



Five Year Strategic Plan Utilities Department

2014 through 2018



Excellence • Dedication • Service

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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.

Our Mission

We provide our community with exceptional service that protects public health and balances social, environmental and fiscal responsibilities in a sustainable manner.



Dear Customers, Stakeholders, and Castle Rock Water Utilities Department employees,

In 1893, with 2.5 miles of wooden pipeline, a few water mains and one reservoir, the department began its first service to just a few hundred people. Thus, began the Town's commitment to delivering residents this vital and important natural resource.

Over a century later, we are an industry leader, providing state-of-the-art water, wastewater and stormwater services to a growing Town of more than 53,000 residents.

In order to ensure that we fulfill our Vision and Mission and continue our national leadership, the team has updated its strategic plan. Our team has worked diligently to develop a five-year plan for Castle Rock Water that will guide our priorities as we continue to serve our growing community and complete our Legacy Water Projects.

This strategic plan is designed to build on the successes of the past while carrying Castle Rock Water forward. The specific strategies outlined in the plan include simple solutions and leading-edge technologies. They showcase our innovation and rely on continued community support.

Castle Rock's Legacy Water Projects were designed to secure our water future by focusing on renewable water solutions. We cut the ribbon on one of those projects this year. The Plum Creek Water Purification Facility (PCWPF) is capable of purifying a wide range of water supplies into top-quality drinking water. This facility opened in 2013 and gave us a chance to demonstrate innovative thinking as we utilized the best technology available. This strategic plan continues the tradition behind our Legacy Water Projects of drawing on the most innovative solutions.

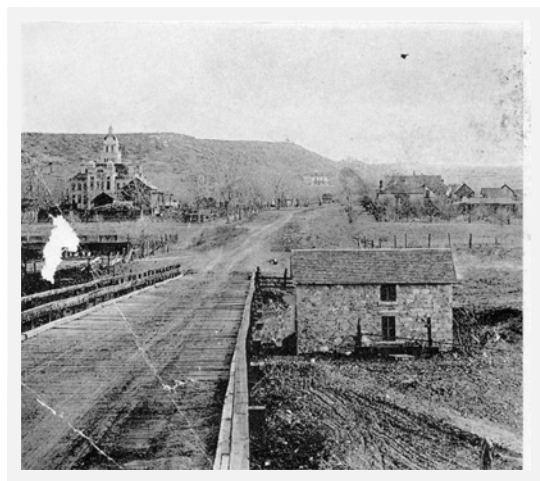
We will continue to be an industry leader focusing on customer satisfaction and delivering outstanding quality and value. The plan will also ensure that we continue to partner closely with the community, our neighbors and the region as we work to provide, yet conserve, this critical resource. Much of this will be demonstrated as we move ahead with our partners on the other two Legacy Water Projects – Reuter-Hess Reservoir and working with other statewide partners to bring renewable water from other sources to the Town.

Castle Rock Water looks forward to input from you on this strategic plan as we strive toward continuous improvement to meet our Mission of “providing our community with exceptional service that protects public health and balances social, environmental and fiscal responsibilities in a sustainable manner.”

Our water is one of the most important resources to ensure the long-term health of our community. As we build on the past, Castle Rock Water is absolutely committed to protecting and sustaining it for our future.

The plan will be available online at CRgov.com/Water. If you have questions about the plan, please feel free to contact us at 720-733-6000 or CRgov.com/water.

Sincerely,
Castle Rock Water Utilities Department Team



Water Works Pumping Station -
early 1900s



Team Signature Page

As a part of the Team that developed this Strategic Plan, we are committed to successfully implementing **OUR STRATEGIC PLAN.**

Sandra	Aguilar	_____
Dale	Anderson	_____
Debbie	Anderson	_____
Monty	Anderson	_____
Evan	Bahn	_____
Clayton	Baker	_____
Matthew	Benak	_____
John	Bernal	_____
Scott	Berndt	_____
Ralph	Bullock	_____
Nichol	Bussey	_____
John	Chrestensen	_____
Rob	Chrestensen	_____
Calvin	Cooke	_____
Kurtis	Cotten	_____
Erik	Dam	_____
Chris	Damrow	_____
Matt	Daniels	_____
Debbi	Davenport	_____
Loran	DeLong	_____
Casey	Devol	_____
Andrew	Dieter	_____
Kevin	Elliott	_____
John	Ferguson	_____

Marcia	Fletcher	
Tim	Friday	
Laura	Giezen	
Anne	Glassman	
John	Grahn	
Shawn	Griffith	
Cassie	Grotheer	
Kim	Guite'	
Josh	Hansen	
Matt	Hayes	
Thomas	Hecker	
Tom	Hernandez	
Barbara	Horton	
Nikki	Hoyt	
Alexander	Janos	
Kris	Julseth	
Heather	Justus	
Dwight	Keller	
Tim	Lambert	
Denise	Lannan	
Brian	Laschanzky	
Eric	Layton	
Colton	Maloney	
Mark	Marlowe	
David	Montgomery	
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Daniel	Nickerson	
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Melinda	Pastore	
Richard	Platt	
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Wade	Reeves	
Carolyn	Richards	
Kenneth	Ritchie	
Adan	Rivas	
Isaiah	Rose	
Dominic	Roybal	
Jessup	Schield	
Rick	Schultz	
Walter	Schwarz	
Sheri	Scott	
Ruth	Stadler	
Jon	Stapp	
Jeanne	Stevens	
Casey	Stevenson	
Jennifer	Thompson	
Dawn	Tiffany	
Kenneth	Timm	
Vickie	Tracy	
David	Van Dellen	
Thomas	Vogt	
John	Whitesel	
Mike	Wilder	
Cory	Williamson	

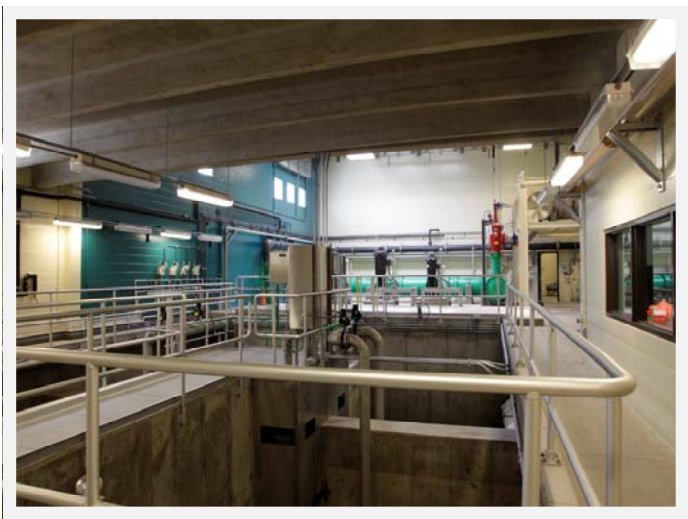
Introduction: A National leader

From its inception more than a century ago, the Town and its residents have recognized the need for a sustainable water supply. Due to limited rainfall and expensive requirements for treating surface water, the Town has been until recently almost fully reliant on non-renewable groundwater. That's why residents and the Utilities Department have been conservation-minded and focused on future innovation. Ongoing strategic planning and innovative approaches to issues over the last 10 years have helped us become a leader in many areas of the water business. The vision, of course, is to become a **national leader** among water utilities.



The membrane filters pictured above are the heart of our new Plum Creek Water Purification Facility.

Over the last decade, the Castle Rock Water Utilities Department has almost doubled in size and now embodies more than 18,900 customer connections and more than \$500 million worth of infrastructure assets to be managed, operated, optimized, and maintained. In this same timeframe, the Town of Castle Rock has grown from a Town of 8,800 to 53,000 plus. During the last decade, water resources have become more valuable and harder to secure in Colorado. All aspects of the water business have become more heavily regulated and increasingly technical in nature. The challenges for water utilities have grown exponentially. Integrated or “total” water management meaning the management of water, wastewater, and stormwater as a single resource has become the expectation. This natural progression makes sense as these resources are connected. The Utilities Department faces significant challenges in this increasingly complex environment. We must maintain existing supplies and secure additional long term sustainable water supplies.



Green sand filters allow our new plant to treat a range of varying raw water supplies.

The department's strategic planning process was developed as a leadership tool to help our team become oriented in the same direction ensuring that everyone's individual efforts will move us forward as a team in a mode of continuous improvement. This Strategic Plan is the culmination of approximately a year's worth of planning and innovative thought by the Team, as well as annual updates to that culture of innovation. The goal, which has been achieved successfully, was to take the previous strategic planning efforts and build on them to design a plan that will help us focus our energies for the next five years. The plan's development process engaged the entire team ensuring input from the various divisions and also pulled from the best planning documents and approaches used in the water industry.

The Utilities Department reviewed strategic plans from top ranked utilities across the nation as well as industry leading approaches to strategic planning including *The Ten Attributes of Effectively Managed Water Sector Utilities*, a comprehensive document developed as a part of the Effective Utility Management (EUM) Initiative through the American Water Works Association (AWWA). Sources for benchmarking our performance were also identified, including the 2011 Benchmarking Report prepared by the AWWA. As part of our annual updates to this Plan, we participated in the 2013 Benchmarking Report and used that to inform updates to our strategic planning.

The team set many important goals initially, including:

- ◆ Meet the needs of our community (account for our political, social, financial and physical environment), and our team (uniquely ours, match our culture).
- ◆ Marry this plan with the Town's strategic plan.
- ◆ Should take into account our specific needs.
- ◆ Recognize national trends in our business and utilize current best practices.
- ◆ Incorporate the Vision and Mission of the Utilities Department and Town Values.
- ◆ Ensure consistency with our master planning.

The starting point for the strategic planning process was to revisit the communities' priorities in the Community Vision 2020 document and the Town's Strategic Plan dated 2010 and updated in the 3-year balanced financial plan in 2013. These priorities were incorporated into the utilities strategic planning process.



Rueter-Hess Reservoir - A Legacy Project and a key component of Castle Rock Water's long-term water supply.

The plan was developed in stages with six strategies developed first followed by the supporting goals and objectives. Input was then sought from the entire staff to see if the strategies and supporting goals and objectives were on target. This input was obtained through focused team meetings in each division, discussion of the draft plan at staff meetings, and emails to staff with the plan attached and direction on providing input. Staff input was provided and the strategies and supporting goals and objectives were modified taking into consideration the input received. Once the strategies and supporting goals and objectives were established based on staff input, the final draft of these was taken to the Utilities Commission for input and review in September 2013. These strategies, goals and objectives were then provided to Town Council in November 2013. Annual input has been obtained from Commission and Council each year since.

Once the strategies, goals and objectives had been finalized, a tactics and implementation plan was created to further define meeting the goals and objectives for each strategy as well as provide for a method for measuring success. Over 130 SMART (Specific, Measurable, Attainable, Realistic and Timely)

tactics were identified by the team to this end. Key Performance Indicators (KPIs) are associated with many of these tactics and accomplishment of tactics and tracking of KPIs have been and will continue to be used to report progress on this plan at least annually to the Utilities Team, Town Council, the Community and our other internal and external stakeholders.

A final draft document incorporating input from staff, Utilities Commission and Town Council was then prepared. This document was once again reviewed with staff through a series of team meetings. After considering final comments, a final document was prepared and taken back to the Utilities Commission in January 2014 and Town Council in March 2014 for approval and adoption. The end result - this is our Strategic Plan. Again, this Plan has been updated each year since adoption.

This plan looks out over a five year period consistent with our other more detailed planning process horizons and accounts for the various Utilities Department master planning efforts. We are entering the third year of the Plan. One of the primary functions of this strategic plan is to tie together enterprise based master plans and documents, the Community Vision documents, and the Town strategic and financial plans to allow clear focus on the overall priorities of the Utilities Department given the goals and objectives within each enterprise and the other critical strategic concerns of the utility. This Strategic Plan is a living document and has been and will continue to be updated as master plans are updated, the Community Vision 2030 document is rolled out, and the Town's overall strategic and financial plans are updated.



These features are examples of the leadership Castle Rock has shown in efficient use of water and water conservation. Pictures show Xeriscaping at the Ray Waterman Regional Water Treatment Center, medians in The Woodlands, and Festival Park (left to right.)

Our Vision, Mission and Values

The Town, the Utilities Department and its residents have recognized the need for a sustainable water supply. The Vision and Mission were developed several years ago and incorporated this basic concept along with a focus on the customer, our product, public health and overall sustainability. As the Town continues to grow and change, this plan provides a roadmap to help the Utilities Team continue to fulfill the Vision and Mission utilizing our Town Values.

Our Vision

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

Our Mission

We provide our community with exceptional service that protects public health and balances social, environmental and fiscal responsibilities in a sustainable manner.

Our Values

Clear, direct, honest communication is the essential vehicle by which the following values are demonstrated:

- ◆ We are accountable for behaviors, work products, successes, and failures.
- ◆ We are committed to integrity, honesty, and the highest standard of conduct and professionalism.
- ◆ We are adaptable and open to change.
- ◆ We work as a team toward common goals with a spirit of cooperation.
- ◆ We respect others. We listen to ideas and are considerate of time and priorities.
- ◆ We encourage creativity and innovation.
- ◆ We recognize and celebrate accomplishments.
- ◆ We support balance between our professional and personal lives.
- ◆ We practice responsible care for our resources, assets, and environment.
- ◆ We provide exceptional public service to internal and external customers.



Strategy 1: Ensure long-term water

Build a sustainable and reliable water supply by securing new and diverse renewable water supplies; responsibly managing the Town's existing groundwater supplies; and protecting watersheds in the Town.

The first strategy identified by the team is a common theme in all of the strategic and community documents for the Town of Castle Rock. In simple form, this strategy is to ensure long-term water. The Water Resources Strategic Master Plan focuses on key aspects of this strategy including renewable water supply. This strategic plan provides additional goals and objectives coming from all divisions within the Utilities Department which support the overall strategy of ensuring long-term water including the development of a long term renewable water supply as outlined in the Water Resources Strategic Master Plan. A number of the attributes identified through the Effective Utility Management initiative are also covered under this strategy including water resource adequacy, operational resiliency, infrastructure stability and community sustainability. Goals and objectives for Strategy 1 are:

Goal #1: Secure adequate water supplies at a cost and in a manner that spreads the costs evenly through 2050.

Objectives:

- ◆ Acquire renewable surface water comprising 75% of supply by 2050.
- ◆ Minimize the cost of the water supply by forging partnerships.
- ◆ Minimize unaccounted and non-revenue water to reduce the total amount of imported water.
- ◆ Reassess the Town Municipal Code related to water supply.
- ◆ Maintain a current water demand and water supply forecast model.
- ◆ Maximize the use of water rights including stormwater and reclaimed water.



East Plum Creek is a key source of renewable water for our community

Goal #2: Fully utilize existing groundwater infrastructure to maintain long-term water security.

Objectives:

- ◆ Develop a Groundwater Optimization and Sustainability Program.
- ◆ Implement Aquifer Storage and Recovery Program.

Goal #3: Increase conservation and reduce seasonal peak demands in the community.

Objectives:

- ◆ Update the Water Conservation Master Plan.
- ◆ Decrease peak demand to average demand ratio to decrease long-term water cost of additional water supply.
- ◆ Protect our groundwater supply by implementing guidelines and regulations, or an aquifer protection plan.

Goal #4: Develop plans and preparations for dealing with future droughts.

Objectives:

- ◆ Develop a Drought Mitigation Plan.
- ◆ Diversify water supply where possible.
- ◆ Develop a detailed Conjunctive Use Plan.

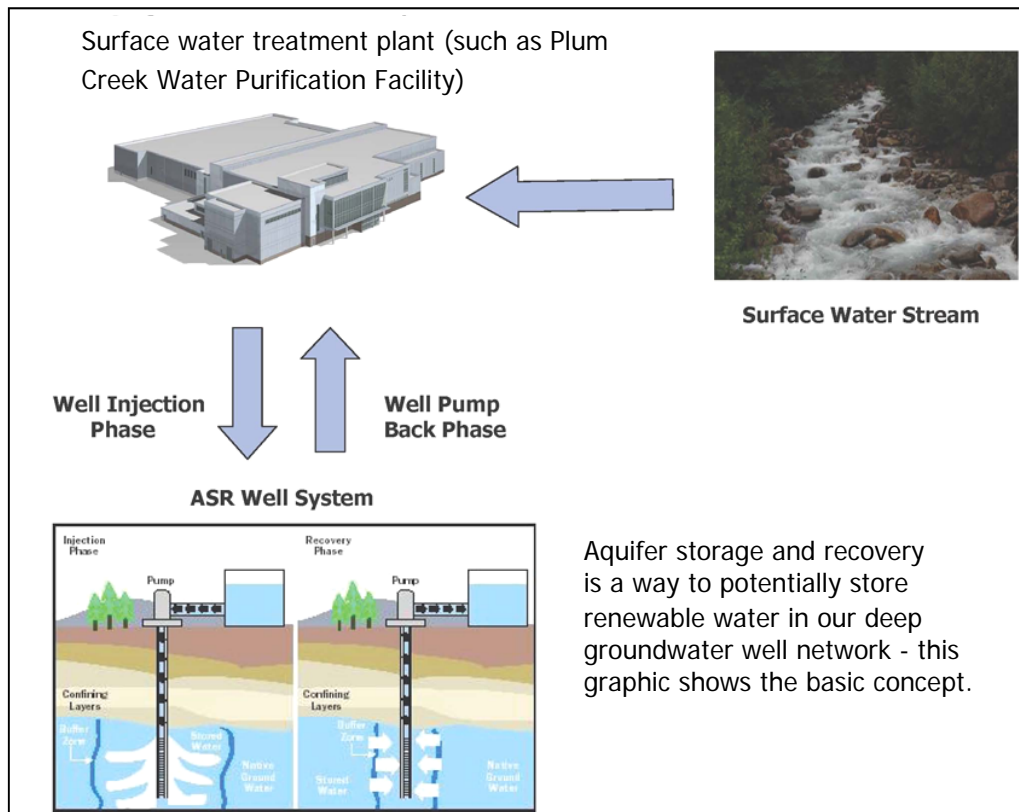
Goal #5: Protect the watershed and shallow alluvial aquifers from whence our supply comes.

Objectives:

- ◆ Further refine Stormwater Program Plan to ensure proper funding for all necessary stormwater improvements.
- ◆ Engage in regional water quality groups and efforts.
- ◆ Comply with all state and federal NPDES Phase II MS4 Permit requirements.



Castle Rock Water maintains an extensive network of deep groundwater wells. This picture shows the drilling of one such well.



Aquifer storage and recovery is a way to potentially store renewable water in our deep groundwater well network - this graphic shows the basic concept.

Strategy 2: Utilize Town values to fulfill Utilities Vision and Mission
Grow our culture where every employee contributes daily to fulfilling our Vision and Mission while modeling Town values.

Any organization is only as good as its people. The water industry is no exception. The provision of these services requires high performing professionals in a competitive environment. These professionals must be able to deal with complex technical operations and maintenance requirements, detailed and difficult regulatory issues, and daunting long term planning and financial management challenges. With a staff of more than 84 highly trained professionals, the Castle Rock Water Utilities Department must focus on the performance and support of this team. Strategy 2 is designed to provide this focus. The Town is a value-based organization, and the Department has incorporated the active use of these values in every aspect of our strategic planning and operations, and the leadership and growth of the team. Shining this light on the health of our organization will help the team to fulfill our Vision and Mission. Major items covered in this strategy include staffing levels, communications, employee performance and retention, succession planning and accountability, and more. This strategy also incorporates key attributes from the Effective Utility Management Initiative including employee leadership and development, customer satisfaction, and stakeholder understanding and support. Goals and objectives for Strategy 2 are:



Our team loves their work, and it is this kind of attitude we seek in our team members.

Goal #1: Communicate in a clear, direct and honest manner, internally and externally.

Objectives:

- ◆ Evaluate, refine and improve, on a continuous basis, current methods for communication with internal and external customers.
- ◆ Provide timely communications to external and internal customers.
- ◆ Focus and train team members on effective communication and communication techniques.
- ◆ Develop tools to measure the effectiveness of our communications.
- ◆ Ensure that each employee feels like a valued member of the team.

Goal #2: Live Town values to ensure a healthy organization that will drive high performance

Objectives:

- ◆ Complete our goals with a sense of urgency appropriate for the importance of our work, and hold each other accountable for results.
- ◆ Work as a team with other Town departments to ensure that the overall community vision and Town strategic plans are achieved.



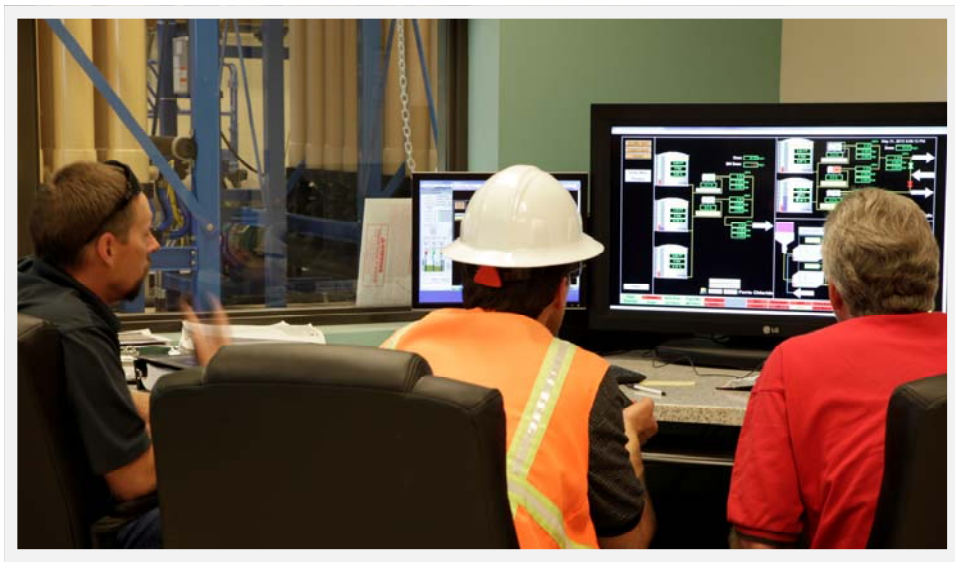
The team, working at night, to fix a leak.

- ◆ Develop a team culture where every member contributes to the provision of exceptional service and protects public health.
- ◆ Train and educate team members on the connection between Town values and a healthy, high performance organization.
- ◆ Promote Town values through our interactions with internal and external customers and stakeholders.

Goal #3: *Invest in our employees, and recruit and retain competent, talented employees who are motivated, adaptive and safe working.*

Objectives:

- ◆ Work with the Town to ensure we have appropriate compensation and benefits in place to be competitive in the utilities industry.
- ◆ Provide opportunities for team members to gain certifications, attend training, and further their education.
- ◆ Refine and implement a comprehensive health and safety program that minimizes risks to team members.
- ◆ Ensure that we challenge employees to achieve more than would normally be expected.

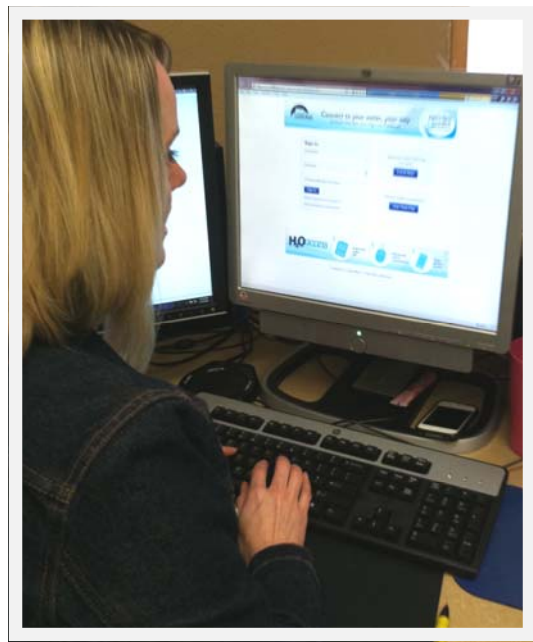


Castle Rock Water Utilities team utilize our high tech monitoring system to optimize operations at our newest water plant.

Strategy 3: Enhance customer satisfaction

In collaboration with our customers, seek and apply innovative approaches to provide exceptional customer service.

This strategy was developed in a manner consistent with the philosophy at the Utilities Department that all staff are in the customer service business and must participate in the continuous improvement of that service. This customer centric approach has been in place for many years at the Utilities Department. This strategic plan identifies goals and objectives to continue this focus and fulfill the Vision and Mission for the department by continuing to improve service to our customers. This strategy covers objectives ranging from analysis of appropriate levels of service to improved communications, and utilization of technology to make us more efficient and more customer-oriented. Effective Utility Management Initiative attributes covered in this strategy encompass customer satisfaction, community sustainability and stakeholder understanding and support at a minimum. Goals and objectives for Strategy 3 are:



H2Oaccess - Our new technology-based billing system.

Goal #1: Understand stakeholder needs, perceptions and expectations.

Objectives:

- ◆ Define our current level of service; identify appropriate level of service; and implement that level of service.
- ◆ Ensure that our rates and fees, given local constraints, are comparable with surrounding utility providers.
- ◆ Evaluate and utilize Town efforts in community engagement and visioning to better define customer needs, perceptions and expectations.

Goal #2: In collaboration with our customers, seek and apply innovative approaches to provide exceptional customer service.

Objectives:

- ◆ Integrate technology to provide multiple customer interface options.
- ◆ Utilize technology to streamline and optimize staffing and business processes.

Goal #3: Communicate the value of products and services provided to our customers.

Objectives:

- ◆ Develop and implement a comprehensive communication strategy.
- ◆ Maintain consistent message with regional and state-wide communication efforts.
- ◆ Partner with others to broaden our outreach effort.
- ◆ Track and leverage industry specific messaging regarding the value of water.



H2Oaccess means you can connect to your water, your way.

Strategy 4: Maintain financial sustainability

Implement viable financial programs that support community goals and initiatives.

Utilities are inherently infrastructure intensive entities. A well run utility operation requires significant initial investments in pipes, tanks, plants, and other infrastructure and the continuing re-investment in existing infrastructure. Significant financial resources are required to accomplish this basic mission. As such, a focus on maintaining the financial sustainability of the utilities infrastructure through optimum management of the four associated enterprise funds is critical to the success of the community and the utility. The funds for the proper financial management of the utility come from the customers of Utilities Department. This strategy provides the necessary focus on the financial management of the utilities' assets and infrastructure for the long-term benefit of the utilities' customers. Many of the attributes promoted in the Effective Utility Management initiative are part of this strategy including, of course, financial viability. Goals and objectives for Strategy 4 are:



Our Meters Services team performs one of the most important aspects of the utility operation - metering and tracking every drop of water.

Goal #1: Maintain sustainable rates and fees.

Objectives:

- ◆ Operate on a cost-of-service basis, effectively managing expenditures and revenues.
- ◆ Evaluate business processes and practices to leverage efficiencies.
- ◆ Ensure coordination and collaboration of enterprise fund management with overall Town financial goals.

Goal #2: Demonstrate fiscal accountability and transparency.

Objectives:

- ◆ Meet or exceed industry financial standards.
- ◆ Maintain effective customer account management processes and procedures.
- ◆ Evaluate and manage contracts, agreements and commitments to ensure the best value for our customers.
- ◆ Develop financial policies to optimize capital project financing, investments and overall money management.
- ◆ Communicate the financial status of each utility enterprise fund to stakeholders.



Caste Rock Water uses the latest in meter technology - the iPerl (shown above.)

Strategy 5: Optimize infrastructure performance

Embrace innovation and creativity, identify and demonstrate best management practices for all utilities' assets.

The Utilities Department is responsible for operating more than \$500 million worth of infrastructure. In order to meet our Vision and Mission, we must continually evaluate the operation of this infrastructure and work to optimize its performance both on a daily basis and over the long term. Much of the infrastructure being managed has been designed to last for decades. Optimizing the operation of the infrastructure today including proactive maintenance, will ensure that it continues to operate for its full designed life and beyond. This cost entails a broad range of goals and objectives designed ultimately to increase the efficiency of the Utilities operations and extend the life of the assets being managed by the utility for the benefit of the customers being served by this infrastructure. Product quality, operational resiliency, operational optimization, and infrastructure stability are important Effective Utility Management initiative attributes addressed in this strategy. Goals and objectives for Strategy 5 are:

Goal #1: Examine and implement cost-effective and sustainable performance improvements.

Objectives:

- ◆ Develop an Energy Management Plan to target and ensure efficient operation of high consumption assets.
- ◆ Develop facility-specific operating plans that balance water resources, operational efficiency and preventive maintenance perspectives.
- ◆ Provide adequate operations and maintenance facilities to allow for staff development, equipment maintenance and forecasted growth.



Goal #2: Maintain and enhance infrastructure stability to optimize life-cycle costs.

Objectives:

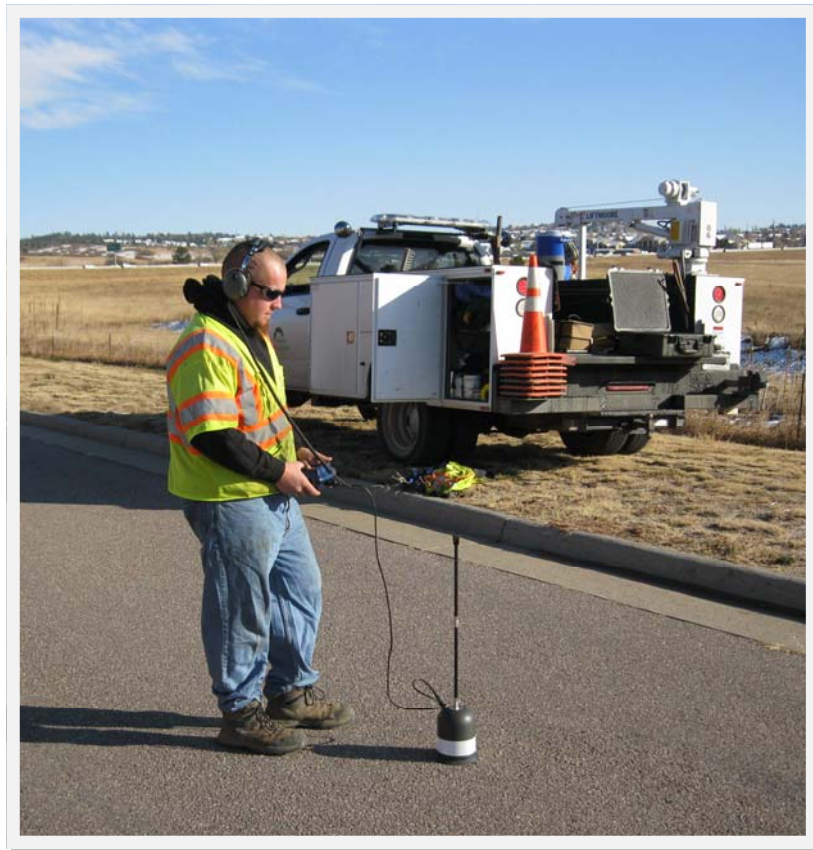
- ◆ Perform periodic review and update O&M specific plans and programs.
- ◆ Develop an Asset Management Program, complete with asset condition assessments and recommended replacement schedules.
- ◆ Develop and implement a Preventive Maintenance Program.

Inside of a water tank after completing construction. In Castle Rock, water tanks provide 36 million gallons of stored water to balance daily demands and deal with potential emergency needs.

Goal #3: *Launch operational resiliency initiatives to enhance emergency response.*

Objectives:

- ◆ Implement mobile technology and wireless access for field employees to reduce customer response time.
- ◆ Enhance the Emergency Response Plan (ERP) as influenced by periodic reviews of the Vulnerability Assessment (VA).
- ◆ Embrace opportunities for cross-training initiatives to ensure appropriate job function redundancy exists.



Special listening equipment helps us find leaks before they surface.

Strategy 6: Demonstrate industry leadership

Demonstrate industry leadership through continuous improvement, investing in our infrastructure, and delivering the highest quality water.

One of the best ways to improve is to compete with others in your industry. The Utilities Department desires to be a leader within the industry. This leadership will ensure that the best management practices are incorporated into its operations every day. It will focus the department on benchmarking against other utilities and incentivize the department to adopt new and leading edge ways of doing business and providing service. This kind of leadership will benefit the customers and the community by ensuring that the Utilities Department provides the best possible service, highest level of public health, most innovative and robust infrastructure, and competitive pricing for all of it. This strategy touches on all of the attributes identified in the Effective Utility Management initiative. Goals and objectives for Strategy 6 are:

Goal #1: Strive for continuous improvement throughout the organization.

Objectives:

- ◆ Set team performance goals and benchmarking standards across department divisions.
- ◆ Conduct organizational health assessments/industry peer reviews periodically.
- ◆ Implement appropriate changes to keep pace with industry direction aligned with customer and stakeholder expectations.
- ◆ Strive to create an integrated and well-coordinated senior leadership team.

Goal #2: Deliver a high-quality product and service to our community.

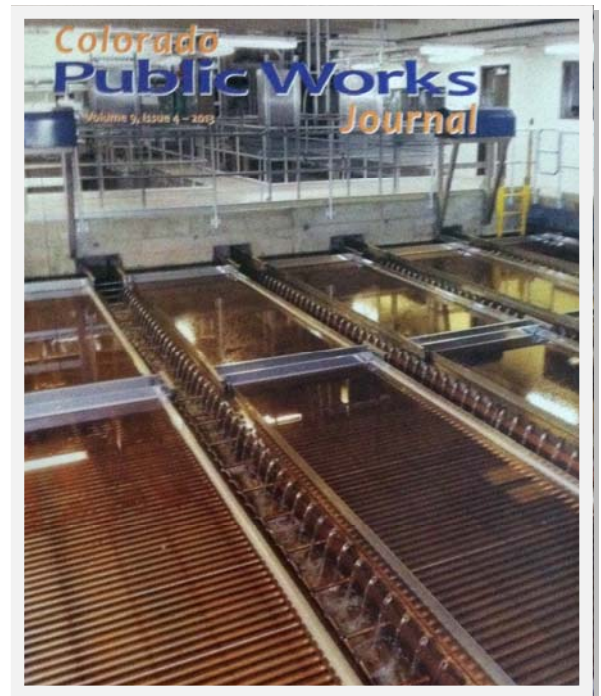
Objectives:

- ◆ Ensure compliance with Safe Drinking Water Act and exceed National Primary Drinking Water Standards.
- ◆ Comply with all state and federal Stormwater permit requirements.
- ◆ Implement wastewater collection system Best Management Practices including federal Capacity, Management, Operations and Maintenance guidelines (CMOM).
- ◆ Support Plum Creek Water Reclamation Authority in meeting all treatment requirements.

Goal #3: Be a forward-thinking organization and a recognized leader among our water utility peers.

Objectives:

- ◆ Benchmark our performance against industry standards and comparable public water utilities.
- ◆ Be recognized by other utilities for high performance, targeting levels of service that exceed industry standards relevant to local conditions.
- ◆ Apply new technologies and innovative programs to advance the utility.
- ◆ Keep criteria manuals/standard details up to date.



The Colorado Public Works Journal devoted an entire issue to the industry leadership displayed by the Castle Rock Water Utilities Department through the innovative concepts in its new water plant.

Strategies, Goals and Objectives

For the Castle Rock Water Utilities, the strategic planning process is continuous and ongoing. This is part of the core culture of the team and will allow us to refine strategies going forward making sure everyone stays focused on the goals and objectives that will help us achieve and continue to achieve our Vision and Mission. Six primary strategies were developed by the team in response to the biggest issues deemed to be currently facing the department.

The selected strategies encompass aspects from the Ten Attributes of Effectively Managed Water Sector Utilities that have come from American Water Works Association initiatives. The attributes identified in this Initiative are called the Effective Utility Management (EUM) initiative. The attributes identified in this initiative have served as guiding tools for the department over the last several years.

These attributes include:

Product Quality
Operational Optimization
Financial Viability
Operational Resiliency
Water Resource Adequacy

Customer Satisfaction
Employee and Leadership Development
Community Sustainability
Infrastructure Stability
Stakeholder Understanding and Support

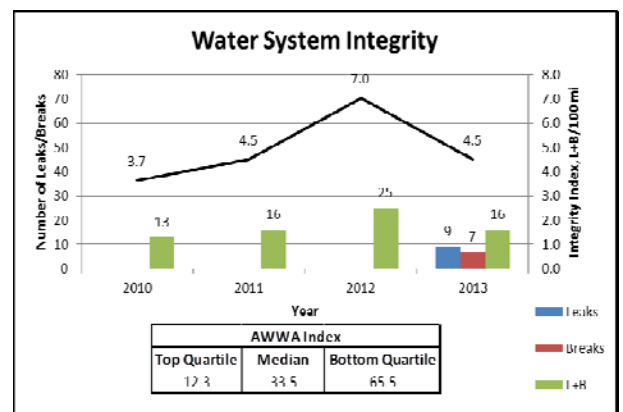
Incorporating these attributes, each strategy is summarized in a short action oriented phrase for easy recollection by the team as follows:

- Strategy 1: Ensure long-term water availability
- Strategy 2: Utilize Town values to fulfill Utilities Vision and Mission
- Strategy 3: Enhance customer satisfaction
- Strategy 4: Maintain financial sustainability
- Strategy 5: Optimize infrastructure performance
- Strategy 6: Demonstrate industry leadership

An extended and more detailed version of each strategy follows later in this document. Major goals supporting each strategy were then identified with a set of more specific objectives under each goal. The complex and high level aspects of each strategy required the breaking down of each strategy into more defined sets of goals and objectives. This allowed the team to develop tactics and key performance indicators (KPIs) on the front line for use in measuring success and progress against the goals and objectives outlined under each strategy.



Castle Rock Water appreciates the community devotion to our annual Spring Up the Creek clean-up event.



The key performance indicator of water system integrity is shown above and measures the number of leaks and line breaks we experience relative to other utilities nationally.

Defining and Ensuring Success: The Tactics and Implementation Plan

In order to be successful in any strategic planning process, there must be a way to track progress and measure success at the staff level. The Utilities Department team spent extensive time developing an implementation plan to ensure the success of our strategic plan. This implementation plan will allow team members at all levels to track and see progress with respect to the overall strategic plan. Like the strategic plan, the implementation plan will be a living document. Tactics will be added, tracked, adjusted, and changed as appropriate within the implementation plan.



Developing an asset management program is a key tactic.

In the original implementation plan, the team identified Specific, Measurable, Attainable, Realistic and Timely (SMART) tactics that support the strategies, goals and objectives. The department's staff identified more than 130 important tactics to support the strategies, goals and objectives. As noted above, due to the sheer number of tactics and the fact that some of them may change over time as implementation proceeds, the full list of tactics has not been included in this document.

The identified tactics were prioritized by the team under each strategy. The team then created a roadmap identifying the timing of each tactic, selected a champion for each tactic, and where appropriate, identified key performance indicators (KPIs), and defined successes. The measures of success, including the KPIs, will allow staff to determine progress on a regular basis and will also allow staff to report back to the Council and the community on progress as has been done the last two years. Many of the KPIs that will be used in the Tactics and Implementation Plan are standard KPIs that will allow us to benchmark our progress against other similar utilities, both on a national basis as well as a regional basis.

One of the primary sources for KPIs is the *Benchmarking Performance Indicators for Water and Wastewater Utilities: Survey Data and Analyses Report*, published by the American Water Works Association. The American Water Works Association has been the lead entity and key source for this data in the water business producing the first survey in 2005. The results of the surveys are available each year with 2013 being the most recent. Each year, survey data is collected from more than 100 leading water and wastewater utilities across the country. There is no charge for participation in the survey, and participants receive a free benchmarking report. As such, the department will continue to participate in this survey annually going forward. Other benchmarking data will be incorporated into KPIs that go beyond those defined by the American Water Works Association. For example for safety, data from the Occupational Safety and Health Administration (OSHA) will be used.

Implementation of the various tactics began in 2014 with completion of many of the tactics. The Tactics and Implementation Plan has been updated for 2016. Progress on the Tactics and Implementation Plan will continue to be reviewed with staff on a monthly basis at staff meetings, team meetings, and in various other venues. Key tactics identified for 2016 are as follows:

Tactic #	Tactic Summary	KPIs	Success	Timing / Roadmap	2016 Priority	Champion
1-1-1	Have infrastructure in place by 2017 to import 1,000 acre-feet of WISE water to the Town customers.	N/A	Infrastructure in place	End of 2017	High	Water Resources Manager
1-1-13	Evaluate additional raw water supply options for Rueter-Hess Reservoir	N/A	Evaluation complete	End of 2016	High	Assistant Director
1-1-14	Maximize and track the use of reuse water.	Percent (%) reuse water used	Tracking system in place	2016, annually	High	Water Resources Manager
1-4-1	Development of Drought Mitigation Plan	N/A	Plan complete	End of 2016	High	Water Resources Manager
1-5-5	Review stormwater rates and fees with respect to long term capital project needs and operation, maintenance and compliance programs	N/A	Review complete	End of 2017	High	Stormwater Manager
2-1-13	Communication training for 100% of our team on an annual basis	Percent (%) of staff trained	100% staff trained	2016, annually	High	Director



Utilities maintains an entire website devoted to water conservation. Stay tuned for improvements as we revise our Water Conservation Master Plan in the coming year.

Tactic #	Tactic Summary	KPIs	Success	Timing / Roadmap	2016 Priority	Champion
3-2-8	Pilot test customer-driven advanced metering infrastructure solution	# of pilot systems in place	Pilot test under-way	End of 2016	High	Director
4-2-12	Review Certificates of Participation for new management strategy and implement changes as appropriate.	N/A	Review complete and recommendations implemented	End of 2016	High	Business Solutions Manager
4-2-13	Evaluate interfund loans and use of Meadows Reserve for water resources program to minimize rates and fees impacts.	N/A	Evaluation complete and recommendations implemented in rates and fees study	End of 2016	High	Business Solutions Manager
5-1-9	Move planning / design forward for next Plum Creek Water Reclamation Authority (PCWRA) expansion.	N/A	Preliminary plan and costs identified	End of 2016	High	Engineering Manager
5-2-3	Asset identification and overall condition ratings	N/A	Complete identification and ratings on schedule	End of 2017	High	Asset Program Manager
5-2-6	Evaluate and update procedures for identifying capital rehabilitation and replacements.	N/A	Evaluation complete and procedure updated	End of 2016	High	Engineering Manager
5-3-4	Preparation of an update to our Emergency Response Plan	N/A	Plan complete	End of 2016	High	Operations Program Analyst



Staying ahead of infrastructure needs, like a new tank, helps us maintain appropriate levels of service.

Tactic #	Tactic Summary	KPIs	Success	Timing / Roadmap	2015 Priority	Champion
6-2-2	Top level performance on 2016 Sanitary Survey	N/A	Top level performance on Survey	End of 2016	High	Operations Manager
6-3-8	Update Master Plans for water, wastewater, stormwater and water resources	N/A	Plans updated	End of 2016	High	Water Resources, Engineering and Stormwater Managers
6-3-10	Participate in State of Colorado Pursuing Excellence Program	N/A	Award received for program participation	End of 2016	High	Operations Manager
6-3-11	Achieve Gold status in Colorado Environmental Leadership Program	N/A	Achieved Gold status in Colorado Environmental Leadership Program	End of 2017	High	Regulatory & Water Quality Compliance Analyst



The Ray Waterman Regional Water Treatment Center is a key asset for the community.

Reporting and Updates

The first update to the Plan was presented to Council in May 2015, and the second in April 2016. Key tactics for 2014 and 2015, and the status of these tactics are shown in the following tables.

Tactic #	Tactic Summary	KPIs	Success	Timing / Roadmap	2014 Priority	Champion	Status
1-1-7	Revise / update Water Dedication Code	N/A	Municipal Code Revised	Year End 2014	High	Water Resources Manager	Complete
1-1-11	Track and reduce non-revenue water	Percent water loss	Above median	Year End 2014 Annual	High	Engineering Manager	Complete
1-1-12	Maximize/track use of renewable water	Percent renewable water	Fully utilize available renewable sources and water rights	Year End 2014 Annual	High	Water Resources Manager	Complete, ongoing
1-2-3	Complete Phase II Aquifer Storage and Recovery (ASR) Pilot Study.	Schedule / Budget	Design / Construction complete on schedule / budget	Year End 2014	High	Engineering Manager	Complete, ongoing
1-3-10	Revise Water Conservation Master Plan	Schedule/ Budget	Water conservation plan revise on schedule / budget	Year End 2014	High	Water Resources Manager	Complete
2-1-5	Develop / implement SOP for review regulatory submissions	Schedule	SOP completed / implemented	Year End 2014, ongoing	High	Assistant Director	Complete
2-3-9	Evaluate / Adjust staffing levels	AWWA & Schedule	Evaluation completed	Year End 2014, annual	High	Director	Complete, ongoing
3-1-1	Identify stakeholders, perform survey, prepare action plan, implement action plan and conduct follow-up survey	N/A	Customer Satisfaction Scorecard	Year end 2015	High	Business Solutions Divisions/All Divisions	Ongoing
3-2-3	Paperless statement (ebill)	# and % of customers adopting paperless billing	Reduced printing and postage costs, increased customer satisfaction	Ongoing	High	Business Solutions Divisions	Ongoing

Tactic #	Tactic Summary	KPIs	Success	Timing / Roadmap	2014 Priority	Champion	Status
3-2-7	AMI/AMR	N/A	Reduce read time, reduce infield leak detections performed by staff, increased customer satisfaction	Develop phase of roll-out plan by year end 2014	Medium	Business Solutions Division	Complete
4-1-1	Review / update special charges	Schedule	Complete annually	Year End 2014, annual	High	Customer Relations Manager	Complete, ongoing
4-2-10	Review / update contingency funds	Schedule	Complete on schedule	Year End 2014	High	Business Solutions Manager	Complete, ongoing
5-1-1	Develop / implement Energy Management Plan	AWWA & schedule / budget	Complete plan on schedule / budget	Year End 2014, ongoing	High	O&M Manager	Complete, ongoing
5-2-3	Asset Identification and Overall Condition Ratings	Schedule	Complete on schedule	4Q 2014	High	O&M Manager	Ongoing Planned Year End 2017
6-1-1	Establish Key Performance Indicators (KPIs) for Department that include all divisions	Schedule	Complete on schedule	Year End 2014, ongoing	High	Assistant Utilities Director	Complete
6-1-2	Participate AWWA benchmarking study	Schedule	Complete on schedule	Year End 2014, ongoing	High	Assistant Utilities Director	Complete, ongoing

The KPIs developed as part of the initial Tactics and Implementation Plan have now been tracked for two years. The KPIs and current status of each are shown on next page:

Castle Rock Water AWWA KPI Dashboard									
↑ Performance Improving	● Top Quartile AWWA								
↓ Performance Declining	● Median Quartile AWWA								
↔ Performance Staying about the same	● Bottom Quartile AWWA								

	Units	2013	Frequency	Prior KPI 2014	Current KPI 2015	Quartile	Progress	Comments
Organizational Development								
1. Customer Accounts per Employee	Accounts	533	A	533	458	●	↓	
2. Employee Turnover Rate	Employees / Year	9%	A	12%	19%	●	↓	
3. Training Hours per Employee	Hours	11	A	31	30	●	↓	
OSHA Safety Indicators								
4. OSHA Incident Rate	-	8	M	21	10	●	↓	Safety was and continues to be a big focus within our organization
5. Days without a Lost time Injury/Illness	Days	-	M	187	207	●	↓	
6. Total # of Incidents	Incidents	6.00	M	17	13	●	↓	
Business Operations								
7. Debt Ratio	%	20%	A	19%	15%	●	↓	
8. Operating Ratio	%	29%	Q	33%	34%	●	↓	
9. Energy Consumption Efficiency (Water)	kBTU/Year/Gallon	41,105	A	38,938	39,098	●	↓	Water production from deep wells is energy intensive compared to surface water supplies
10. Triple Bottom-Line Index	%	55%	A	70%	60%	●	↓	
Customer Service								
11. Customer Service Complaints - Don't Track	# Complaints/1000 Accts	-	M	-	-	●	Do Not Track Yet	
12. Technical Service Complaints (WQ)	# Complaints/1000 Accts	1.30	M	1.01	1.07	●	↓	
13. Cost of Residential Service (Average Monthly Bill)	\$/mo	\$ 102.29	A	\$ 114.27	\$ 103.17	●	↓	
Water Operations								
14. Compliance Rate	% Day in Compliance	100%	A	100%	100%	●	↔	
15. Operation Cost (\$/MGD)	\$/MGD	\$ 3,818.00	Q	\$ 4,254.86	\$ 4,384.00	●	↓	
16. MGD/Employee	MGD/Employee	0.17	A	0.15	0.14	●	↓	
17. Water Distribution System Integrity	Breaks-Leaks/100 Mile of Pipe	4.22	M	3.08	4.86	●	↓	We continue to remain in the top quartile
Nonrevenue Water								
18. Apparent Water Loss	MG	33	A	32	35	●	↓	Apparent losses are water that is consumed but is not properly measured, accounted or paid for.
19. Real Water Loss	MG	157	A	148	135	●	↓	Real losses are the physical losses of water from the distribution system, including leakage and storage overflows.
Consumption (gpcd)								
20. Total Volume Water Produced / Total Population Served	gpcd	118	A	109	112	●	↓	Per capita demand is still well below original target of 135 gpcd
21. Total Volume Water Metered (Residential Customers)	KG	1,361,862	A	1,337,702	1,429,900	●	↓	Metered water is affected by growth as well as weather
22. Renewable Water Usage Rate (%)	%	9.4%	M	13.2%	16.9%	●	↓	Renewable water production continues to increase
Wastewater Operations								
23. Sewer Overflow Rate	SSO/100 Mile of Pipe	1.2	M	-	0.8	●	↓	Sewer cleaning and inspection program helps keep this number low
Operational Cost (\$/MGD)	\$/MGD	\$ 3,787.93	Q	\$ 3,546.99	\$ 3,358.49	●	↓	Operational cost/MGD continues to decrease
25. MGD Processed / Employee	MGD/Employee	0.11	A	0.14	0.12	●	↓	Wastewater flows decrease with more water conservation/low flow fixtures

Legend: MGD = million gallons per day
kBTU = 1000 British Thermal Units
gpcd = gallons per capita per day
KG = 1000 gallons
WQ = Water Quality

*** KPIs 4-6 and 18-22 are not part of the AWWA Survey and do not have Benchmark standards to measure against.

The Utilities Department will continue to update Town Council at least one time per year on progress regarding this five year strategic plan. In addition, periodic updates will be included in the Monthly Department Report which is distributed to Town Council, the Utilities Commission, the Town Manager, and the department staff each month and made available to the public on the Town's website. Progress on some of the strategies will be provided monthly in the form of the KPIs identified in the various strategies and again provided in the Monthly Department Reports. Further, key programs and tactics will be incorporated into the Major Projects Work Program as appropriate. This Strategic Plan and the Tactics and Implementation Plan will also be updated at least annually in response to new challenges and accomplished tactics from the previous year.

References

The Ten Attributes of Effectively Managed Water Sector Utilities
Qualserve Self-Assessment and Peer Review, July 2006
Columbus Water Works Five Year Strategic Plan FY 2013-2017
Colorado Spring Utilities 2009-2013 Strategic Plan
Denver Water Strategic Plan 2011
Anchorage Water and Wastewater Utility 2008-2009 Strategic Plan
Seattle Public Utilities Strategic Business Plan 2007-2008
Santa Clara Valley Water District Strategic Plan 2010-2015
Portland Water Bureau Strategic Plan 2008-2011
2011 Benchmarking Performance Indicators for Water and Wastewater Utilities: Survey Data and Analysis Report, AWWA, 2013

