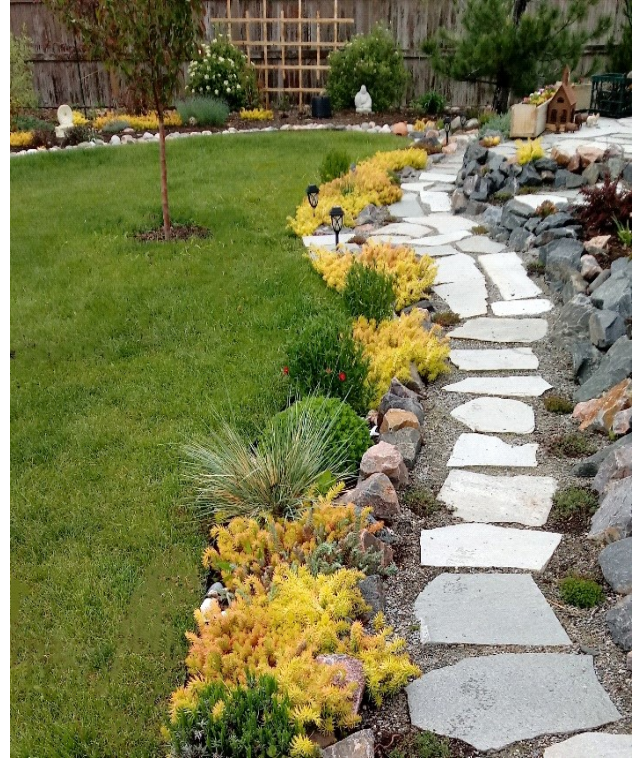


Parade of Gardens

By: Sandi Aguilar, Customer Relations Program Manager

The inaugural Castle Rock Parade of Gardens, held Sat., June 15, was developed to showcase local homeowner's gardens that exemplify low-water use ColoradoScapes. Participants were able to walk through six private ColoradoScape gardens with the purpose of providing a myriad of examples of how to incorporate a beautiful, colorful and low-water use landscape into any yard. The gardens ranged from wild and native to highly manicured and included front, back and side yard landscapes. All but one garden were designed by the homeowner.

The event was free and participants could tour on their own, or ride along in a van. Guides were on hand to answer questions about the plants and design process. There were between 60 and 130 participants that visited each home. Our goal was to attract at least 60. Homeowner's volunteered their yard, and three were also the guides. As a thank you, we gave the homeowners Summer Concert Series tickets for their participation.



Volunteers for the event included our staff, Linda Gould, Rick Schultz, Ruth Stadler and Jon Stapp. Three homeowners were guides, and we had eight volunteers from Colorado State University (CSU) Extension, who were primarily Master Gardeners. CSU allowed this event to be a part of their Master Gardener volunteering hours requirement.

Overall, the event was a huge success. Plans are already underway for next year's event, and how to use ColoradoScapes in your landscaping.

Lanterns - Denver Basin Well Project Update

By: Heather Justus, PG, Water Resources Project Manager

The Lanterns Denver Basin Well Project is continuing to progress towards full completion. In June 2019, a 1.5 megawatt generator set (see photograph below) was delivered to the site and set up so that the wells can be operated if water demands increase to the point where they are needed. Castle Rock has been fortunate so far with frequent rain and cooler temperatures, which have kept high water demand spikes in check. The remaining construction work for full project completion includes controls and programming. This work is expected to be complete in August 2019. Thereafter, the temporary generator set will be disconnected.

Continued on next page

Our Vision

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

Lanterns, continued

The Lanterns well field is located immediately south of Crystal Valley Parkway and consists of three new Denver Basin Aquifer wells, controls and meter facilities at the site, and a transmission pipeline to convey the water to the Plum Creek Water Purification Facility. The wells, completed in the Dawson, Denver and Arapahoe formations, are expected to produce an average of 1.2 million gallons per day. The wells were connected to water treatment plants by a new eight-inch raw waterline. The 1,700 linear feet of new eight-inch raw water pipeline was completed in two phases. Hudick Excavating constructed roughly 600 linear feet of the raw waterline under the new Plum Creek Trail prior to the trail construction. Global Underground then directionally bored the remaining 1,100 linear feet of fused pipe under the railroad and East Plum Creek to a connection to an existing raw waterline. The raw waterline was completed mid-May. The total project cost is \$5.5 million.



Temporary generator for running the wells.



Temporary piping for the wells to run.

PCWPF Advanced Treatment Project

By: Walt Schwarz, PE, Project Manager

Construction of the Plum Creek Water Purification Facility (PCWPF) Advanced Treatment Project was awarded to Garney Construction using two separate work packages. Town Council awarded Work Package 1 (WP1) on December 18, 2018 and Work Package (WP2) on May 21, 2019. WP1 included



Steel wall reinforcing installed for raw water meter vault

purchasing advanced water treatment systems and construction of the 1 million gallon (MG) raw water blending tank. WP2 included a building to house new treatment equipment, a backwash solids settling tank, a raw water meter vault, converting the existing PCWPF greensand filter to a biologically active carbon filter, and all other associated facilities and equipment to complete the project. Total authorized construction cost for both work packages is \$28,452,538. DN Tanks will begin mobilizing onsite and constructing the 1 MG pre-stressed concrete raw water blending tank this July.

Continued on next page

PCWPF, continued

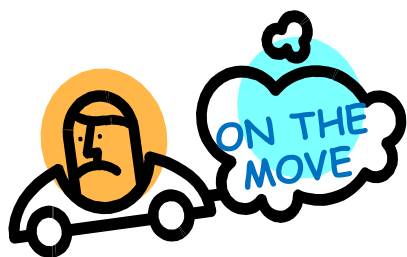
Garney is currently working on items such as, installing concrete encased buried infrastructure, constructing a raw water meter vault, and working with the project team towards receiving approvals on all equipment submittals. The project is proceeding within budget and on schedule to have the greensand filter conversion and 1 MG raw water blending tank substantially complete by May 1, 2020. Substantial completion of all remaining project work will be by October 26, 2020.



Base pad prepared for 1 MG raw water blending tank



12-inch diameter water supply piping to new building being concrete encased



Congratulations on your recent promotion!



Alex Tarnawski
Sr. Water Distribution
Operator



Avery Worland
Water Distribution
Operator II



Safety Stand Down

By: Mark Billman, EHS

On June 19, Castle Rock Water held it's annual safety stand-down. This is a time where the entire department stops work for one hour to purposely focus on a safety topic which is applicable to our safety performance. This year, the focus was on vehicle safety. Our volunteer safety committee recognized the potential for us to reduce vehicle incidents and accidents by focusing on the main types of accidents that we experience. The committee set up four stations through which department employees would observe and participate in demonstrations that illustrate principles and methods to protect against accidents. These stations included:

- Approaching and working safely in an active construction site;
- Driving in reverse – backing up;
- The need for a spotter while backing and using appropriate technique, along with emphasizing the idea of G.O.A.L. (Get Out And Look);
- Actively solicited ideas from employees on ways to avoid incidents with the public – and then seek to implement those ideas.

The stand-down seemed to be received well by all employees, and we look forward to continuous improvement in the realm of vehicle safety.



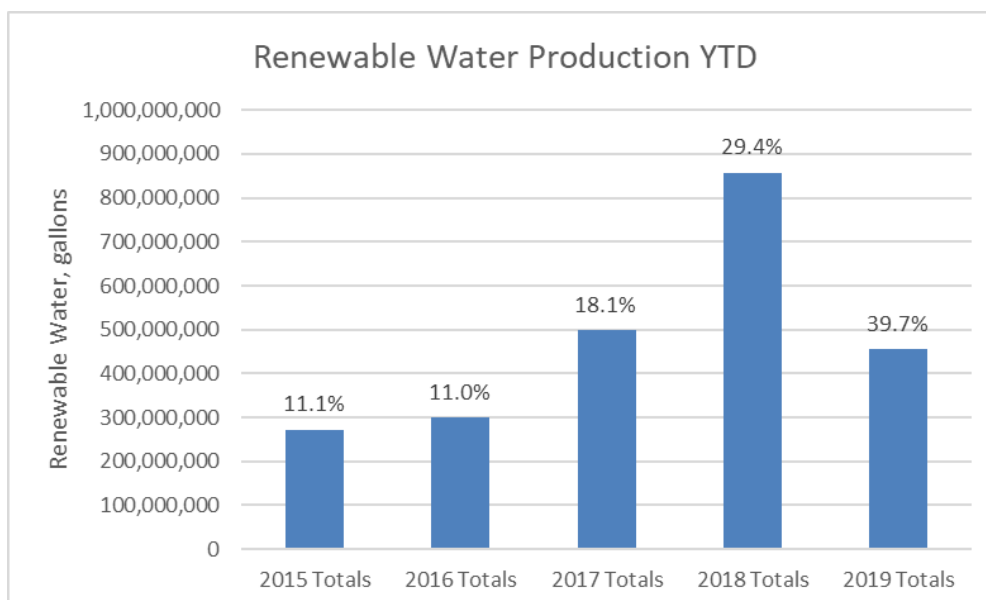
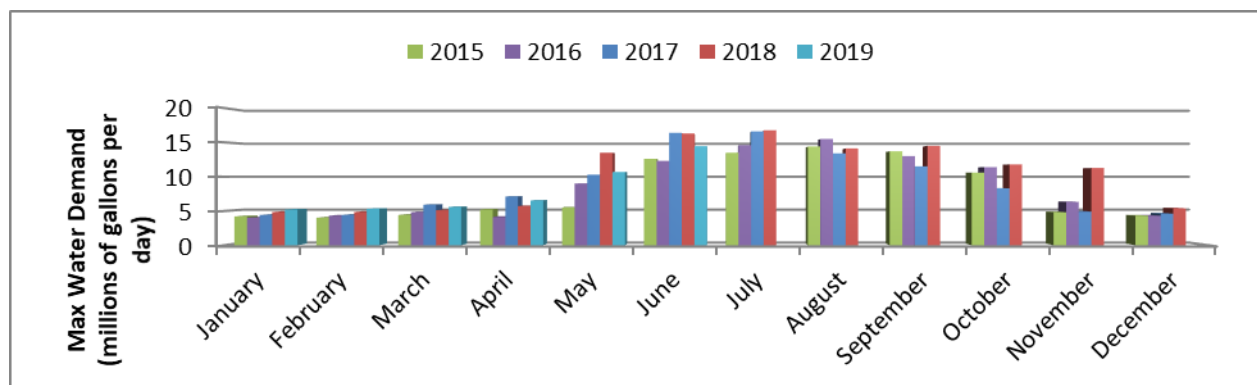
Water Demands

By: Lauren Moore, Water Resources Program Analyst

The maximum daily water demands are plotted by month from 2015 to the current month. As observed by the data, the maximum demand for the month of June was 14.5 million gallons per day (MGD) which is equivalent to the 5-year average maximum daily demand for the month. 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. The water demand total for June was 344.6 million gallons (MG), which was a 43% increase from the May 2019 total of 241.2 MG. There was a 19% decrease from the previous year's June 2018 demand of 422.9 MG.

The CR-1 diversion produced an average of 1.89 MGD for the month of June. The Town's 13 alluvial wells and CR-1 produced a total of 79.01 MG of renewable water. WISE water supplied an additional 61.46 MG of renewable water. In total, renewable supplies accounted for 40.6% of the total water supply for the month and 39.7% of the annual water supply (1,145 MG or 3,514 acre-feet) to date.

Renewable supplies are those water sources that are replenished by precipitation (think of our alluvial wells, CR-1, and WISE), whereas reusable supplies are those waters that are either from the Denver Basin (deep wells) or imported supplies (such as WISE and RHR) that can be used over and over, to extinction. The average reusable supplies used by Castle Rock for 2019 through June is 21.0% with 14.8% of available reusable supplies being used in the month of June.

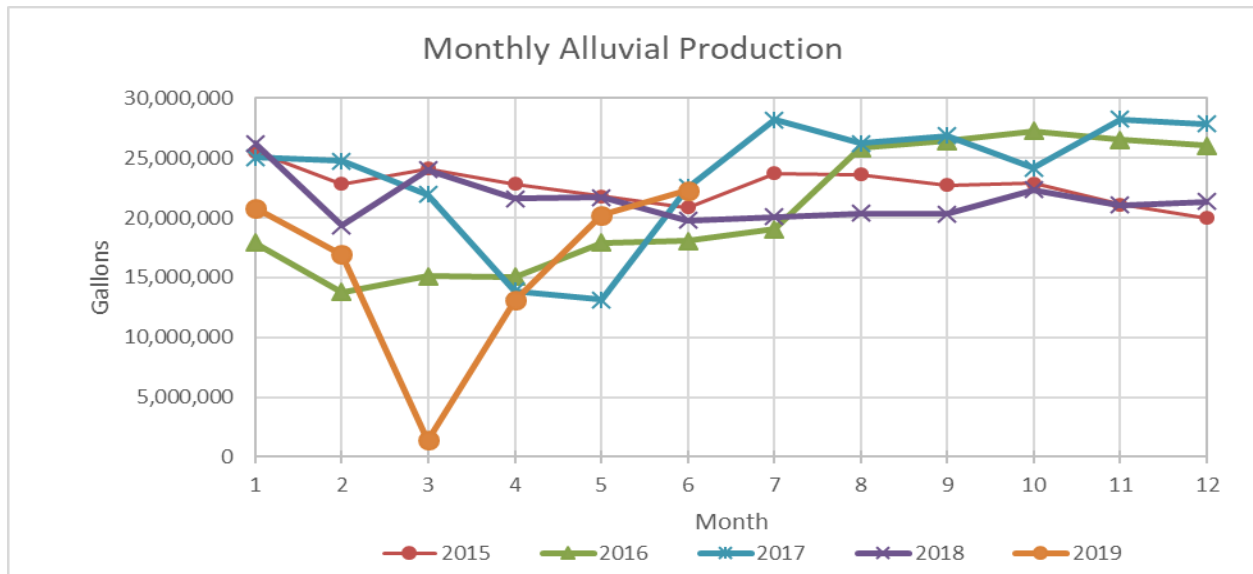


Graph of reusable supplies over time.

Continued on next page

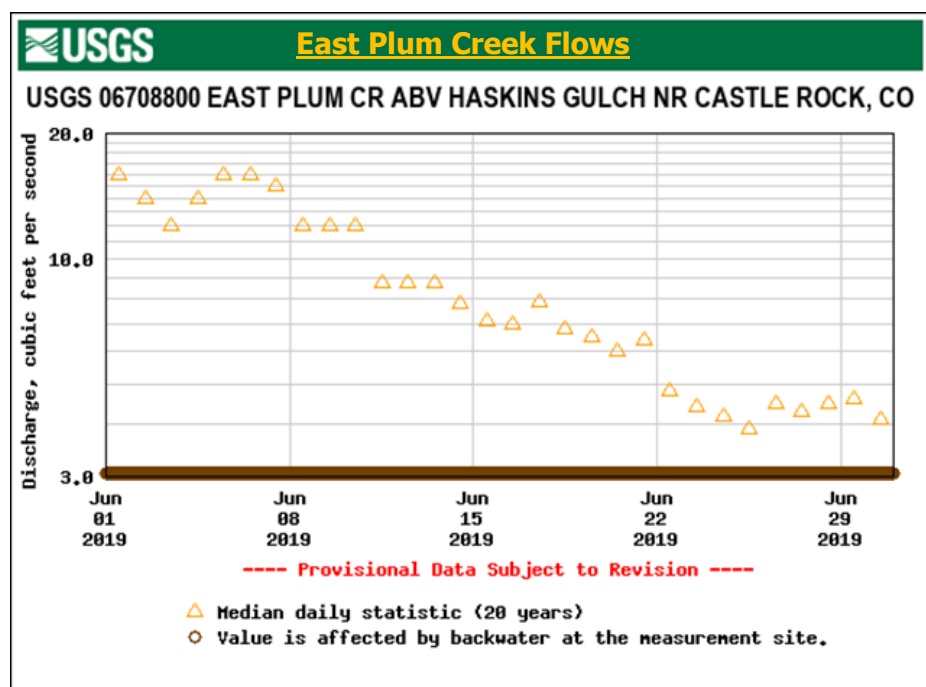
Water Demands, continued

The following graph shows the monthly production of the Town's alluvial well system, which help to supply PCWPF. The production from the alluvial wells in June 2019 was 22.3 MG, which is less than the second half of 2017 (when the last alluvial well rehab project was completed). We completed three rehabs this spring and more are schedule for this fall.



The flow hydrograph represents stream flows in East Plum Creek taken from the stream gauge located above Haskins Gulch. As the graph illustrates, data for the month is not available due to backwater at the measurement site. The U.S.G.S. is currently working on this issue.

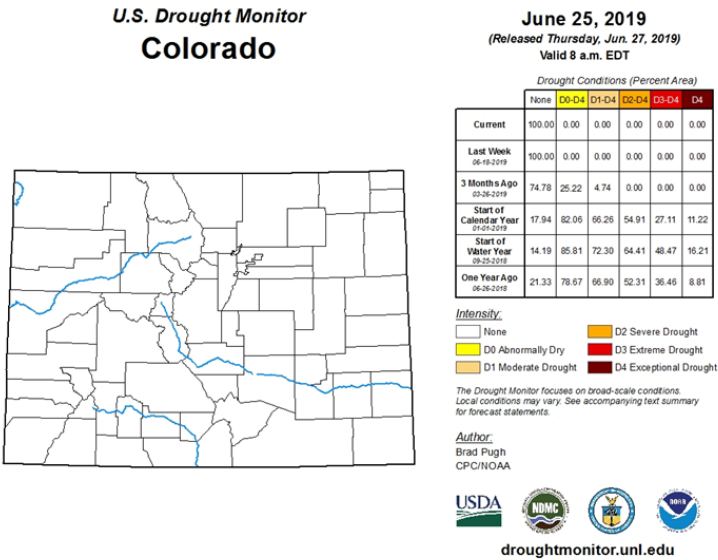
There were active calls on the South Platte River in June. Some of the active calls have had a more senior water right than some of the Town's water rights. This means that those diversions are out-of-priority, so the stream depletions will be covered by non-tributary return flows. This also means that 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. However, there were also 13 days during June in which Castle Rock Water operated under Free River conditions (as determined by the state) which meant the Town was able to pump as much water as operationally possible until a call was again placed on the river.



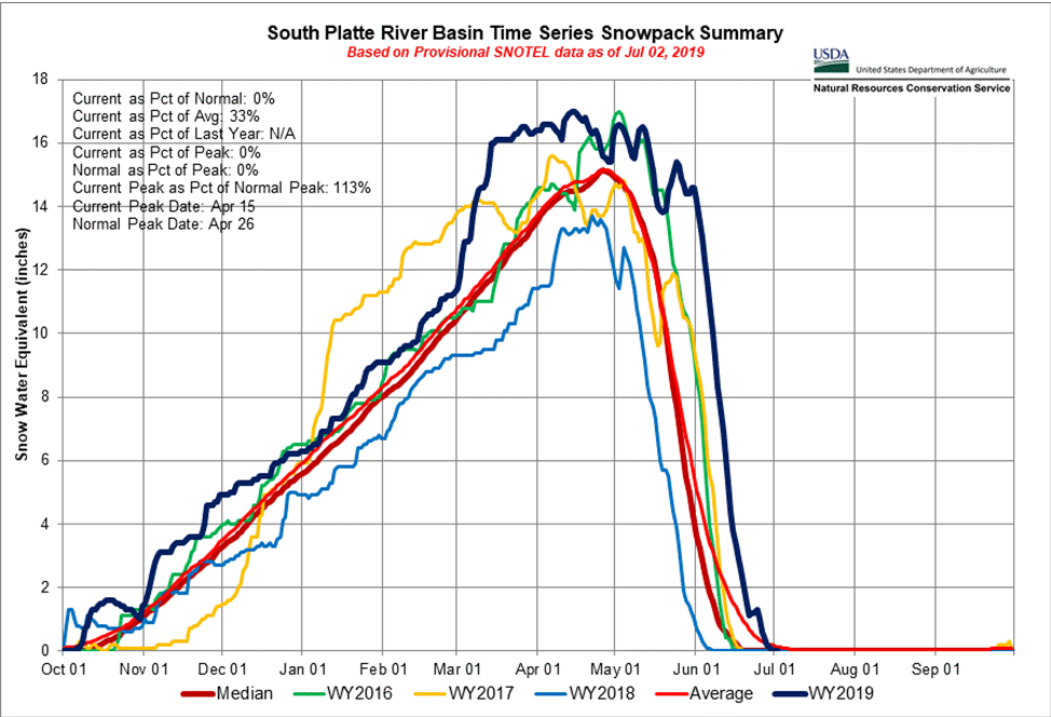
Continued on next page

Water Demands, continued

According to the U.S. Drought Monitor from USDA, Colorado remained drought-free throughout the month of June. 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 average WSI for April was 1.5, well above the 1.1 trigger level, which is considered “good.”



The NRCS Colorado SNOTEL report for July 2, 2019 shows the water year-to-date precipitation for the South Platte River Basin is at 119% of average. The SNOTEL graph shows a great conclusion for snow-pack in the 2019 water year with an early peak and longer than normal season.

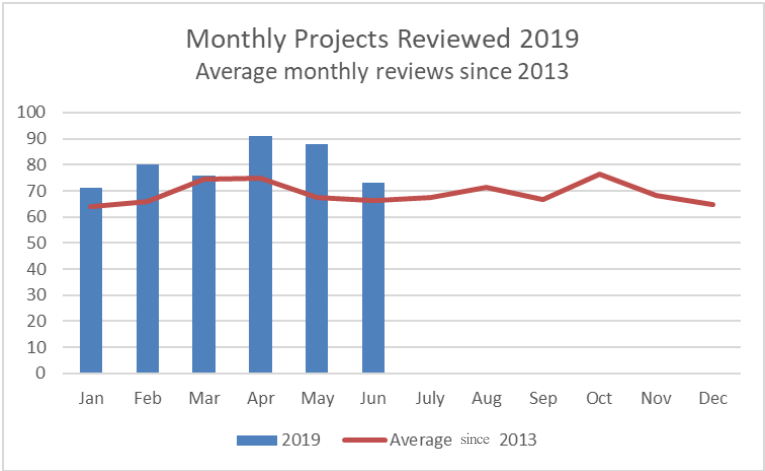
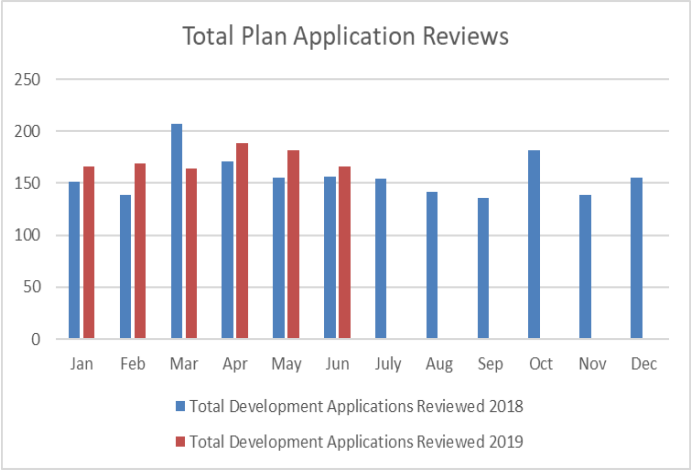
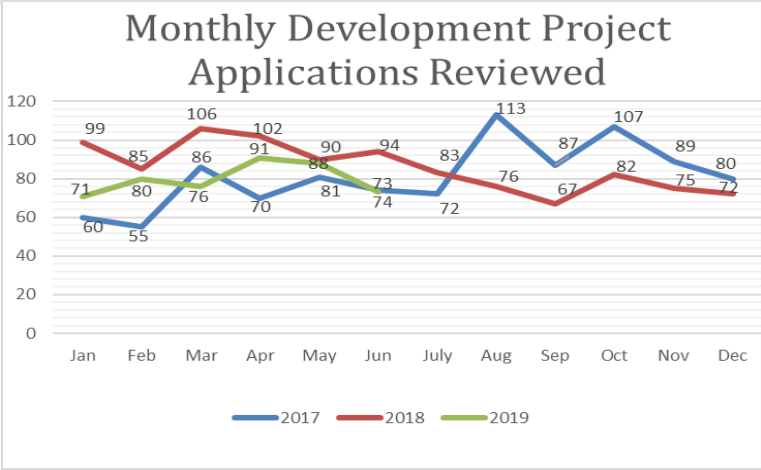


Plan Review Update



By Tina Close, Plan Review Supervisor

Castle Rock Water provides plan review for all water, wastewater and stormwater projects submitted through the development review process.



The Plan Review Team completed 166 development application reviews, encompassing 73 projects for the month of June. This is in comparison to 156 development applications and 90 projects during the same month in 2018.

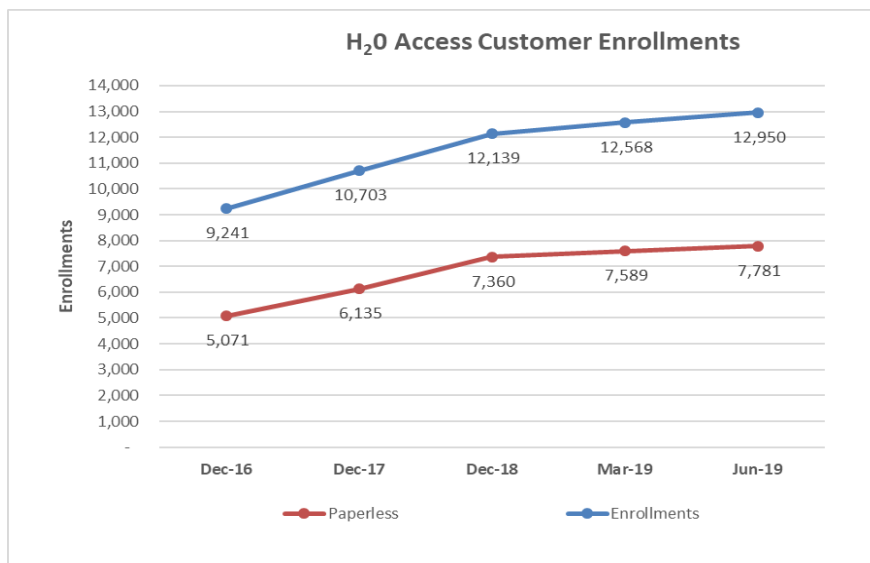
The average number of days assigned to review: 12.8 days
 The average number of days to complete assigned reviews: 11.9 days

Reviews completed on-time	79%	Permits reviewed on-time	97%
Reviews completed late:	21%	Permits completed late:	3%

Customer Statistics

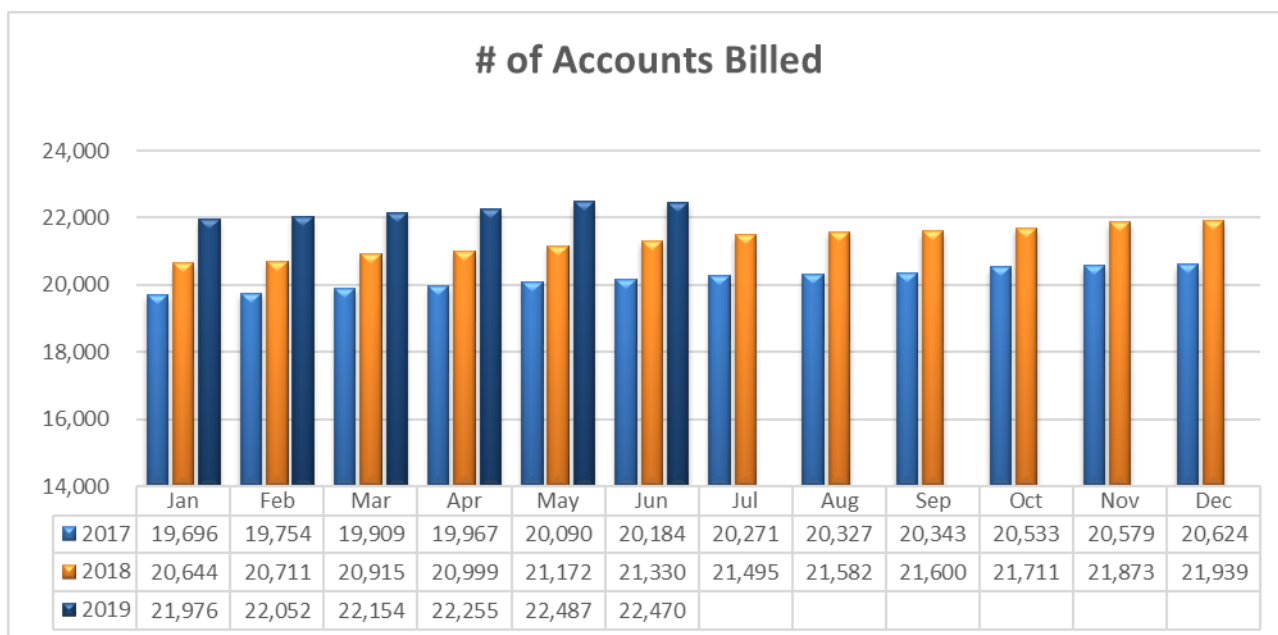
By: Anne Glassman, Business Solutions Manager

Our Business Solutions Team continues to track a host of statistics and data as we evaluate our levels of service and look for efficient ways to improve on these levels.



Updated quarterly - Data reported quarter ending 6/2019

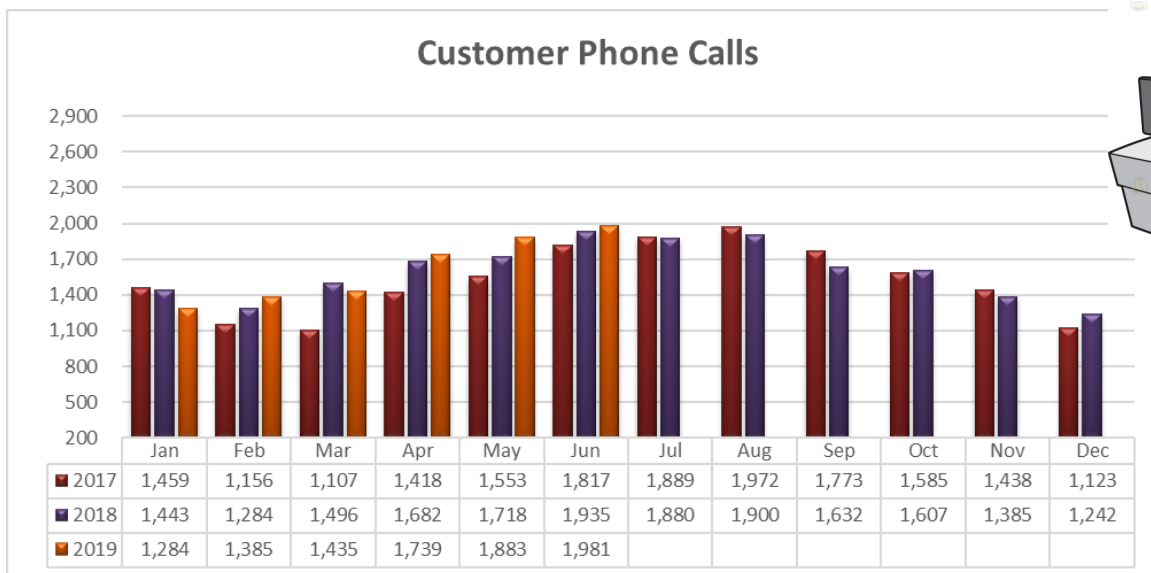
The number of customers enrolled in paperless billing has remained steady at 60% over the last several months.



The number of accounts billed continues to increase year over year due to new residential and commercial growth.



Walk-in customers are consistent with this time of year.

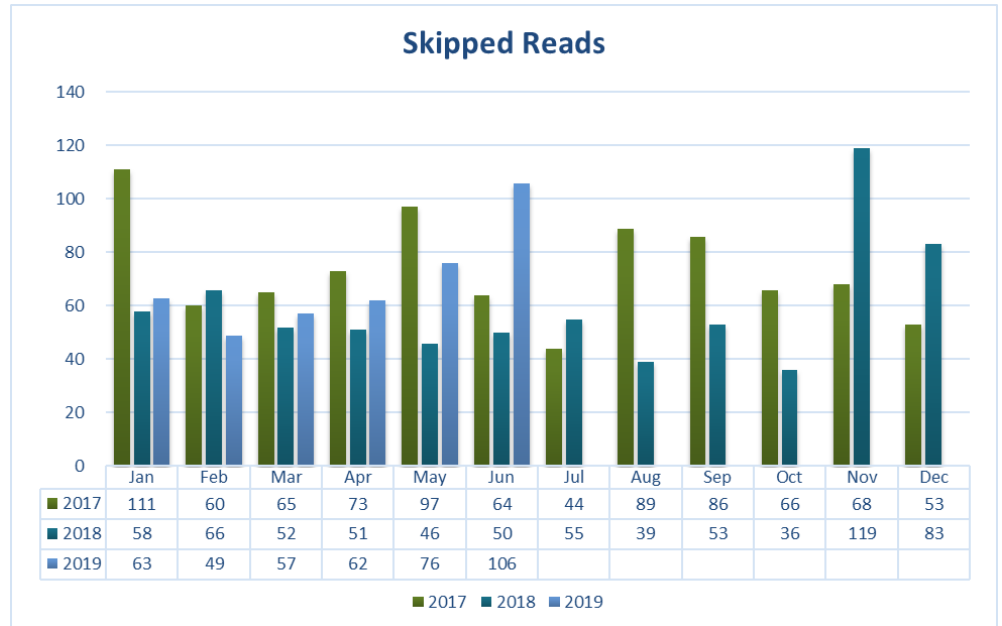


Customer phone calls are consistent with this time of year.

METERS

Skipped Reads

The American Water Works Association (AWWA) standard for skipped reads is 2%, so at 0.47% in June, we still continue to stay well below the industry average. This is a result of continued maintenance and repair efforts on meter infrastructure.

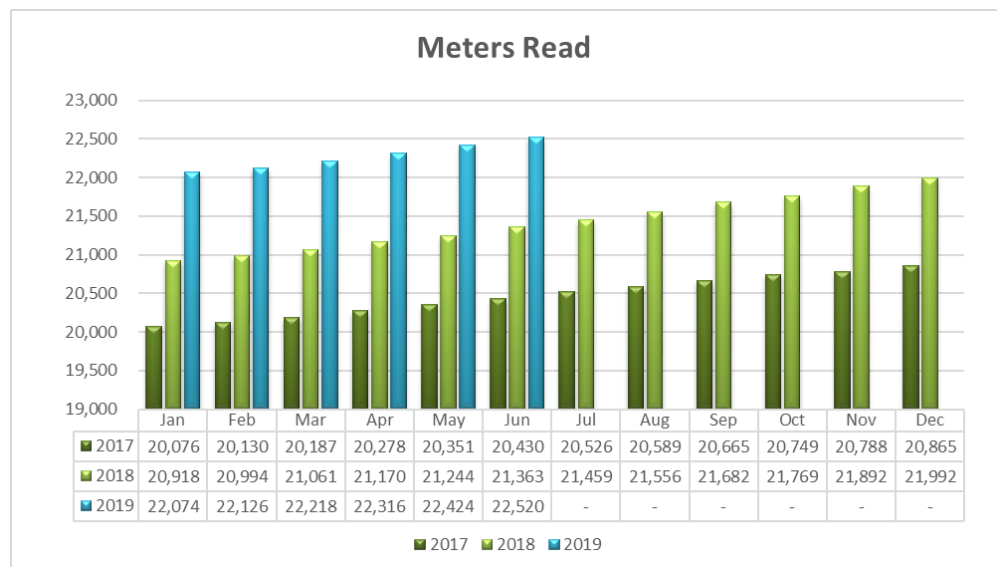


Why is this important?

It 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.

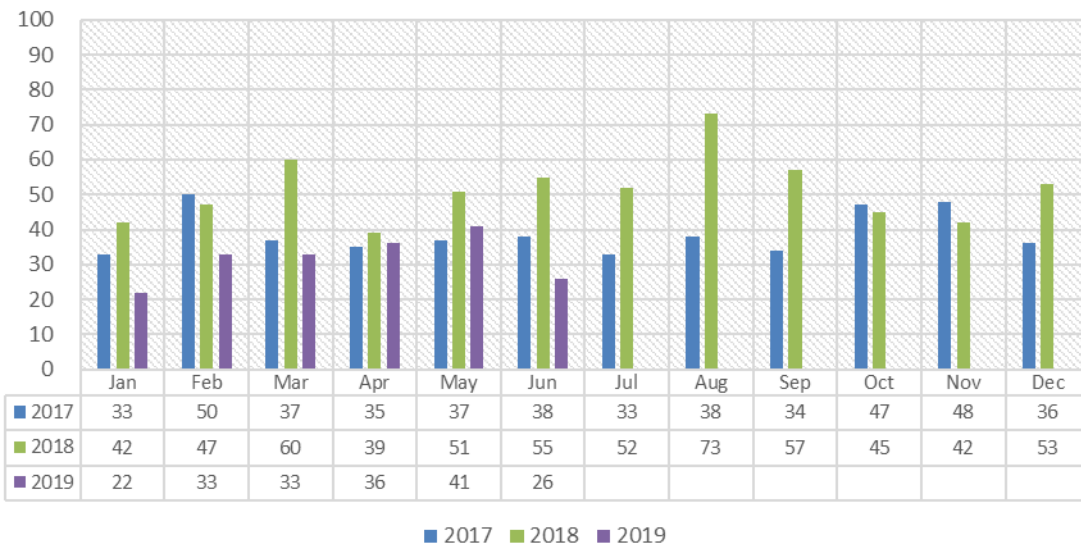
Meter Sets

Month-to-Date 53
Year-to-date 555



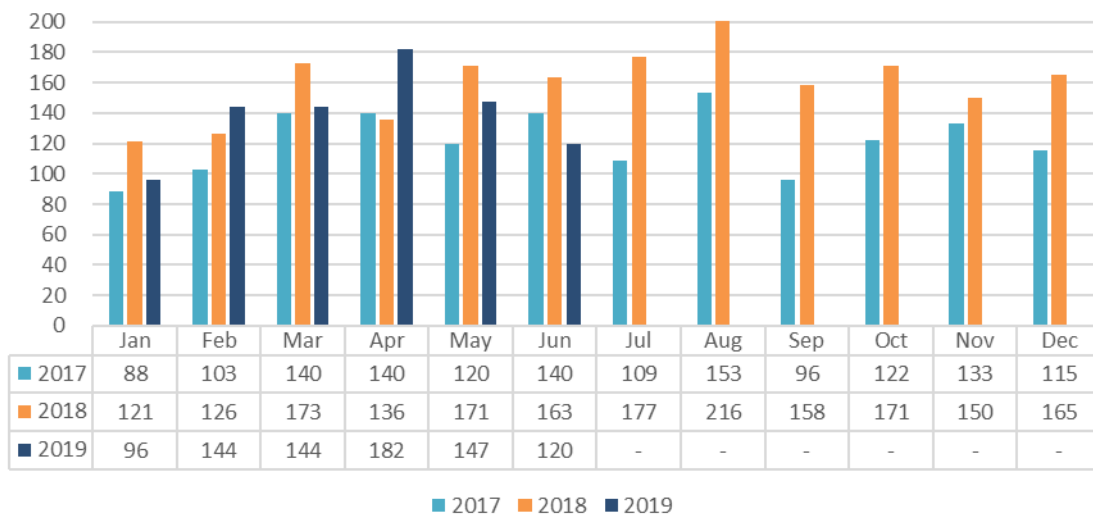
The meters read continues to increase month-to-month due to new residential and commercial accounts, with a significant increase year-over-year.

Residential Meter Set Re-Inspections

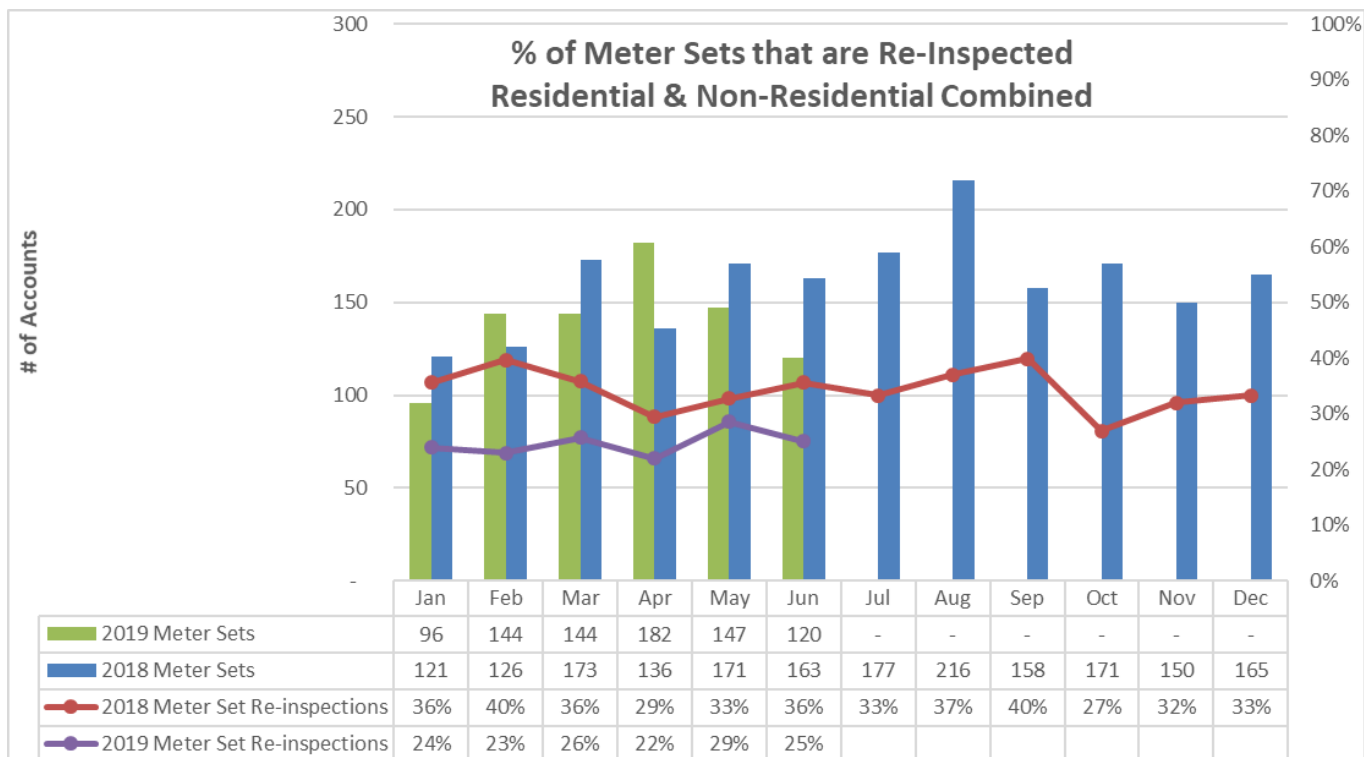


Residential meter set re-inspections are improving from last year. This indicates that more meter set inspections are passing on the original inspection and requiring less site visits.

All Meter Sets

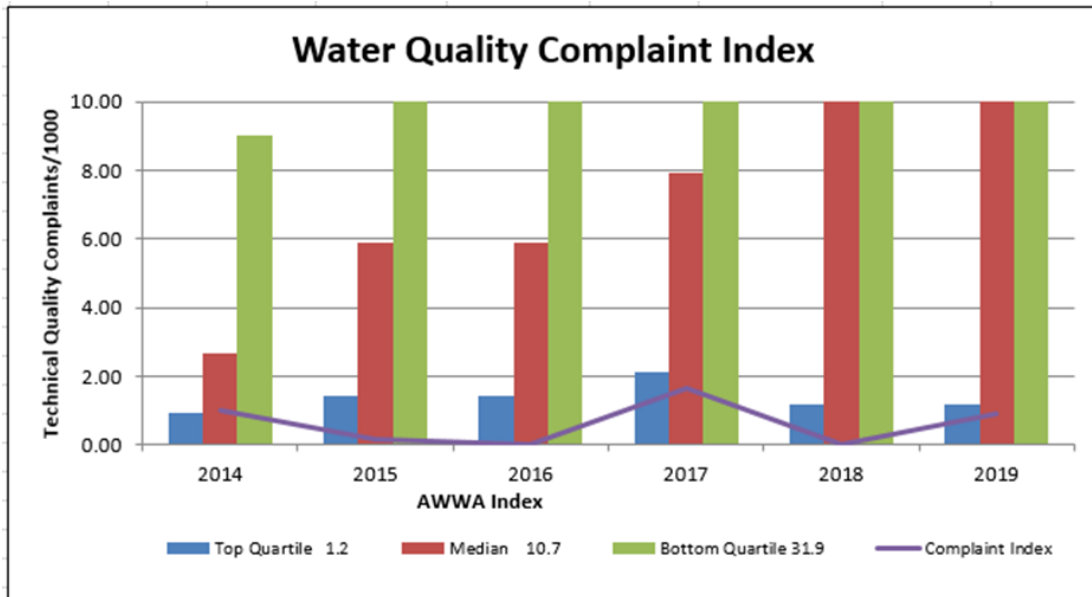


Meter sets in June 2019 are slightly lower than average for this time of year. However, we expect an increase in the remaining summer months.



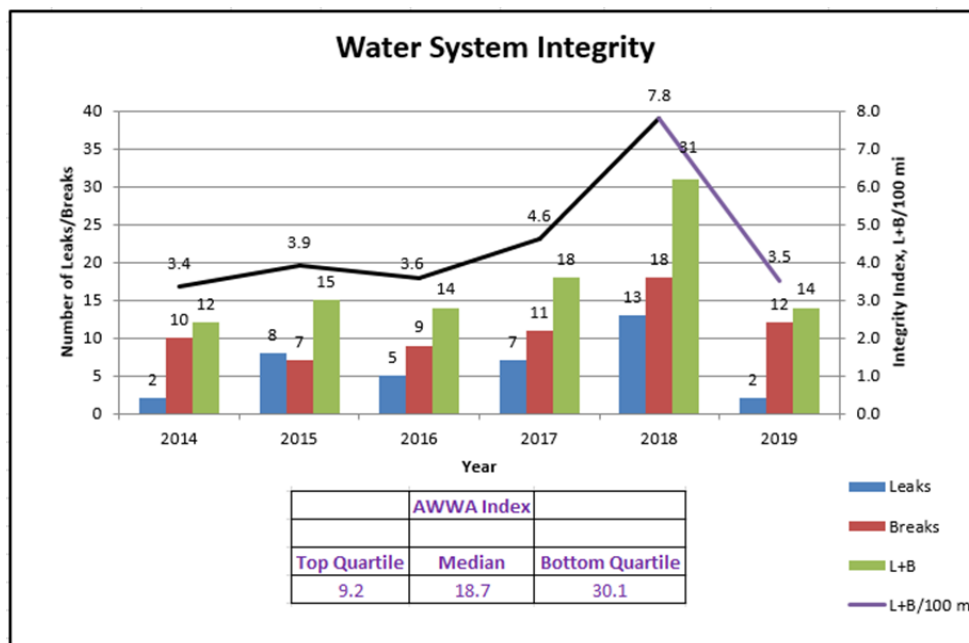
Meter sets are down in June 2019 compared to June 2018, however we expect this trend to increase as the summer months continue. Re-inspections are down 11% from last year at this same time which is a good trend to see. This indicates that more meter set inspections are passing on the original inspection and requiring less site visits.

Water Quality Complaints



The Water Quality Complaint index shows that we are doing very well in this category; rating in the top quartile since 2015 according to the American Water Works Association (AWWA). There were no water quality issues in June.

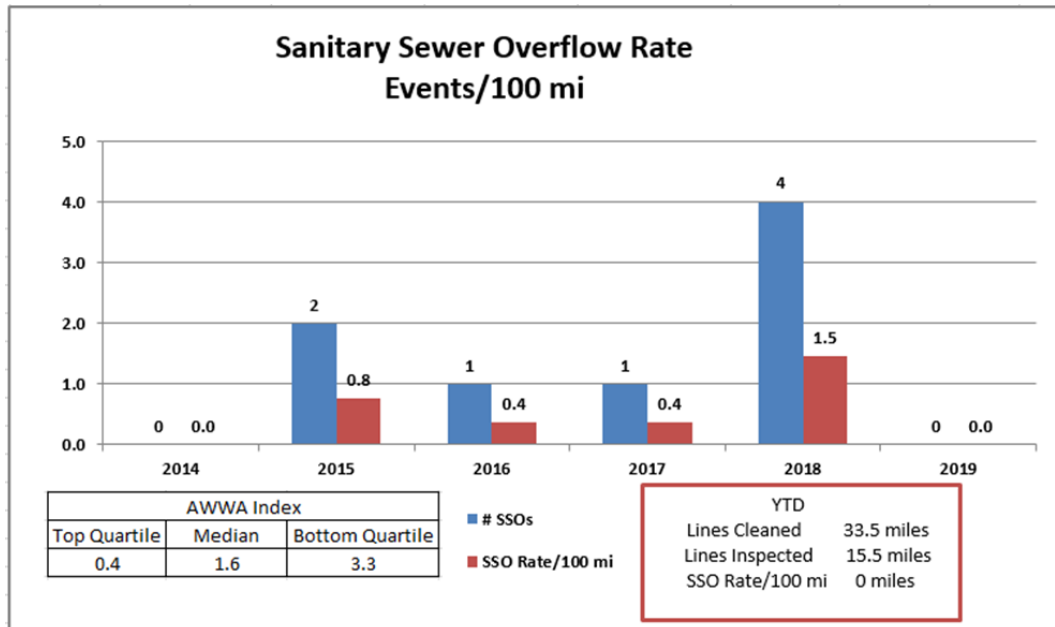
Water System Integrity



As the Water System Integrity chart indicates we have consistently remained in the top quartile for water system integrity based on American Water Works Association (AWWA) benchmarking since 2011. There were no water system integrity issues in June.

Sanitary Sewer Overflows

We are tracking in the Top Quartile in the Sanitary Sewer Overflow Rate, according to the American Water Works Association (AWWA), showing no incidents for the year. There were no sanitary sewer issues in June.



How do we avoid overflows?

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. So far, this year we have cleaned and inspected 33.5 and 15.5 miles, respectively. The goal this year is to clean and inspect approximately one-fifth (1/5) of the collection system or about 55 miles.

JUNE LEVELS OF SERVICE

Drinking Water Compliance

Castle Rock Water will deliver water that meets or exceeds 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. Our annual Consumer Confidence Report is available to view at CRgov.com/waterquality.

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 June.

Sewer System Effectiveness

<1% of our customers will experience a sewer backup caused by the utility's sewer system per year.

There were no sewer system issues in June.

Drinking Water Supply Outages

<5% of our customers will experience water outages for one or more events totaling more than 30 hours/year.

Two contractor issues in The Meadows. One involving a service line causing a home to be out of water for less than one hour. The other was when a damaged eight-inch ductile iron pipe caused 35 homes to be out of water for less than four hours.



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. We will schedule a time to come out to locate public water and wastewater 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, there has been one incidence of damage to lines, as a result of incorrect locate marks.

Castle Rock Water's locate requests from 811 have continued to rise, year over year. Locate requests are on pace to top 20,500 tickets for the 2019 calendar year, another all-time high for Castle Rock Water.



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	1,193	1,334	1,442	1,472		
February	521	485	538	1,094	1,093	1,383	1,334	1,378	1,293	1,404		
March	660	552	818	1,437	1,349	1,906	1,625	1,851	1,514	1,560		
April	838	681	1,025	1,482	1,552	1,784	1,631	1,760	1,856	1,984		
May	853	863	985	1,541	1,531	1,609	1,809	2,002	1,801	2,122		
June	963	844	982	1,314	1,399	1,654	2,075	1,872	1,854	1,716		
July	680	582	859	1,350	1,392	1,477	1,675	1,582	1,556			
August	901	723	1,123	1,476	1,468	1,494	1,651	2,001	1,986			
September	880	723	1,029	1,240	1,373	1,343	1,701	2,102	1,747			
October	715	688	1,155	1,501	1,376	1,314	1,579	1,792	2,064			
November	536	518	1,041	1,072	866	1,134	1,131	1,460	1,469			
December	415	405	925	1,005	1,043	1,063	1,059	1,277	1,293			
Totals	8,545	7,539	11,097	15,702	15,731	17,323	18,469	20,411	19,875	10,258		

4 Year Locate Trend

