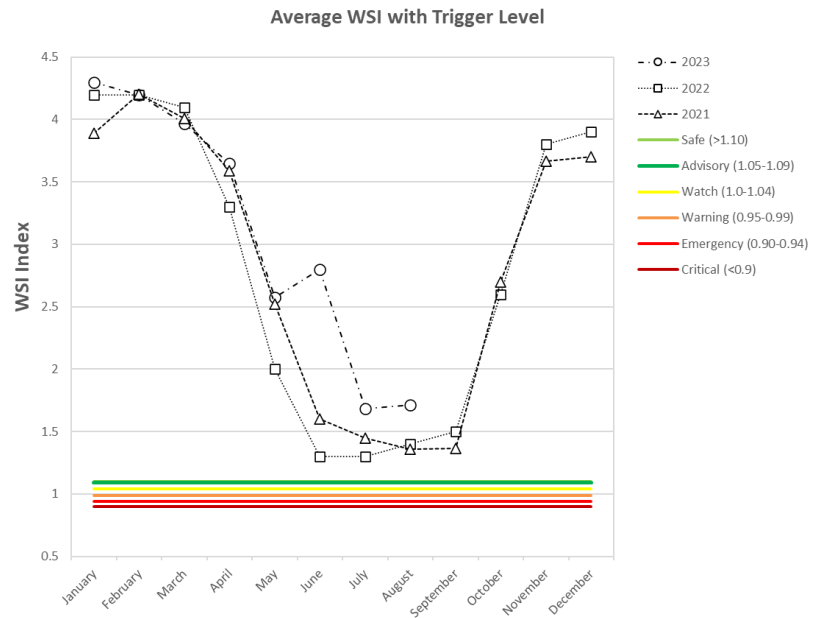
droughtmonitor.unl.edu

Water Resources

Water supply index

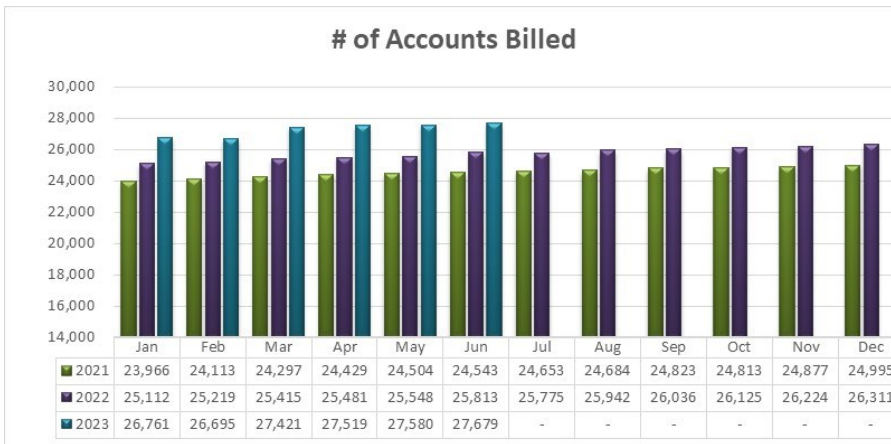
The Town of Castle Rock's Drought Management Plan uses a Water Supply Index (WSI) for the Town that accounts for local conditions relative to the Town's capability to address our water resources and daily water demands. Anything below a 1.1 will trigger a drought stage relative to its severity.

The average WSI for August was 1.7.



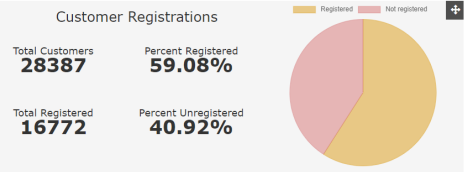
Business Solutions

Customer Service & Billing

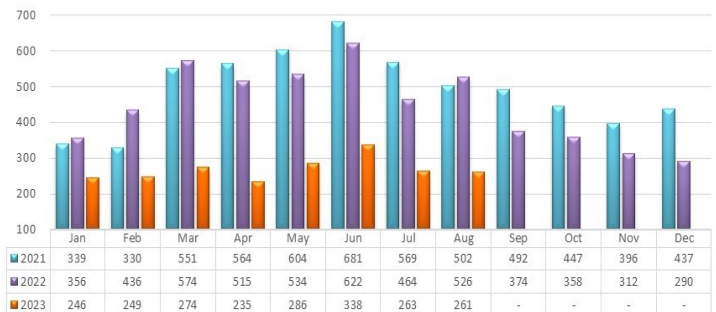


CRgov.com/MyWaterBill

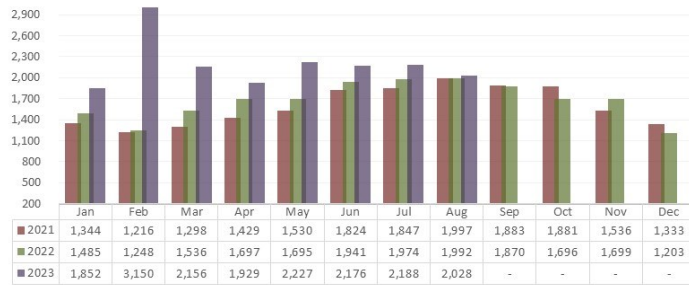
The percentage of customers with online accounts before the conversion was 72%. Online accounts provide additional account and water department information as well as additional ways to pay.



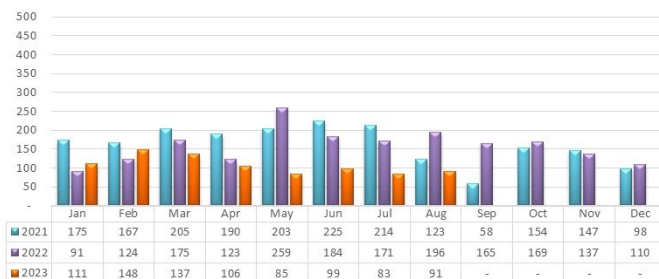
Transfers of Water Service



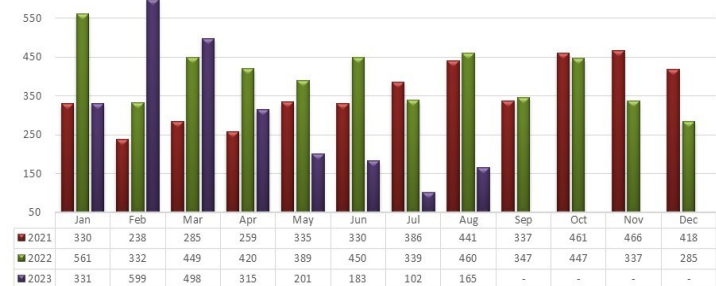
Customer Phone Calls



Walk-In Customers



Mywaterbill Email Inquiries



Customer Outreach & Education

Social media outreach

FB	Leaks
FB	Plant tours
FB	Grass turf
FB	Troubleshooting
FB	Illicit discharge
Insta	Plant of the month: Agastache
Email	HOAs and the xeric law
Email	HOA: Design assistance

Date Impressions

8/2	1,126
8/9	886
8/16	6,624
8/23	1,972
8/30	1,145
8/16	1,452
8/11	14,640 (75% open rate)
8/11	108 (59% 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

August: 1.06%

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.

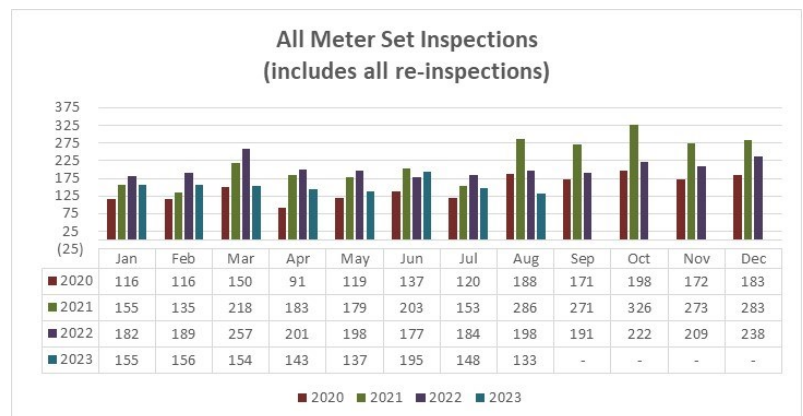
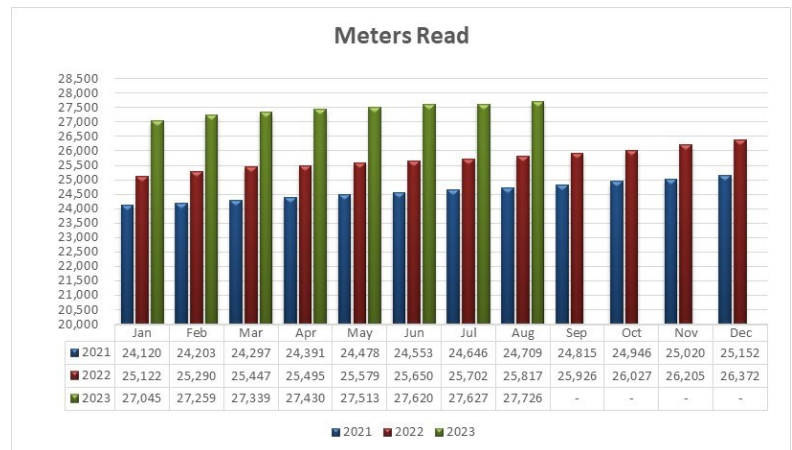
Meter Set Inspections

Re-inspections: 31%

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.



Operations & Maintenance

LEVELS OF SERVICE

August 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

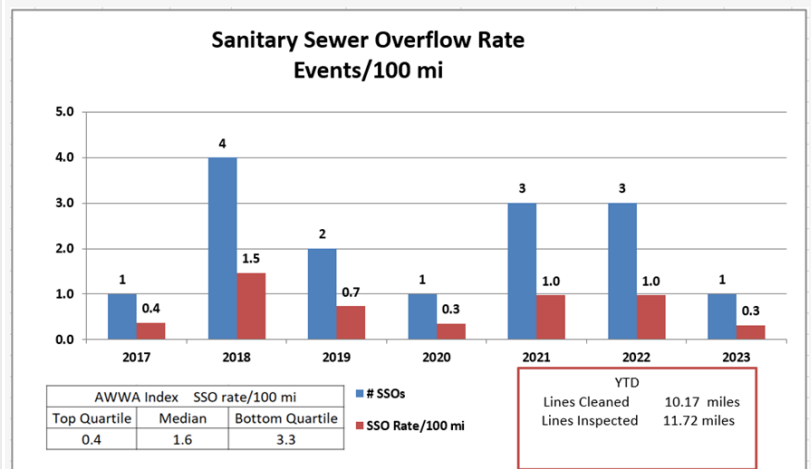
< 1% of our customers will experience less than 43 pounds per square inch (psi) of pressure at the meter during normal operations.

There were no water pressure issues in August

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 August.



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 August
We conducted 0 educational visits.***

Utility locates



Water locates conducted

August: 1,576 locate tickets

Locating public water, wastewater and stormwater lines.



Operations & Maintenance

LEVELS OF SERVICE

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.

August 2023

There were no water system integrity issues in August.

