



CASTLE ROCK WATER

DEC 2024 MONTHLY REPORT



Note: Cumulative 2024 data

155.2^{MG}

WATER DEMAND
TOTAL

2024 total: 3.46 billion gallons

17%

RENEWABLE
WATER SUPPLIES

2024 total: 28.1%

5.3

WATER SUPPLY
INDEX

SYSTEM INTEGRITY

3 leaks

2024 total: 26 leaks/breaks

WATER QUALITY SAMPLING

0 issues

2024 total: 0 issues

CUSTOMER ACCOUNTS

27,696

2024 total: 3.2% increase

[View report online](#)

Made with

infogram

WHAT WE ARE UP TO

Cobblestone Ranch Tank 18

Project Manager: Josh Hansen, P.E.

Cobblestone Ranch Tank 18 is a two-million-gallon wire-wound pre-stressed concrete tank initially completed in 2023 by DN tanks for \$4.4 million. While the tank was being backfilled up to the dome roof, and prior to substantial completion, the foundation slab settled in one location resulting in a significant leak. The contractor retained consultants to complete additional structure and geotechnical investigations and determined that the tank wall and dome structures remained in place and were not affected by floor slab movement. In 2024, a subcontractor completed compaction grouting underneath the tank to lift the area of floor slab that settled and densify soils beneath the tank. Additional concrete and



Contractors working on repairs inside Tank 18

lining work were completed inside the tank to ensure watertight construction. The tank has been backfilled again, and the site was re-graded.

Final site utility and communication installations are in progress and the project is anticipated to be completed in early 2025, which will be well beyond the original schedule due to the foundation issue that required investigation and

repairs. The Cobblestone Ranch developer is currently constructing a waterline that will connect Tank 18 to the development's distribution system and allow the tank to be placed into service. The tank will provide storage for the development and help buffer pressure surges in the area. The project is progressing within budget.



Tank 18 dome peaks from sub-terranean site.

CERTIFICATIONS

2024 total:
144 certifications earned



Mark Ball
Distribution I Operator



Michael Murphree
Distribution I Operator

WELCOME New Hires



Sarah Stockton
GIS Intern



Adrian McAllister
Distribution Operator I



Joseph Faraone
Distribution Operator I



Brendan McGowan
Stormwater Supervisor

WATER STAR AWARD



Josh Burd, Meter Technician, received the Water Star award from Hannah due to his exceptional customer service. When Hannah got her green door tag for changing out her meter to an AMI one, she was so pleased—and that an exact time appointment was scheduled. After Josh showed up exactly on time, donning shoe booties, he jumped into action as if in an Olympic sport and changed out the meter in a speedy 7 minutes—and was gone. However, it was soon discovered, and exacerbated by the eye-rolling teen, that there was a high-pitched noise when the water was running. Josh came back out and began to troubleshoot the issue. When replacing the new meter with another new meter didn't work, he continued the task and eventually found a tiny piece of rubber gasket rolling around in the line. Josh provided exceptional customer service, never gave up, and was so kind and professional. Hannah appreciates Josh and finds him a valuable asset for Castle Rock Water.

Come work with us

Castle Rock Water created a series of recruitment videos for social media - to help create a pipeline of new employees.

[View one of the videos.](#)



Holiday Party 2024



Socializing
after the feast

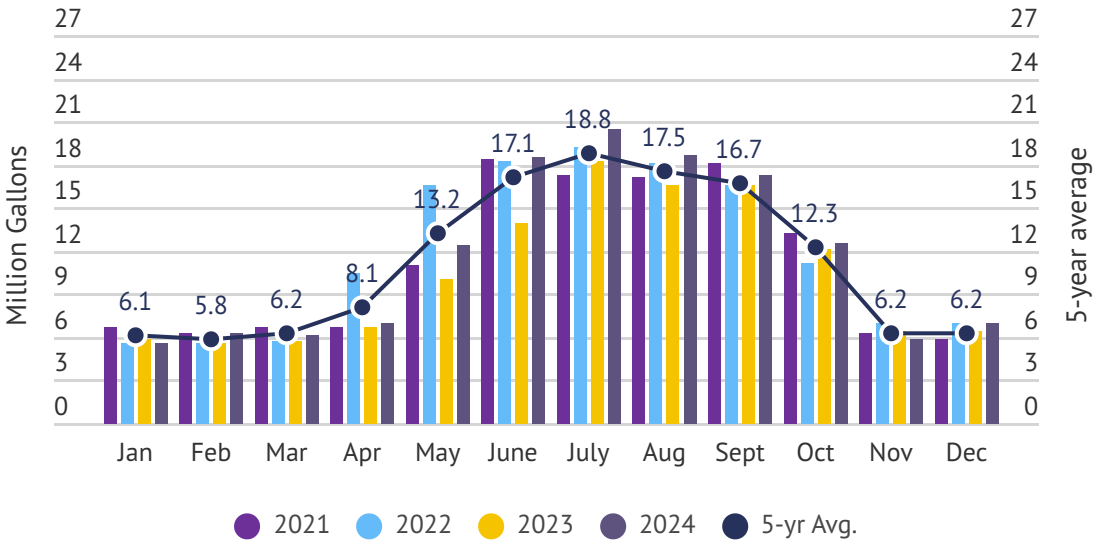
WATER RESOURCES

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.

DAILY DEMAND

- 6.92 million gallons/day (MGD)
- 5-year average: 6.2 MGD
- 11% higher than the 5-year average



MONTHLY DEMAND

- The water demand total for December was 155.16 million gallons (MG) [476.2 acre-feet (AF)]
- 1% lower than the November 2024 total of 157.5 MG
- 2.6% decrease from the previous year's December 2023 demand of 160.3 MG

WATER RESOURCES

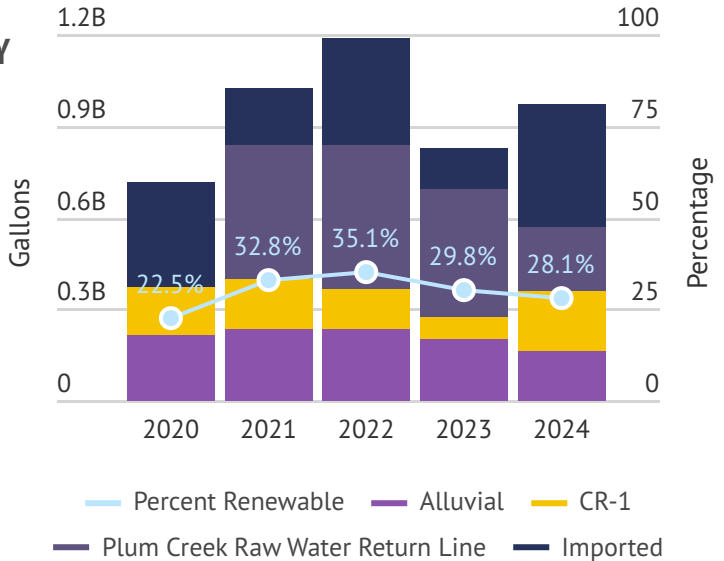
RENEWABLE WATER SUPPLY

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



2024 total: 28.1%

2065 goal: 100%



In total, renewable supplies accounted for 17% of the total water supply for the month (27.1 MG of 157.1 MG) and 28.1% of the annual water supply (973.3 MG of 3,466 MG)

- The CR-1 diversion produced an average of 0.0 MGD
- The PC diversion produced an average of 0.0 MGD
- The 14 alluvial wells produced an average of 0.0 MGD
- The renewable water production average was 0.87 MGD

** Plum Creek Water Purification Facility was shut down November 7 for the expansion project, greatly reducing renewable water production. PCWPF will remain shut down through December 31, 2024.*

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.



STORAGE

- Chatfield Reservoir: 1,586 AF
- Rueter-Hess Reservoir: 497.89 AF
- Castle Rock Reservoir No. 1 (CRR1): 162.9 AF

WATER RESOURCES

EAST PLUM CREEK FLOWS

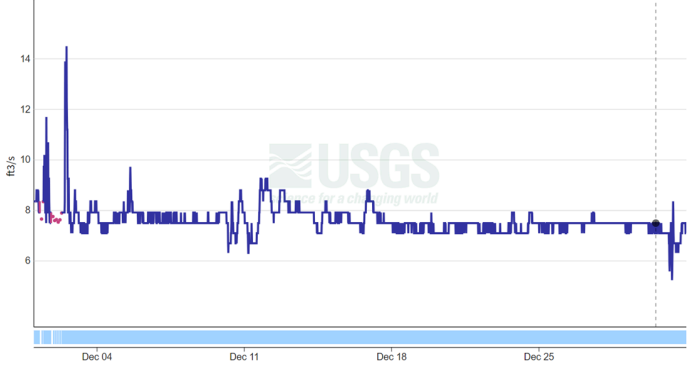
The hydrograph indicates the estimated flow in East Plum Creek basin.

- Flows ranged from 5.24 to 14.5 cubic feet per second (cfs)
- The monthly average streamflow was 7.6 cfs
- The 25-year mean is 5.9 cfs

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

December 1, 2024 - December 31, 2024
Discharge, cubic feet per second

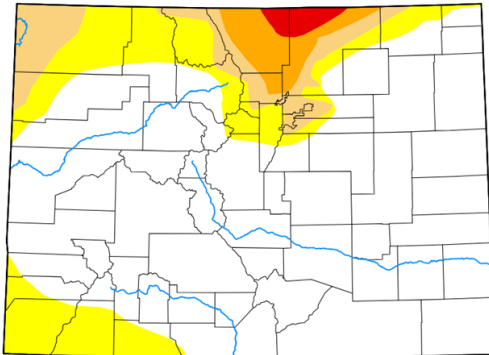
7.50 ft³/s - Dec 30, 2024 01:15:00 PM MST



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.

Colorado



Map released: Weds. January 1, 2025

Data valid: December 31, 2024 at 7 a.m. EST

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):

[Rocky Bilotta](#), NOAA/NCEI

Pacific Islands and Virgin Islands Author(s):

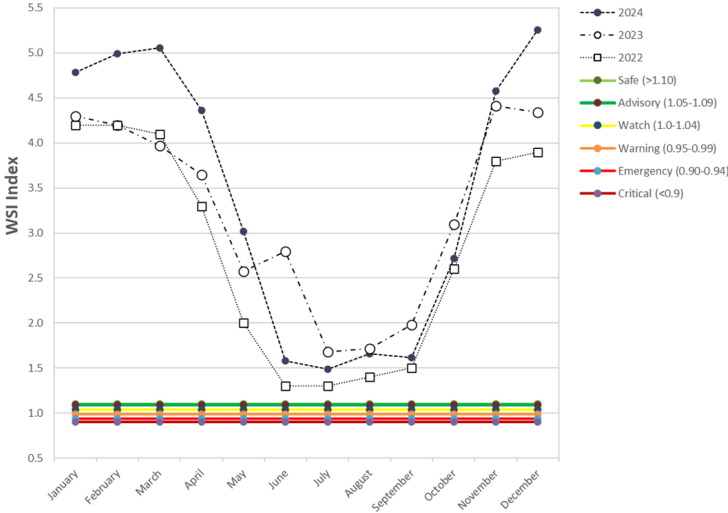
[Brad Rippey](#), U.S. Department of Agriculture

WATER SUPPLY INDEX

5.26
WSI

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.

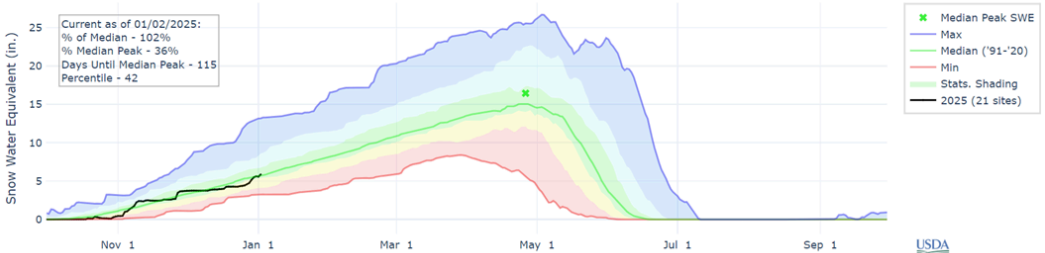
Average WSI with Trigger Level



SOUTH PLATTE RIVER BASIN SNOW PACK

- Year-to-date precipitation at 99% of median
- Snow Water Equivalent (SWE) at 102% of median

SNOW WATER EQUIVALENT IN SOUTH PLATTE



CONSERVATION 2024 totals

2,926
active Water
Wiser accounts

EDUCATION

- Eight Water Wiser workshops educated 496 participants, with another 160 renewing online
- Four ColoradoScape Workshops were held with 119 participants
- Three student presentations and/or PCWPF tours were conducted
- Reached 400+ residents with conservation booths at PCWPF open house
- Two Qualified Water Efficient Landscaper (QWEL) trainings, as is required for professional landscapers registering with the Town

VIOLATIONS

Watering violation surcharges help fund rebates.

- 1,558 residential violations issued (81% first violation with no surcharge)
- 48 non-residential violations issued (67% first violation with no surcharge)

INSPECTIONS

Landscape, irrigation and soil inspections ensure code compliance for efficiency standards.

- 1,117 residential and non-residential inspections conducted

REBATES

Toilet (0.8 gpf)

90 toilets replaced
\$12,700.30 refunded

Rotary nozzles

272 spray nozzles replaced
13 participants
\$1,306 refunded

Whole house monitor

7 installations
\$1,369.40 refunded

\$661,900

273,000
square feet

ColoradoScape

The ColoradoScape rebate requiring conversion of high-water use materials to ColoradoScape design is proving to be one of the most effective water efficiency tools for Castle Rock.

- 153 residential customers removed 113,117 square feet of high-water materials, a 50% increase from 2023
- 16 non-residential customers removed 199,574 square feet of high-water materials, a 142% increase from 2023

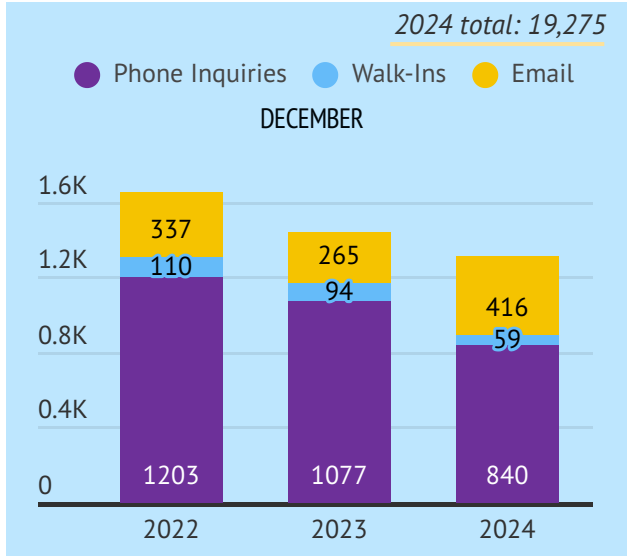
BUSINESS SOLUTIONS

CUSTOMER SERVICE



CUSTOMER ACCOUNTS
27,696

Customers with an online account:
60%

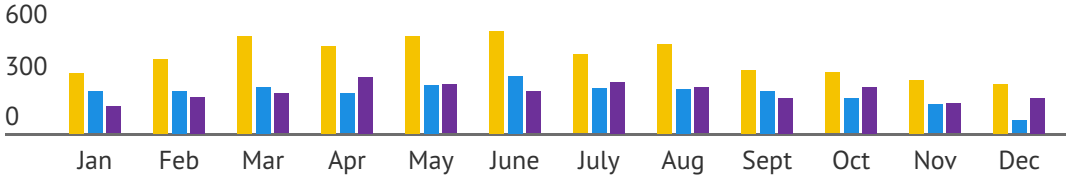


TRANSFER OF SERVICE

Transfers of service represents the start/stop for service for new properties and those changing ownership.

2024 total: 2,908

● 2022 ● 2023 ● 2024



CUSTOMER OUTREACH

OUTLET	POST	REACH	
Facebook	4 posts	7.3k reach	42 engagements
Instagram	2 posts	2.1k reach	54 engagements
LinkedIn	3 posts	1.2k impressions	93 reactions
Email	13,813	65% open rate	

TOPICS

- Troubleshooting tips
- Frozen pipes
- Indoor conservation

2024 goal achieved: 2 articles nationally published; 12 positive stories

METER SERVICES

Meters are read the first two days of every month. Castle Rock Water utilizes drive-by and AMI technology.

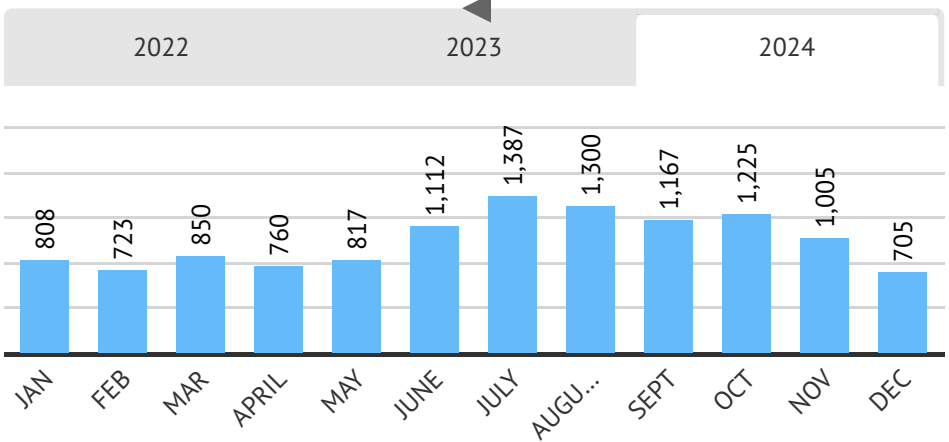


Measuring skipped reads is a strong indication of the level of preventative maintenance being done by our team.

ALL SERVICE WORK ORDERS

Standard work orders include meter replacement and AMI upgrade, bulk hydrant move-outs, curb stop maintenance, MXU installation, flow detection, and pressure checks.

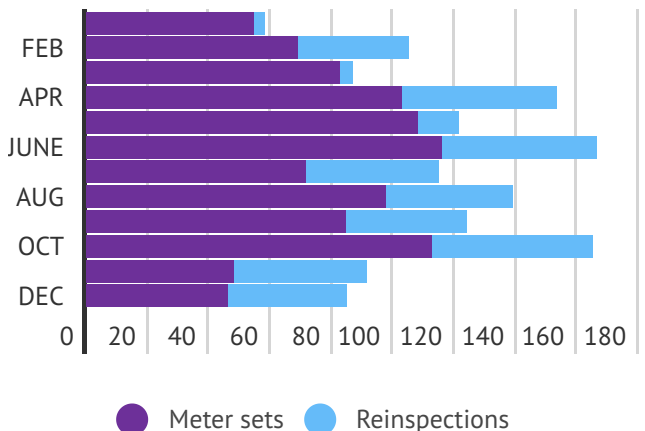
2024 total: 13,222



METER SET INSPECTIONS

Meter set inspections, to ensure code compliance, are required on all new meters installed. 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.

2024 total: 1,363



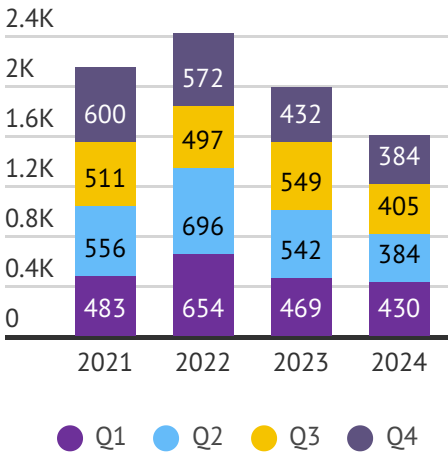
PLAN REVIEW Q4 2024

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

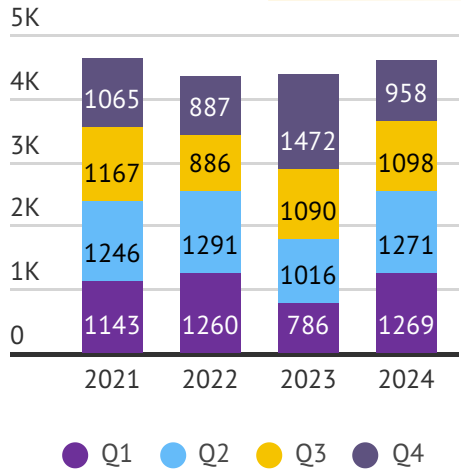
PROJECT REVIEWS

2024 total: 1,603



PLAN REVIEWS

2024 total: 4,596



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.

2024 total: 3% decrease

PERIOD	Single Family	Com-mercial	Misc	Multi-family	TOTAL
Q1	333	50	15	11	409
Q2	443	39	17	0	499
Q3	238	34	9	5	286
Q4	279	46	9	2	336

STORMWATER COMPLIANCE Q4 2024

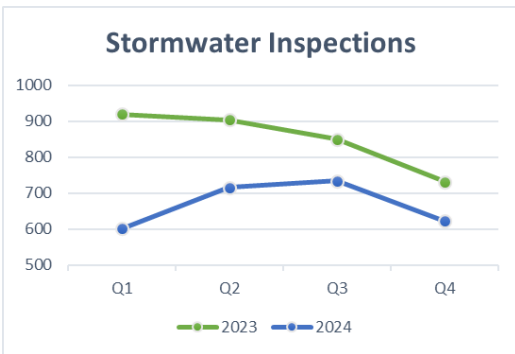
The Stormwater Division manages stormwater runoff to minimize flooding hazards and to protect water quality in our watersheds. Services include:

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



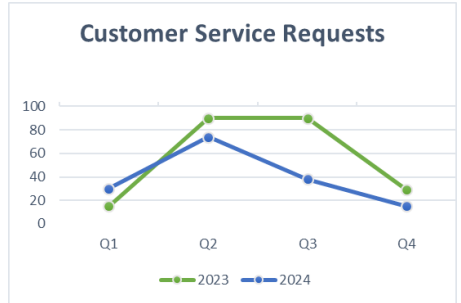
Over the past 5 years, inspections have been declining likely due to the economic downturn. Customer service requests flow with weather conditions as seen by the noticeable jump in 2023 due to the onslaught of rain and flooding issues we received in May and June.

INSPECTIONS 2024 total: 2,674 inspections



The inspection team regulates permitted residential and commercial properties. Total inspections tracked 21% lower from 2023 to 2024. Overall, inspections from Q1 2023 to Q4 2024 dropped 40%.

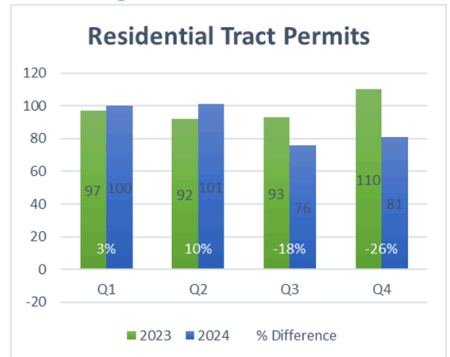
CUSTOMER SERVICE



Customer concerns range, from nuisance groundwater and illicit discharges, to dust, and infrastructure maintenance. Complaints often rise and fall with weather patterns. Customer concerns decreased back to baseline after the storm on June 9 in Q2. Also, total CSRs are down 30% from 2023 to 2024.

2024 total: 157 requests

PERMITS



Total annual residential tract permits were 10% lower from 2023 to 2024 compared to the 34% drop from 2022 to 2023.

2024 total: 358 permits

OPERATIONS

0

OUTAGES

2024 total: 0

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

0

PRESSURE

2024 total: 0

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

0

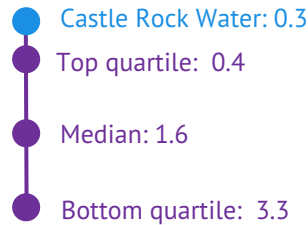
OVERFLOWS

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

2024 total: 1

SANITARY SEWER OVERFLOWS

AWWA Index: SSO rate/100 mi



3

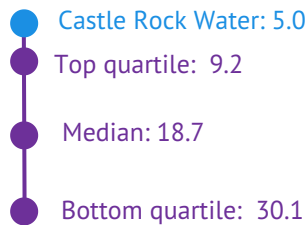
LINE BREAKS

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

2024 total: 15 leaks, 12 breaks

WATER SYSTEM INTEGRITY

AWWA Index: Leaks and breaks/100 mi



1,010

UTILITY LOCATES

2024 total: 14,968

17.48 mi

LINES INSPECTED

32% of 2024 goal of 55 miles

LINES CLEANED

17.87 mi