

MONTHLY REPORT

JAN. 2022

CASTLE ROCK
water
Securing our future *drop by drop*

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

Parkview Tributary & Fifth St. Trail Drainage Improvements

Project Manager: Erik Dam

As part of the Stormwater Master Plan, the Parkview Tributary project implemented infrastructure improvements for the Parkview Tributary drainageway north of Fifth Street, along Oakwood Court and Oakwood Drive. The improvements will improve drainage and minimize flooding in a residential neighborhood. Additionally, aging water distribution mains under Oakwood Drive and Oakwood Court have been replaced and full depth pavement replacement of the streets performed.



The new storm sewer system replaced an existing trapezoidal concrete channel through private property along Oakwood Court and abandonment of an existing storm sewer pipe behind homes on Oakwood Drive. The system includes 903 feet of reinforced concrete pipe, 328 feet of plastic pipe, 11 inlets and 9 manholes. Street and sidewalk improvements, including new ADA compliant curb ramps support the storm drainage system and improve pedestrian safety. Water and sanitary sewer system improvements include

replacement of 854 feet of water mains with PVC pipe along with associated service connections. Additionally, residential sanitary sewer service laterals were replaced and two new fire hydrants were installed within the project limits.

Contractor: Elite Surface Infrastructure
Cost: \$1,536,151 (within budget)
Schedule: Substantial Completion (on schedule)

Good job!

NEW CERTIFICATIONS

The water, wastewater and stormwater utility business is highly technical and regulated. As such, Castle Rock Water has to maintain an extensive staff of professionally licensed individuals. Most of these licenses require specialized education and the passing of state testing, as well as proof of continuing education.



Rod Daniels
Colorado Water Professional
Distribution 2 Operator
Certification



Phil Jolly
Colorado Water Professional
Collections 3 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.

Safety

Demonstrated outstanding safety conscious behavior in performing a job or task.

Exceptional Service

Provided exceptional service to either an internal or an external customer

Quality

Delivered excellent quality service or product

Value

Provided remarkable value for our customers

Environmental:

Demonstrated extraordinary environmental responsibility

Fiscal

Demonstrated superb fiscal responsibility



Nichol Bussey, Customer Billing & Support Supervisor, was presented the Water Star award by Dawn Tiffany for her Exceptional Service to her internal and external customers. Dawn notes that Nichol is always quick to answer her questions and to promptly send her billing customer data for my reports.

Nicole has had quite a year, with all of the changes within the Business Solutions team. She did a great job responding to the challenges, particularly within the Meter's division. Operation's and Meter's customer service inquiries often go hand-in-hand and Nichol became

Operation's point of contact for questions and communication. Nicole was always very responsive and assisted with dispatching staff to help with customers.

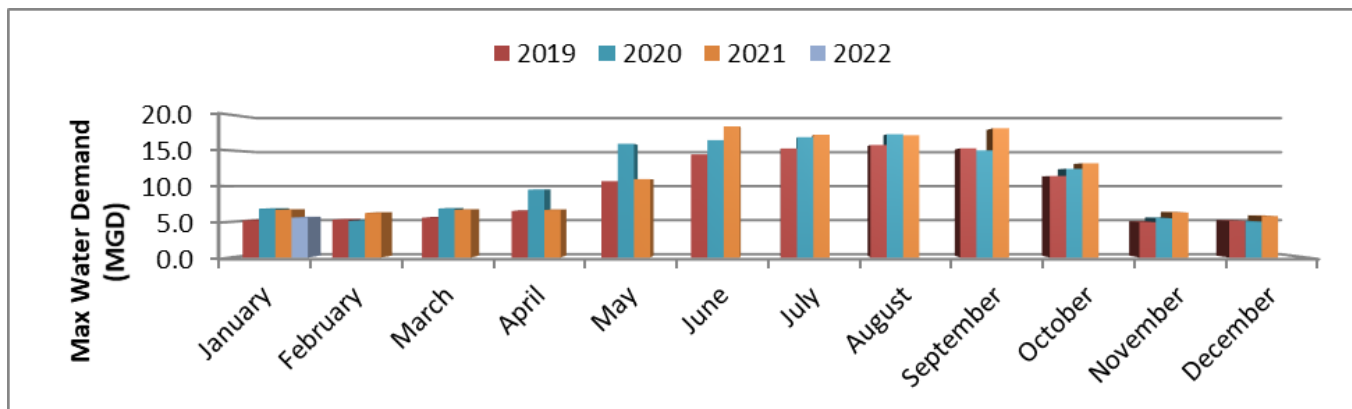
Her team really stepped up on the administrative side, taking over the duties of the Meter's Specialist, as the lead, Nichol led the short staffed Meter's team. This double-work load was greatly appreciated.

Nichol always handles herself with grace and a smile, no matter how difficult the situation or how strange my questions might be!

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.



January Max Daily Demand:

- 5.6 million gallons/day
- 5-year average, 5.8 million gallons/day
- 4% lower than the 5-year average

Water Demand Total:

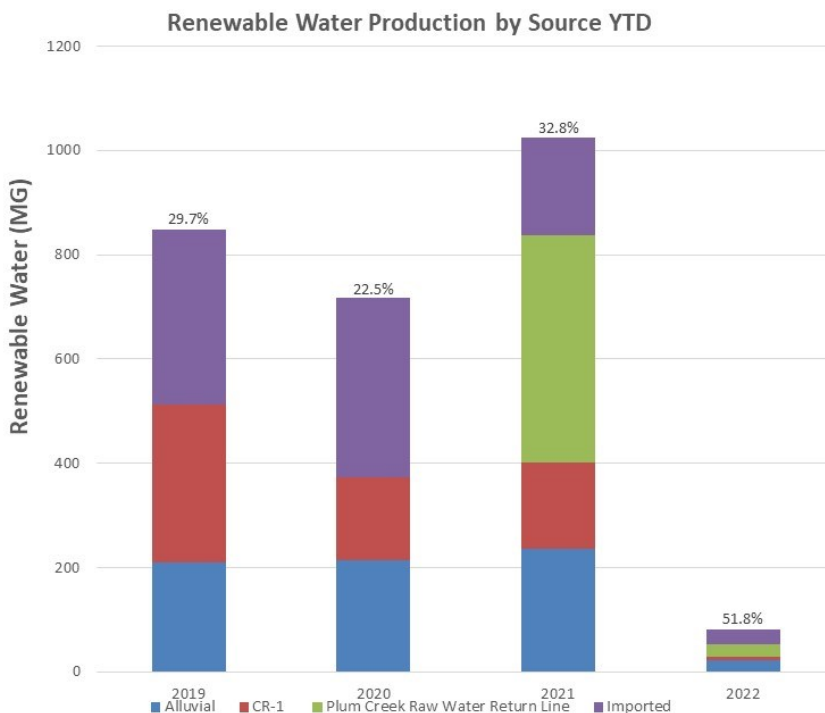
- 158.3 million gallons /485.8 acre-feet
- 4% lower from the December 2021
- 0.2% increase from January 2021

Renewable supplies

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

In total, renewable supplies accounted for 51.8% of the total water supply for the month and 51.8% of the annual water supply (158.1 MG or 485.2 AF) to date.

- The CR-1 diversion produced an average of 0.24 MGD.
- The 14 alluvial wells produced an average of 0.73 MGD.
- The renewable water total production was 81.9 MG (251.4 AF).
- The renewable water production average was 2.64 MGD.



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

Note: In 2020, renewable water production was down due to the construction of Advanced Treatment processes to the Plum Creek Water Purification Facility.

Water Demand

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.

- The average reusable supplies used by Castle Rock for 2022 through January is 35.2%.

Storage

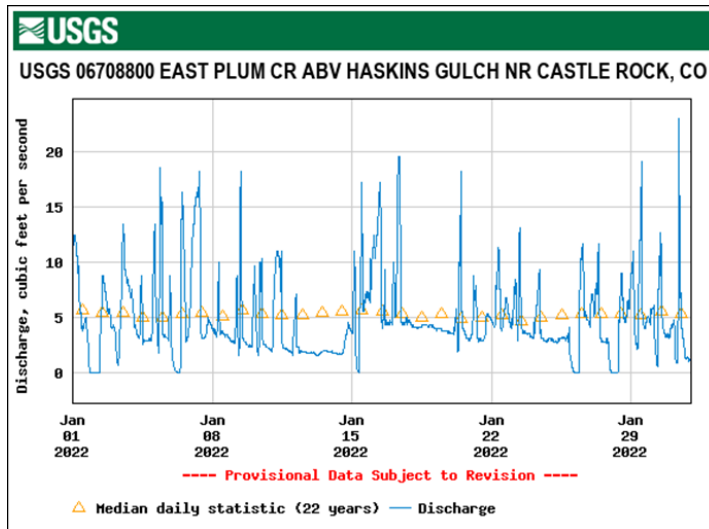
Current reservoir storage

- Chatfield: 1079.68 AF
- Rueter-Hess: 118 AF
- Castle Rock Reservoir #1: 110.04 AF

Drought

According to the U.S. Drought Monitor maintained by the United States Department of Agriculture (USDA), **Castle Rock is experiencing Severe Drought (D2) conditions.**

Local Plum Creek supplies

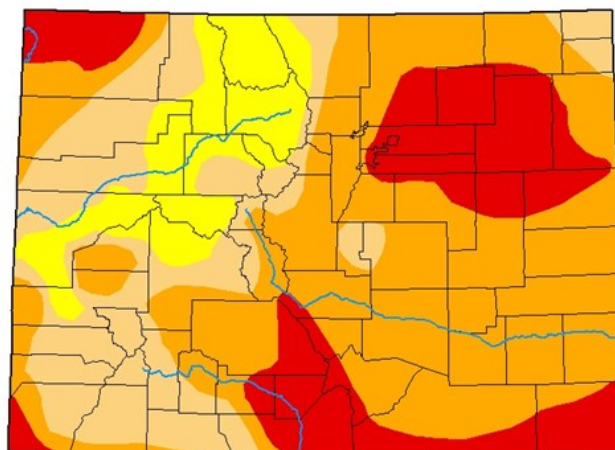


East Plum Creek basin flows

- Flows ranged from 0 – 23.1 cubic feet per second (cfs)
- The monthly average streamflow was 5.0 cfs
- The 22-year median is 5.0 cfs

U.S. Drought Monitor Colorado

January 25, 2022
(Released Thursday, Jan. 27, 2022)
Valid 7 a.m. EST



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>

Author:

Brad Rippey
U.S. Department of Agriculture



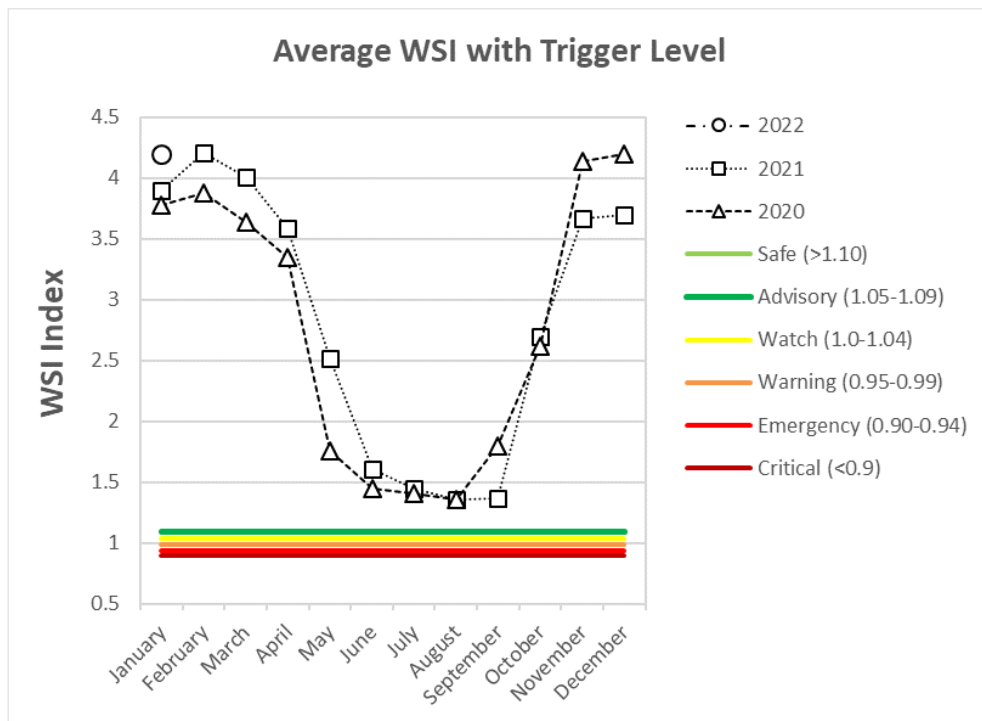
droughtmonitor.unl.edu

Water Demand

Water supply index

The Town of Castle Rock 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.

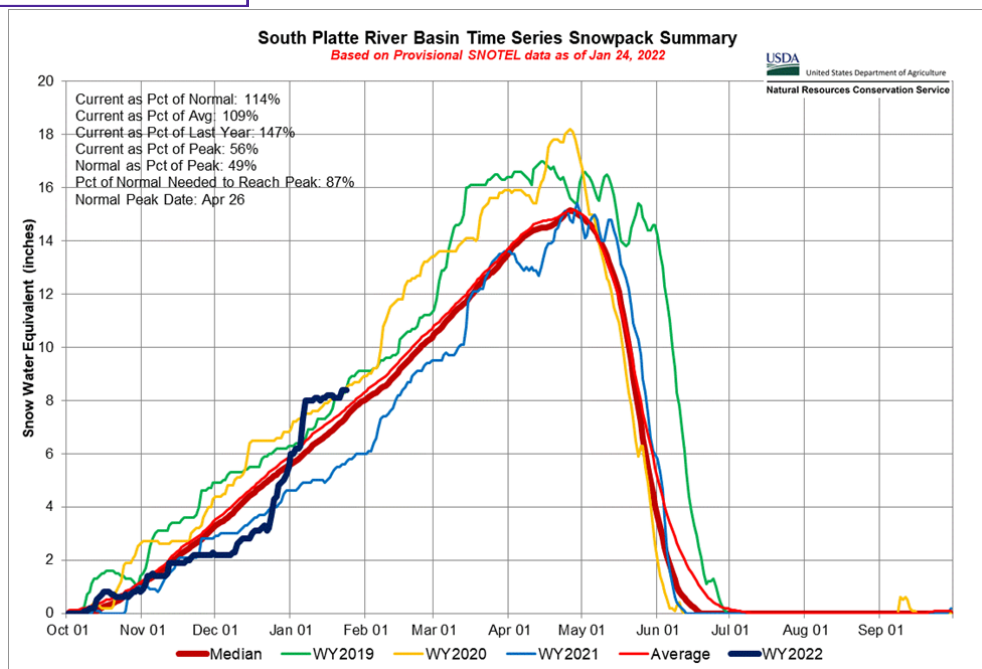
- The average WSI for January was 4.2.



South Platte River Basin

South Platte River Basin Snow Pack

- Year-to-date precipitation at 114% of average.
- Snow Water Equivalent (SWE) at 115% of average.



Plan Review



For each commercial and residential project submitted for development review, Castle Rock Water provides plan review, as appropriate, for:

- Water
- Sanitary sewer
- Stormwater
- Landscape/irrigation
- Temporary erosion and sedimentary control

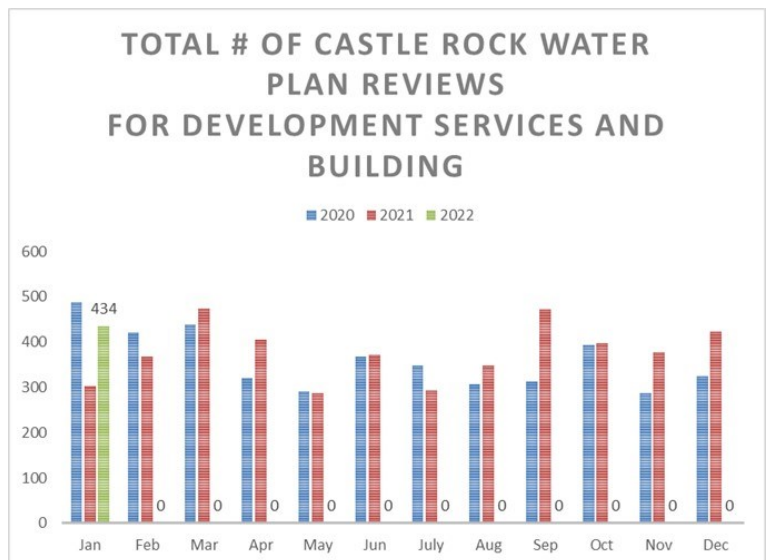
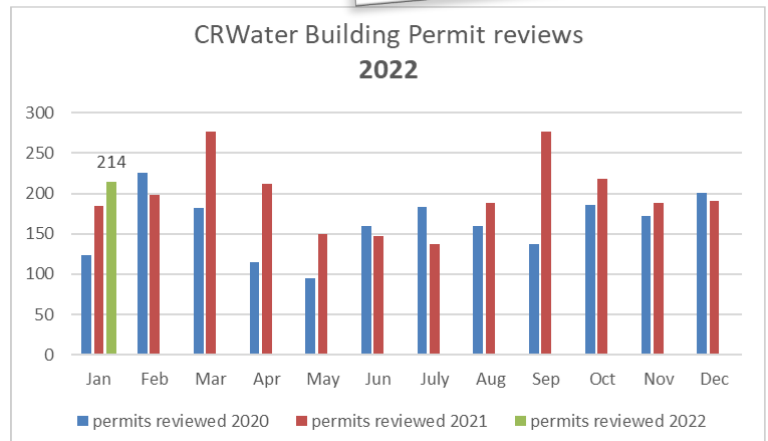
Castle Rock Water reviews site plans, construction drawings and technical reports for each project to ensure the public infrastructure built by the developer is following the criteria set by the Town.

Reviews

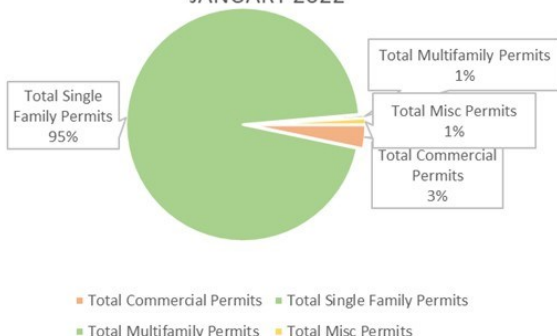
220 Development Services PROJECT plan reviews
214 Building PERMIT reviews for
92 separate projects

	January		
Total Distinct Projects	2021: 52	2022: 92	Increased 77%
Total Dev Review project reviews	2021: 117	2022: 220	Increased 88%
Total Building permit reviews	2021: 185	2022: 214	Increased 16%

Building permits are reviewed to calculate the system development fees for each lot, as determined by the number of fixtures, irrigated area, meter size, etc. This is necessary for proper billing.



Castle Rock Water Building Permit Reviews JANUARY 2022



Service levels

The average number of days assigned to review: 14.4 days
The average days to complete assigned reviews: 13.3 days

Plan Review: 88% of the reviews were completed on-time

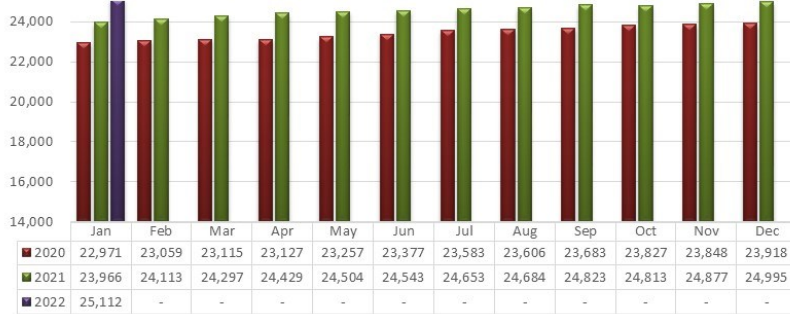
Review time for each plan is 1 to 5 weeks,
a permit is 3-5 days.

Business Solutions

Customer Service & Billing



of Accounts Billed

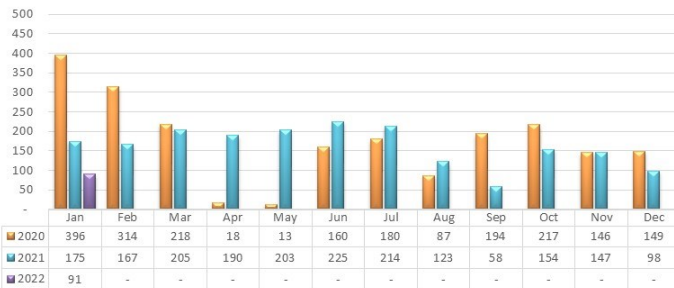


2021/Q4 statistics

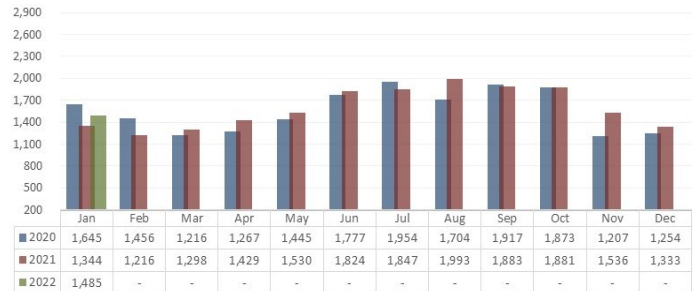
- 17,413 (70%) have an online account
- 11,188 (64%) are paperless

Customers benefit from having an online H2Oaccess account with 24/7 access to statement information, 12 months of statement history, helpful email account reminders and safe and secure online payment options. Customers are encouraged to use paperless billing to reduce clutter, be environmentally friendly and save mailing costs.

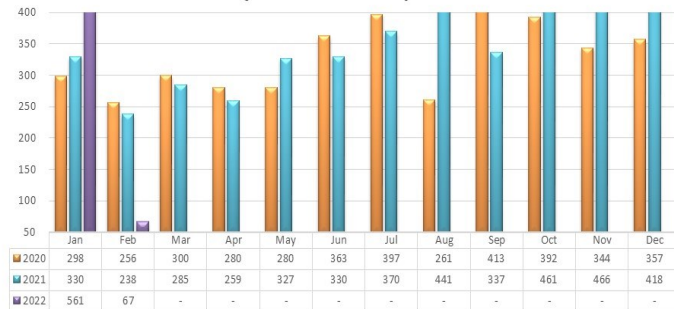
Walk-In Customers



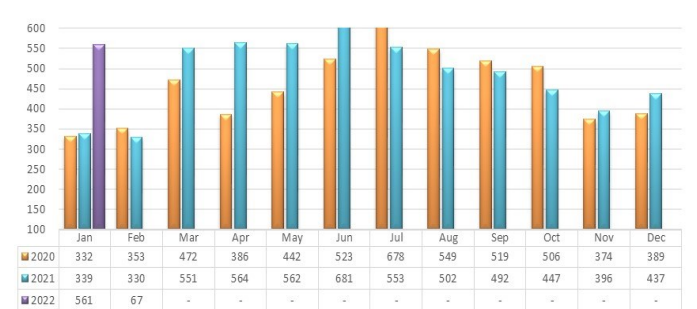
Customer Phone Calls



Mywaterbill Email Inquiries



Transfers of Water Service



Customer Outreach

Keeping customers informed about the value of water.

With a slight increase in water resources and stormwater rates and slight decrease in wastewater, a net decrease in annual rates should be realized by most customers. Rates and fees are evaluated every year to be better in line with project needs and costs.

Water Outreach Social Media Stats	REACH
Poop Fairy: Roscoe — Jan. 4	3,762 people
Salt on roads — Jan. 5	5,958 people
Water Checkup — Jan. 12	1,033 people

Freezing pipes — Jan. 19	4,551 people
Where does our water come from — Jan. 26	1,772 people
Poop Fairy: Dozer — Jan. 27	4,734 people
EMAIL: Water rates decreasing	16,240 opened (61% open rate)
HOA Email: Water regs	111 opened (50% open rate)

Meters



Meters Read

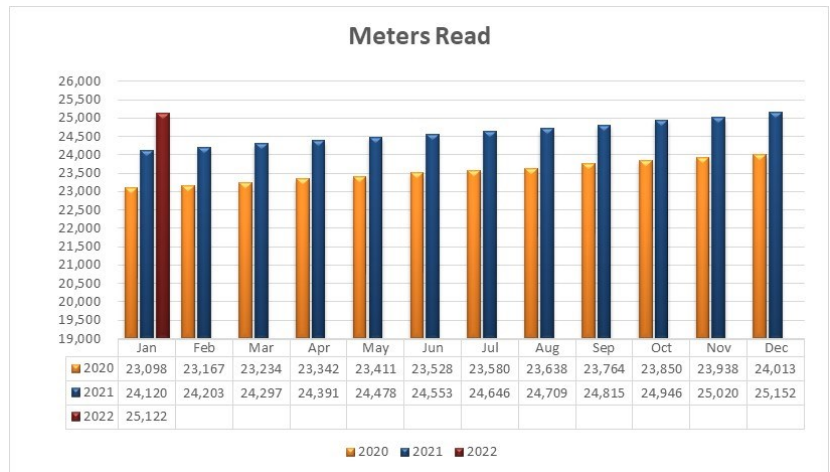
Meters are read the first three days of every month. The number of meters read continues to increase month to month and is a significant increase over last year.

Skipped Reads

Jan. 2022: 0.64%

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.

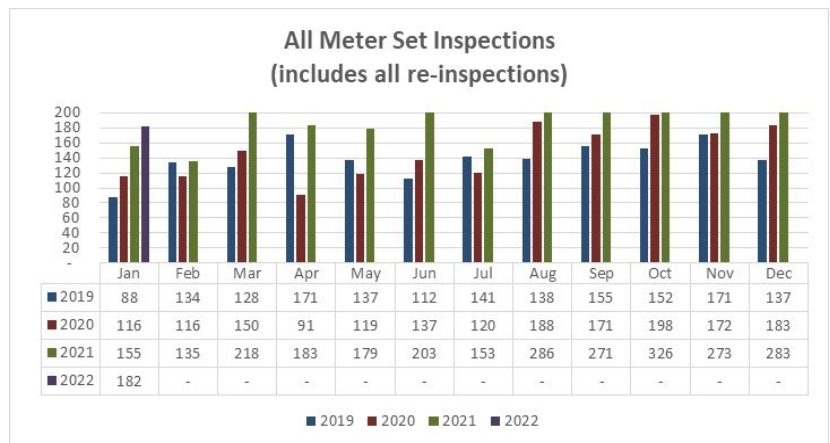
The AWWA standard is 2%, so we still continue to stay well below the industry average.



Meter Set Inspections

Re-inspections: 51%

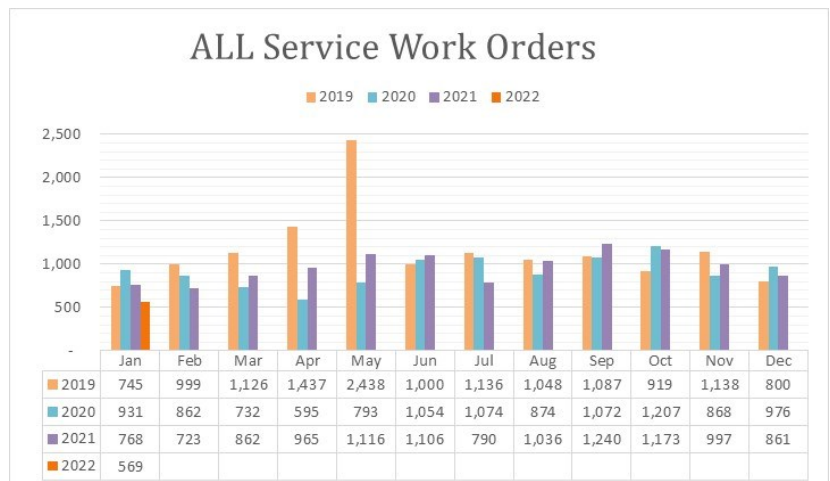
Meter set inspections are required on all new meters installed. This ensures that the meters are installed per specifications and according to Town code. At the time of the inspection, the curb stop is tested for operability and the MXU is installed which provides reading capability for our drive by technology. Re-inspections are needed to ensure installation meets code when original inspections are failed.



Work Orders

Jan. 2022: 569

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

Jan. 2022

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.

Ninety routine samples were completed. All samples were within the parameters set forth by the Safe Drinking Water Act and Colorado Drinking Water Standards .

Pressure Adequacy

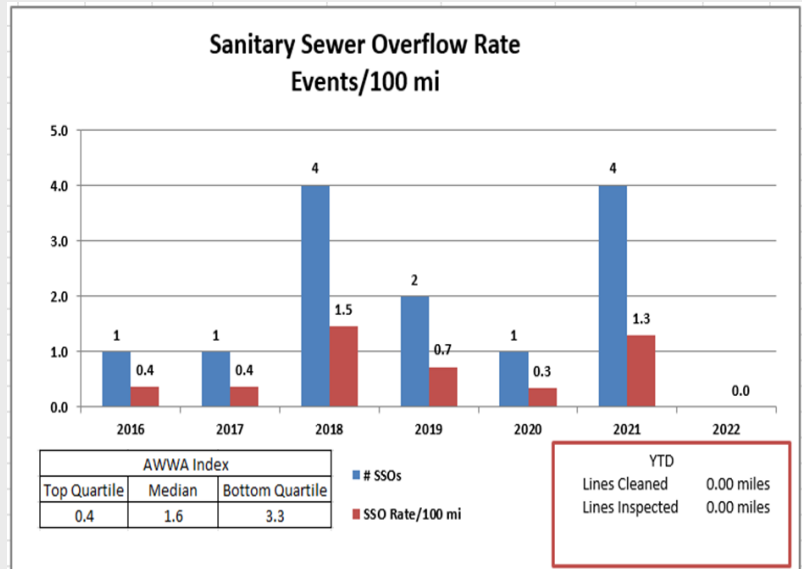
< 1% of our customers will experience less than 43 pounds per square inch (psi) of pressure at the meter during normal operations.

There were no water pressure issues in January.

Sewer System Effectiveness

<1% of our customers will experience a sewer backup caused by the utility's sewer system per year. Castle Rock Water remains in the Top Quartile for least number of sewer backups based on the AWWA benchmarking.

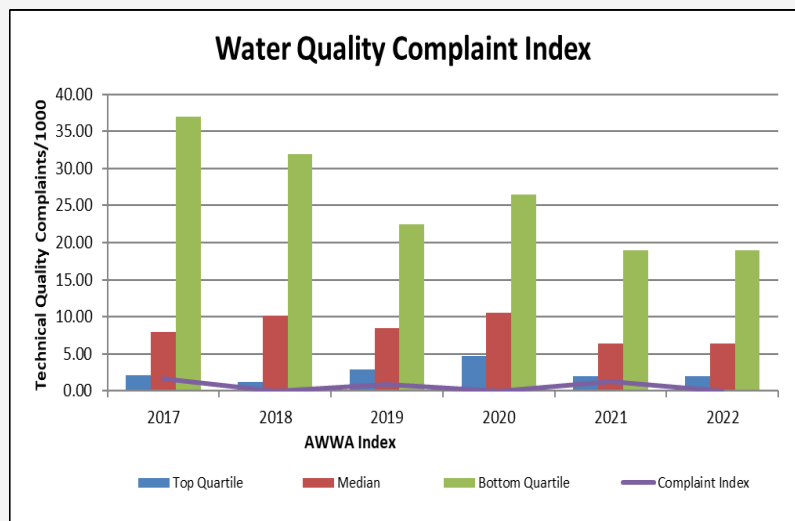
There were no sewer issues this month.



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 issues in January. There was one customer education visit.



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.



Jan. 2022

There were five water system integrity issues in January.

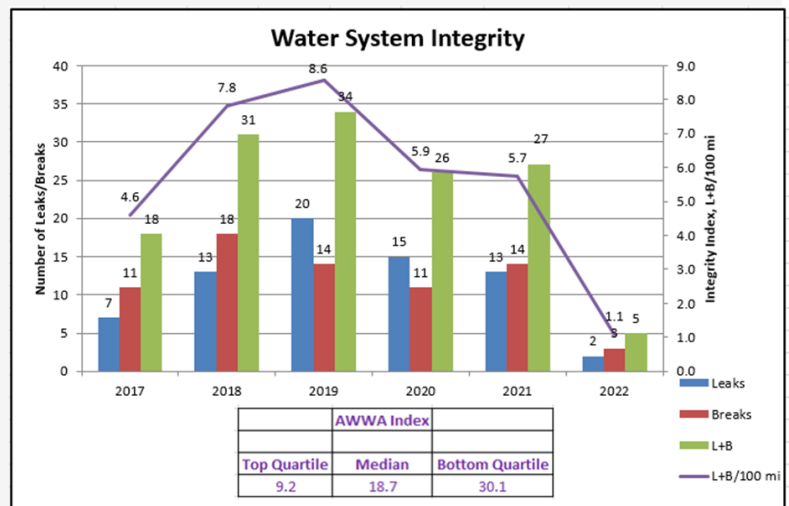
There was a main beam break on 6" cast iron pipe on South St. Water pressure was reduced to 27 homes, for less than four hours, during the repair.

A Capital Improvement Project (CIP) contractor damaged a customer service line and the distribution team was able to conduct the repair without throttling down the main. The damaged lead gooseneck was replaced with copper line and connected to the newly installed service line.

Another service line was damaged during the CIP project. A temporary repair was conducted by the Distribution team, which reduced pressure to eight homes, for less than four hours. This service line is scheduled to be replaced by the CIP contractor.

A pressure surge at Hillside Pump Station caused a main break on 6" CIP pipe, bursting through two corrosion holes on the bell, on Oakwood Dr. The On Call team assisted our line repair contractor, Global Underground, with the major repair. Twenty-one homes were affected with low pressure for eight hours and out of water for one hour during the repair.

There was a main break in Glovers on 6" cast iron pipe. The Distribution operators were able to isolate the break, which occurred at the junction of old pipe and the CIP project's newly installed pipe. No homeowners were affected by this repair.



Utility locates



Water locates conducted

- Jan. 2022: 2,438