



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

## Tank 6B Demolition Project

The Tank 6B Demolition Project is located on Ridge Road, south of Town. During routine inspections in 2010, deterioration of the roof was observed by operations. Later that year, a structural inspection was conducted by a structural expert. The cause of the deterioration was determined to be an Alkali Silica Reaction (ASR). This is the result of a reaction between the siliceous minerals in the aggregate and the alkalinity of the concrete. Due to the high risk of structural failure, the tank was taken out of service and scheduled for demolition.

The demolition project was awarded to Western Wrecking in March of 2023. The scope of the project included removal of the tank, capping the existing fill and drain pipe, and backfilling the site.

The total project cost was \$235,810 which exceeded the original budget due to an error in the quantity of work required. The project was completed on schedule.

A replacement tank is scheduled for 2026.



# Good job!

WELCOME

## New Hires



**Reece Anderson**  
Plant Maintenance  
Plant Mechanic I

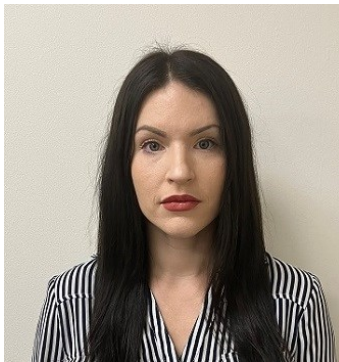


**Dereck Guba**  
Water Plant Operations  
Water Operator IV

## Promoted!



**Matt Hayes**  
Technical Engineering  
Manager



**Kristen Burakou**  
Water Plant Operations  
Water Operator I



**Lyle Cable**  
Water Plant Operations  
Water Operator I



**Tim Lambert**  
Treatment Services  
Superintendent

Certified!



**Zachary Deblois**  
Water Treatment A and  
Water Distribution 4



**Mitch Horner**  
Water Treatment B



**Dylan Thompson**  
Collections 1



**Cameron Hasenkamp**  
Collections 2



# 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.*



**Roy Gallea, Engineering Manager**, received the Water Star Award from Jill Skelton because of his positive attitude and willingness to go the extra mile. He always has a great attitude and is always available to help with customers at the front counter. His friendly demeanor helps show how much we care. Plus, Jill really appreciates that Roy gets the mail when it's raining!

## High Five!



**Jessup Schield**  
**John Grahn**  
**Brian Laschanzky**  
**Adan Rivas**

Stormwater was experiencing a VERY high volume of customer service issues this spring/summer, due to all of the rainstorms. It has been a challenge for them to keep up with their other duties, but they are doing a great job! Also, these four do an awesome job with the Town value, "we work as a team toward common goals with a spirit of cooperation." I see them working together and helping each other out on a regular basis. They are an awesome team!

**Greg Swaney**  
**Bryan McCullah**  
**Ryan Cupano**  
**Justin Wiser**  
**Jackson Byrnes**  
**Tristen Casner**  
**Zach Stubbe**

Over the Labor Day holiday weekend, the Meters team came in to read all meters and gather all skipped reads in order to be able to kick off the September billing on time on September 6. Over the weekend, they encountered a few challenges includes crashed computers and an entire read file that was blank when imported. Despite these challenges, they worked together as a team and without complaint to finish the reading process.

**Maryjo Woodrick**

Maryjo cleaned out the refrigerator for us, and it was a selfless act as we have not done a good job of keeping up with it here at the Admin Building. I want to recognize her at the staff meeting in this case because I also want to speak to the issue to all of staff.

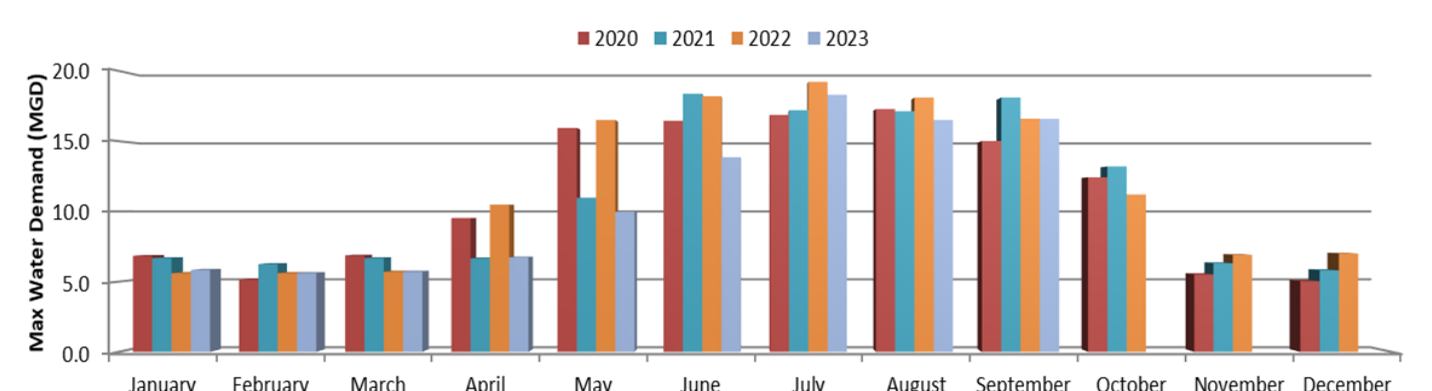
**Jessup Schield**  
**Kim Guite**  
**Laura Kindt**

These individuals addressed a serious concern from several residents who reported flooding onto their property during heavy rain in August. They met with the homeowners, followed up with the builder and made sure a solution was implemented quickly to protect the homes and ensure that flooding would not happen again. The issue was that not all the diversion channels were designed and/or constructed to meet the Town's criteria and this caused flow from upper lots to drain over retaining walls onto lower lots. The team forced the builders hand and required that they bring the site up to criteria and the builder responded positively. The residents were much appreciative.

# 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:

- 16.6 million gallons/day (MGD)
- 5-year average: 16.3 MGD
- 2% higher than the 5-year average

### Water Demand Total:

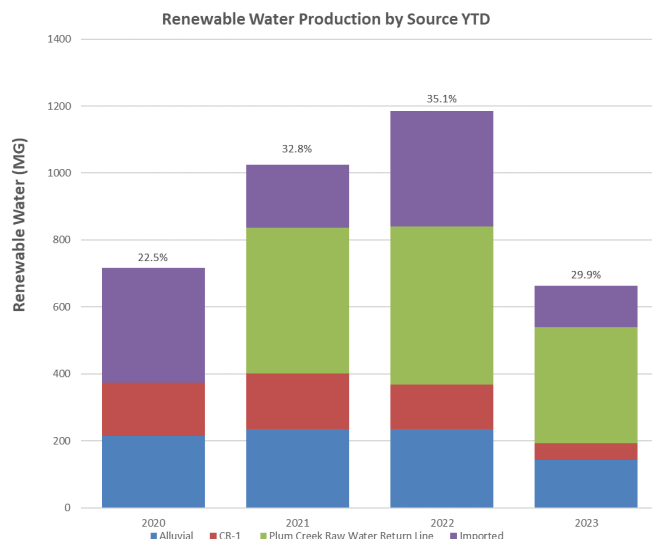
- The water demand total for September was 353.5 million gallons (MG) [1,084.9 acre-feet (AF)]
- 15% lower than the August 2023 total of 415.1 MG
- 13.8% decrease from the previous year's September 2022 demand of 410.2 MG.

## Renewable supplies

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

In total, renewable supplies accounted for 20.8% of the total water supply for the month (74 MG of 357 MG) and 29.9% of the annual water supply (663 MG of 2,219 MG).

- The CR-1 diversion produced an average of 0.51 MGD
- The PC diversion produced an average of 1.53 MGD
- The 14 alluvial wells produced an average of 0.52 MGD
- The renewable water production average was 2.47 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 September 2023 is 48.4%

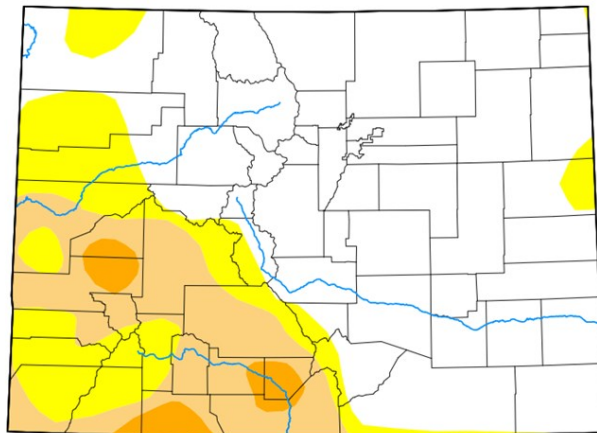
## Storage

### Current reservoir storage

- Chatfield Reservoir: 1,998.70 AF
- Rueter-Hess Reservoir: 102.90 AF
- Castle Rock Reservoir No. 1 (CRR1): 95.79 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, 34.29% of Colorado is Abnormally Dry, 17.43% is in Moderate Drought and 2.77% is in the Severe Drought classification.



## Local Plum Creek supplies

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

September 1, 2023 - September 30, 2023

Discharge, cubic feet per second



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

- Flows ranged from 2.1 to 89.1 cubic feet per second (cfs)
- The monthly average streamflow was 6.6 cfs
- The 24-year mean is 4.0 cfs

Map released: Thurs. September 28, 2023

Data valid: September 26, 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):

[Richard Helm](#), NOAA/NCEI

Pacific Islands and Virgin Islands Author(s):

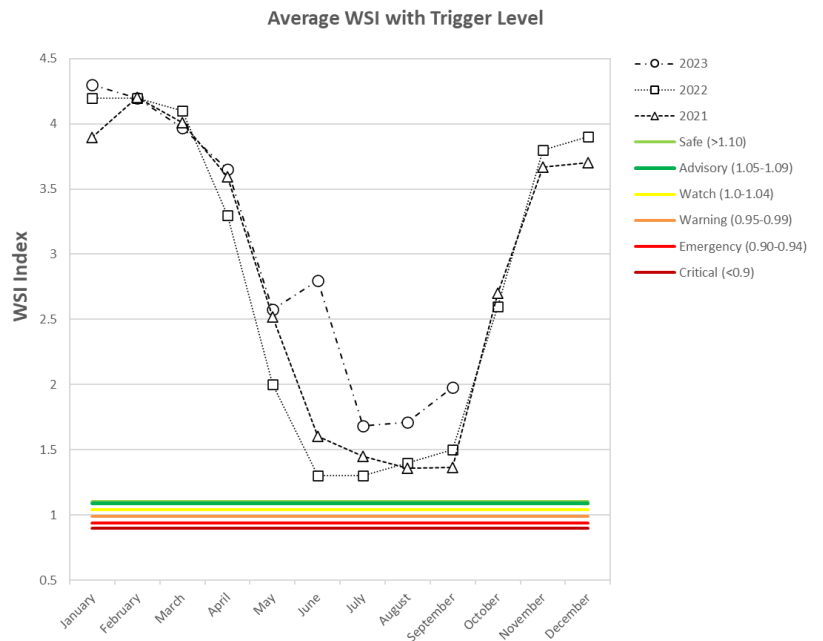
[Richard Tinker](#), NOAA/NWS/NCEP/CPC

# 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 September was 2.0



## An Industry Leader

At the Rocky Mountain Section of American Water Works Association annual conference, Water Resource Manager Matt Benak spoke on Castle Rock's journey to renewable water. He provided the history of how we have relied on groundwater since the 1950s and what we've done to move toward our 75% renewable water goal by 2050. He gave details on the specific projects of the Advanced Treatment addition to the water purification plant, Chatfield Reallocation drinking water storage, and imported water from WISE and Box Elder. The audience was eager to hear more about our water reuse efforts and how recent State regulations are making this water supply become a standard.





# Stormwater Compliance

As an integral part of the Town’s vision of providing residents the highest quality services at the best value, the Stormwater Division manages stormwater runoff to minimize flooding hazards and to protect water quality in our watersheds.

Services the Stormwater Division provides include:

- Construction site inspections
- Spill reporting, enforcement and response
- Public education and outreach
- Pond maintenance oversight
- Floodplain management
- Design and construction of SW CIP projects

## Report Illicit Discharges

Illicit discharges can happen anywhere at any time. Many are accidents, but some are not. We rely on all of you to report them to us as you are driving around Town. If you see something that is not stormwater being discharged, please call the Stormwater Hotline at **720-733-2235**.



Examples of illicit discharges.

Left: Hydraulic fluid  
Above: Concrete washout  
Right: Paint



## Customer Service

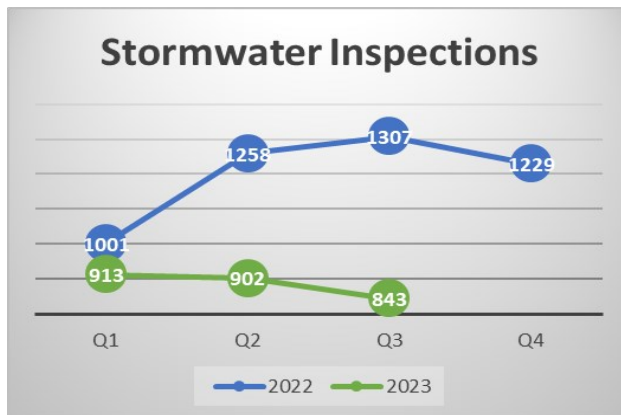
The Stormwater Division receives various customer concerns from nuisance groundwater and illicit discharges to dust to maintenance of infrastructure. Complaints often rise and fall with weather patterns.

Customer issues are up 48% from last year at this time and are already 19 % higher than all of 2022. Most of this is due to the onslaught of rain and flooding issues we received in May and June.

## Inspections

The inspection team regulates permitted residential and commercial properties.

Inspections tracked 36% lower than Q3 of 2022 and 25% lower overall. This is likely due to the 46% decrease in single-family home permits during the same period.



# Plan Review

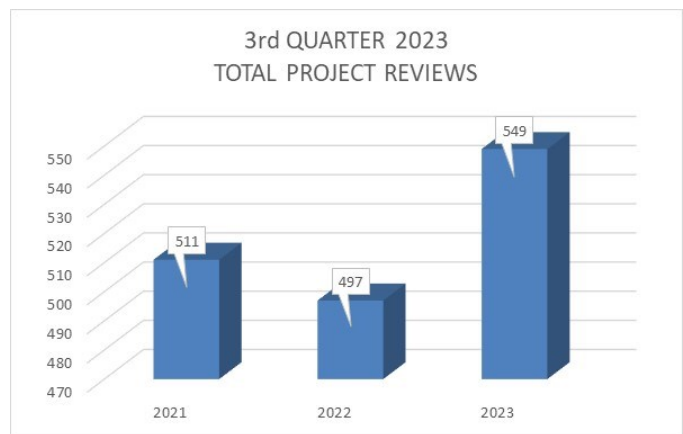
Castle Rock Water Plan Review Team reviews planned development plans, site plans, construction drawings, water efficiency plans and technical reports for each project to ensure the public infrastructure built by the developer is following the criteria set by the Town, with respect to:

- Water
- Sanitary sewer
- Stormwater
- Drainage
- Flood Control
- Landscape and Irrigation
- Temporary erosion and sedimentary control



## Project Reviews

A project can be as large as a master planned development area or subdivision, or as small as a commercial building or building addition.



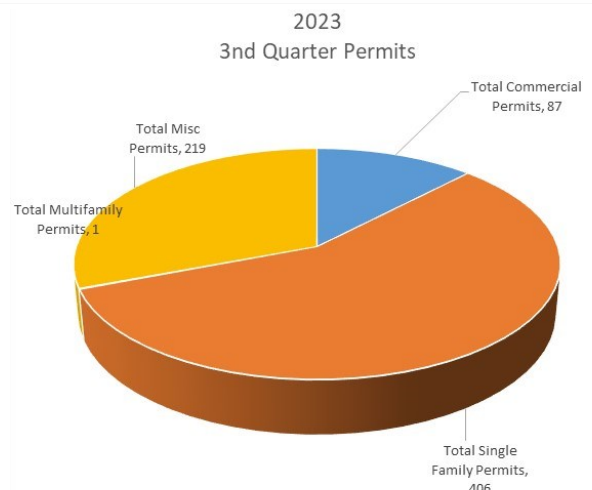
## Plan Reviews

Each project may have several plans related to it. This graph identifies the total number of different plan reviews for all projects and permits.



## Plan Permits

The plan review team reviews building permits to verify proposed water demand to size meters and assess system development fees. The team reviews permits for each single family home, multi-family building, commercial building, commercial tenant improvement, irrigation meter, and temporary trailers.

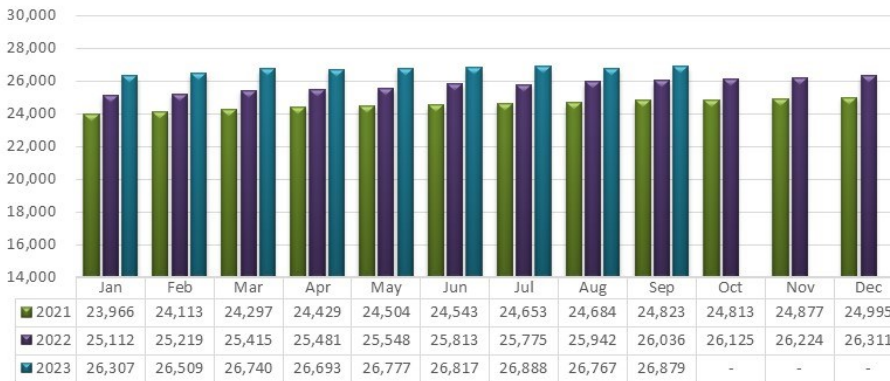




# Business Solutions

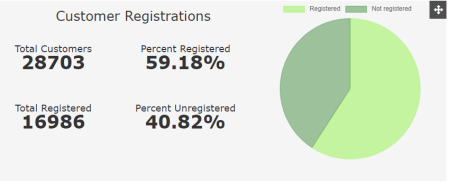
## Customer Service & Billing

# of Accounts Billed

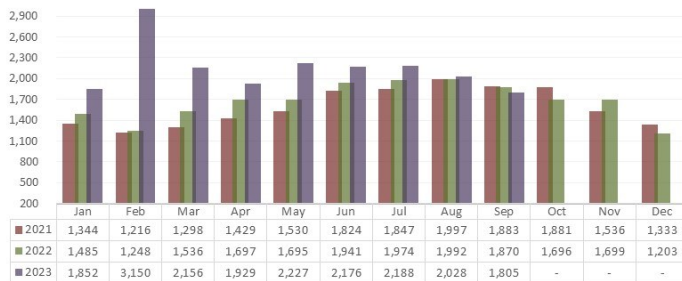


### CRgov.com/MyWaterBill

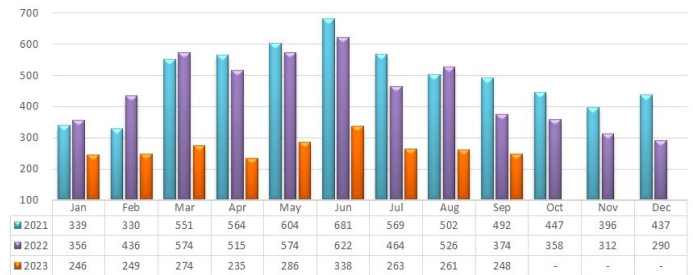
The percentage of customers with online accounts before the conversion was 72%. Online accounts provide additional account and water department information as well as additional ways to pay.



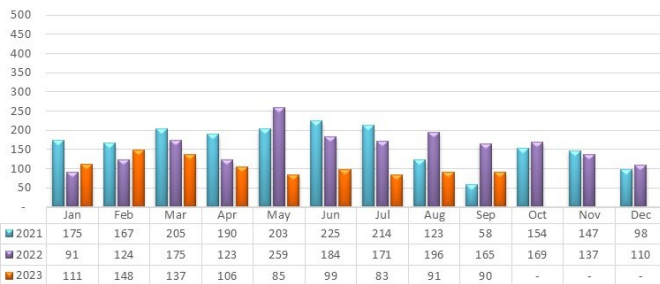
Customer Phone Calls



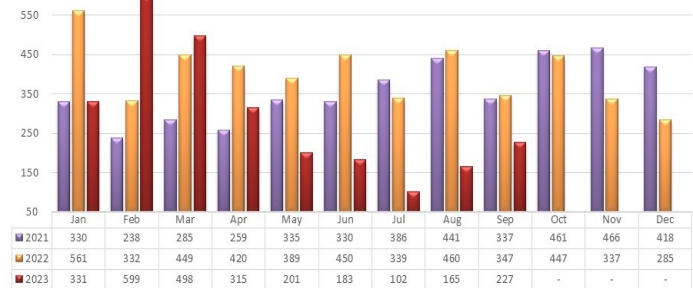
Transfers of Water Service



Walk-In Customers



Mywaterbill Email Inquiries



## Customer Outreach & Education

### Social media outreach

		Date	Impressions
FB	Thatch	9/6	1,423
FB	Adjust watering schedules	9/13	3,141
FB	Mulch leaves	9/20	1,266
FB	Winterization/video	9/27	1,163
Insta	Plant of the month: Autumn Blaze Maple	9/1	2,623
Email	Fall maintenance	9/18	12,464 (63% open rate)
Email	HOA: Excessive water	9/18	90 (51% open rate)

# Meters



## Meters Read

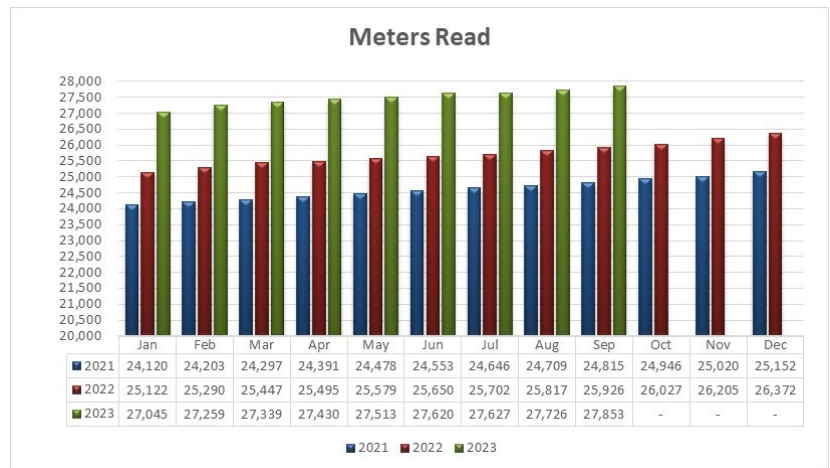
Meters are read the first two days of every month. The number of meters read continues to increase month to month and is a significant increase over last year.

## Skipped Reads

Sept.: 1.27%

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.

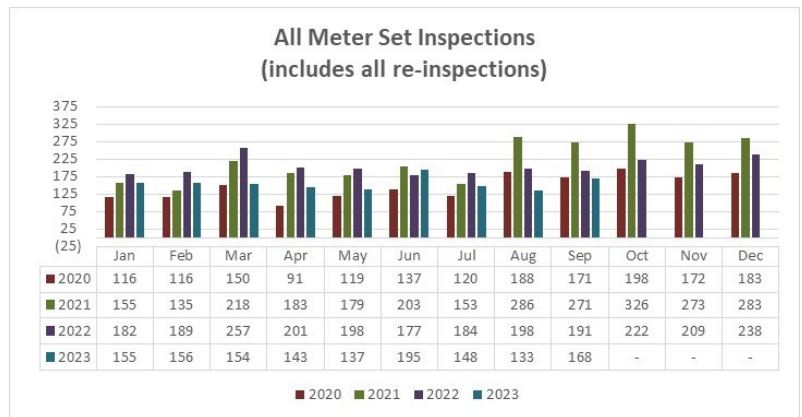
*The AWWA standard is 2%, so we still continue to stay well below the industry average.*



## Meter Set Inspections

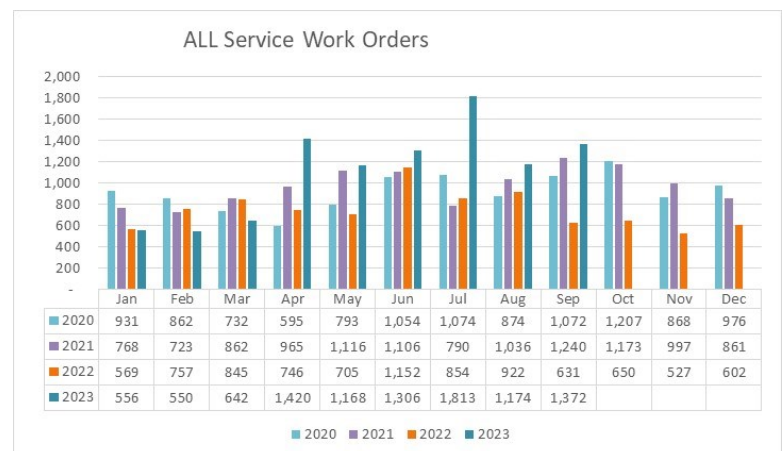
Re-inspections: 33%

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

## September 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

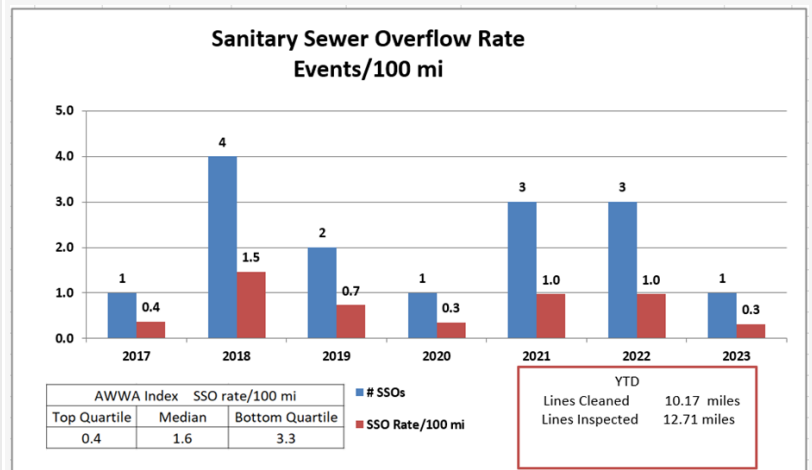
< 1% of our customers will experience less than 43 pounds per square inch (psi) of pressure at the meter during normal operations.

**There were no water pressure issues in September.**

### 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 September**



### 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 September.**

**We conducted 2 educational visits.**

## Utility locates



### Water locates conducted

Sept.: 1,664 locate tickets

*Locating public water, wastewater and stormwater lines.*





# Operations & Maintenance

## LEVELS OF SERVICE

September 2023

### Drinking Water Supply Outages

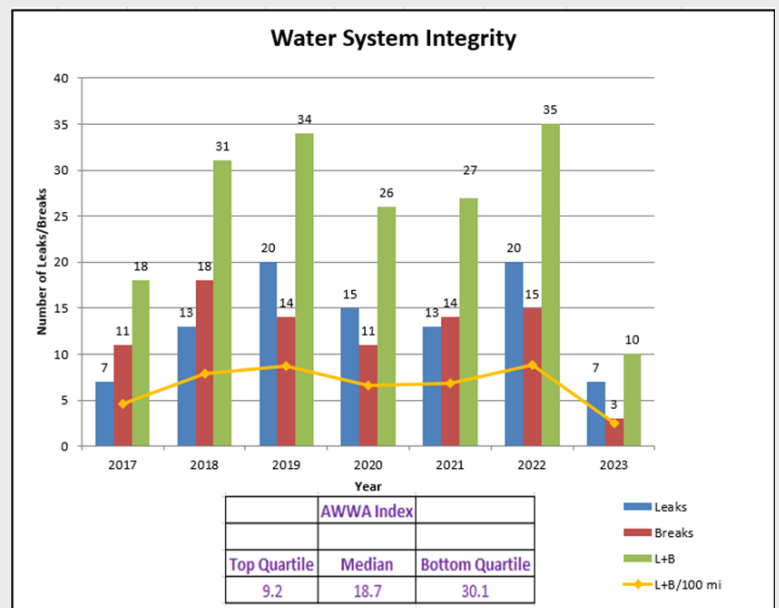
<5% of our customers will experience water outages for one or more events totaling more than 30 hours/year.

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

*There were 4 water system integrity issues in Sept.*

- A service line near downtown was repaired by the Distribution team. There were 12 homes affected for approximately 30 minutes during the repair.
- There were two service line leaks in Founders affecting multiple residents.
- A service line leak was located in a dual pit, two residents were affected for 20 minutes during the repair.
- There was a water main break at Cherry Plum and Plum Creek Blvd. that occurred in Plum Creek. Approximately 27 homes were

affected for approximately 27 homes were



# Operations & Maintenance



Stormwater was investigating a drainage issue in a stormwater outflow. They discovered that the willows that seeded in next to the outfall had developed a huge root that was blocking the pipe.

The two willow trees had to be removed to restore drainage and prevent future issues.



Water main break at Cherry Plum and Plum Creek Blvd.

27 homes were affected with reduced water or pressure during the repair.