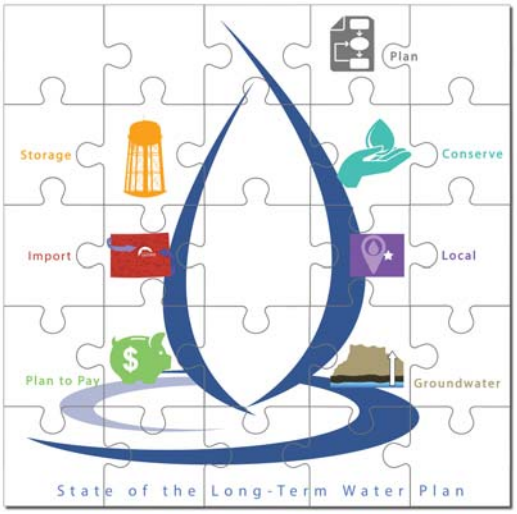
SEPTEMBER 2016

2016 Master Plan Update

Castle Rock and surrounding communities have a limited supply of water and must acquire long-term water regardless of increased demand. To ensure we have water now and for the future, Castle Rock Water has had a Water Resources Strategic Master Plan in place since 2006.

Last month, we began soliciting input into the third edition of this plan. Survey questions are summarized below, and the complete survey is available at CRgov.com/WaterMasterPlan.

The need to create a plan to secure long-term water supplies for our Town became a priority and Castle Rock Water developed a comprehensive plan to address it. At that time, the Town acquired all of our water from underground aquifers which are slowly being depleted. As it takes several lifetimes to replenish this water, Castle Rock Water began looking for renewable water supplies. Renewable water is a supply that is new each year, such as snowmelt and rainfall flowing into a creek. There are a variety of renewable sources, each with various considerations. The 2006 plan and subsequent updates address those sources and considerations.



1. To begin, please rate your awareness level regarding the water issues facing the future of Castle Rock and the surrounding areas.
2. Conserving water now means the Town will have to purchase less in the future. Since 2006, Castle Rock has adopted measures to conserve/reduce approximately 20 percent of the Town's water use. The current draft of the Water Resources Strategic Master Plan incorporates additional conservation efforts. To what extent do you believe these additional conservation efforts should be a part of the Town's long-term water plan?
3. Water from a creek or river is renewable and replenished each year from snowpack or rainfall, whereas water from an underground aquifer is 'mined' out. Assuming that purchasing renewable water from creeks and rivers has the same cost as mining the underground aquifer, to what extent do you support or oppose the Town purchasing and importing renewable water to supplement the Town's water resources?
4. The current draft of the Water Resources Strategic Master Plan shows that water reuse is a cost-effective option for increasing the sustainability of the Town's water supply. Reusing or recycling water is collecting treated water from a wastewater plant that has been discharged

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OUR VISION

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

2nd Place in This Year's Water Taste Test

This time last year, Castle Rock Water won best tasting water in the three-state Rocky Mountain region as judged by the American Water Works Association. This year, we came in second! We take great pride in providing our Town with great tasting water in addition to exceptional service. Please join us in raising a clear, great tasting glass of Castle Rock water and giving Greeley some cheers.

Master Plan, continued

5. How familiar are you with the work Castle Rock Water is doing with various partners, such as others towns and regional associations in an effort to share costs and resources?
6. The Town has purchased storage rights in area reservoirs, such as Rueter-Hess and Chatfield. The plan is to acquire additional storage. How strongly do you support or oppose these efforts?
7. Castle Rock Water conducts annual financial modeling and analysis for the options outlined in the long-term water supply plan. The financial analysis shows that regardless of the efforts taken, water rates will need to increase over time. Given this knowledge, how confident are you that Castle Rock Water is looking at the best financially feasible water supply options?
8. The current draft of the Water Resources Strategic Master Plan identifies five strategies for increasing the Town's long-term water sustainability. Please indicate which ONE of the following you believe is the BEST option to ensure water for the future.

    Water conservation — Water reuse/recycle
    Importing water from elsewhere — Storing water in reservoirs
    Manage local surface and ground water sources

9. Which one of the following statements best describes your current feelings about long-term water issues in Castle Rock?

    I have serious concerns about the long-term water supply and feel that the Town does not have a solid plan to address this issue.

    I am somewhat concerned about the long-term water supply and am not confident in the Town's plan to address this issue.

    I am somewhat concerned about the long-term water supply but feel that the Town is on the right path.

    I am not concerned about the long-term water supply because I feel that the Town has an adequate plan.

    I am not concerned about the long-term water supply because I just don't feel that it is an issue.

    I do not know enough about the issue to make an informed decision.

10. How confident are you in the plan that Castle Rock Water has to secure the Town's long-term water resources?

2nd Annual Safety Fair

By: Mark Billman, EHS Program Analyst

Castle Rock Water held its 2nd Annual Safety Fair on September 21. This year's event included a CPR demonstration by Castle Rock Fire Department (CRFD), and a scavenger hunt focusing on various safety practices around the site.

The Safety Committee began brainstorming, planning, and preparation in February. Throughout the spring and early summer, a number of ideas for the event had been tossed around, and the hope was to provide an interactive learning experience for all employees. By the time July arrived, the CRFD was enthusiastically willing to participate and so the focus of the Safety Fair was narrowed and the nature of the event was determined. Additionally, the Employee Appreciation Team had accepted an invitation to partner, and agreed to provide a tasty breakfast for all employees. Once the planning details were finalized, the last minute preparations could occur – finally the Safety Fair kicked off.

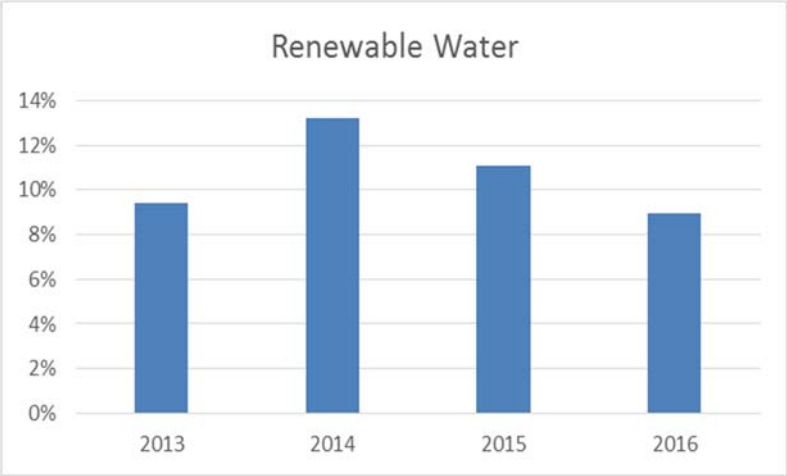
The highlight of the Safety Fair was, for certain, the CPR demonstration and Q&A discussion that followed. The demonstration mirrored an actual event using a life-like dummy, and was made complete with the efforts of Safety Committee Member John Grahn trying to resuscitate him. The responders added even more to the real-life feel of the demonstration by carrying out the simulated administration of an Automated External Defibrillator (AED), and medicine that would typify an actual response. The curiosity that fueled Q&A afterward led to the sharing of a lot of information that was unfamiliar to some or most employees. This illuminated the need for some additional CPR training for all Castle Rock Water staff.

Then it came time for the scavenger hunt that got folks moving around the facility, and revved up some of the competitive juices. Could it be that some of the information at the safety stations was lost or forsaken in an effort to cross the finish line? Hmm – maybe that'll be something to consider for next time.

After this year's fair, the Safety Committee solicited feedback through Survey Monkey. The responses will be reviewed and the committee will look for ways to improve upon the education and experience for next year's event.

2016 Water Demands

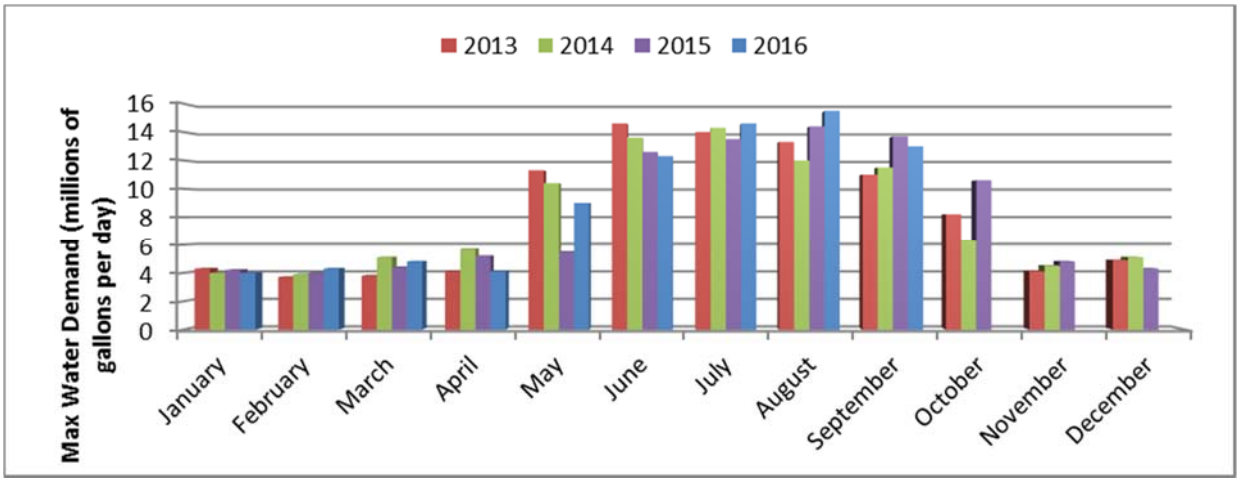
By: Heather Justus, Water Resources Program Analyst



* 2016 percentage will finish much higher as the winter season progresses

The maximum daily water demands are plotted by month from 2013 to the current month. As observed by the data, the maximum demand for the month of September was 12.99 million gallons per day (MGD) which was about 10.3% more than the 5-year average maximum daily demand for the month. Summer time 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 September was 347.98 million gallons (MG), which was about a 14.6% decrease from the August 2016 total of 407.87 MG, and a 9.6% decrease from the September 2015 demand of 381.3 MG.

CR-1, a new surface water diversion located near Plum Creek Water Purification Facility (PCWPF), came online on June 30th and is an important step in transitioning to a 75% renewable water supply. In September, 12.2 MG of renewable water were diverted from East Plum Creek to PCWPF by CR-1. The Town's ten alluvial wells and CR-1 produced a total of 38.6 MG of renewable water during September, which represents 11.1% of the total water supply for the month and 9% (192.5 MG or 590 acre-feet) of the water supply year to date. The total renewable water produced since the opening of the PCWPF has surpassed 937 MG, which represents 10.7% of the Town's total water supply since the alluvial wells began pumping in May 2013. Currently, the Town's renewable water rights surpass the capacity of the alluvial wells. The alluvial well projects the Town is currently completing and the installation of the surface water diversion CR-1working on will help close this gap.

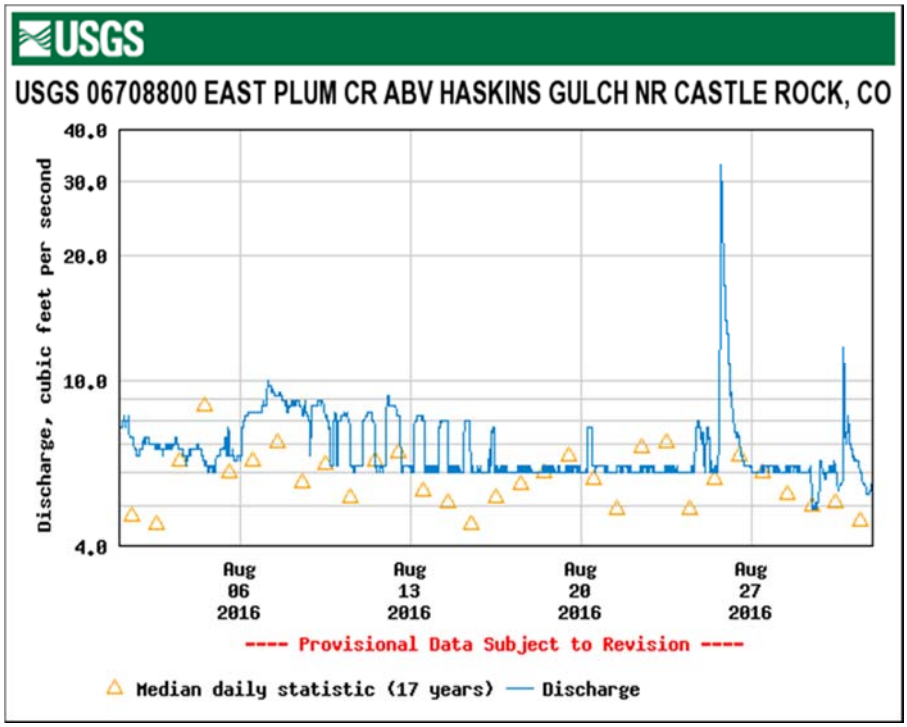


The flow hydrograph represents stream flows in East Plum Creek taken from the stream gauge located at Haskins Gulch. The hydrograph shows that flows in the East Plum Creek basin ranged between 4.5 to 9.5 cubic feet per second (cfs) during the month of September, with flows averaging around 6 cfs toward the end of the month which is about normal for this time of year. Since June 27, the call on the main stem of the South Platte River was changed from free river to active calls. These calls on the South Platte River have a more senior water right than our Meadows Alluvial Wells located in our Central Well Field and the Castle Rock Surface Diversion #1. This means that

Continued on next page

2016 Water Demands, continued

those diversions are now out-of-priority, so the stream depletions will now be covered by nontributary return flows and/or more senior native water rights along East and West Plum Creek. This also means that the Town will now have slightly less reusable water going down Plum Creek. 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. According to the U.S. Drought Monitor from USDA, we are currently experiencing abnormally dry conditions.



Plan Review Update

By Mark Mantua, Plan Review Engineer

The applications reviewed consisted of:

- 32 1st Submittals
- 16 2nd Submittals
- 7 Special reviews
- 2 Completed one week early
- 2 Completed late
- 51 Completed on-time as scheduled

Castle Rock Water reviewed 55 applications this month which compares to 66 during the same time period in 2015. The average assigned due date by Development Services was 1.3 weeks, and we completed the reviews in 1.1 weeks, which included:

- 1 Agreements
- 16 Construction Drawings
- 3 County Referrals
- 1 Misc. Application
- 1 Technical Criteria Variances
- 10 Field Change Orders
- 7 Grading, Erosion and Sediment Control (GESC) Plans
- 1 GESC Permit
- 1 Straight Zoning Application
- 1 Planned Development Plan
- 3 Plats
- 1 Technical Criteria Variances
- 4 Site Development Plans

In addition to completing the above listed applications as scheduled, Castle Rock Water completed 61 building permit reviews and associated system development fees.

Lauren Tyner
Water Quality Technician

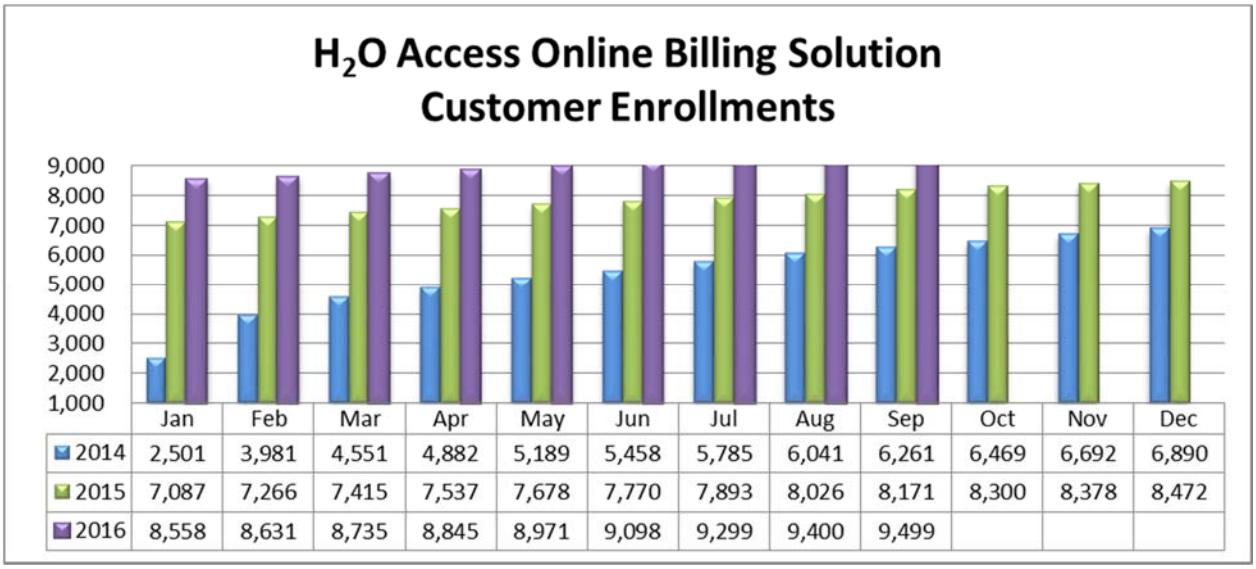
Business Solutions

Customer Statistics

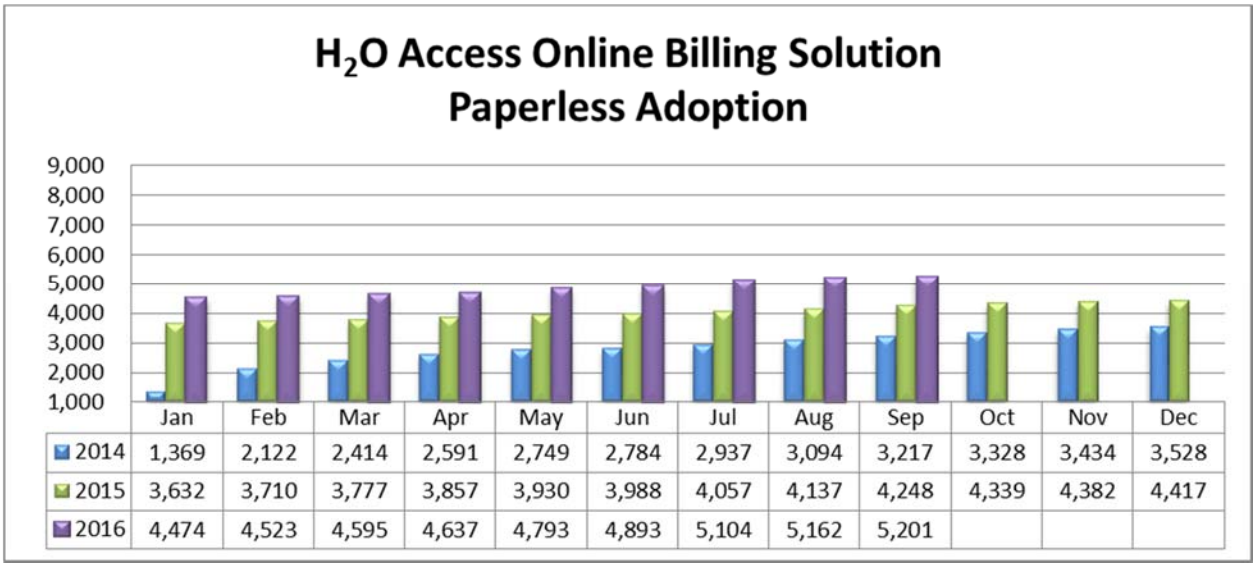
By: Anne Glassman, Business Solutions Manager

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

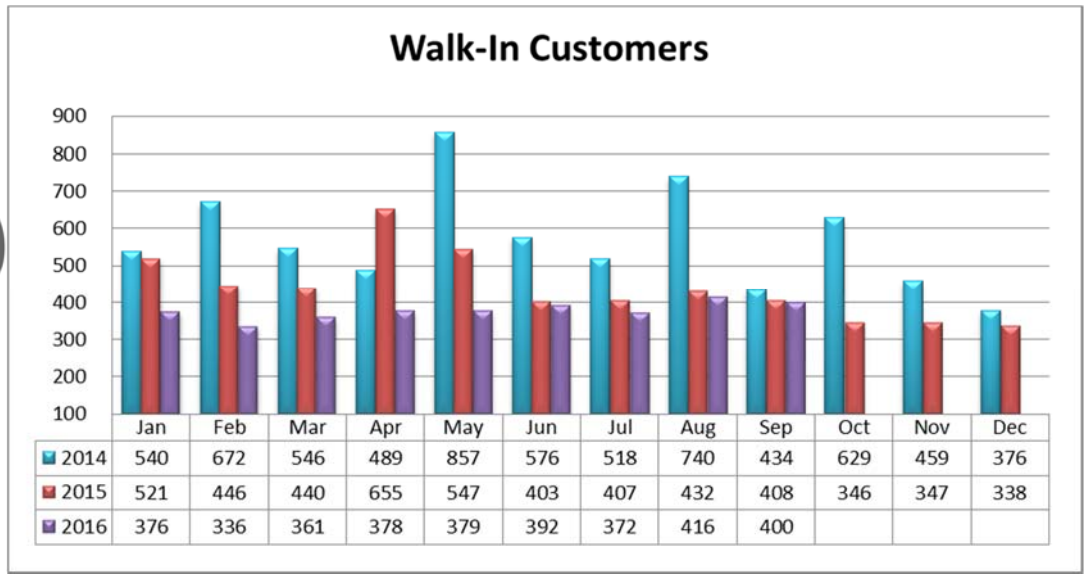
Customer enrollments have continued to increase from launching the H_2O Access Online Billing Solution in January 2014. The number of customers enrolled choosing paperless billing has increased slightly to 55%, with 48% of all customers we serve enrolled with an on-line account.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	2,501	3,981	4,551	4,882	5,189	5,458	5,785	6,041	6,261	6,469	6,692	6,890
2015	7,087	7,266	7,415	7,537	7,678	7,770	7,893	8,026	8,171	8,300	8,378	8,472
2016	8,558	8,631	8,735	8,845	8,971	9,098	9,299	9,400	9,499			

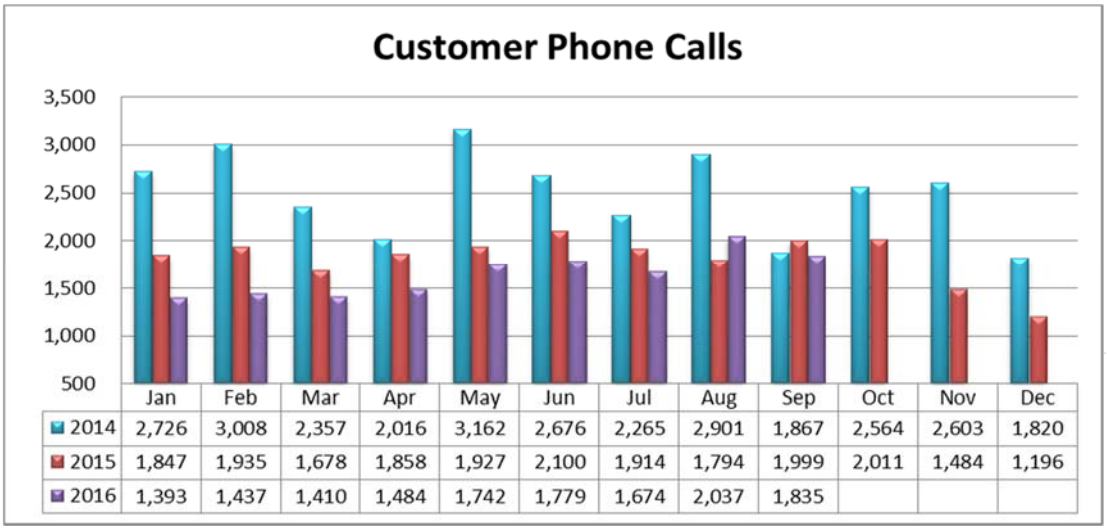


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	1,369	2,122	2,414	2,591	2,749	2,784	2,937	3,094	3,217	3,328	3,434	3,528
2015	3,632	3,710	3,777	3,857	3,930	3,988	4,057	4,137	4,248	4,339	4,382	4,417
2016	4,474	4,523	4,595	4,637	4,793	4,893	5,104	5,162	5,201			

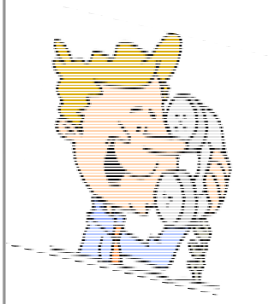


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	540	672	546	489	857	576	518	740	434	629	459	376
2015	521	446	440	655	547	403	407	432	408	346	347	338
2016	376	336	361	378	379	392	372	416	400			

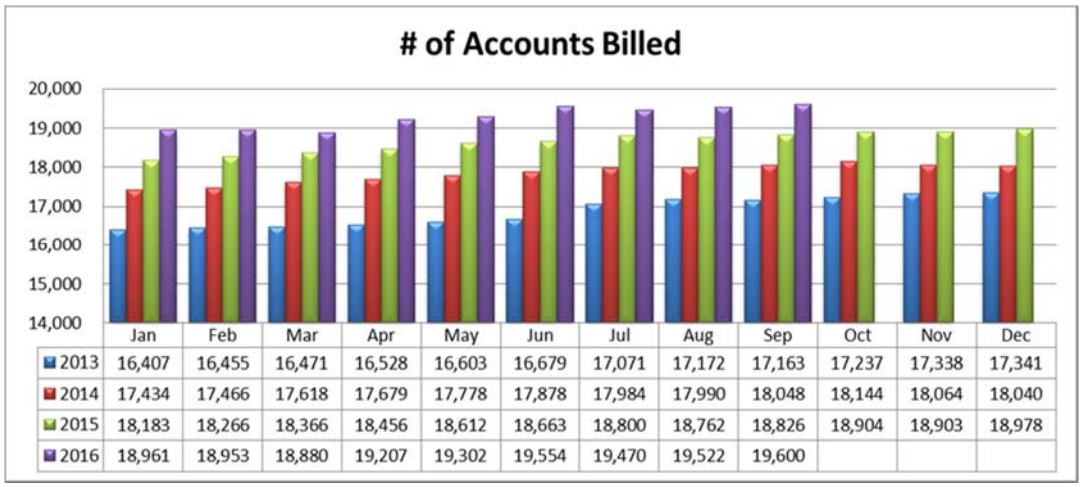
The number of walk-in customers has been consistent in 2016.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	2,726	3,008	2,357	2,016	3,162	2,676	2,265	2,901	1,867	2,564	2,603	1,820
2015	1,847	1,935	1,678	1,858	1,927	2,100	1,914	1,794	1,999	2,011	1,484	1,196
2016	1,393	1,437	1,410	1,484	1,742	1,779	1,674	2,037	1,835			



The number of customer phone calls were up in August and September mostly due to customers with higher usage because of the dry weather, leak adjustments and property transfers.



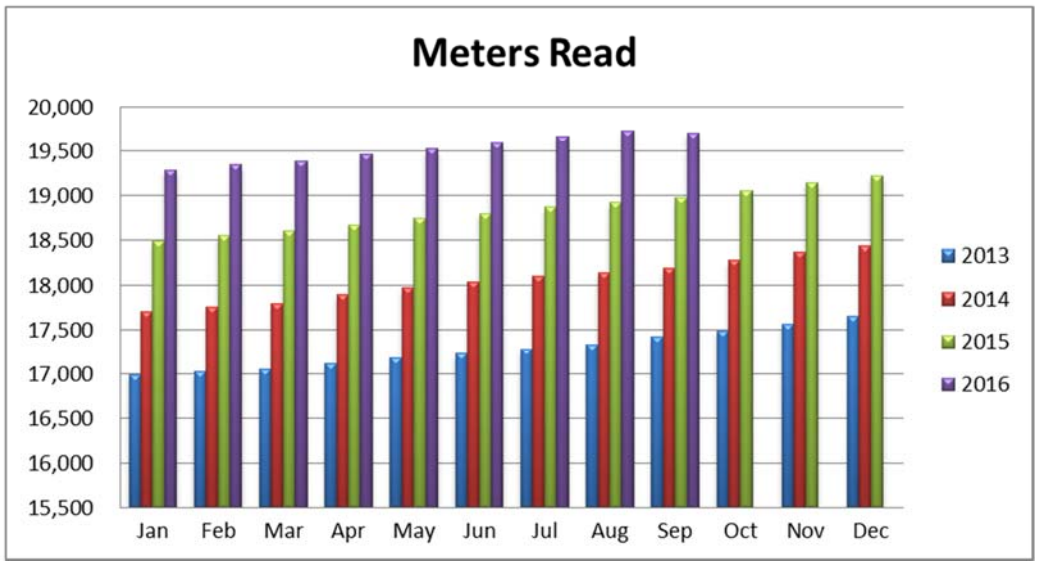
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	16,407	16,455	16,471	16,528	16,603	16,679	17,071	17,172	17,163	17,237	17,338	17,341
2014	17,434	17,466	17,618	17,679	17,778	17,878	17,984	17,990	18,048	18,144	18,064	18,040
2015	18,183	18,266	18,366	18,456	18,612	18,663	18,800	18,762	18,826	18,904	18,903	18,978
2016	18,961	18,953	18,880	19,207	19,302	19,554	19,470	19,522	19,600			

The number of accounts billed compared to August last year is up due to new residential and commercial growth.

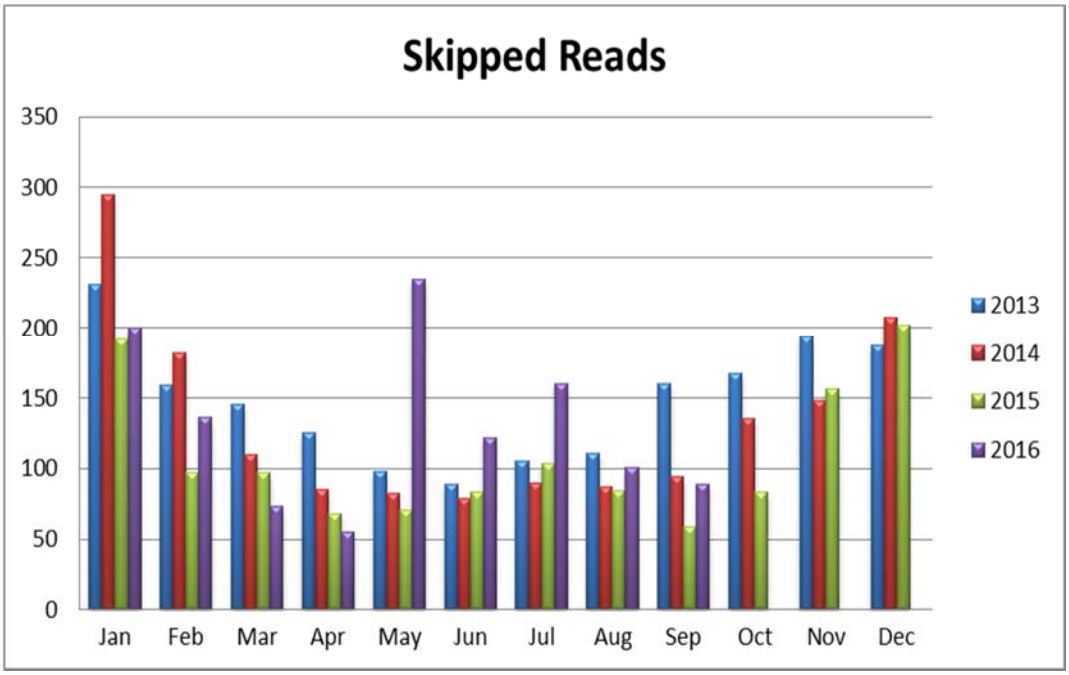
METERS

Meter Sets

Month-to-Date 80
Year-to-date 590



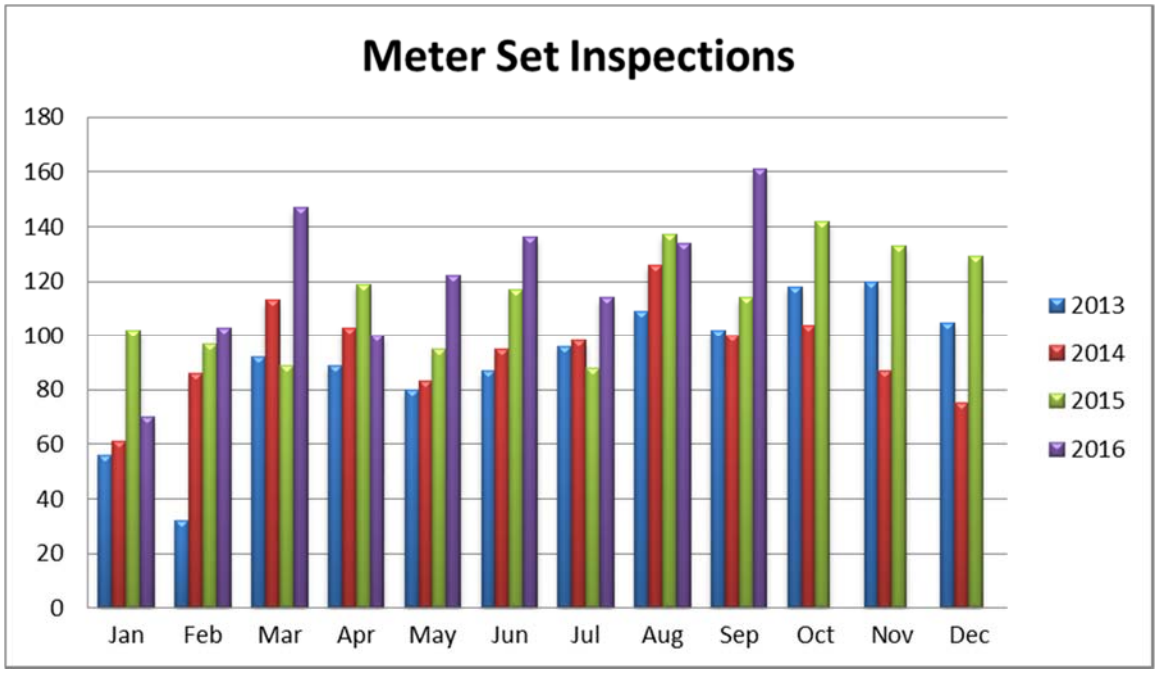
The meters read continues to increase month-to-month due to new residential and commercial accounts, with an increase year over year.

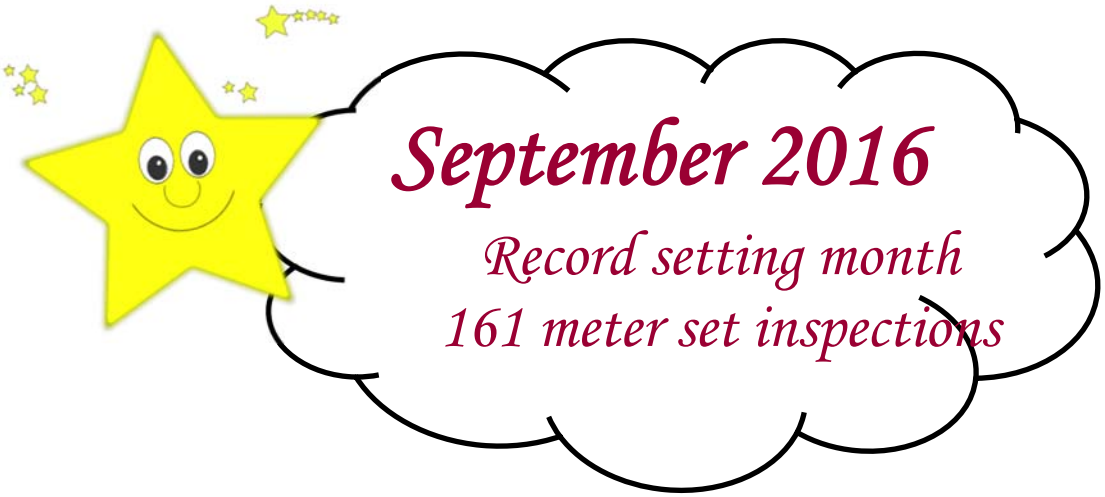


WHY IS THIS IMPORTANT?

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 meter. Less skipped reads means more properly working meters, which is good for all our customers.

The American Water Works Association (AWWA) standard is 2 percent, so at 0.45 percent, we continue to stay below the industry average. This is a result of continued maintenance and repair efforts on meter infrastructure.





September 2016

Record setting month

161 meter set inspections

August 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.

Seventy routine samples were completed. All samples were within the parameters set forth by the Federal 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.

Pressure has been maintained at or above 43 psi throughout the distribution system.

Sewer System Effectiveness

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

There were no system issues impacting customers in September.

Drinking Water Supply Outages

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

The distribution crew repaired a water service line leak, which was discovered by the Meter's Department staff, in Founders. Two homes were temporarily out of service for a total of 30 minutes.

There was another water service line leak in Plum Creek. One customer was out of water for less than four hours, while the leak was repaired.

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. Below is a list of those passing various certifications this month:

John Chrestensen
Professional Operator,
National License

Dawn Tiffany
Distribution 1

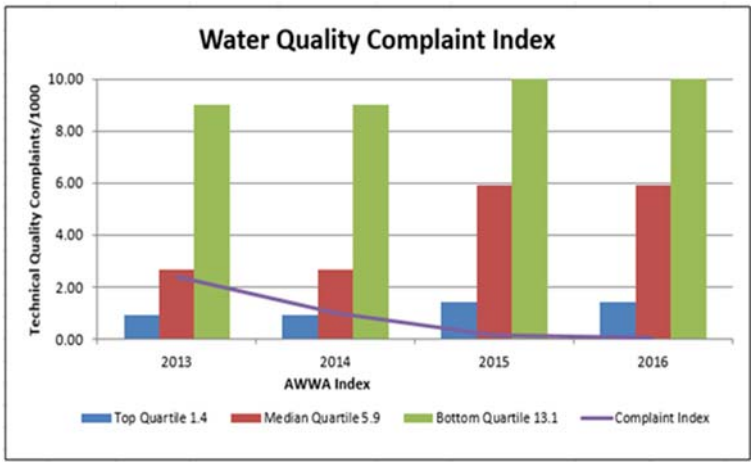
Water Quality Complaints

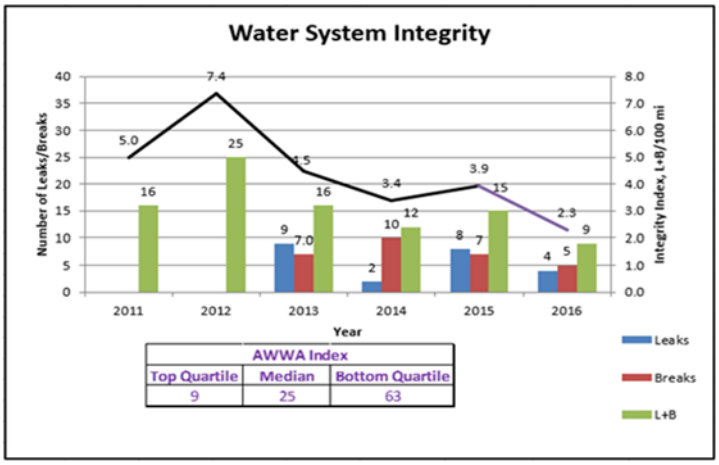
The Water Quality Complaint index shows that we are doing very well in this category; rating in the Top Quartile in 2015 according to the American Water Works Association. We did not have any Water Quality Complaints in September.

For more information, view the current water quality report at CRgov.com/**waterquality**.

Water System Integrity

As the Water System Integrity chart indicates, our occurrence rate has generally decreased over the last four years. We have been in the top quartile, the top 25%, for water system integrity based on American Water Works Association benchmarking since 2011. There were two water system integrity issues in September.

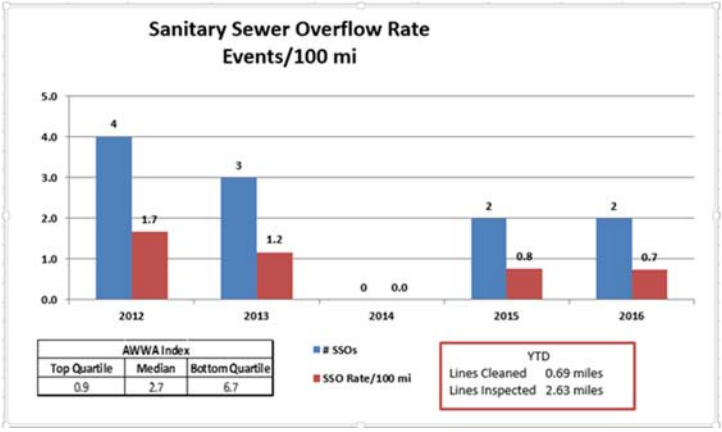




Our team maintains about 780 miles of water, wastewater and stormwater pipeline, enough to run from Castle Rock to Las Vegas, Nevada.

Sanitary Sewer Overflows

We are also tracking in the Top Quartile in the Sanitary Sewer Overflow Rate since 2014, according to the American Water Works Association, showing two incidents for the year. There were no issues in September.



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.

Stormwater Update

Our team of four "storm troopers" maintains over 138 miles of pipe and drainageways, 110 detention ponds and 4,439 inlets as well as completing special projects designed to improve water quality like the two shown below.

Fire Department Training Center

Stormwater Team made improvements to the detention pond.

Reservoir 17 Road

Water erosion on Reservoir 17 Road.

Asphalt millings were added to increase the durability of this dirt road.