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

Village North Drainage & Infrastructure Improvements

Castle Rock Water is constructing drainage and sanitary sewer improvements in the Village North commercial district north of Wolfensberger Road. Castle Rock Water identified a need to install new storm sewers to address localized flooding along Park Street, Malibu Street and Caprice Drive, and to provide additional detention volume in the existing Parks Department Central Service Center pond for flood control and water quality.

The storm sewer system will consist of 1,600 linear feet of reinforced concrete pipe, 10 inlets and 9 manholes. Street section improvements will support the storm drainage system. The modified detention pond will treat 24 acres of commercial/ industrial area at a volume of approximately 4 acre-feet. Future infill development will have the option to purchase volume in the regional pond to help offset the cost of the detention pond expansion.

The existing 15” clay sanitary sewer main through this area is old, undersized, and portions are located within easements on private property with poor accessibility. It is being relocated into Town right-of-way and replaced with 1,172 linear feet of 21” PVC pipe to account for full-buildout upstream conditions.

Engineer: Harris Kocher Smith
Contractor: T. Lowell Construction, Inc.
Cost: $1,545,000 plus 10% contingency

Notice to Proceed was issued to the contractor on Feb. 1, 2021 with construction completion no later than Sept. 29, 2021.

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.

Kevin Moore
Water Operator IV

Brent Pickrell
Water Operator IV

Alex Tarnawski
Collections 3 Operator Certification

Jared Poynor
Collections 2 Operator Certification

Lewis Brown
Collections 1 Operator Certification

Jeff Lehman
Water Treatment B Certification

Aaron Dugan
Distribution 1 Operator Certification

Chaz Busse
Distribution 4
Collections 1
Certification

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.

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

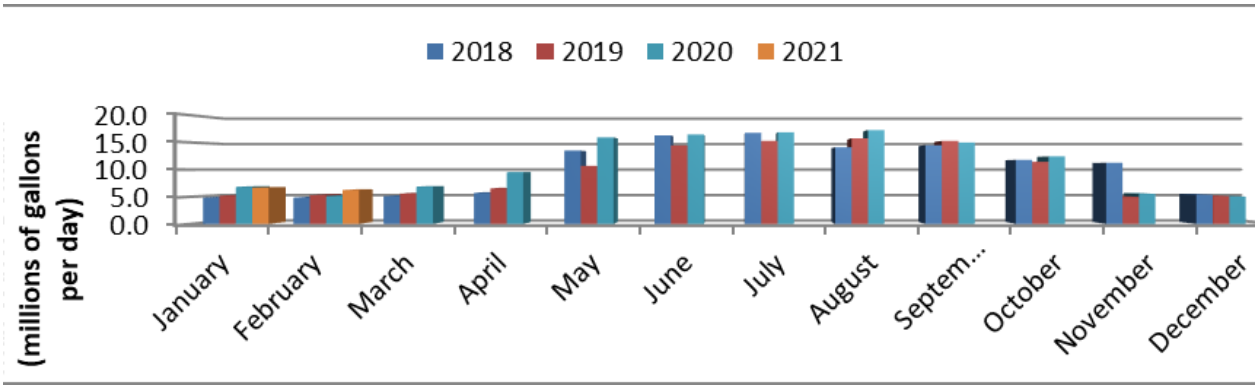
Lauren Moore, Water Resource Program Analyst was awarded the Star Award by John Ferguson. John enjoys the support from the entire Water Resource division but Lauren stands out with her professionalism, knowledge and consideration for others' time. Lauren always answers the phone and always has the answer, especially regarding the warranty expiration dates of the newly drilled or rehab wells. John appreciates her professionalism, quick and timely response and knowledge of developing and coordinating the partnerships, especially as we enter this next phase of renewable water efforts.

METER SERVICES

Castle Rock Water is more than water.

Did you just see a Castle Rock Water truck in your neighborhood? It could have been Michelle. Michelle Strang, Meter Services Technician, can be found roaming the neighborhoods, along with her team, the first three days of every month utilizing radio technology to collect data from more than 24,000 meters. Her computer program looks a bit like Pac Man as it gobbles up the water data. Though she and her team start very early and brandish icy or sweltering conditions, they are never surprised to find residents flagging them down with the widest array of questions. Her job doesn't stop there and the rest of the month, Michelle is working in meter pits. She especially likes working in the larger, commercial pits where she can get her hands on the true mechanics of the water infrastructure.

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.

Feb. 2021	**6.2 million gallons/day**
Feb. 5 yr. avg.	5.1 million gallons/day

20% higher 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.

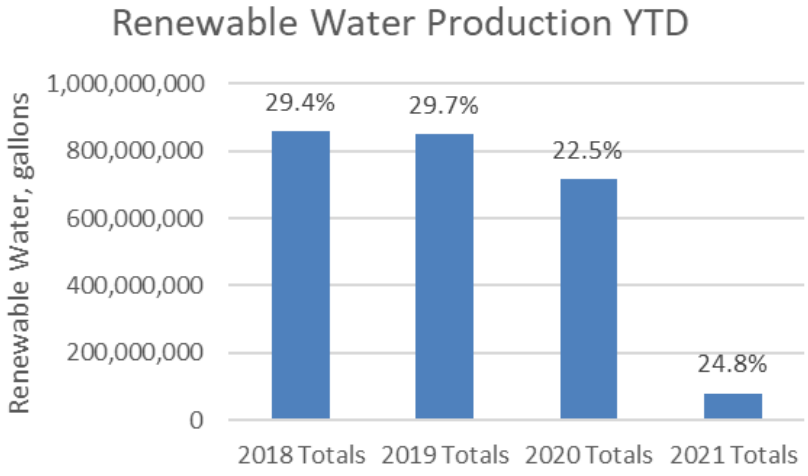
Feb. 2021	**134.4 million gallons**
Feb. 2020	135.0 million gallons

0.5% decrease from last year

Water demand total for 2020
3,251.7 MG

Renewable water supply

- The CR-1 diversion produced an average of 0.46 MGD for the month of February.
- The Town's thirteen alluvial wells, CR-1, and the Plum Creek Raw Water Return Line (PCRWRL) produced a total of 43.97 MG of renewable water (and an average of 1.00 MGD).
- In total, renewable supplies accounted for 37.6% of the total water supply for the month and 24.8% of the annual water supply (323 MG or 991 AF) to date.



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

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

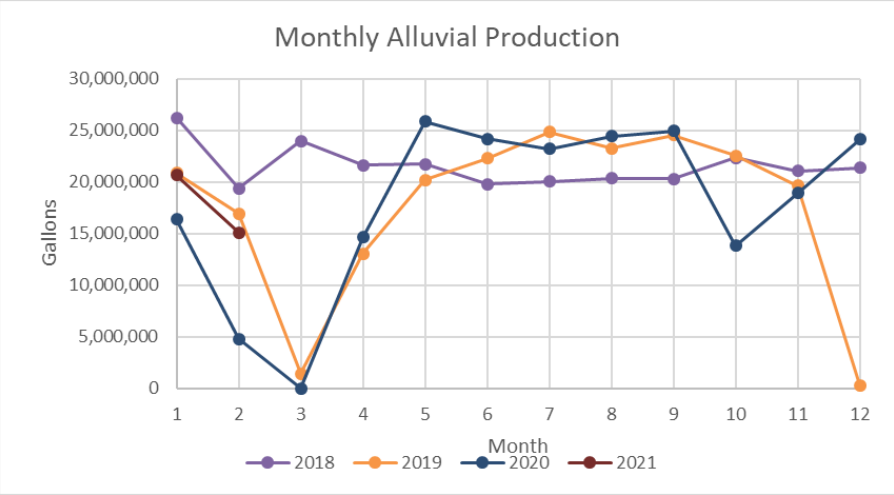
Water Demand

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 February is 26.6% with 34.8% of available reusable supplies used and an additional 78% of available reusable supplies stored in the month of February.

Alluvial supply

Feb. 2021 production: 15.1 MG

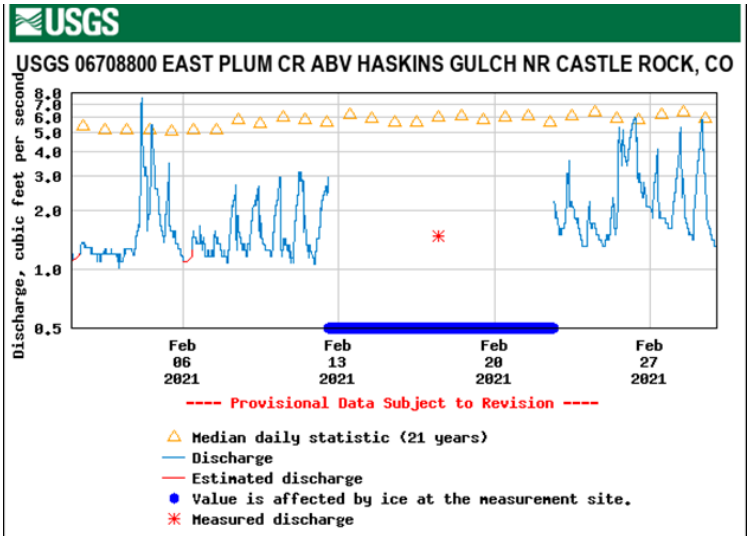
The graph shows the monthly production of the Town's alluvial well system, which helps to supply PCWPF. The production from the alluvial wells in February was 15.1 MG. We have three alluvial well rehabilitation's scheduled for this year.



East Plum Creek Flows

Average Feb. streamflow: 1.9 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 1.02 and 7.5 cubic feet per second (cfs) during the month of February, with an average streamflow of 1.9 cfs. This month's average streamflow of 1.9 cfs is below the 20-year median of 5.5 cfs.



There were active calls on the South Platte River in February. 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 1,282 AF of water stored in Chatfield.

Water Demand

Drought Monitor

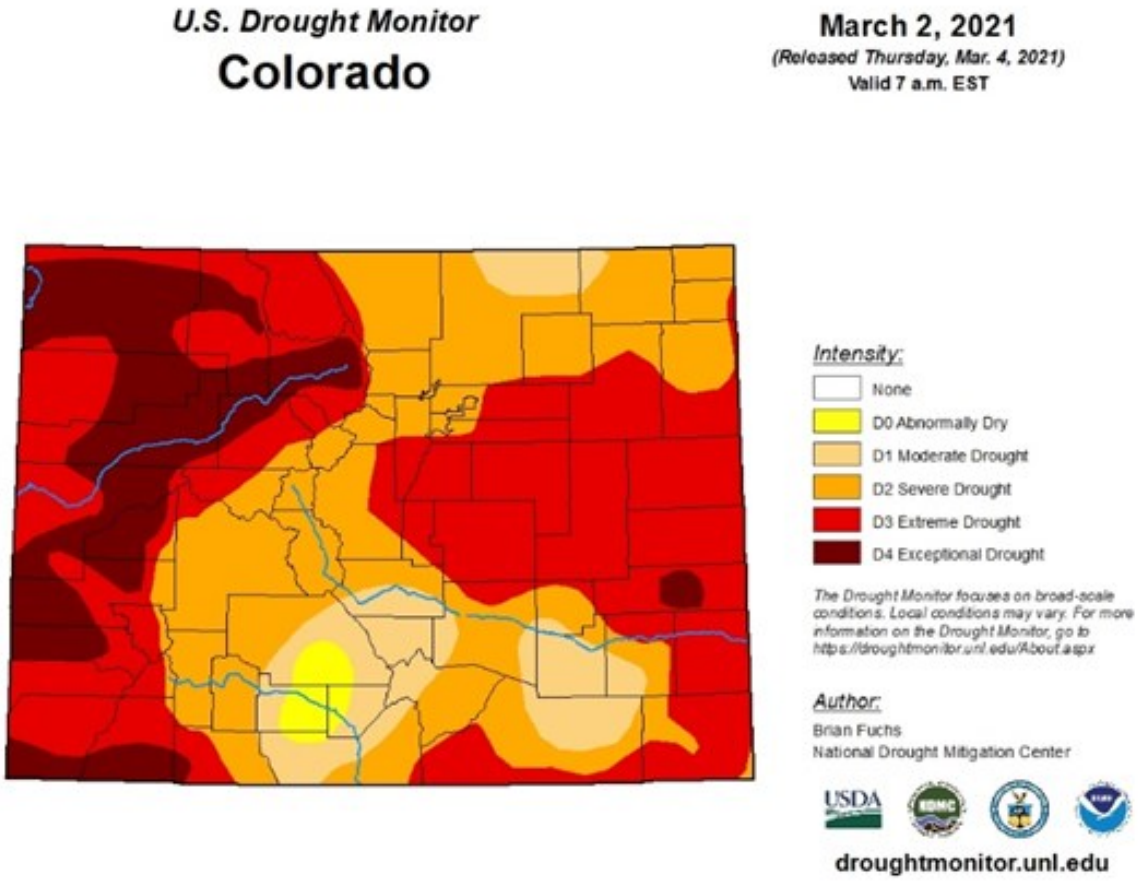
The average WSI for February was 4.2, well above the 1.1 trigger level, which is considered "good."

According to the U.S. Drought Monitor maintained by the United States Department of Agriculture (USDA), approximately 98.57% of Colorado is experiencing Moderate Drought (D1) to Exceptional Drought (D4) conditions, with all of Douglas County in the second highest drought category – Extreme Drought (D3). Due to the sustained 100% drought conditions, Governor Polis directed a shift from Phase 2 to Phase 3 of the Colorado Drought Plan, which will hopefully better prepare the State for continued severe conditions in 2021. 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
Mar. 3, 2021

South Platte River Basin:

- YTD precipitation is at 86% of average
- YTD snowpack is at 89% of average



Water Demand

Conservation

Conservation is … promoting Fix a Leak Week

Nationwide, household leaks can waste nearly 1 trillion gallons of water annually. Ten percent of homes have water leaks that waste 90 gallons or more per day. Fixing household leaks can save thousands of gallons of water per year, per home.

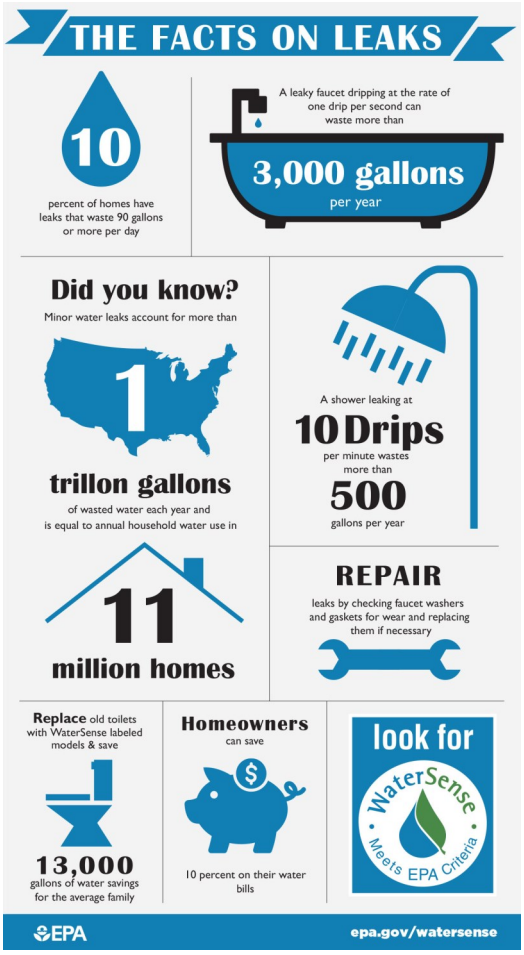
As a promotional partner, Castle Rock Water is joining EPA WaterSense for their annual Fix a Leak Week, March 15 – 21, to highlight the importance of finding and fixing leaks.

Here's just a few things you can do:

- Use dye tabs or food coloring to check for toilet leaks. Replace old or worn out flappers if a leak is detected.
- Leaky faucets, dripping at a rate of one drip per second, can waste more than 3,000 gallons per year, while a showerhead leaking at 10 drips per minute wastes more than 500 gallons per year. Replace washers or cartridges, as needed.
- While it's too early now, when you're ready to start up your irrigation system (usually around Memorial Day), don't forget to check each zone for potential leaks or water waste issues and repair as needed.
- Leaks don't just happen at home. Be on the lookout for leaks at the office and report these as soon as possible so they can be repaired. This will not only help with water waste but could eliminate a hazard as well.

Use this handy EPA checklist to find and fix leaks.

We can all do our part to conserve water and this annual event sponsored by WaterSense is a great reminder to take action.



The first 25 people to correctly answer the trivia question below will receive a free Eco Kit to help use water more efficiently. The kit contains a shower head, toilet dye tabs, a toilet flapper, and other items to promote better water use.

Trivia question:

The new Castle Rock Water customer service administration building, currently under construction, will be equipped with ultra-high-efficiency toilets using _____ gallons per flush.

Email your answer to Linda at lgould@crgov.com.

Join the nation-wide Twitter Party
Monday, March 15, 2:30-2:45
#FixALeak

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

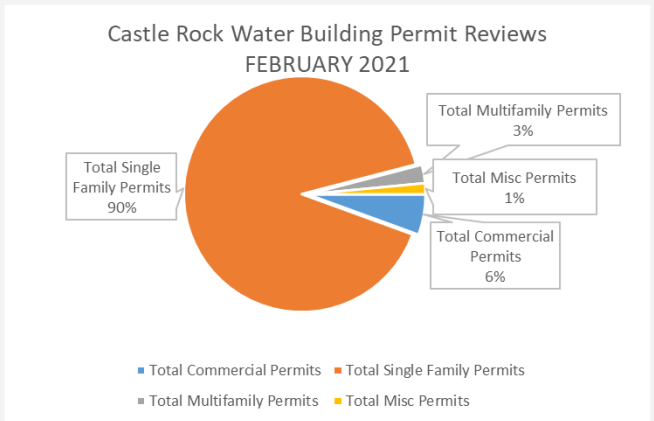
Castle Rock Water reviews site plans, construction drawings and technical reports for each project to ensure the public infrastructure built by the developer is following the criteria set by the Town.

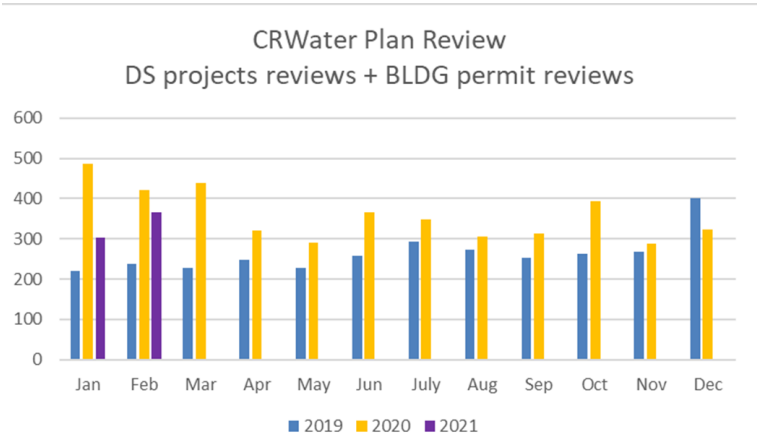
Reviews

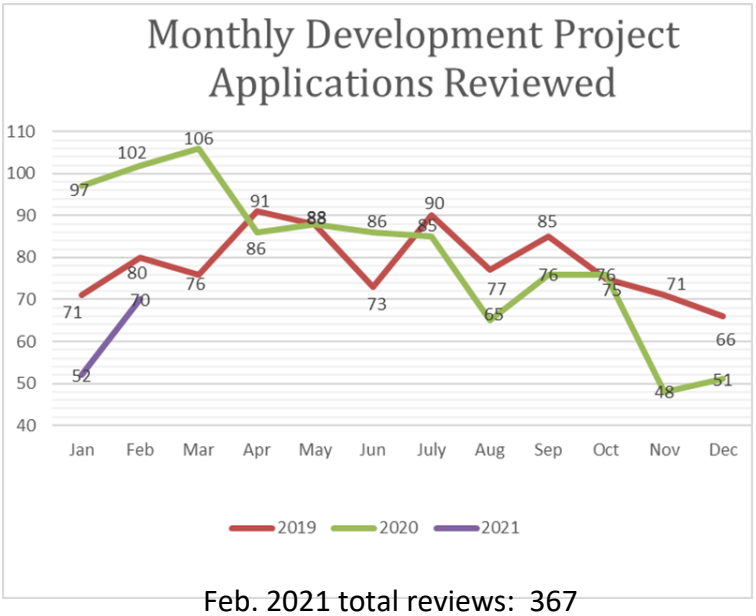
169 Development Services PROJECT plan reviews
198 Building PERMIT reviews for
70 separate projects

Total Distinct Projects	2020: 102	2021: 70	Decreased 32%
Total Dev Review project reviews	2020: 194	2021: 169	Decreased 13%
Total Bldg permit reviews	2020: 226	2021: 198	Decreased 12%

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.







Feb. 2021 total reviews: 367

Service levels

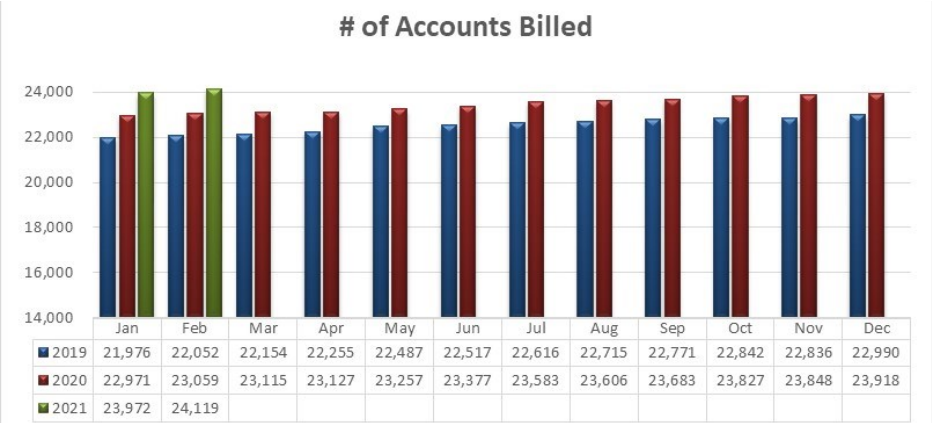
The average number of days assigned to review: 12.2 days
The average days to complete assigned reviews: 11.8 days

Plan Review: 95% 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



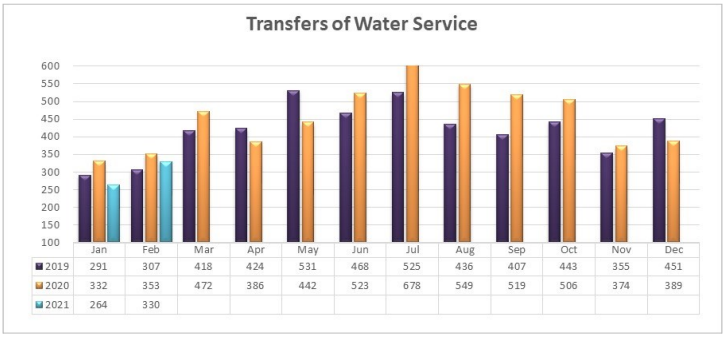
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	21,976	22,052	22,154	22,255	22,487	22,517	22,616	22,715	22,771	22,842	22,836	22,990
2020	22,971	23,059	23,115	23,127	23,257	23,377	23,583	23,606	23,683	23,827	23,848	23,918
2021	23,972	24,119										

H2Oaccess

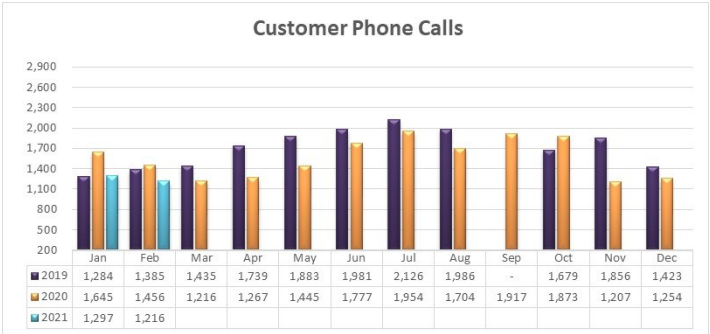
Customers benefit from having an online H20access account with 24/7 access to statement information, 12 months of statement history, helpful email account reminders and safe and secure online payment options.

2020/Q4 statistics

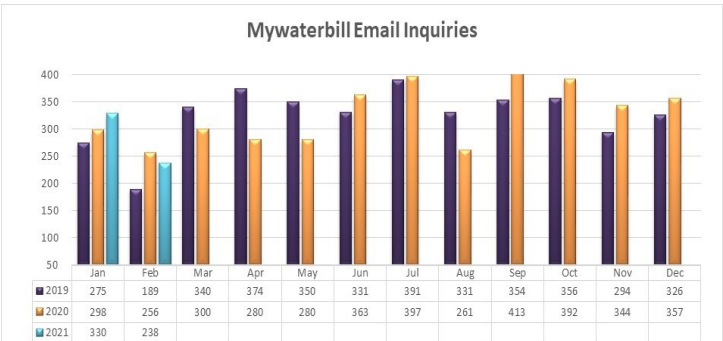
- 15,602 or 65% of our total customers have enrolled in an online account
- 9,905 or 63% of the customers with an online account have chosen to go to paperless billing



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	291	307	418	424	531	468	525	436	407	443	355	451
2020	332	353	472	386	442	523	678	549	519	506	374	389
2021	264	330										



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	1,284	1,385	1,435	1,739	1,883	1,981	2,126	1,986	-	1,679	1,856	1,423
2020	1,645	1,456	1,216	1,267	1,445	1,777	1,954	1,704	1,917	1,873	1,207	1,254
2021	1,297	1,216										



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	275	189	340	374	350	331	391	331	354	356	294	326
2020	298	256	300	280	280	363	397	261	413	392	344	357
2021	330	238										

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	282	277	278	416	418	388	432	363	363	372	353	384
2020	396	314	218	18	13	160	180	87	194	217	146	149
2021	175	167										

Customer Outreach

Keeping customers informed about the value of water.

In addition to informing customers about the 2021 rebates and workshops available, Castle Rock Water introduced the video series educating the community about Reuse Water. This added water is a safe, eco-friendly and sustainable supply that will provide a strong water future despite drought or growth. Reuse water has been 14 years in planning and came online after the $28 million addition of Advanced Treatment to the drinking water purification facility.

CASTLE ROCK WATER REUSE WATER PURIFIED

Castle Rock News Press article on Conservation Rebates
Email reach: 6,545 accounts (34% open rate)

Water Social Media Stats	REACH
Snow crystals — Feb. 3	2,711 People
Rebates available — Feb. 9	2,800 people
Water Wiser workshops — Feb. 10	2,196 people
Prevent burst pipes — Feb. 12	5,367 people
Reuse water news release — Feb. 19	2,800 people
Reuse water video: #1 WHY — Feb. 24	5,407 people

Meters

Meters Read

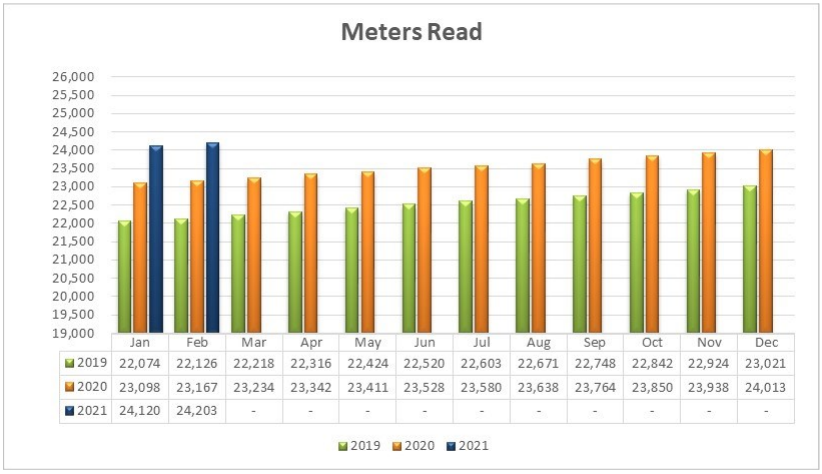
Meters are read the first three days of every month. The number of meters read continues to increase month to month and is a significant increase over last year.

Skipped Reads

Feb. 2021: 0.68%

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.

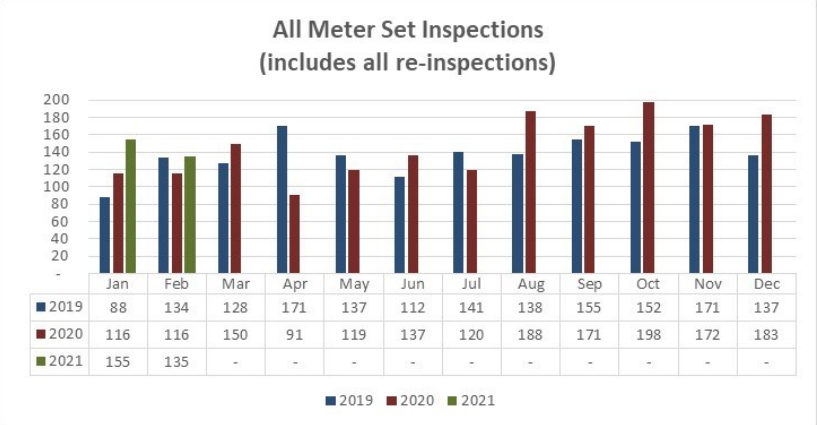


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	22,074	22,126	22,218	22,316	22,424	22,520	22,603	22,671	22,748	22,842	22,924	23,021
2020	23,098	23,167	23,234	23,342	23,411	23,528	23,580	23,638	23,764	23,850	23,938	24,013
2021	24,120	24,203	-	-	-	-	-	-	-	-	-	-

Meter Set Inspections

Re-inspections: 50%

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.

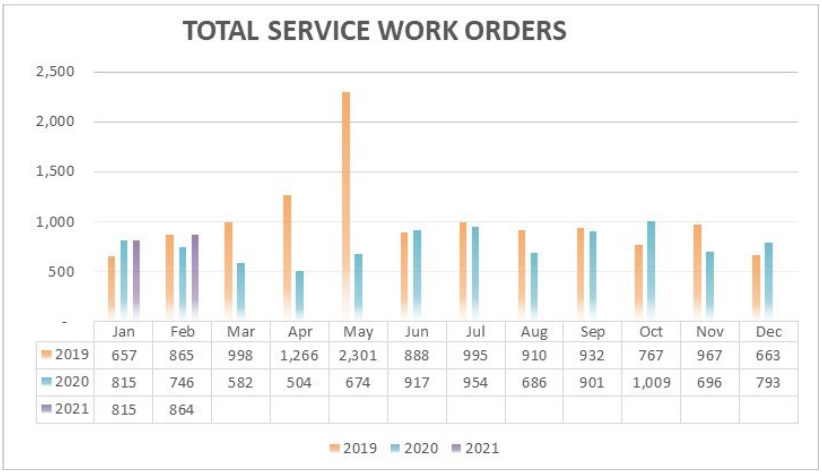


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	88	134	128	171	137	112	141	138	155	152	171	137
2020	116	116	150	91	119	137	120	188	171	198	172	183
2021	155	135	-	-	-	-	-	-	-	-	-	-

Work Orders

Feb. 2021: 864

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.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	657	865	998	1,266	2,301	888	995	910	932	767	967	663
2020	815	746	582	504	674	917	954	686	901	1,009	696	793
2021	815	864										

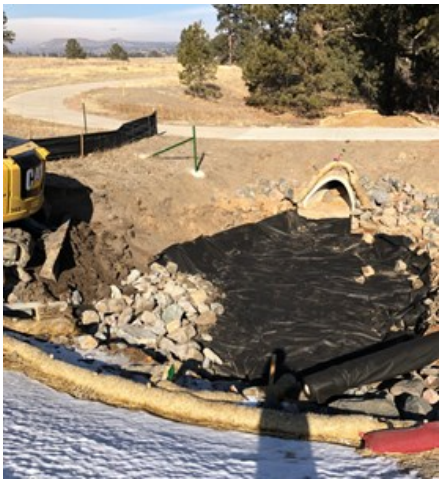
Operations & Maintenance

LEVELS OF SERVICE		FEB. 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.	***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 this month.***
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 American Water Works Association benchmarking.*	***There were no sewer system issues this month.***
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 2 water system integrity issues in February.*** *A contractor damaged a water main on Caprice Drive. The Park's Service Center and one commercial customer were out of water for 24 hours, while the contractor conducted the pipe replacement.* *Also, water was turned off to four Founders residents for approximately 20 minutes, while the contractor conducted a repair to a damaged curb stop.*
Water Quality Complaints	*Castle Rock Water remains in the Top Quartile for water quality complaints based on the American Water Works Association benchmarking.*	***There were no water quality issues in February.*** *There were two customer education visits.*

Operations & Maintenance

Stormwater

The Stormwater Maintenance team revived a failed outfall in the Meadows as part of their yearly facility repair program.



A raw waterline rupture caused damage to a nearby storm channel. The Stormwater Maintenance team cleaned up the debris, repaired the damage and installed a new erosion blanket.

Operations & Maintenance

Locate Report

Know what's below. Call before you dig.

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.

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.

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	1,094	1,093	1,383	1,334	1,378	1,293	1,404	1,443	1,958
March	660	552	818	1,437	1,349	1,306	1,625	1,851	1,514	1,560	1,626	
April	838	681	1,025	1,482	1,552	1,784	1,631	1,760	1,856	1,984	2,600	
May	853	863	985	1,541	1,531	1,609	1,809	2,002	1,801	2,122	2,288	
June	969	844	982	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	1,937	1,894	
August	901	723	1,123	1,476	1,468	1,494	1,651	2,001	1,986	1,603	2,096	
September	880	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	925	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	3,761

Collections

YTD

Lines Cleaned	**1.34 miles**
Lines Inspected	**4.57 miles**
SSO Rate	**0.0 SSO/100 mi**

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.

The collections team repaired an 8" sewer line at Castle View High School. The damaged line was caused by incorrect backfill compaction during the original pipeline installation.