



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

Castle Rock residents promised to save more than 3 billion gallons of water

The Mayor’s Challenge for Water Conservation, held April 2021, is a national, online pledge to conserve. The cities with the highest percentage of residents making pledges during the campaign are ranked. In 2021, Castle Rock finished in 10th place, reaching within the top 10 mark for six years in a row!

The challenge, presented by the Wyland Foundation and Toyota, with support from the EPA, National League of Cities and others, addresses the growing importance of educating consumers about the many ways they use water. Residents from winning cities are entered into a drawing for eco-friendly prizes including \$3,000 toward their

annual home utility bill, home irrigation and indoor water efficiency equipment, along with one deserving charity to receive a 2021 Toyota Highlander Hybrid.

In addition to reducing overall water waste, challenge participants in 50 states pledged to reduce their use of single-use plastic water bottles by 7.4 million and

eliminate 176 thousand pounds of hazardous waste from entering watershed. By altering daily lifestyle choices, residents also pledge to put 80 million fewer pounds of waste in landfills. Potential savings of 11 billion pounds of carbon dioxide, 199 million kilowatt hours of electricity, and \$14 million on consumer cost savings rounded out the final pledge results.

Spring Up the Creek resumes in 2021



After having been canceled in 2020 due to the COVID pandemic, residents were excited to see the Town-wide clean up event, Spring Up the Creek, return in 2021. Held on May 1, with 178 local volunteers and 20+ staff (and family), the event cleaned up 10 trails throughout the community. The 2021 event format was a bit different this year to accommodate social distancing and abide by State health guidelines. Instead of being headquartered at Festival Park, participants met at 10 designated trailheads. Without a central location, the event did not host a vendor fair or children’s activities. A strong support of sponsorships provided not only the gloves and bags, but water, snacks and a commemorative neck gaiter (or head wrap).

The purpose of the event is to keep the community’s watershed free of trash to improve water quality. Castle Rock Water hosts the event in partnership with Douglas County, Castle Pines Metro District, Plum Creek

Water Reclamation Authority and the Chatfield Watershed Authority. Corporate sponsors included Jacobs, South Metro Water Supply Authority, Muller Engineering, W.W. Wheeler, Enginuity, Dana Kempner, Burns & McDonnell, Starwood, Allstate, Castle Rock Nutrition and others.



Gaiter artwork



Garden In A Box helps conserve water

One way of showing customers how to save water in the landscape is to encourage them to replace that turf with colorful, low-water options. Castle Rock Water partners with Resource Central and provides Garden In A Box. This grouping of 14-30 perennials are all acclimated to our high-desert, arid environment. The box of flowers, that bloom year after year, comes with a recommended design layout and care instructions. Though not required, the intent is for customers to replace turf and plant this attractive, ColoradoScape. By replacing just 100 square feet of grass with a Garden In A Box,

homeowners can expect to save at least 7,000 gallons of water over the garden's lifetime. The first 50 gardens sold to Castle Rock Water customers receive a \$25 discount. The program costs Castle Rock Water \$3250 for the sponsored discount and administrative fees for the program. Castle Rock Water is one of 27 water providers participating in the program that is expected to sell more than 5,000 waterwise gardens this year. Castle Rock Water has been participating in Garden In A Box since 2016.

Castle Rock residents purchased 87 gardens and the pick up event was held May 4, 2021.



2021 CASTLE ROCK WATER IMPACT

GIAB sold	87
Customers	50
New customers	33
Return customers	17
Est. square feet of grass converted to ColoradoScape	6,600
Estimated gallons of water saved (over the lifetime of the gardens)	480,000

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.



Matt Poland
Distribution 4 Operator
Certification



Jonathon Weikle
Distributor 1 Operator
Certification



Chaz Busse
Water Treatment A
Operator Certification



Jared Poyner
Distributor 2 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

Matt Hayes, CIP Project Manager, received the Water Star award from Alex for his speedy, friendly and helpful response to coworkers requests. Matt has exceptional customer service and is more than



willing to help out both internal and external customers. He is adaptable and willing to change to accommodate the needs of the situation. Alex and the Distribution Team are especially thankful for the multiple times they have reached out regarding PRVs and requests for running hydraulic models. Matt was quick to respond making the job run smoothly and efficiently. It is refreshing to have a great working relationship across departments.

Good Job!

Welcome to the team



Annette Crotty
Operator IV

**CONGRATULATIONS
ON YOUR
PROMOTION!**



Kaitlin MacPherson
Billing Specialist




Gail Poettman
Water Monitor



Dennis Novak
Water Monitor



Alex Sarabi
Water Monitor



Annie Julseth
Water Monitor

Conservation

Water waste violations

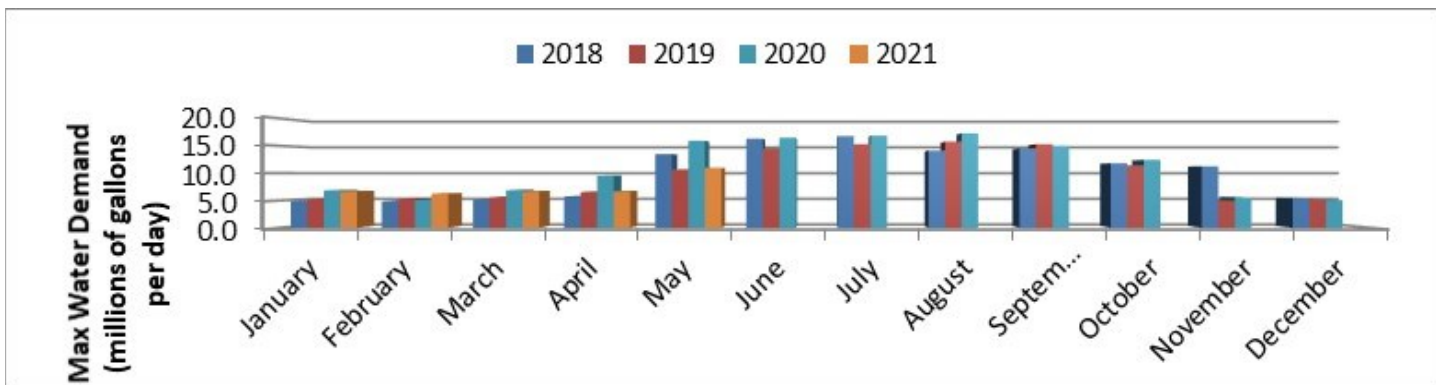
Castle Rock Water has regulations in place to manage our most precious resource, to instill a conservation culture and to maintain appropriate demand concerns. To this end, there are violations for water waste. Warnings are the first course, as education is the most beneficial method of changing behavior - and we know that many of these violations are simply an oversight. For repeat occurrences, surcharges are assessed.

Water waste is the application of water that does not result in beneficial use. The primary waste seen is overwatering in which water that is not absorbed into the ground flows away from the area being irrigated. Over spray, where sprinklers are spraying onto sidewalks, driveways and streets instead of the landscape is another primary violation, as is watering during the day.

Violations in 2020, totaled around \$100,000 and these fees help fund the conservation rebates which are available to all Castle Rock Water customers. Customers can find more details about watering violations at CRconserve.com/WateringViolations.

2020 Violations Summary			
Residential	1 st	3,278	\$0
	2 nd	641	\$15,050
	3 rd	121	\$5,500
	4 th	29	\$2,600
	5 th	9	\$1,600
	Subsequent	0	\$0
	TOTAL	4,078	\$24,750
Non-residential	1 st	218	\$0
	2 nd	103	\$10,200
	3 rd	51	\$10,000
	4 th	32	\$12,000
	5 th	21	\$16,000
	Subsequent	35	\$28,000
	TOTAL	425	\$76,200

Water Demand



Max daily 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.

May 2021 **11.0 million gallons/day**
 May 5 yr. avg. 12.3 million gallons/day
11% lower than average

Max daily water demand in 2020
 17.3 MGD in August (record breaking)

Water demand total

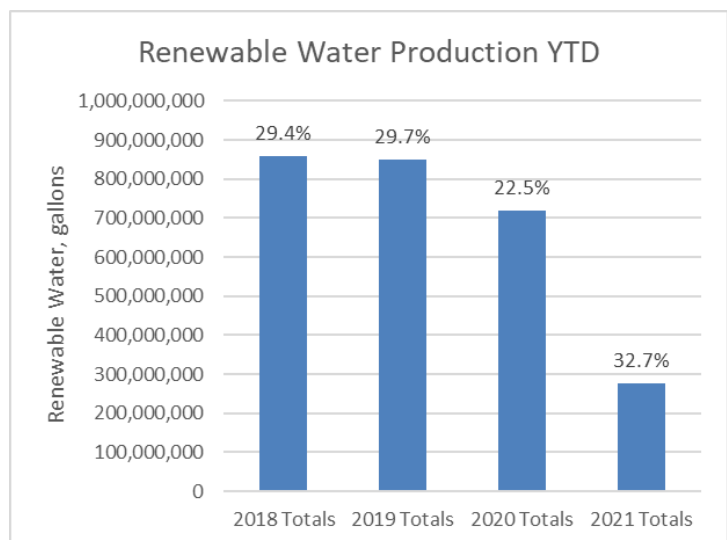
Water demand total is how much water was used over the entire month. Population and weather changes can significantly affect usage.

May 2021 **243.8 million gallons**
 May 2020 374.9 million gallons
35% decrease from last year

Water demand total for 2020
 3,251.7 MG

Renewable water supply

- The CR-1 diversion produced an average of 1.04 MGD for the month of May.
- The Town's thirteen alluvial wells, CR-1, and the Plum Creek Raw Water Return Line (PCRWRL) produced a total of 93.82 MG of renewable water (and an average of 1.74 MGD).
- In total, renewable supplies accounted for 45.1% of the total water supply for the month and 32.7% of the annual water supply (846 MG or 2,596 AF) to date.



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.

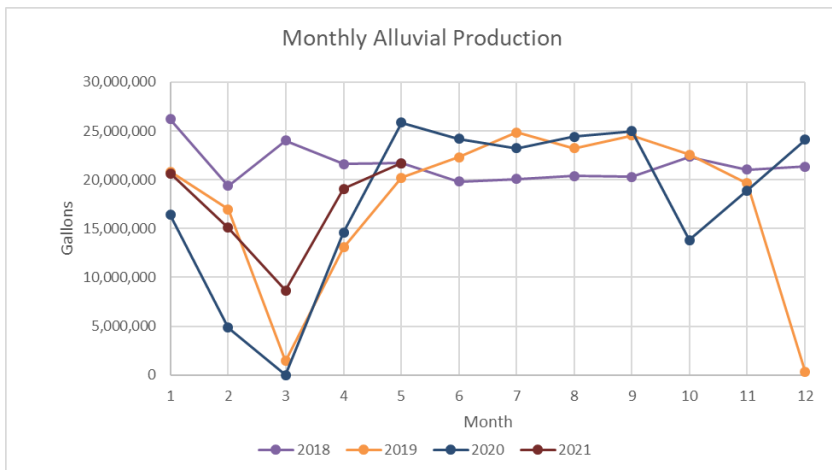
Water Demand

Renewable supplies are those water sources that are replenished by precipitation (think of our alluvial wells, CR-1, PCRWRL, and WISE), whereas reusable supplies are those waters that are either from the Denver Basin (deep wells) or imported supplies (such as WISE, RHR, PCRWRL) that can be used over and over, to extinction. The average reusable supplies used by Castle Rock for 2021 through May is 35.8% with 63% of available reusable supplies used and an additional 62% of available reusable supplies stored in the month of May.

Alluvial supply

May 2021 production: 21.7 MG

- The graph shows the monthly production of the Town’s alluvial well system, which helps to supply PCWPF. The production from the alluvial wells in May was 21.7 MG.
- We have three alluvial well rehabilitation’s scheduled for this year.



East Plum Creek Flows

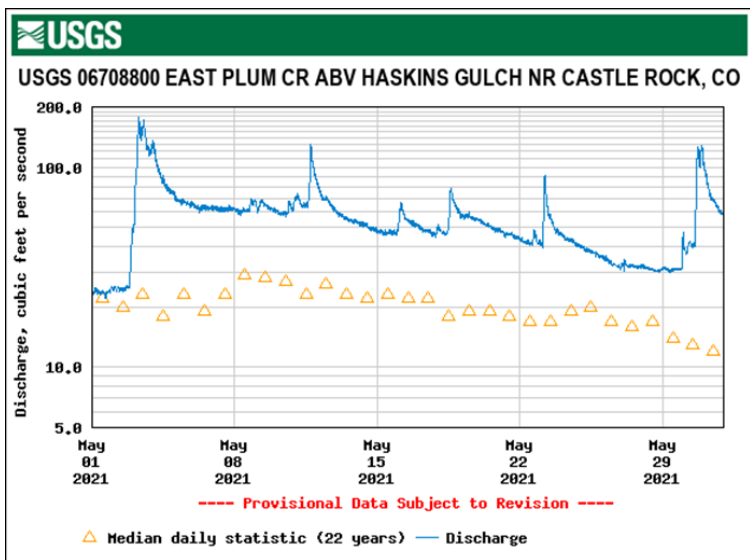
Average May streamflow: 55 cfs

The flow hydrograph represents stream flows in East Plum Creek (EPC) taken from the stream gauge located above Haskins Gulch. The hydrograph shows that estimated flows in the East Plum Creek basin ranged between 22.1 and 177 cubic feet per second (cfs) during the month of May, with an

average streamflow of 55.0 cfs. This month’s average streamflow of 55 cfs is 5 times above the 20-year median of 11 cfs.

There were active calls on the South Platte River in May. Some of the active calls have had a more senior water right than some of the Town’s water rights. This means that those diversions are out-of-priority, so the stream depletions will be replenished by non-tributary return flows. This also means that the Town will have slightly less reusable water going down Plum Creek during an active call. The priority date on a river call may change each day depending on the stream flow available and the seniority of the diversions that need water on that day.

As a participant in the Chatfield Storage Reallocation Project, the Town is able to store up to 2,000 AF of water in Chatfield Reservoir. This means that our reusable water that flows down Plum Creek and past CRR1 can be captured and stored at Chatfield for later use. First storage started on May 15, 2020 and to date we have 1,646 AF of water stored in Chatfield.



Water Demand

Drought Monitor

The average WSI for May 2.52, well above the 1.1 trigger level, which is considered “good.”

According to the U.S. Drought Monitor maintained by the United States Department of Agriculture (USDA), approximately 43.36% of Colorado is experiencing Moderate Drought (D1) to Exceptional Drought (D4) conditions, with no drought conditions in Douglas County or eastern Colorado. The Town of Castle Rock Drought Management Plan uses a Water Supply Index (WSI) for the Town that is similar to the U.S. Drought Monitor in that it provides us an indicator to drought level; however, the WSI accounts for local conditions relative to the Town’s capability to address our water resources and daily water demands. The WSI is calculated by taking the sum of our supply (deep groundwater, alluvial wells, surface water, and WISE) and dividing that by our maximum daily demand. We generally want to see a WSI above 1.1, which means that we have enough resources to meet our demands. Anything below a 1.1 will trigger a drought stage relative to its severity.

The NRCS Colorado Precipitation Report

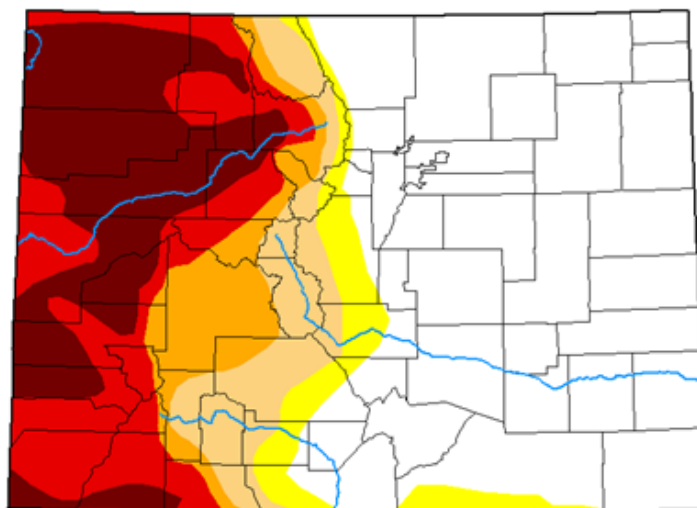
June 2, 2021

South Platte River Basin:

- YTD precipitation is at 98% of average
- YTD snowpack is at 164% of average

U.S. Drought Monitor Colorado

June 1, 2021
(Released Thursday, Jun. 3, 2021)
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>

Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

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.

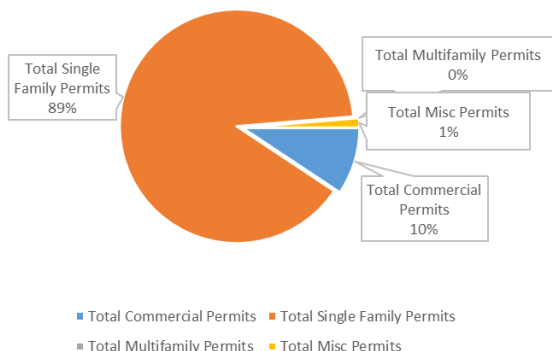
Reviews

138 Development Services PROJECT plan reviews
 150 Building PERMIT reviews for
 61 separate projects

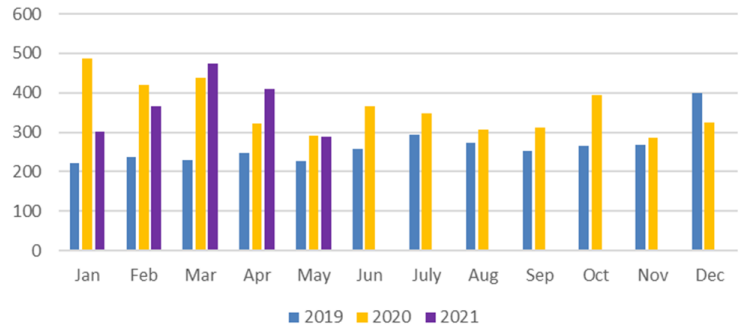
Total Distinct Projects	2020: 88	2021: 61	Decreased 31%
Total Dev Review project reviews	2020: 195	2021: 138	Decreased 29%
Total Bldg permit reviews	2020: 95	2021: 150	Increased 58%

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.

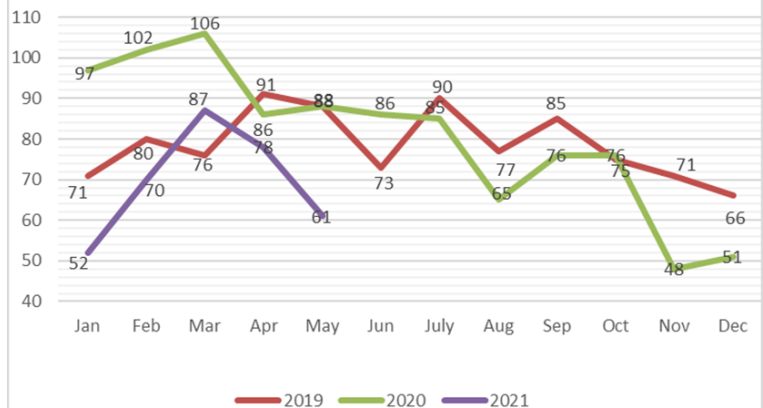
Castle Rock Water Building Permit Reviews
 MAY 2021



CRWater Plan Review
 DS projects reviews + BLDG permit reviews



Monthly Development Project Applications Reviewed



May 2021 total reviews: 288

Service levels

The average number of days assigned to review: 12.5 days
 The average days to complete assigned reviews: 11.3 days

Plan Review: 96% 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

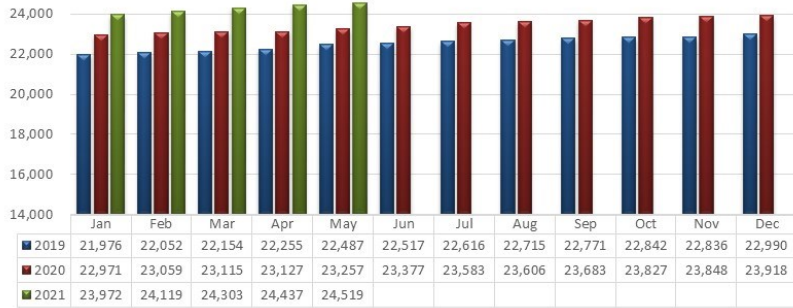


Customers benefit from having an online H2Oaccess account with 24/7 access to statement information, 12 months of statement history, helpful email account reminders and safe and secure online payment options.

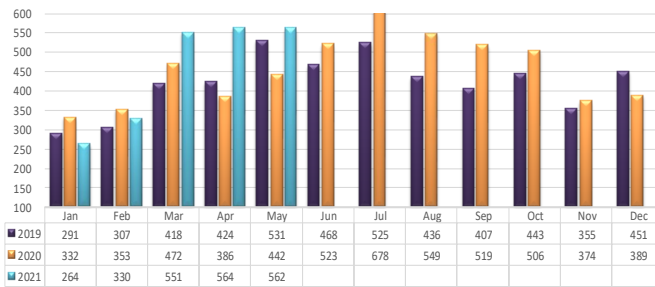
2021/Q1 statistics

- 16,070 or 65% of our total customers have enrolled in an online account
- 10,162 or 63% of the customers with an online account have chosen to go to paperless billing

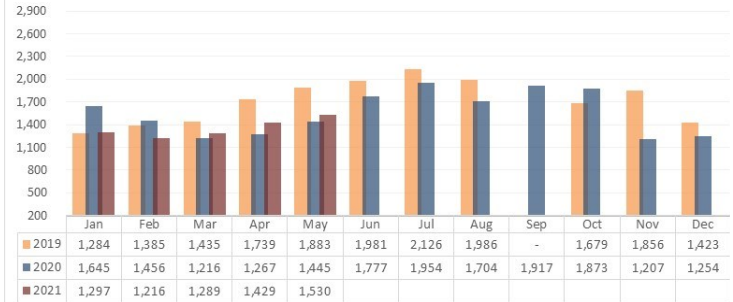
of Accounts Billed



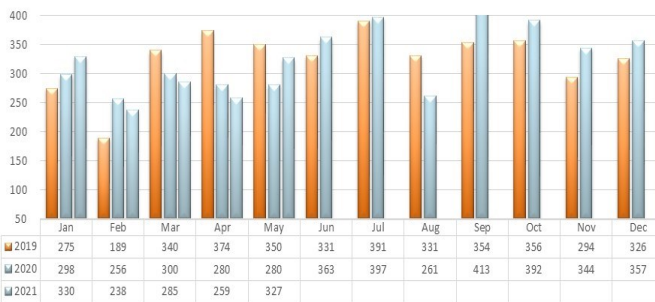
Transfers of Water Service



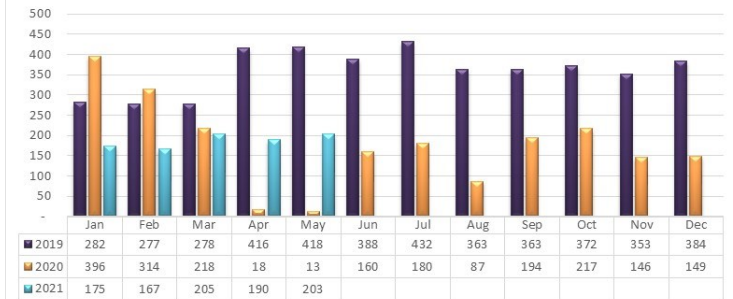
Customer Phone Calls



Mywaterbill Email Inquiries



Walk-In Customers



Customer Outreach

Keeping customers informed about the value of water.

With irrigation season starting May 1, the primary focus of outreach was on the watering schedule, irrigation controller programming for every third day and sprinkler start up maintenance. Similar to the ongoing Water Wiser workshops for residents, an HOA Irrigation Management seminar was held outlining the newly adjusted water budgets, irrigation best practices and changes to regulations for non-residential spaces.

Water Outreach Stats

REACH

Go Paperless post—5/5	1,969 people
May irrigation post—5/12	3,776 people
Sprinkler Spruce Up post—5/19	1,659 people
Every third day video post—5/26	2,124 people 1,058 views
Metzler Detention Pond post—5/3	8,021 people
Drinking Water Week post—5/3	2,017 people
EMAIL: When should I start watering	7,920 opened (39% 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

May 2021: 0.38%

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: 53%

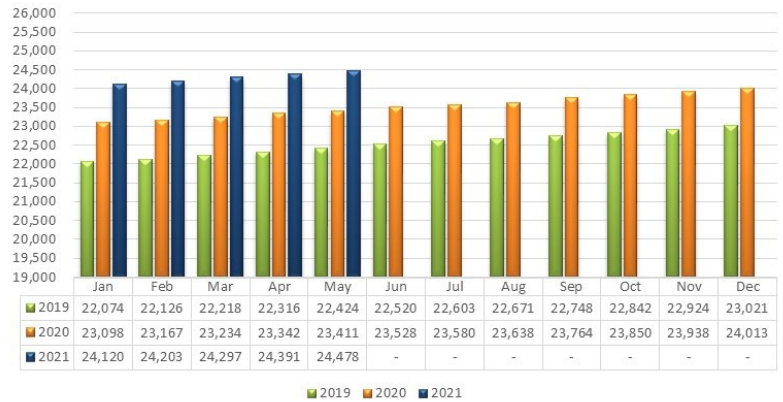
Meter set inspections are required on all new meters installed. This ensures that the meters are installed per specifications and according to Town code. At the time of the inspection, the curb stop is tested for operability and the MXU is installed which provides reading capability for our drive by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

Work Orders

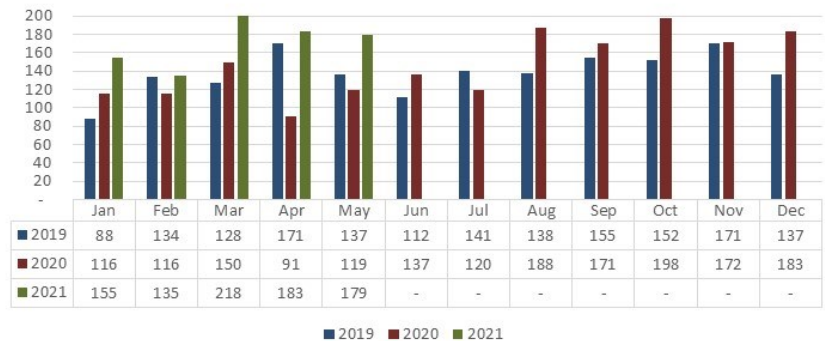
May 2021: 1,116

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, etc.

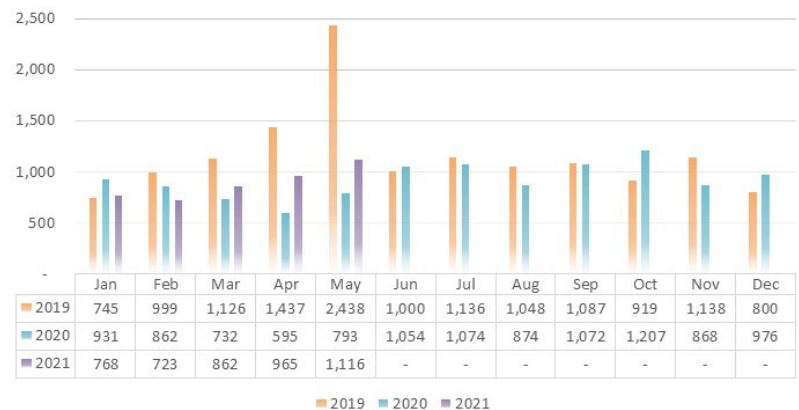
Meters Read



All Meter Set Inspections
(includes all re-inspections)



ALL SERVICE WORK ORDERS



Operations & Maintenance

LEVELS OF SERVICE		May 2021
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.	<i>Ninety routine samples were completed. All samples were within the parameters set forth by the Safe Drinking Water Act and Colorado Drinking Water Standards.</i>
Pressure Adequacy	< 1% of our customers will experience less than 43 pounds per square inch (psi) of pressure at the meter during normal operations.	<i>There were no water pressure issues this month.</i>
Sewer System Effectiveness	<1% of our customers will experience a sewer backup caused by the utility's sewer system per year. <i>Castle Rock Water remains in the Top Quartile for least number of sewer backups based on the American Water Works Association benchmarking.</i>	<i>There were no sewer system issues this month.</i>
Drinking Water Supply Outages	<5% of our customers will experience water outages for one or more events totaling more than 30 hours/year. <i>Castle Rock Water remains in the Top Quartile for water system integrity based on the American Water Works Association benchmarking.</i>	<i>There were no water system integrity issues in May.</i>
Water Quality Complaints	<i>Castle Rock Water remains in the Top Quartile for water quality complaints based on the American Water Works Association benchmarking.</i>	<i>There were no water quality issues in May.</i>

Operations & Maintenance

Locate Report



Know what's below.
Call before you dig.

Castle Rock Water's locate requests from 811 have continued to rise, year over year. This year to date, there have been no incidences of damage to lines, as a result of incorrect locate marks.

Before you start a project, call 811. Whether you are planning to do it yourself, or hiring a professional, we will help you do it safely. The local 811 Call Center will contact Castle Rock Water and will schedule a time for us to come out to locate public water, wastewater and stormwater lines in the road and in your project area.

ANNUAL UTILITY LOCATES

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
January	577	475	617	1,190	1,289	1,162	1,199	1,334	1,442	1,472	1,612	1,803
February	521	485	538	1,034	1,033	1,383	1,334	1,378	1,293	1,404	1,443	1,958
March	660	552	818	1,437	1,349	1,906	1,625	1,851	1,514	1,560	1,626	2,253
April	838	681	1,025	1,482	1,552	1,784	1,631	1,760	1,856	1,984	2,600	2,524
May	853	863	985	1,541	1,531	1,609	1,809	2,002	1,801	2,122	2,288	2,524
June	969	844	962	1,314	1,399	1,654	2,075	1,872	1,854	1,716	1,931	
July	680	582	859	1,350	1,392	1,477	1,675	1,582	1,556	1,337	1,834	
August	301	723	1,123	1,476	1,468	1,494	1,651	2,001	1,986	1,603	2,036	
September	680	723	1,029	1,240	1,373	1,343	1,701	2,102	1,747	1,979	2,026	
October	715	688	1,155	1,501	1,376	1,314	1,579	1,792	2,064	1,839	1,913	
November	536	518	1,041	1,072	866	1,134	1,131	1,460	1,469	1,649	1,734	
December	415	405	325	1,005	1,043	1,063	1,059	1,277	1,293	1,175	1,859	
Totals	8,545	7,539	11,097	15,702	15,731	17,323	18,469	20,411	19,875	20,440	23,022	11,062

Collections

Castle Rock Water tracks within the top quartile in the Sanitary Sewer Overflow rate, according to the American Water Works Association. Our team runs a camera through the sewer mains to look for problems. When problems are identified, they are cleared with a high pressure water jet. The goal is to clean and inspect one-fifth of the collection system or 55 miles each year.

YTD

Lines Cleaned 30.66 miles
Lines Inspected 13.43 miles
SSO Rate 0.0 SSO/100 mi

May: No sanitary sewer issues.

Operations

The Distribution team has targeted six hydrants for updates this year for the 2021 Hydrant Replacement program.

Jonny Cornwell, Ryan Livingston, and Ken Ritchie working on a fire hydrant replacement.

