

## Environmental Leadership Program Silver Award

*By: Matt Benak, Water Resources Manager*

As part of our Vision to become a national leader, we have taken yet another step forward.

Castle Rock Water was awarded the Colorado Department of Public Health and Environment's (CDPHE) Environmental Leadership Program Silver Partner's Award at their 16<sup>th</sup> Annual Award Breakfast on October 16 at the Wings Over the Rockies Air and Space Museum.



We moved up from Bronze last year and will be making strides towards a Gold Leader over the next three years. We have already started down that path by developing a draft Environmental Policy Statement and we will be working on an overall Environmental Management Plan starting in 2016. Some of our environmental highlights included our State-recognized strides in water conservation; energy management planning; and the annual Spring Up the Creek and Household Chemical Round-up participation. Great job everyone!



*Mayor Paul Donahue; Matt Benak, Water Resources Manager; Lynette Myers, Environmental Leadership Program Coordinator; and Cassie Grotheer, Regulatory & Water Quality Compliance Analyst (left to right)*

### OUR VISION

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

# Chatfield Reallocation Project Update

*By: Matt Benak, Water Resources Manager*

More than 20 years of effort by various regional water entities has culminated in the official formation of the Chatfield Reallocation Project and the Chatfield Reallocation Management Corporation (CRMC). Overall, this project reallocates 20,600 acre-feet (AF) of storage space in the reservoir for use by participants to store water for their needs without any expansion of the dam.



The Town owns 200 AF of storage space now, and will be closing on another 87 AF with the Colorado Water Conservation Board in November 2015. This will give us another place to store wet water that we can use to exchange back up Plum Creek for treatment when we need it, or to lease to other entities. The CRMC has hired CDM Smith as Program Manager for the project mitigation and construction efforts. The total reallocation project cost is currently estimated at \$134 million and water storage into the reservoir is slated for October 2017.

# Sheppard Wins Scholarships

*By: Matt Benak, Water Resources Manager*

Katherine Sheppard, Seasonal Water Quality Technican, was presented with two scholarships at the Rocky Mountain AWWA conference in September held in Loveland, Colorado.

First, she received the Tony Campman scholarship which was created to encourage students who wish to pursue higher education in the water sector. Mr. Campman was a long time water sector equipment representative in Denver who passed away in 2006. The second scholarship was from the Rocky Mountain Water Quality Analyst Association which is dedicated to students pursuing a career in the water field.



Katherine will be completing her Bachelor of Arts in Environmental Studies and Mathematics this November from Thomas Edison State College, Trenton, New Jersey. Way to go Katherine!

# Founders Water Treatment Plant Roof Repairs



The Founders Water Treatment Plant was constructed in about 1987. This plant is designed to treat Denver Basin groundwater and has a capacity of 3.45 million gallons a day. It is a critical part of the Town's water system. Roof replacement was completed on budget for \$12,962.

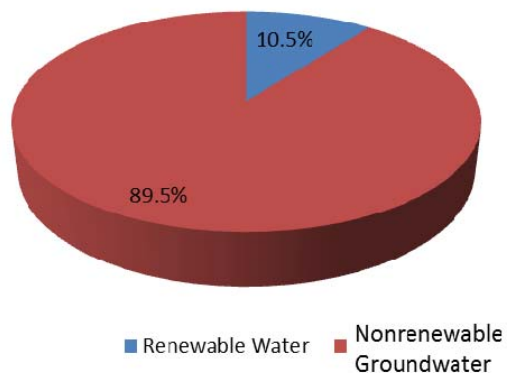


## 2015 Water Demands

By: Sheri Scott, Water Resources Program Analyst

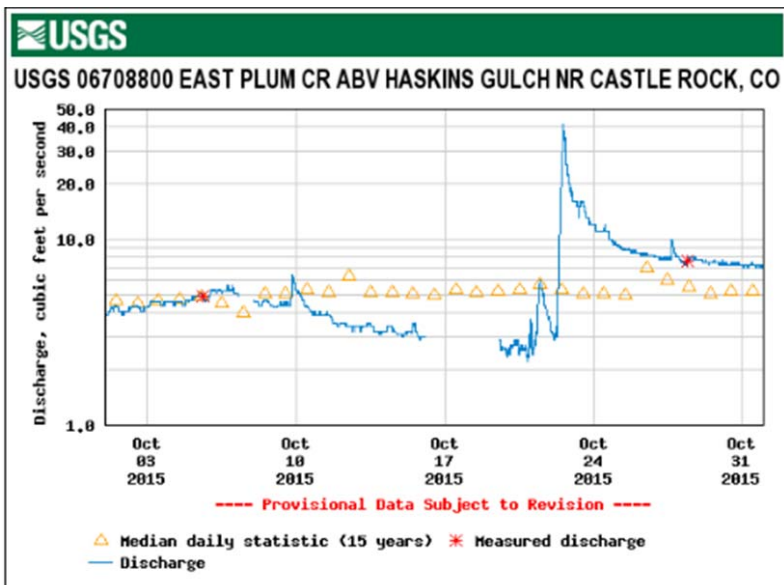
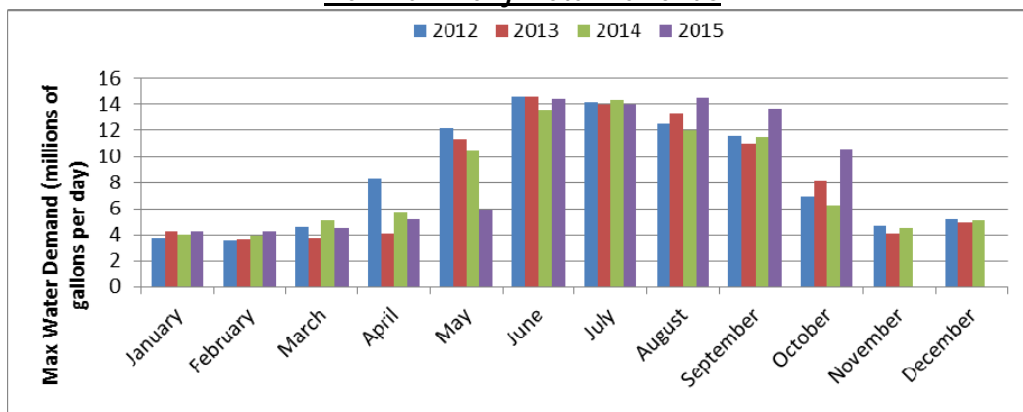
The maximum daily water demands are plotted by month from 2012 to the current month. As observed by the data, the maximum demand for the month of October was 10.6 million gallons per day (MGD) which was nearly 50% greater than the average maximum daily demand experienced over the previous three years. 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. An average of the winter month (November, December, January, and February) usages, reflect indoor or base demand. The water demand total for October was 229.1 million gallons (MG), which was a 41% decrease from the September 2015 total of 386.5 MG, and an increase (48%) from October 2014 demand of 154 MG. October was a warmer than usual month and customers were still irrigating their landscapes.

## Water Supply Sources YTD



The Town's nine alluvial wells produced a total of 22.9 MG of renewable water during October, which represents 10% of the total water supply for the month and 10.5% (231 MG or 709 acre-feet) of the water supply year to date. The total renewable water produced since the opening of the PCWPF has surpassed 704 MG, which represents 11.1% of the Town's total water supply since the alluvial wells began pumping in May of 2013. Currently, the Town's renewable water rights surpass the capacity of the alluvial wells.

### Maximum Daily Water Demands



The flow hydrograph represents stream flows in East Plum Creek taken from the stream gauge located at Haskins Gulch. The hydrograph shows that the East Plum Creek basin experienced stream flows between 2 to 5 cubic feet per second (cfs) for most days with a peak of 40 cfs following a rain event later in the month. During the month there were no calls on the main stem of the South Platte, therefore a Free River condition and no out-of-priority depletions needed to be made up. The river call may change at any time as a result of downstream water diversion calls.



# New Operations & Maintenance Building Construction

*By: Josh Hansen, Project Manager*

Much progress was made on the building in October, and it is shaping up into the vision depicted in the architectural rendering created almost a year ago (see bottom right). Construction began April 29, 2015, and six months later you can see the progress captured in the photos below. The structure is basically complete and the contractor is working on the roofing, windows, interior and exterior finishes, and some site work.

A big thank you goes out to our Operations Division and Public Works Department for hauling asphalt millings from the old wastewater treatment plant on Caprice Drive to the site for use as a temporary driving surface until the site can be paved in 2016.

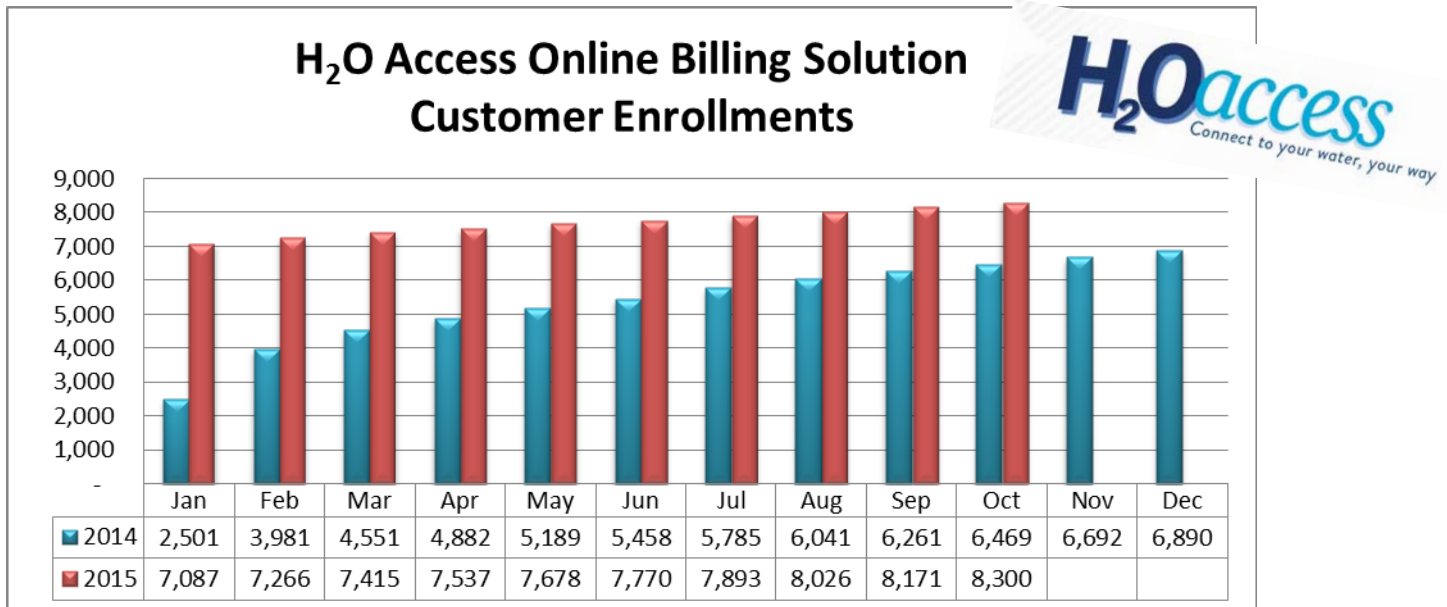
As of end of October, the project is on schedule and within the approved budget. By this time next month, the building will be almost complete!



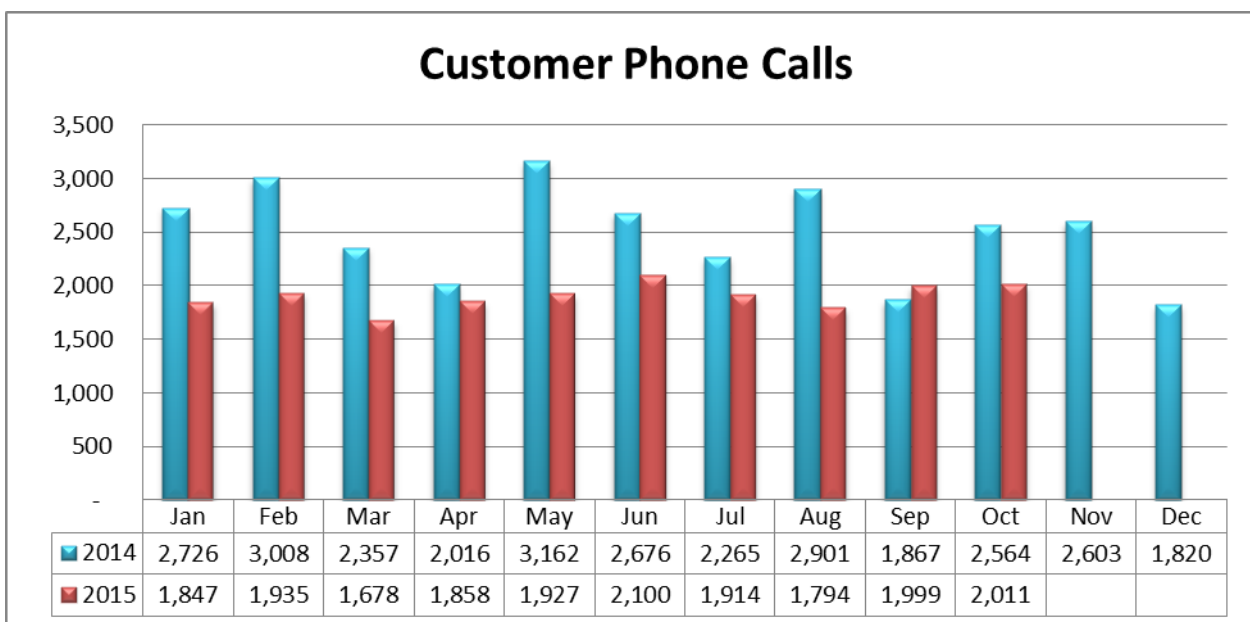
## Customer Statistics

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.

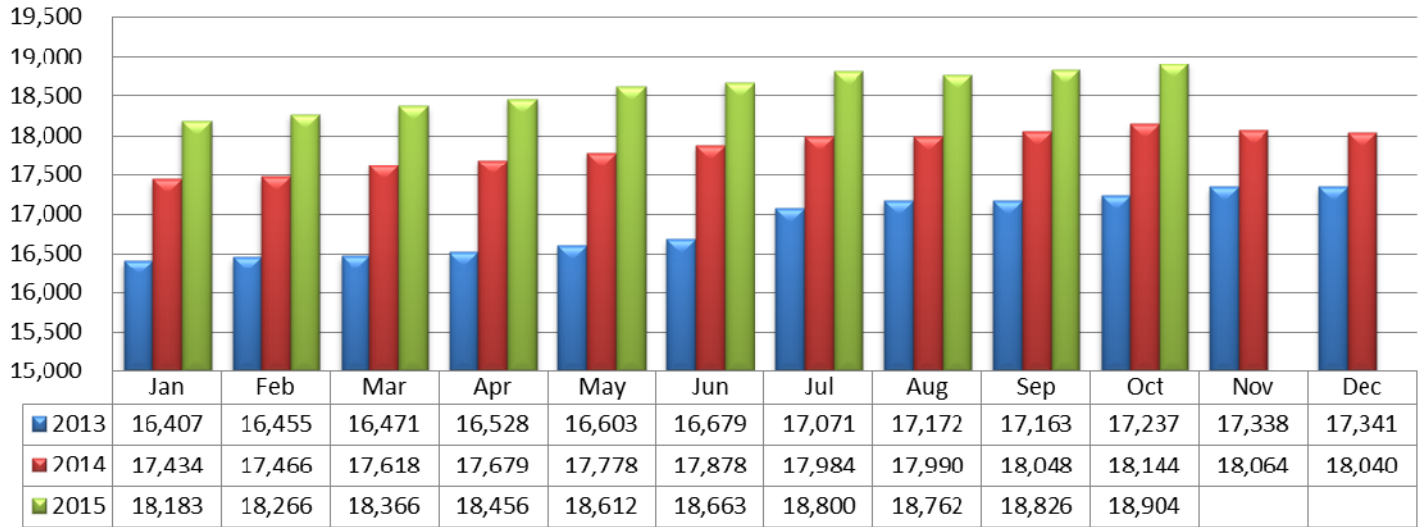


The H<sub>2</sub>OAccess online billing solution was launched in January 2014. The number of customers who have enrolled in online bill pay and have also chosen to go paperless remains steady at 52%.



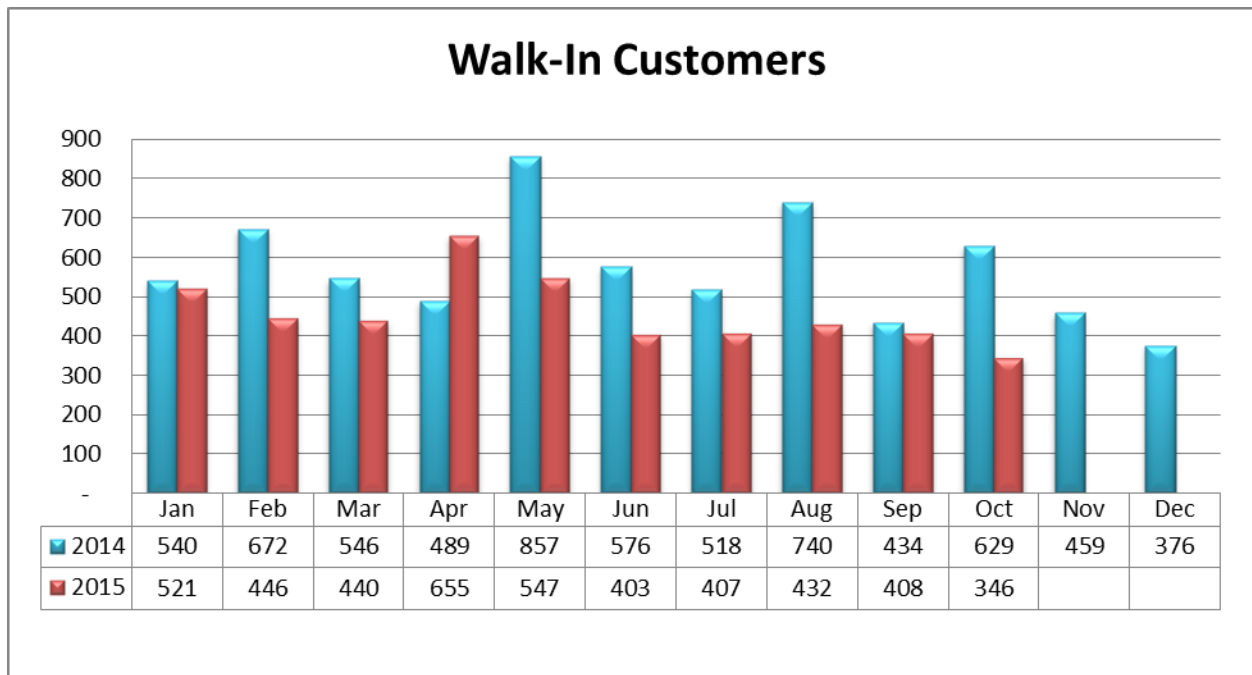
Customer phone calls remained high this month due to the extension of the warmer temperatures and calls surrounding consumption usage related to this.

## # of Accounts Billed



The number of accounts billed continues to steadily increase month-to-month mostly due to new residential growth.

## Walk-In Customers

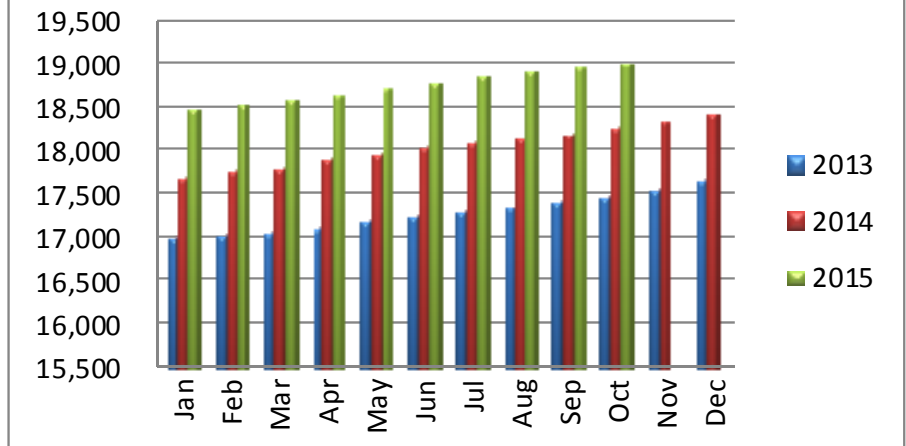


Walk-in customers were down from last month due mostly to the irrigation season coming to an end.

## Meters

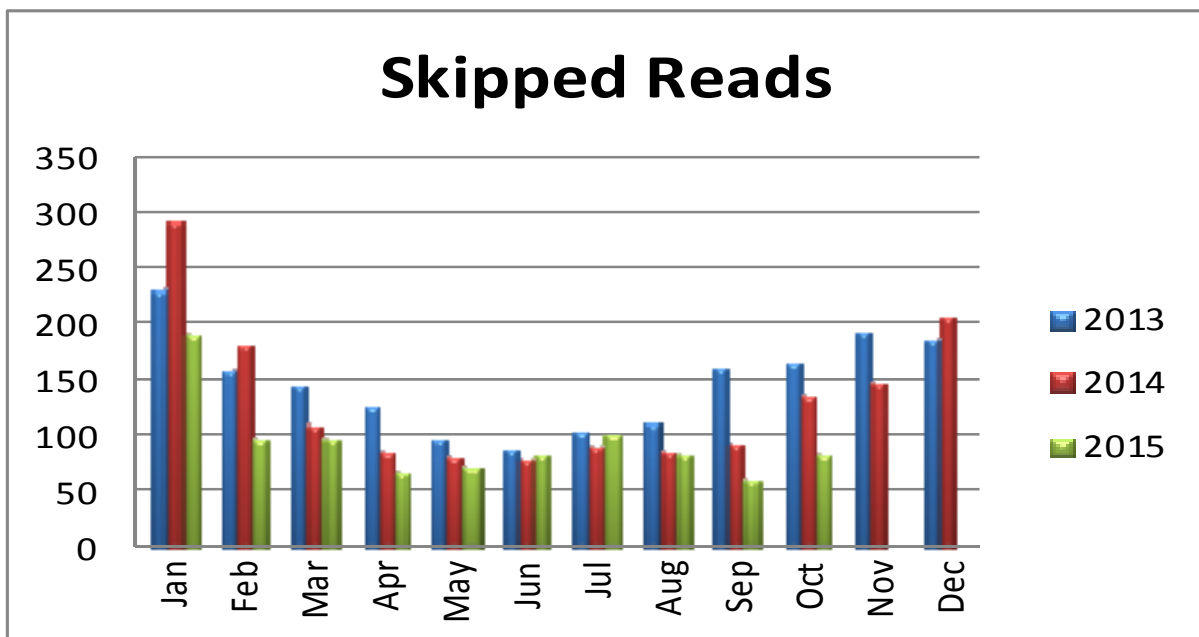


## Meters Read



The meters read continues to increase month-to-month due to new residential and commercial accounts, with a significant increase from October 2014.

## Skipped Reads



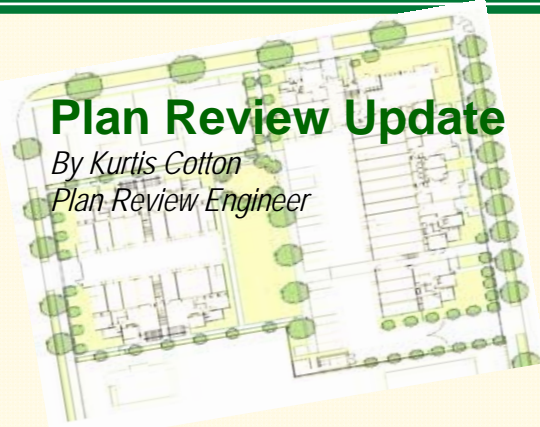
The American Water Works Association (AWWA) standard is 2 percent, so at 0.44 percent, we still continue to stay well below the industry average. This is a result of continued maintenance and repair efforts on meter infrastructure.

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

## Plan Review Update

By Kurtis Cotton  
Plan Review Engineer



The applications reviewed consisted of:

- 37 1<sup>st</sup> Submittals
- 16 2<sup>nd</sup> Submittals
- 28 Special reviews

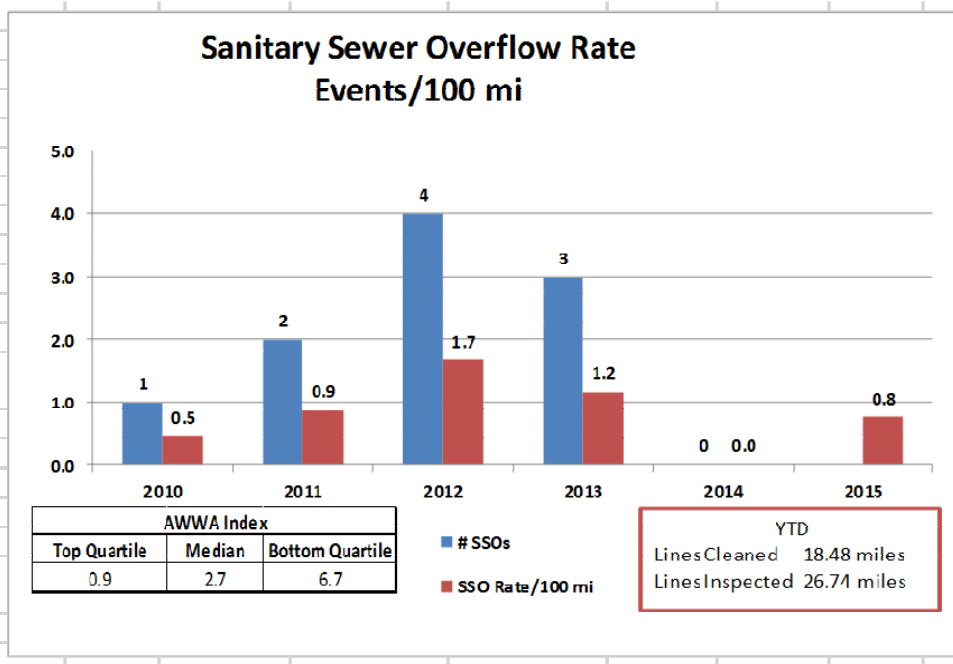
Utilities reviewed 81 applications this month which compares to 51 during the same time period in 2014. The average assigned due date by Development Services was 1.9 weeks, and Utilities completed the reviews in 1.8 weeks, which included:

- 4 Agreements
- 1 Annexation
- 3 County Referrals
- 1 Miscellaneous
- 1 Planned Development Plan
- 6 Plats
- 4 Right-of-way Vacations
- 7 Preliminary Project Applications
- 21 Construction Drawings
- 14 Site Development Plans
- 2 Technical Criteria Variances
- 8 Field Change Orders
- 7 Grading, Erosion and Sediment Control (GESC) Plans
- 2 Grading, Erosion and Sediment Control (GESC) Permits

In addition to completing the above listed applications on-time as scheduled, Utilities completed 51 single family utility reviews and associated system development fees.

## Sanitary Sewer Overflows

We ended 2014 with no sewer over-flows or backups which is the best performance over the last five years. Our total sewer overflows to-date in 2015 is two. Our 5-year average is 0.38 events per 100 miles, which is in the Top Quartile (the best) of American Water Works Association (AWWA) entities participating in the national benchmarking. *The lower the number the better the performance!*

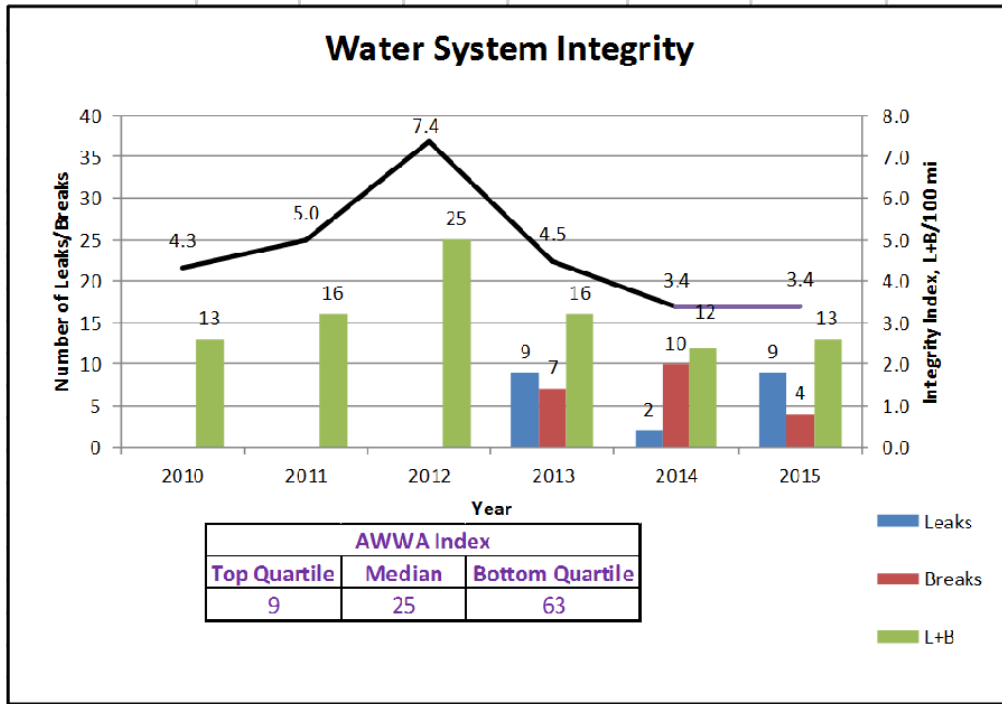


## How do we avoid overflows?

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. In 2014, the camera was run through 21.4 miles of pipe, and we cleaned 18.7 miles. So far in 2015, we have inspected 26.7 miles of pipe, and cleaned 18 miles.



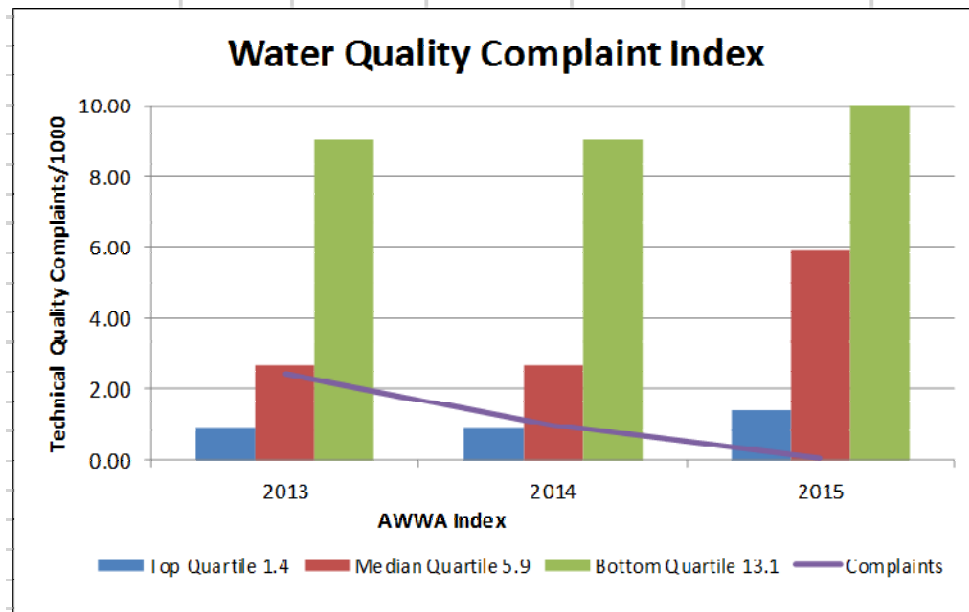
# Water System Integrity



There was one service line break, and there were zero main line breaks this month. An overall rating of 3.4 breaks per 100 miles kept us in the top quartile as compared to national standards for 2014. We are on-track to be in the top quartile again in 2015 based on performance year-to-date.

# Water Quality Complaints

There were two water quality complaints in October 2015. Castle Rock Water compared favorably to industry standards falling just outside the top quartile (best of the best) for this metric in 2014. Year-to-date we are on-track to be in the top quartile this year. For more information, view the current water quality report at [CRgov.com/waterquality](http://CRgov.com/waterquality).



# OCTOBER 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. Sixty 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. No pressure issues.

## Drinking Water Supply Outages

<5% of our customers will experience water outages for one or more event totaling more than 30 hours/year. Less than 5 percent of customers experienced a water outage this month; however, the following issue was reported:

- A service line break on Oakwood Dr. on Oct. 26. It was a shared line, and four customers were out of service for four hours.

## Sewer System Effectiveness

<1% of our customers will experience a sewer backup caused by the utility's sewer system per year. There were no sanitary sewer issues this month.

## Hydrant Meter Permits

Twenty-six open meter permits.

## Backflow Prevention Devices

Mailed approximately 88 backflow test letters for devices due in October.

## Meadows 5 Lift Station Control Cabinet Upgrade

By: Matt Hayes, Project Manager

The Meadows 5 Lift Station is approximately 27 years old and was originally constructed with a Gorman Rupp pumping system. This lift station is a key part of our sewer collection system. The existing panel has been modified and upgraded a number of times over the years; however, the majority of the electrical equipment in the cabinet has reached the end of its useful life, and replacement parts are increasingly difficult to obtain. Much of the controls and communication equipment is archaic and limits communications with the Town's Supervisory Control and Data Acquisition (SCADA) network.

The Town selected Velocity Plant Services for the replacement of the panel. They were selected for this project based on their experience in working within operating facilities. This lift station had to remain operating during the panel replacement as the sewer system for our customers in this area cannot be shut down, even temporarily. When you have to go, you have to go. The project team developed a plan to keep the lift station pumps operating with temporary power during the panel installation. The panel installation took five days to complete. The total cost for this project was \$43,000, and came within budget.



Original control panel



New control panel

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:



**Ryan Cline**  
Competent Persons  
for Excavations



**Jamie McCracken**  
Competent Persons  
for Excavations



**John Chrestensen**  
Competent Persons  
for Excavations



**Loran Delong**  
Competent Persons  
for Excavations



**Shawn Griffith**  
Competent Persons for  
Excavations



**Jon Stapp**  
Competent Persons  
for Excavations



**Rich Platt**  
Competent Persons  
for Excavations



**Colton Maloney**  
Distribution 1



**Denise Lannan**  
Competent Persons  
for Excavations

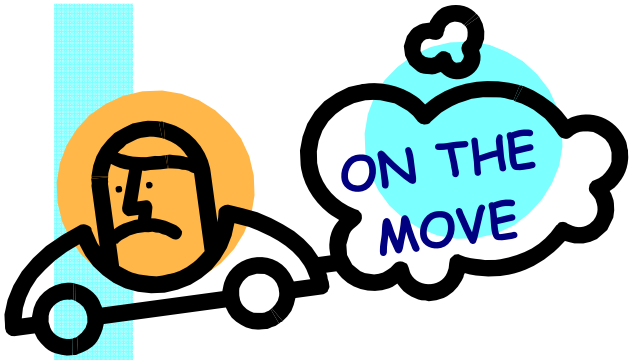


**Rob Chrestensen**  
Collections 1



**John Whitesel**  
Collections 1

# CERTIFICATIONS



*Congratulations on your recent promotion!*



**Matt Daniels**  
Asset Program Manager

**Welcome to our  
Team!**



**Ken Ritchie**  
Maintenance Technician II



**Dawn Tiffany**  
Sr. Office Assistant



**Melinda Pastore**  
Sr. Office Assistant