

WATER DEMAND TOTAL **441.9** MG

**27,557** CUSTOMER ACCOUNTS

**29.1%** RENEWABLE WATER SUPPLIES

**1.6** WATER SUPPLY INDEX



# CASTLE ROCK WATER

## SEPT 2024 MONTHLY REPORT



**1,224** UTILITY LOCATES

CUSTOMERS WITH ONLINE ACCOUNT **60%**

WATER QUALITY SAMPLING **0** issues

SYSTEM INTEGRITY **2** leaks

[View report online](#)

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# WHAT WE ARE UP TO

## Hotel Toilet Retrofit

Recently, local business owner and Colorado resident, Bhavesh Patel reached out to Castle Rock Water in regard to upgrading all of the 71 existing toilets at the local Comfort Suites hotel to ultra-high-efficient, 0.8 gallon per flush (gpf) units.

Since owning the establishment for the past couple of years, Mr. Patel has been making several upgrades in an effort toward efficiency, including switching to LED lighting, upgrading aerators in faucets, replacing all shower heads with high efficiency ones, and is now investing in retrofitting what is commonly known as the household appliance that uses the highest volume of water, the toilet.

Castle Rock Water has been offering conservation rebates to customers for over a decade. It is one of the ways this utility supports and encourages the community to conserve water. Many of these rebates have been very popular and include a rotary nozzle retrofit for irrigation systems upgrades, a rebate of up to \$200 for a whole-home water monitoring system with an automatic shut-off valve, and the very popular ColoradoScape rebate which offered up to \$3.50 per square foot of turf converted to ColoradoScape.

The Toilet Retrofit rebate supports customers to upgrade their existing 1.6 gpf or higher toilet to an ultra-high efficiency 0.8 gpf unit, using half of the water for every flush.



Castle Rock Water currently rebates each toilet up to \$150, which is about the full cost of many of these new products. Once the new toilet is installed, an appointment is made for participants to drop off the old porcelain parts which are then recycled. It is important to note that all other materials (metal, plastic, and rubber) must be removed before dropping the toilet off.

Castle Rock Water is eager to support Mr. Patel as he transitions all 71 toilets to new, ultra-high-efficiency units. The water usage from these toilets is expected to drop by half of what the older toilets used resulting in significant water savings for the community.

So far Bhavesh's team has replaced 20 toilets which have all been installed on the first floor of the Comfort Suites with the next round of toilets due to be delivered the week on September 16. The front desk assistant, Karin, states the performance of the new 0.8 gpf toilets has been great and there have been no complaints.

## Walker Reservoir Ribbon Cutting

The Walker Reservoir project is a significant step forward for water management in the South Metro area. By transitioning from deep groundwater sources to renewable surface water supplies, communities are not only improving their water security but also enhancing sustainability efforts. The collaboration among the Cherry Creek Project Water Authority and its partners—Castle Rock Water, Cottonwood Water and Sanitation District, Inverness Water and Sanitation District, and Pinery Water and Wastewater District— demonstrates the power of regional partnerships in optimizing resources and funding.

With the capacity of 650 acre-feet, this restricted-access reservoir will play a crucial role in storing excess water during times of abundance, ensuring that local



*Cherry Creek Project Water Authority partners at the ribbon cutting on Sept. 26, 2024.*

supplies remain resilient. The reservoir is supplied from alluvial wells in the Cherry Creek watershed and a Denver Basin well to supplement augmentation. Walker Reservoir is expected to fill in 2025.

A ribbon cutting was held on Sept. 26, 2024 with partners, stakeholders and officials.



*Castle Rock Water Commissioner Dave Hammelman and Water Resource Manager Matt Benak at Walker Reservoir*

## PCWPF Open House

Castle Rock Water's open house and plant tour at the Plum Creek Water Purification Facility on September 18, 2024, was a resounding success, drawing approximately 400 attendees. As one of the most advanced facilities in the nation, the event aimed to enhance customer understanding and confidence in the water system, showcasing the nine treatment processes involved in purifying water.



*Water Plant Operator Kristen Burakou guides residents through the control room.*





The event featured various workshops, including demonstrations on leak detection using a meter tree, a showcase of an ultra-high-efficiency toilet with a clear tank, and hands-on activities with stormwater and erosion tables. Attendees also learned about ColoradoScape's benefits, design, and installation. Castle Rock Water's director and assistant director were on hand to answer questions from customers. The family-friendly atmosphere was enriched with children's activities, grilled hot dogs, summer salads, and a ice cream bar.

The impressive turnout was attributed to the postcard sent to the entire customer base indicating the unique 'event' nature of the open house. Additionally, attendees were informed that regular tours would be unavailable in the coming years due to construction, further motivating participation.

More than 30 employees assisted with this major customer outreach event. Not only were there extra hands on deck for the tours, but staff helped with parking and shuttling, greeting, crowd control and set up and break down.

Overall, these events underscore the community's interest in and commitment to understanding and engaging with local water resources.





# STAFF RECOGNITION

## Certifications



Carson Croom  
Water Plant Operator I



Erin Sweeney  
ASSE Backflow Tester

## WELCOME

Matthew Attiyeh  
Asset Program Manager



## High Five

Ed Sheets  
Mike Wilder

Ed and Mike went above and beyond to construct an ultra-high efficiency toilet demonstration that was installed into a transportable base he built. Ed even welded a tank and installed a pump into the unit so that water could recirculate. This toilet was used during the open house as a conservation educational tool and will continue to be utilized for future outreach and educational purposes!

Greg Swaney

Greg went above and beyond to make the demonstration, meter assembly system ready to be used as an active display for the open house event.

Jill Skelton

We have a customer who always comes in to pay his bill each month. He enjoys coming in and visiting with Jill when he comes in. She found out that he recently lost his wife and he has been having such a hard time. Jill went out of her way to express her condolences and the next time he came in she had a card ready for him, letting him know how sorry she was for the loss of his dear wife. He became was overcome with her compassion and empathy. Jill goes above and beyond when providing exceptional customer service to our community.

Kim Guite  
Brian Laschanzky  
Josh Hansen  
Susan Salvatori  
Jessup Shield

During my (Erik) 2 week hospital stay for chemotherapy treatment and spine surgery in August, Kim, Brian and Josh took the time to visit me, really lifting my spirits. When I returned to work, both Jessup and Susan purchased beanies to cover my now bald head. These gestures really show the compassion of my coworkers in looking out for each other.

## WATER STAR AWARD



**Mitch Horner**, Water Plant Operator IV, received the Water Start Award from Jon Lutterman, as he is a great asset to have in the water treatment operations. He is very knowledgeable in all of the water plant operations and is always willing to help the mechanic department in whatever way he can.

# WATER RESOURCES

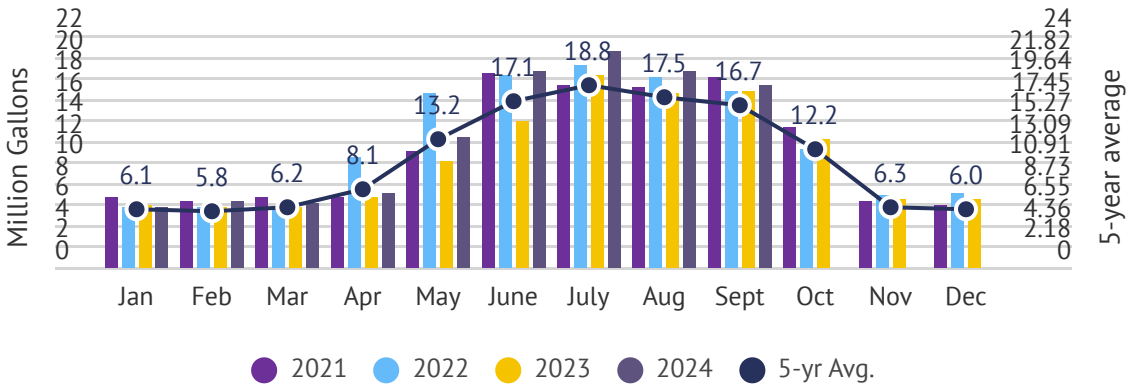
## DAILY DEMAND

- 17.20 million gallons/day (MGD)
- 5-year average: 16.7 MGD
- 3% higher than the 5-year average

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.

## MONTHLY DEMAND TOTAL

- The water demand total was 441.92 million gallons (MG) [1,356.2 acre-feet (AF)]
- 3% lower than the August 2024 total of 457.6 MG
- 25% increase from the previous year's September 2023 demand of 353.5 MG



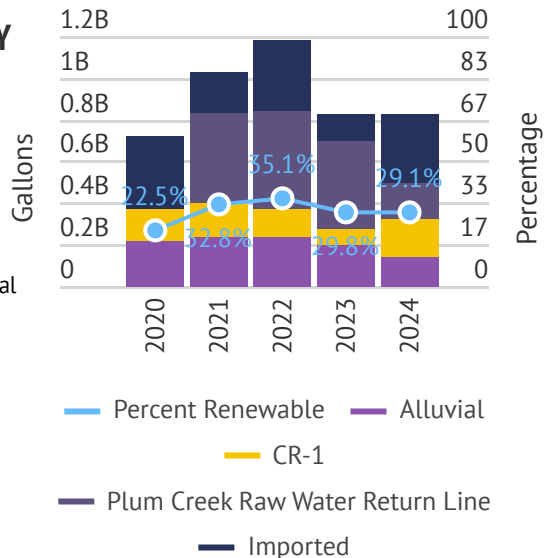
24.9%  
SEPT.

## RENEWABLE WATER SUPPLY

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

In total, renewable supplies accounted for 24.9% of the total water supply for the month (135.2 MG of 543.4 MG) and 29.1% of the annual water supply (828.3 MG of 2,842 MG)

- The CR-1 diversion produced an average of 0.94 MGD
- The PC diversion produced an average of 1.82 MGD
- The 14 alluvial wells produced an average of 0.49 MGD
- The renewable water production average was 4.51 MGD



# WATER RESOURCES

## REUSABLE SUPPLIES

### STORAGE

- Chatfield Reservoir: 1,490 AF
- Rueter-Hess Reservoir: 506.05 AF
- Castle Rock Reservoir No. 1 (CRR1): 130.46 AF



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.

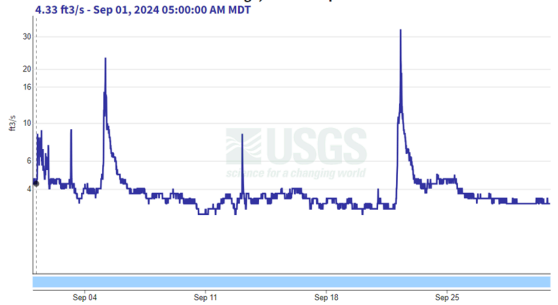
### EAST PLUM CREEK FLOWS

The hydrograph indicates the estimated flow in East Plum Creek basin. (This text will indicate the peak and low points as the data is only an image.)

- Flows ranged from 2.7 to 32.8 cubic feet per second (cfs)
- Monthly average streamflow was 3.97 cfs
- 25-year mean is 4.7 cfs.

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

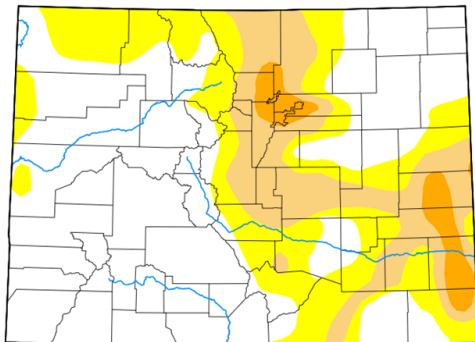
September 1, 2024 - September 30, 2024  
Discharge, cubic feet per second



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

This map of Colorado shows Abnormally Dry to Moderate Drought for the top center of the state and the southeast border as Sept. 26, 2024.

### Colorado



Map released: Thurs. September 26, 2024

Data valid: September 24, 2024 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

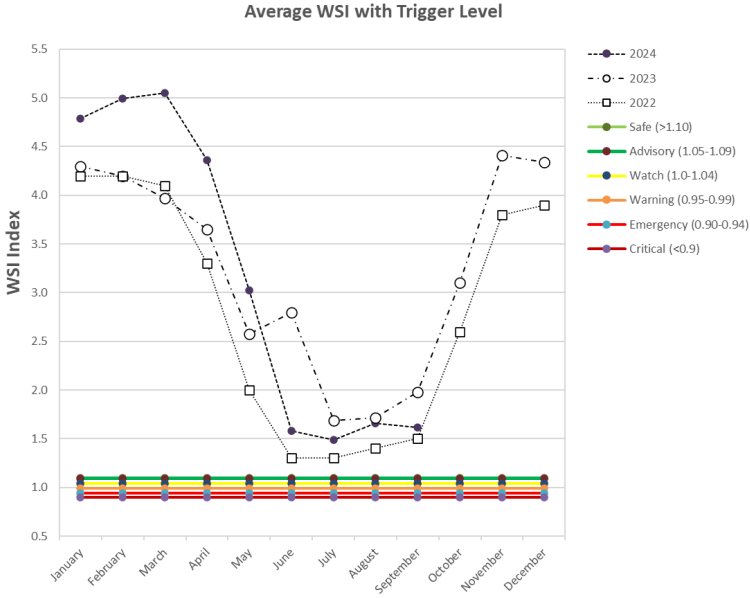
United States and Puerto Rico Author(s):  
[Brad Rippey](#), U.S. Department of Agriculture

Pacific Islands and Virgin Islands Author(s):  
[Rocky Bilotta](#), NOAA/NCEI



# WATER SUPPLY INDEX

WATER SUPPLY INDEX  
1.62  
Sept. average



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 1.1 will trigger a drought stage relative to its severity.

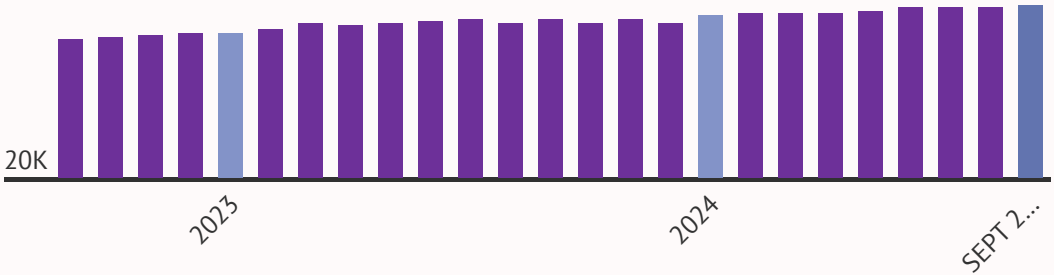
This graph shows historical WSI data for 2022 to 2024 along with a peak WSI of 5 in March 2024, low of 1.5 WSI in July, and August's WSI of 1.66.

# BUSINESS SOLUTIONS

## NUMBER OF CUSTOMER ACCOUNTS

30K

27,559



### CUSTOMER SERVICE

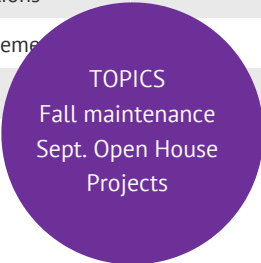
SEPT	2022	2023	2024
Phone calls	1870	1805	1362
Walk-ins	165	90	61
Transfer of service	374	248	209
Email inquiries	347	227	612

### CUSTOMER OUTREACH

Facebook	4 posts	11.7K reached out	129 engagement	8 shares
Instagram	1 posts	713 reach	16 engagement	
LinkedIn	2 posts	911 impressions	23 reactions	
Nextdoor	1 post	4,020 impressions	4 engagements	
Email	12,840 reach	61% open rate		

#### The Town social media followers

Facebook: 28,167  
 Instagram: 11.1k  
 Nextdoor: 44,635  
 LinkedIn: 2,482



# METER SERVICES

26,281

Meters read

Meters are read the first two days of every month. The number of meters read continues to increase month over month.

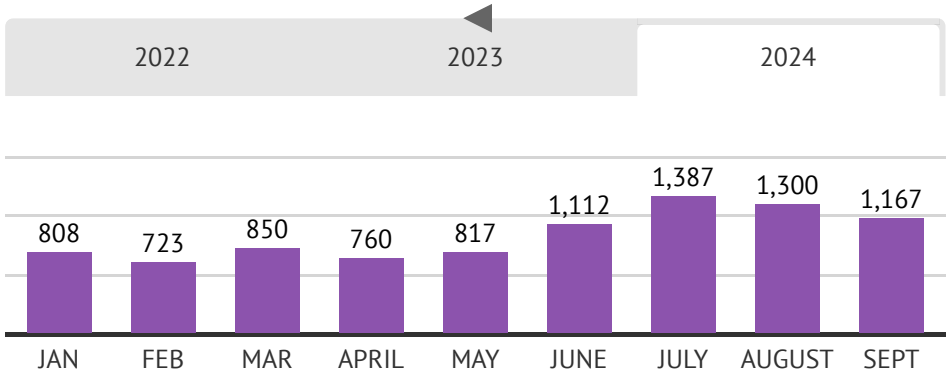
Skipped reads

0.97%

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

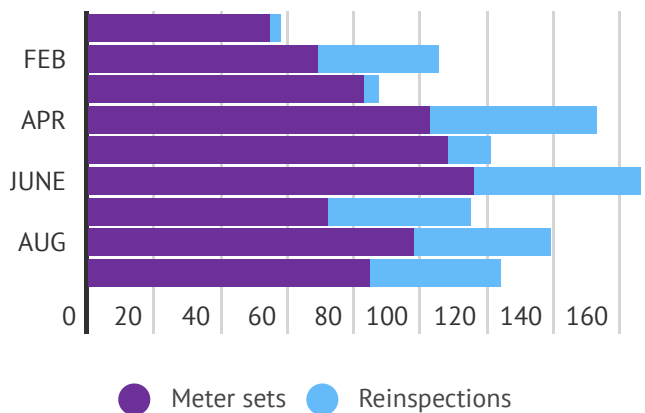
Measuring skipped reads is a strong indication of the level of preventative maintenance being done by our team. A skipped read is indicative of a problem with the metering infrastructure. Fewer skipped reads means more properly working meters, which is good for all our customers.

## ALL SERVICE WORK ORDERS



## METER SET INSPECTIONS

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.





# STORMWATER COMPLIANCE Q3 2024

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

## Drone Demo

In August, the stormwater team attended a demonstration of the capabilities and limitation of drone technology for stormwater inspections. Drones may be beneficial in some situations while disadvantageous in others. Further research and additional demonstrations will be done before determining if it is right for our work group.

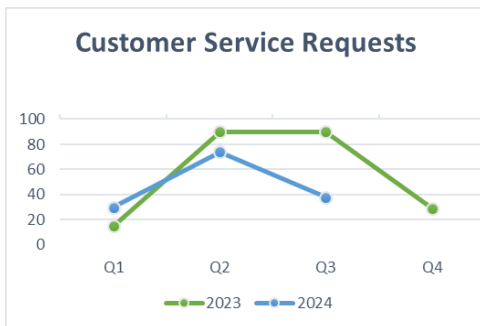


## Customer Service

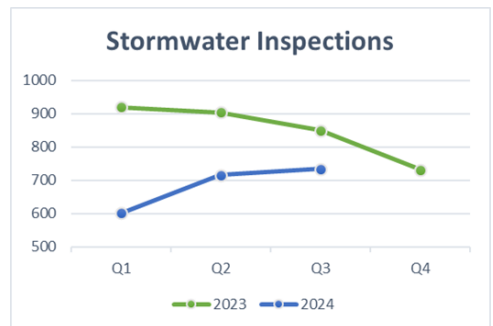
The Stormwater Division receives various customer concerns, from nuisance groundwater and illicit discharges, to dust, and infrastructure maintenance. Complaints often rise and fall with weather patterns.

## Inspections

The Inspection Team regulates permitted residential and commercial properties.



Customer concerns decreased back to baseline after the storm on June 9. Also, CSRs are down 58% from Q3 of 2023.



Total inspections tracked 14% lower than in Q3 of 2023 but 22% higher than Q1 of 2024.

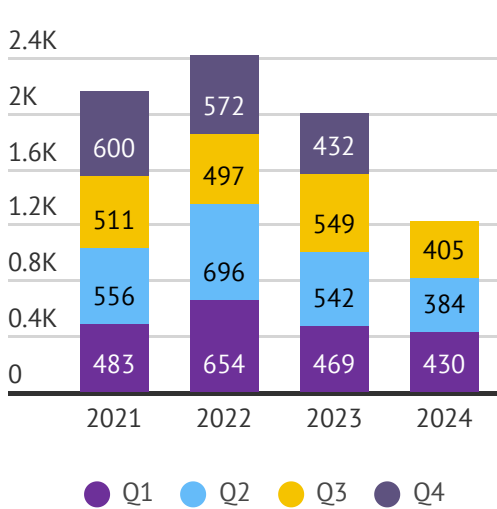
# PLAN REVIEW

Q3 2024

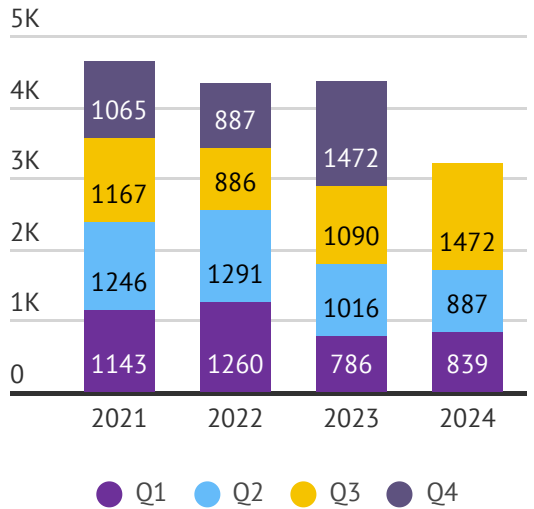
Castle Rock Water Plan Review team reviews planned development plans, site plans, construction drawings, water efficiency plans and technical reports for each project to ensure the public infrastructure built by the developer is following the criteria set by the Town, with respect to:

- Water
- Sanitary sewer
- Stormwater
- Drainage
- Flood Control
- Landscape and Irrigation
- Temporary Erosion and Sedimentary Control

## PROJECT REVIEWS



## PLAN REVIEWS



*Each project may have several plans related to it.*

## PERMITS

The plan review team reviews building permits to verify proposed water demand to size meters and assess system development fees.

PERMITS	Single Family	Commercial	Misc	Multifamily
Q1	333	50	15	11
Q2	443	39	17	0
Q3	238	34	9	5

# OPERATIONS

0

## OUTAGES

GOAL: <5 % of our customers will experience water outage for one or more events totaling more than 30 hours per year.

0

## PRESSURE

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

1

## OVERFLOWS

GOAL: Prevent 100% of sewer system overflows with line inspections and cleaning.

### SANITARY SEWER OVERFLOWS

AWWA Index: SSO rate/100 mi



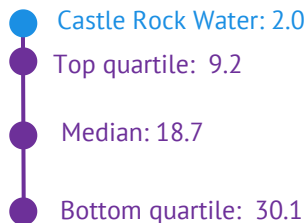
2

## LINE BREAKS

GOAL: Remain in the top quartile for AWWA benchmarking for leaks and breaks through regular maintenance and rehabilitation.

### WATER SYSTEM INTEGRITY

AWWA Index: Leaks and breaks/100 mi



6.52 mi  
LINES INSPECTED

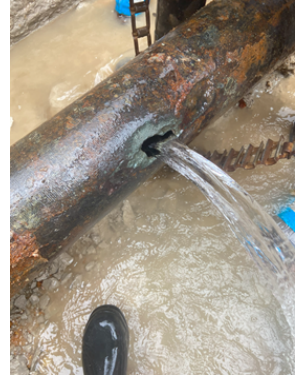
LINES CLEANED  
16.43 mi



# OPS in the field



A contractor working on the intersection at Wolfensberger and Park St. damaged the service line to McDonalds. The contractor replaced the 2" copper service line from the curb stop to the corp stop. Water was off less than 30 minutes during the repair.



Staff was called out to an SSO caused by a grease and FOG blockage at a manhole in the Castle Highlands Area. The blockage took approximately two hours to clear and conduct cleanup operations.

There was another main line break on 8" CIP due to a 4" corrosion hole in the Meadows. Two residents were out of water for less than two hours during the repair.



The next day a gate valve was also installed in the same area as the Meadows leak to assist with distribution system control. Two residents were out of water during the installation for less than two hours.