



Environmental Health

Offer 6.1: Utilities: Water - Core Operations

2017: \$12,939,691 and 75.24 FTE, 2.90 Hourly FTE

2018: \$13,240,204 and 75.24 FTE, 2.89 Hourly FTE

Offer Summary

Funding this Offer will provide for all Water Fund operations core services, including the management, operations and maintenance of the following services:

Water Resources: manages water resources planning and protects and develops the Utilities' water rights, which are valued at \$1.2 billion. The Division manages the City's raw water supply and plans for future water supply needs for Utilities water customers.

Water Production: operates and maintains the City's source of supply, watershed monitoring, treatment facilities and storage reservoirs to meet water needs of the community while ensuring a reliable water supply for future generations.

Water Quality Lab: provides laboratory services to make decisions and meet regulatory requirements for provision of a safe and aesthetically pleasing treated water supply.

Supervisory Control Systems: manages systems used to control and monitor processes at the Water Treatment Facility.

Water Engineering: provides engineering services including facility design, project management, and engineering consultation for water capital projects.

Water Metering: ensures that customers receive accurate, efficient and reliable metered water service and supports and provides an accountability service-cost recovery method for the Water Utilities.

Water Transmission & Distribution: Inventories, maps, installs, and maintains water mains, valves, taps, hydrants for the City and Utilities customers. Responds to customer calls and implements the backflow prevention program.

The Divisions listed above collaborate to provide adequate, safe, healthy and sustainable drinking water for our community through efficient and innovative approaches to resource management, customer service, and sustainability.



Offer 6.1: Utilities: Water - Core Operations

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information

- The Water Treatment Facility has imposed more stringent in house water quality limitations, raising the bar of excellence. In 2015, 7.85 billion gallons of water were treated with a 100% compliance rate, meeting all state and federal requirements for safe drinking water.
- The Water Quality Laboratory provided analytical services directly support regulatory compliance, water operations, watershed activities and response to customer complaints. The lab generated over \$100K in additional revenue through provision of fee-based laboratory services to regional agencies
- Water Engineering and Field Services maintain 554 miles of water main, more than 12,000 valves and more than 3,600 hydrants, and provides system flushing to help maintain water quality to every customer.

Links to Further Details:

- <http://www.fcgov.com/utilities/>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Monitor the quality of our raw water entering the system, including the Poudre River from the high mountains to the city through the watershed programs, collaboration with Northern Water, the Tri-Districts, City of Greeley, and other entities.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The Water Treatment Facility and Water Quality Lab are ISO 14001 certified for its environmental management system.
The Utility has Directors Level membership in the Partnership for Safe Water for going above and beyond drinking water regulations. The plant has achieved this for 15 years running. The distribution system is the first in Colorado and 12th in the nation to achieve this level.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: The water produced in our treatment facilities is of the highest quality. The distribution/transmission system is maintained and protected so that water can be delivered continuously to our customers with minimal interruption.

Improvements & Efficiencies



Offer 6.1: Utilities: Water - Core Operations

- The majority of maintenance is conducted in house which saves significantly versus outside contractual costs while enabling an attitude of ownership in their work.
- The WTF operates 24/7 to provide effective and efficient water services.
- Created a dedicated water main replacement construction crew to address our asset management needs.

Performance Metrics

- ENV 27. Water quality complaints per 1000 customers
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6346&object=measure&objectID=91492>
- ENV 22. Turbidity of City drinking water
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=91491>
- ENV 32. Annual water demand as percent of firm yield
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=121465>

Personnel Changes

- None

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- We are using 519999 in the Knowledge Transfer BU (327000) as those funds will be used for personnel costs during the year.

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.1: Utilities: Water - Core Operations

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	75.24	75.24	- %
Hourly (FTE)	2.90	2.89	-0.3%
Expenses			
511000 - Salaries & Wages	6,086,551	6,233,984	2.4%
512000 - Benefits	1,936,097	2,005,425	3.6%
519000 - Other Personnel Costs	(954,138)	(959,585)	0.6%
510000 - Personnel Services	7,068,510	7,279,824	3.0%
521000 - Professional & Technical	282,350	291,250	3.2%
522000 - Governmental Services	76,300	80,000	4.8%
529000 - Other Prof & Tech Services	149,500	147,000	-1.7%
520000 - Purchased Prof & Tech Services	508,150	518,250	2.0%
531000 - Utility Services	507,034	507,783	0.1%
532000 - Cleaning Services	31,340	31,340	- %
533000 - Repair & Maintenance Services	2,867,590	2,931,290	2.2%
534000 - Rental Services	10,500	10,500	- %
530000 - Purchased Property Services	3,416,464	3,480,913	1.9%
542000 - Communication Services	21,800	21,800	- %
543000 - Internal Admin Services	7,500	7,500	- %
544000 - Employee Travel	60,100	60,400	0.5%
549000 - Other Purchased Services	70,460	69,460	-1.4%
540000 - Other Purchased Services	159,860	159,160	-0.4%
551000 - Vehicle & Equipment Supplies	244,650	254,050	3.8%
552000 - Land & Building Maint Supplies	174,450	177,250	1.6%
553000 - Infrastructure Maint Supplies	57,500	58,300	1.4%
554000 - Utility Supplies	181,650	181,650	- %
555000 - Office & Related Supplies	47,607	47,757	0.3%
556000 - Health & Safety Supplies	48,200	48,900	1.5%
558000 - Chemical Supplies	833,150	834,850	0.2%
559000 - Other Supplies	199,500	199,300	-0.1%
550000 - Supplies	1,786,707	1,802,057	0.9%
Total Expenses	12,939,691	13,240,204	2.3%



Funding Sources

502-Water Fund: Ongoing Revenue	Ongoing Restricted	12,939,691	13,240,204	2.3%
Funding Source Total		12,939,691	13,240,204	2.3%



Offer 6.3: Utilities: Water - Conservation

2017: \$877,549 and 4.00 FTE, 1.76 Hourly FTE

2018: \$891,974 and 4.00 FTE, 1.76 Hourly FTE

Offer Summary

Funding this Offer will sustain the Utilities' Water Conservation programs that delivered nearly 50 million gallons of savings in 2015. This Offer includes the resources and staffing for high-efficiency consumer product rebates, sprinkler system audits, landscape/irrigation assistance and rebates, home water reports, leak detection outreach, public information and educational programs, low income direct-install programs, new development assistance and more. This Offer also supports conservation opportunities for City residents beyond the Utilities water service area; better collaboration among water providers is a priority for 2017-18.

A new Water Efficiency Plan was approved by City Council and continued conservation efforts are required to meet the new goal of reducing use to 130 gallons per capita per day (GPCD) by the year 2030, which is an 11% reduction from the 2010-15 average of 146 GPCD.

Water savings from conservation programs cost less than a penny per gallon saved. This scales up to about \$700 per acre-foot (AF) saved. For comparison, a new share of Colorado-Big Thompson water conservatively costs about \$25,000; a share only results in about 0.5 AF of water, which means that a full AF of new supply would cost \$50,000. Water Conservation is the most cost-effective water resource and is foundational to environmental health and a sustainable water future. Conservation also supports economic health and social sustainability by lowering utility bills, creating jobs, training and skills in water-related industries, and improving the productivity of homes and businesses. Climate change is coming. If we do not take action water demands will increase from hotter, drier conditions while water availability becomes less reliable. By improving irrigation efficiency and creating water-wise landscapes we can build a more resilient, prepared community. Conservation programs will ease the physical and monetary effects on individuals, businesses, and landscapes.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices

Additional Information

- Water use in 2015 was 141 GPCD for the Utilities' water service area, down over 28% from the 1995-2000 average of 196 GPCD. Water conservation programs engage customers thousands of times throughout the year, with over 3000 people attending a variety of classes and events and about 4500 efficiency projects completed in 2015 alone.



Offer 6.3: Utilities: Water - Conservation

- Water Conservation is not only the most cost-effective water resource but sustained water savings allows Utilities to avoid or delay long-term capital expenses; e.g. sustained conservation means that treatment facilities and other infrastructure don't need to be as large and will cost less; it allowed a downsizing of the Halligan Water Supply Storage project and \$6 million in avoided costs.
- Costs for the major programs: consumer product rebates - \$136K; sprinkler audit program - \$ 60K, xeriscape program \$50K, home water reports - \$162K; education, public information, classes, events - \$80K; low-income program \$25K. The home water reports and the low-income program are provided by consultants and generate water savings that the in-house team would not be able to otherwise support.
- Offer also supports adopted goals within the Energy Policy and the Climate Action Plan. Offer supports strategic outcomes in Environmental Health, Economic Health, Safe Community, and Neighborhood Livability and Social Health. Offer directly supports City and community efforts including those of Parks, Natural Areas, Gardens on Spring Creek, and the neighboring water districts within the City.
- This Offer's success is dependent upon Enhancement Offer 19 for a 1.0 FTE to support outdoor water efficiency and our community's resilience to drought and climate change. This Offer's is also dependent upon Enhancement Offer 20 for a 1.0 FTE to provide commercial programs and an evolution toward improved evaluation, measurement and verification processes.

Links to Further Details:

- <http://www.fcgov.com/water-efficiency-plan>
- <http://voices.nationalgeographic.com/2015/04/20/one-colorado-towns-answer-to-a-catch-22-of-water-conservation/>
- <http://www.fcgov.com/utilities/conserve/>
- <http://www.fcgov.com/utilities/residential/conserve/water-efficiency>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: The Colorado Water Plan states that "Long-term water conservation should be viewed as a long-term investment". Water storage and conservation are complementary long-term strategies to a sustainable water future – water that is not used (conserved) can be stored for other beneficial purposes or for future use.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: On top of the regular occurrence of drought cycles, climate change will likely increase water demands and reduce water supplies. The environmental, economic and social health of the community need a reliable water supply – conservation and efficiency programs help to stretch existing water supplies and build a community that can maintain a high quality of life/industry even in drought years.



Offer 6.3: Utilities: Water - Conservation

- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: Community water literacy is a key area of opportunity identified in the new Water Efficiency Plan and is a key lever of the Colorado Water Plan. Outreach, education and engagement lead to sustained change, which is especially important as newer residents may be unfamiliar with constraints of life in a semi-arid climate. A well-informed community means increased efficiency and less wasted water.

Improvements & Efficiencies

- For the first time, Council recently adopted an updated Water Efficiency Plan, which includes five key areas of opportunity to increase efficiency and a more aggressive conservation goal of lowering community water use to 130 gallons per capita per day by the year 2030.
- A partnership with Platte River Power Authority led to a new Demand Side Management (DSM) software system. This streamlines processes and data management for internal staff, customers, and industry professionals alike. The new software also includes a new completely customized on-site application and report that will replace the tools previously used to conduct the sprinkler audit program.
- Staff is working on improved program evaluation and metrics. This takes several forms, including: improved dashboards, increased research supporting savings calculations and other evaluation, measurement & verification methods such as comparison group assessment.
- Staff is working on improved program evaluation and metrics. This takes several forms, including: improved dashboards, increased research supporting savings calculations and other evaluation, measurement & verification methods such as comparison group assessment.
- Collaboration with Utilities' new Program Management Office resulted in the newly redesigned Xeriscape Incentive Program. The new program already had over 60 customers enrolled for the 2016 season. Staff will spend 2017-18 planning how to expand and adapt for HOA and commercial landscapes.
- Our maturing Continuous Consumption program – a residential outreach service utilizing advanced metering infrastructure and data to let customers know when we suspect a leak – continues to succeed and gain interest from other Utilities. Staff will spend 2017-18 further maturing the program and the scope of service. Over 1000 customers were contacted in 2015.
- A restructuring has brought water and energy conservation together to form one team. This will streamline processes and messaging for customers, and will help Utilities to improve the offerings, like certain rebates/direct-install programs or building efficiency codes, which result in both water and energy savings.



Offer 6.3: Utilities: Water - Conservation

- Staff will work with others in Utilities to perform a system water loss audit utilizing the AWWA M36 Water Audits and Loss Control Program. System losses were 7.5% of total treated water delivered in 2015; any efficiency improvements in this area will result in significant water savings and will demonstrate the City’s commitment to sustainability. We must lead by example.
- Staff built a Certified Landscape Professionals program, which encourages water efficiency certifications. Staff will also work to host a Green Plumber Training, which was promised in the 2015-16 BFO cycle but was not realized. Soon water-related professionals will be a part of the Trade Ally program, where customers can easily find reliable professionals to help with efficiency projects.
- Staff has worked to increased collaboration with other City and community organizations to reduce redundancies and inefficiencies. For example, rather than putting on duplicate workshops/education programs, Utilities is co-sponsoring several education events with the Gardens on Spring Creek.

Performance Metrics

- ENV 102. Residential Annual Water Demand in Gallons Per Capita Per Day
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121092>
- ENV 104. Overall water conservation program effectiveness
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121094>
- ENV 101. Water Conservation Plan annual targets and actual use
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121091>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Offer reflects a 1.6% increase from the 2015 budget, and a 2.6% increase from 2016, reflecting inflation and increased costs. Non-salary costs have not increased. Services and programs have been improved through collaborative, internal and business model efficiencies. Increased salary costs reflect the need for seasonal staff to support the expansion of the sprinkler audit program.
- Funds have been reallocated among programs. In late 2016, all water fixtures (aerators, showerheads, toilets) sold in Colorado will be required to be WaterSense products, as such we will be reducing funding for some rebates (-\$30K). \$10K was allocated to the redesigned water-wise landscape (xeriscape) program and \$20K to the sprinkler audit program.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 6.3: Utilities: Water - Conservation

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.3: Utilities: Water - Conservation

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	4.00	4.00	- %
Hourly (FTE)	1.76	1.76	- %
Expenses			
511000 - Salaries & Wages	310,877	318,652	2.5%
512000 - Benefits	104,480	108,230	3.6%
519000 - Other Personnel Costs	(5,258)	(5,258)	- %
510000 - Personnel Services	410,099	421,624	2.8%
521000 - Professional & Technical	188,650	183,650	-2.7%
520000 - Purchased Prof & Tech Services	188,650	183,650	-2.7%
533000 - Repair & Maintenance Services	1,800	1,700	-5.6%
534000 - Rental Services	1,800	1,800	- %
530000 - Purchased Property Services	3,600	3,500	-2.8%
542000 - Communication Services	1,200	1,200	- %
544000 - Employee Travel	6,300	6,300	- %
549000 - Other Purchased Services	49,450	49,450	- %
540000 - Other Purchased Services	56,950	56,950	- %
555000 - Office & Related Supplies	9,400	8,900	-5.3%
556000 - Health & Safety Supplies	700	700	- %
559000 - Other Supplies	44,950	43,450	-3.3%
550000 - Supplies	55,050	53,050	-3.6%
573000 - Rebates & Incentives	160,000	168,000	5.0%
574000 - Grants	1,200	1,200	- %
579000 - Other	2,000	4,000	100.0%
570000 - Other	163,200	173,200	6.1%
Total Expenses	877,549	891,974	1.6%

Funding Sources

502-Water Fund: Ongoing Revenue Ongoing Restricted	877,549	891,974	1.6%
Funding Source Total	877,549	891,974	1.6%



Offer 6.5: Capital Replacement - Utilities: Water - Treatment and Source of Supply

2017: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the capital replacement program for the City's Water Treatment Facility, several water storage tanks in the Source of Supply (SOS) system, and the Poudre River Intake Facility. Capital replacement projects include the major maintenance, repair and replacement of aging infrastructure at these facilities.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets and resources to support reliable, high quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed utility.

Replacement projects are included in the Utilities Capital Improvement Planning and Prioritization process and are ranked as the No. 1 priority.

Replacement program priorities are determined through established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) and the assessment of the condition of assets (through capital master planning), drive the priorities of the capital replacement program and the projects outlined in this offer. Proposed projects include, but are not limited to:

1. Replacement of sand and anthracite in dual media filters.
2. Replacement of electrical components such as Motor Control Centers (MCCs), switches, and Programmable Logic Controllers (PLCs)
3. Replacement of solar panels with a permanent electrical power supply at the Goat Hill storage tank in Laporte.
4. Replacement of aging, leaking valves
5. Repair of aging equipment and facilities on Treatment trains 3, 4, 5, and 6
6. Repair and replacement of Backwash Pump Station equipment
7. Repair and replacement of High Service Pump Station equipment
8. Address electric code violations identified in the Master Plan



Offer 6.5: Capital Replacement - Utilities: Water - Treatment and Source of Supply

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- Replacement projects are identified through a five year master planning process, which was recently completed in 2015. The master plan process includes a condition assessment of existing equipment and facilities and uses industry adopted methodology for prioritizing maintenance and replacement needs.
- Projects are considered in relationship to the Utilities defined levels of service for key attributes including sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction, and safety. Utility performance in these areas and asset condition drive the projects articulated in this replacement offer.
- Criteria used to assess the need for replacement of assets include:
 - Safety
 - Age and condition of asset
 - Excessive amount of corrective maintenance costs
 - Inefficient/outdated asset

The consequence of asset failure is also evaluated to determine if the asset should be replaced proactively or delayed until a later time. Delaying a project may not be necessary because of the importance of the asset.

- The City's strategic plan recognizes that residents appreciate a reliable, high quality water supply for their use and that high tech and microbrew industries depend upon it. Well maintained infrastructure is a critical part of ensuring that our customers receive a high quality water supply.
- The strategic plan also recognizes that as assets age, renewal and replacement is critical to maintaining the City's character and appeal. Replacement programs ensure that asset's are managed according to Utilities' adopted methodology.

Links to Further Details:

- <https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp>
- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment>

Linkage to Strategic Objectives



Offer 6.5: Capital Replacement - Utilities: Water - Treatment and Source of Supply

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer will ensure the continued supply of high quality drinking water to the citizens of Fort Collins through the timely replacement of aging assets at the Water Treatment Facility.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The continued replacement of aging assets and equipment at the Water Treatment Facility ensures that the City's drinking water will continue to meet and exceed all State and Federal drinking water regulations.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer will optimize the use of the City's existing water treatment assets through the measured, timely replacement of aging or obsolete equipment and buildings.

Improvements & Efficiencies

- Replacement of older equipment with newer, more energy efficient equipment.
- Cost savings through reductions in the number of unplanned equipment repairs and breakdowns.
- Improved water quality through the replacement of critical water treatment process equipment
- Improved reliability of the drinking water supply through less unplanned and planned shutdowns.
- Cost savings through energy reductions from more efficient equipment.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 120. Reliability: Water Production Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362328>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Not applicable



Offer 6.5: Capital Replacement - Utilities: Water - Treatment and Source of Supply

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

There was a typo in the offer and it has now been fixed. - Chris Donegon.

Mark Kempton - The solar power supply and associated battery system at Goat Hill tank is not large enough nor reliable enough to supply the current power needs of the facility. Electricity is also needed at night to power equipment. Due to the limitations of solar power, the battery systems available are not reliable enough or powerful enough to meet the power needs of the facility”

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.5: Capital Replacement - Utilities: Water - Treatment and Source of Supply

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	1,000,000	1,000,000	- %
570000 - Other	1,000,000	1,000,000	- %
Total Expenses	1,000,000	1,000,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,000,000	1,000,000	- %
Funding Source Total	1,000,000	1,000,000	- %



Offer 6.6: Capital Replacement - Utilities: Water - Distribution Master Plan Priority Projects

2017: \$1,900,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,350,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide for design, project management, and construction of the replacement of water mains in our highest-priority areas based on an Asset Management approach to Master Planning. These projects are entirely coordinated with Wastewater and other infrastructure system replacements in the same geographic areas.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) as well as organizational objectives, drive the priorities of the Utilities Capital Improvement Plan.

The Water Distribution System Replacement Master Plan Priority Projects were evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked #4 and #5 in priority.

The City faces the challenge of replacing this aging infrastructure in a timely and cost effective manner. As this infrastructure approaches a century old, concerns over performance and reliability have developed. The ability to fight fires is also diminished due to undersized pipes and tuberculation within the pipes. Ultimately, these systems need to be replaced to maintain a safe, reliable water service for the community. There are more than 500 miles of water lines with more than 40 miles ranked as high priority for replacement. Systematic replacement of faulty lines minimizes inconveniences to customers and mitigates the need for emergency repairs.

The Asset Management approach to the Master Planning process contains five phases that contribute toward the overall purpose: condition assessment, hydraulic modeling, improvement recommendations, project prioritization, plus implementation. Each phase is described in the Highlights section below.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information



Offer 6.6: Capital Replacement - Utilities: Water - Distribution Master Plan Priority Projects

- The purpose of the Master Plan is to develop recommendations for replacement to meet current and future system requirements.
- Condition Assessment: This phase utilizes existing information (such as: age, size, # of main breaks, etc.) for the water and wastewater system to gain an understanding of the performance and reliability of the existing systems. This information is also later used to prioritize projects within the study area so the areas with the most severe problem get addressed first.
- Hydraulic Analysis: The City of Fort Collins maintains InfoWater and InfoSewer models for the entire water and wastewater systems. This phase investigates the hydraulic capacity of the water and wastewater system for existing land development conditions and future redevelopment conditions to determine if any capacity improvements are needed.
- Recommended Improvements: This phase identifies the recommended improvements and associated cost to bring the water and wastewater systems up to current standards.
- Project Prioritization: The recommended improvement projects are prioritized so that the areas with the most significant problems get addressed first.

Links to Further Details:

- <https://www.youtube.com/watch?v=sjJEGun2hJo&feature=plcp>
- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>
- <http://www.fcgov.com/utilities/what-we-do/water>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Proactive replacement and rehabilitation projects allow us to maintain a reliable and sustainable infrastructure system while protecting water quality and reducing waste.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: As our community redevelops, the use patterns change and the Utility must adapt to provide for these changing needs.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: A well maintained system ensures the highest quality of water and service for our customers. The use of an Asset Management approach to prioritization ensures this replacement program is accomplished in a manner that meets or exceeds established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety.

Improvements & Efficiencies



Offer 6.6: Capital Replacement - Utilities: Water - Distribution Master Plan Priority Projects

- The Utility completed a Master Plan assessment of the oldest areas of the City in order to accurately prioritize our needs. In past years this was determined only by age and number of water main break repairs.
- The new Master Plan expands that analysis to include condition assessment, potential redevelopment needs, and consequence of failure in determining the priority of projects. Water distribution and wastewater collection projects are combined in each area for efficiency.

Performance Metrics

- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109791>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- This is an ongoing Offer to continue maintenance of our infrastructure.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.6: Capital Replacement - Utilities: Water - Distribution Master Plan Priority Projects

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	1,900,000	1,350,000	-28.9%
570000 - Other	1,900,000	1,350,000	-28.9%
Total Expenses	1,900,000	1,350,000	-28.9%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,900,000	1,350,000	-28.9%
Funding Source Total	1,900,000	1,350,000	-28.9%



Offer 6.7: Capital Replacement - Utilities: Water - Distribution Small Projects

2017: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,110,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide for design and construction of smaller, high-priority water main replacement projects. This offer allows the Utility to adapt as conditions, and therefore priorities, change by performing these projects using in house resources.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Water Distribution System Replacement Program was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked #6 in priority.

The City faces the challenge of replacing this aging infrastructure in a timely and cost effective manner that maintains a safe, reliable water service for the community. Systematic replacement of faulty lines minimizes inconveniences to customers and mitigates the need for emergency repairs.

The current estimated plan for 2017 2018 construction is as follows:

2017

- Fauborough Ct. - Oxborough to CdS.
- Silverwood - Ivy to Brookwood
- Pepperwood Ln. - Springwood to CdS.
- Warbler - Larkbunting to Goldeneye
- Hummingbird - Larkbunting to Troutman
- Goshawk - Larkbunting to Towhee
- Bitterbush - Hollybock to Starflower
- Beaver Creek - Troutman to Starflower
- Wilshire - Dean to CdS.

2018

- Rolling Green Dr. - Horsetooth to Mansfield
- Bent Tree Ct. - Rolling Green to CdS.
- Collindale Condos - Rolling Green to Rolling Green
- Tuckaway Ct. - Rolling Green to CdS.



Offer 6.7: Capital Replacement - Utilities: Water - Distribution Small Projects

- Green Gables - Rolling Green to CdS.
- Sunningdale Pl. - Mansfield to CdS.
- Pinehurst Pl. - Mansfield to CdS.
- Hickory - College to RR
- Sombrero Ln. - Pecos to Sagebrush

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- The purpose of the Master Plan is to develop recommendations for replacement to meet current and future system requirements.
- Condition Assessment: This phase utilizes existing information (such as: age, size, # of main breaks, etc.) for the water and wastewater system to gain an understanding of the performance and reliability of the existing systems. This information is also later used to prioritize projects within the study area so the areas with the most severe problem get addressed first.
- Hydraulic Analysis: The City of Fort Collins maintains InfoWater and InfoSewer models for the entire water and wastewater systems. This phase investigates the hydraulic capacity of the water and wastewater system for existing land development conditions and future redevelopment conditions to determine if any capacity improvements are needed.
- Recommended Improvements: This phase identifies the recommended improvements and associated cost to bring the water and wastewater systems up to current standards.
- Project Prioritization: The recommended improvement projects are prioritized so that the areas with the most significant problems get addressed first.

Links to Further Details:

- <https://www.youtube.com/watch?v=sjJEGun2hJo&feature=plcp>
- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>
- <http://www.fcgov.com/utilities/what-we-do/water>

Linkage to Strategic Objectives



Offer 6.7: Capital Replacement - Utilities: Water - Distribution Small Projects

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Proactive replacement and rehabilitation projects allow us to maintain a reliable and sustainable infrastructure system while protecting water quality and reducing waste.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: As our community redevelops, the use patterns change and the Utility must adapt to provide for these changing needs.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: A well maintained system ensures the highest quality of water and service for our customers. The use of an Asset Management approach to prioritization ensures this replacement program is accomplished in a manner that meets or exceeds established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety.

Improvements & Efficiencies

- The Utility completed a Master Plan assessment of the oldest areas of the City in order to accurately prioritize our needs. In past years this was determined only by age and number of water main break repairs.
- The new Master Plan expands that analysis to include condition assessment, potential redevelopment needs, and consequence of failure in determining the priority of projects. Water distribution and wastewater collection projects are combined in each area for efficiency.
- Every project is checked against the proposed Street Pavement Management Program. Coordinated projects reduce the impact to our citizens and overall costs to citizens and customers.
- The crews performing this work have been provided the equipment and other resources that will ensure the most efficient operations. Examples include high efficiency excavators and semi-tractors with side dump trailers that haul twice the amount of material which reduces trips in half.
- Projects have been grouped geographically to reduce down time and reduce impact to customers.

Performance Metrics

- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109791>

Personnel Changes

- Not Applicable



Offer 6.7: Capital Replacement - Utilities: Water - Distribution Small Projects

Differences from Prior Budget Cycles

- This is an ongoing Offer to continue maintenance of our infrastructure.
- Each year different individual projects are identified based on our asset management prioritization.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.7: Capital Replacement - Utilities: Water - Distribution Small Projects

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	1,000,000	1,110,000	11.0%
570000 - Other	1,000,000	1,110,000	11.0%
Total Expenses	1,000,000	1,110,000	11.0%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,000,000	1,110,000	11.0%
Funding Source Total	1,000,000	1,110,000	11.0%



Offer 6.8: Capital Replacement - Utilities: Water - Meter Replacement

2017: \$800,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$800,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide ongoing replacements of water metering infrastructure, both meters and communication modules, as the system ages or problems are identified.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Water Meter Replacement Program was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked No. 7 in priority.

Meters are a very important part of the Water Utility infrastructure. Water meters have been required for commercial and multi family water customers for over 60 years and for single-family residential water customers since 1990. The Utility has more than 34,000 meters in the distribution system. Under typical conditions, meters must be repaired or replaced approximately every 15 years. Inaccurate water meters results in lost revenue and customer confidence. As meters wear out, the Metering Division replaces them and rebuilds the old meter for future use.

Meters are also the most essential element of our water conservation program. When combined with appropriate rate structures as approved by City Council, water meters send a clear and direct conservation message that promotes sustainability of the Water Utility and encourages customers to be environmentally conscientious.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information

- Due to the deployment of the recent advanced metering program, regular maintenance of our commercial meters was delayed during the 2015-2016 budget cycle.



Offer 6.8: Capital Replacement - Utilities: Water - Meter Replacement

- The highest priority will be placed on ensuring all of our commercial meters receive the necessary preventative maintenance to provide the most accurate information to the Utility.
- The second highest priority will be in the development and implementation of a planned replacement program for the entire service area.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water>
- <http://www.fcgov.com/utilities/business/builders-and-developers/development-forms-guidelines-regulations/water-meter-installations-for-new-construction>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Knowledge of actual use helps our customers understand when and how they can improve on their conservation efforts.
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: Information on actual use is the first step in being able to change behaviors and leads to sustainable use.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: Businesses rely on accurate metering to understand the cost of doing business in Fort Collins. Accurate metering ensures that costs are properly allocated and rates can be maintained at a sustainable level.

Improvements & Efficiencies

- The AMFC system has added new data management and asset management abilities for the Utility. We now have the ability to monitor meters on a daily basis to changes in communication between the Utility and the devices.
- Advantages:
 - Find failed meters within a day or two rather than after two consecutive 30 day reading cycles.
 - Determine where customers are experiencing continuous consumption (leaks) after the meter. This reduces costs to the customer and waste of a precious resource.
 - Detect tampering or vandalism of the Utility's metering equipment through the communication devices.

Performance Metrics

- ENV 80. Meter Accuracy (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109786>



Offer 6.8: Capital Replacement - Utilities: Water - Meter Replacement

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- This is an ongoing Offer to continue maintenance of our infrastructure.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.8: Capital Replacement - Utilities: Water - Meter Replacement

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	800,000	800,000	- %
570000 - Other	800,000	800,000	- %
Total Expenses	800,000	800,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	800,000	800,000	- %
Funding Source Total	800,000	800,000	- %



Offer 6.9: Capital Replacement - Utilities: Water - Minor Capital

2017: \$1,852,400 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,681,200 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will pay for the purchase or replacement of minor capital water enterprise related assets. Minor capital may be used for small projects that involve replacement or improvement to current assets, to purchase and/or replace fleet vehicles, to make computer hardware purchases, and to purchase water rights.

A large majority of the Minor Capital expenditure is for fleet replacement. Fleet Services uses an asset management program that takes into consideration age, mileage, repairs costs, and purchase cost to determine when to replace a vehicle. Each vehicle also is reviewed for how it is used and whether the business need has evolved over time. This allows the department to 'right size' the vehicle for its most efficient and effective use into the future.

Minor capital water enterprise expenditures also include the design and construction of small-scale, minor capital projects at the Water Treatment Facility and in the Source of Supply system. Projects for 2017 and 2018 include but are not limited to:

- Addition of camera and controls for remote operations of gates at the Poudre Intake Facility
- Improvements to the pre-sedimentation basins in the raw water pipelines
- Recoating of raw water pipelines in the Water Treatment Facility
- Replacement of water treatment filters and filter media

Minor capital funds are also used to purchase water rights to further develop the Utilities water supply portfolio in alignment with the City's Water Supply and Demand Management Policy.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- SAFE 5.6 - Optimize the use of data and technology to improve service and protect mission critical infrastructure
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- Whenever available, vehicles fueled by Compressed Natural Gas (CNG) are considered in order to reduce GHG emissions.



Offer 6.9: Capital Replacement - Utilities: Water - Minor Capital

- Vehicles are evaluated to determine if there is a 'second life' opportunity within the existing structure or with another department. For example, a vehicle that no longer meets the business need of the department may still be valuable to others with different needs.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Updating the equipment in a 20 year old fleet to modern engines will reduce emission due to higher standards manufacturers now follow.
- SAFE 5.6 - Optimize the use of data and technology to improve service and protect mission critical infrastructure: Automated controls in new or improved capital purchases enhance productivity and improve safety.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer optimizes the use of the City's existing water source of supply and treatment assets through the timely repair and replacement of aging or obsolete assets.

Improvements & Efficiencies

- A vehicle replacement plan has been developed in coordination with Fleet Services to proactively plan for future purchases.
- All vehicles purchases are reviewed to 'right size' the business need and optimize fuel economy for the work done.
- The Utilities proactively manages its infrastructure, assets, and resources to support reliable, high quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility. The process continues to evolve and improve each budget cycle.
- Minor capital projects are evaluated by staff according to the priorities for established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction, and safety.

Performance Metrics

- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>
- ENV 111. Average Fuel Economy in miles/hours per gallon



Offer 6.9: Capital Replacement - Utilities: Water - Minor Capital

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=313972](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=313972)

- ENV 120. Reliability: Water Production Planned-Corrective Maintenance Ratio

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362328](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362328)

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- These purchases were previously included in the Core Offers for each fund.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.9: Capital Replacement - Utilities: Water - Minor Capital

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	50,000	50,000	- %
520000 - Purchased Prof & Tech Services	50,000	50,000	- %
559000 - Other Supplies	11,000	38,000	245.5%
550000 - Supplies	11,000	38,000	245.5%
561000 - Land	500,000	500,000	- %
563000 - Infrastructure	407,000	415,000	2.0%
565000 - Vehicles & Equipment	716,100	506,600	-29.3%
569000 - Other Capital Outlay	168,300	171,600	2.0%
560000 - Capital Outlay	1,791,400	1,593,200	-11.1%
Total Expenses	1,852,400	1,681,200	-9.2%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,852,400	1,681,200	-9.2%
Funding Source Total	1,852,400	1,681,200	-9.2%



Offer 6.10: Utilities: Water - Payments & Transfers

2017: \$10,090,960 and 0.00 FTE, 0.00 Hourly FTE

2018: \$10,031,241 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer includes the payments and transfers made from the Water Fund including: Payment in Lieu of Taxes (PILOT) to the General Fund, payment for General Fund services, Risk Management expenses, debt service, the Water Fund's share of Utilities Customer Service and Administrative Services Fund, and payments to other City funds for miscellaneous services.

Payment in Lieu of Taxes to the General Fund is equal to 6% of operating revenues. The administrative transfer to the General Fund pays for administrative services including investments, finance, purchasing, human resources, City Manager, City Attorney, and information technology services. A large portion of this offer includes payments attributed to bond principal and interest obligations of the Water Fund.

This Offer supports the following Strategic Objectives:

- HPG 7.1 - Provide world-class services that meet the needs of the community
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information

- This offer includes the following payments and transfers to other funds in 2017:
 - \$1.6 million Payment in Lieu of taxes to the General Fund
 - \$760,000 Administrative transfer to General Fund
 - \$459,000 Risk Management expenses
 - \$3.0 million Bond Principal & Interest
 - \$3.5 million Transfer to the Utility Customer Service & Admin Fund
 - Other miscellaneous transfers are also included
- This offer includes the following payments and transfers to other funds in 2018:
 - \$1.6 million Payment in Lieu of taxes to the General Fund
 - \$775,000 Administrative transfer to General Fund
 - \$470,000 Risk Management expenses
 - \$2.6 million Bond Principal & Interest
 - \$3.6 million Transfer to the Utility Customer Service & Admin Fund
 - Other miscellaneous transfers are also included

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives



Offer 6.10: Utilities: Water - Payments & Transfers

- HPG 7.1 - Provide world-class services that meet the needs of the community: This offer provides direct funding for General Fund departments, the Utilities Customer Connections Department, and other utility support services to accomplish this objective. The Payments in Lieu of Taxes provide a stable revenue source to the General Fund to maintain general government services to the community including police, fire, streets, and traffic operations.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer also supports the debt service necessary to renew water infrastructure.

Improvements & Efficiencies

- No improvements have been identified for this offer. Improvements and efficiencies related to the programs and services funded by the transfers in this offer are included with the other fund offers.

Performance Metrics

- ENV 27. Water quality complaints per 1000 customers
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6346&object=measure&objectID=91492>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Bond principal and interest has decreased from 2015-2016 due to the fact no new debt has been added and current debt has been further paid down.

Explanation of Any Adjustments to Personnel Costs using object 519999

- This object will be used to budget for retirements and service awards. (\$10K)

Summary of Changes Requested by BFO Teams or the Budget Lead Team

text change

Offer Profile

Offer Owner: LASmith

Lead Department: Utility Financial Operations



6.10: Utilities: Water - Payments & Transfers

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
512000 - Benefits	142,000	142,000	- %
519000 - Other Personnel Costs	10,000	10,000	- %
510000 - Personnel Services	152,000	152,000	- %
522000 - Governmental Services	13,000	14,000	7.7%
529000 - Other Prof & Tech Services	5,000	5,000	- %
520000 - Purchased Prof & Tech Services	18,000	19,000	5.6%
541000 - Insurance	251,000	257,000	2.4%
542000 - Communication Services	20,000	20,000	- %
543000 - Internal Admin Services	5,714,285	5,990,793	4.8%
540000 - Other Purchased Services	5,985,285	6,267,793	4.7%
572000 - Bad Debt Expense	33,000	33,000	- %
579000 - Other	525,000	525,000	- %
570000 - Other	558,000	558,000	- %
581000 - Debt Service	2,969,349	2,611,861	-12.0%
580000 - Debt & Other Uses	2,969,349	2,611,861	-12.0%
591000 - Transfers to Funds	408,326	422,587	3.5%
590000 - Transfers Out	408,326	422,587	3.5%
Total Expenses	10,090,960	10,031,241	-0.6%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	10,090,960	10,031,241	-0.6%
Funding Source Total	10,090,960	10,031,241	-0.6%



Offer 6.11: Capital Replacement: Utilities: Water - Water Quality Instrumentation

2017: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide non lapsing capital replacement dollars to replace critical instrumentation used at the Water Quality Lab (WQL) to test the public health safety, quality and regulatory compliance of the City's raw and treated drinking water.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high- quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility.

Replacement program priorities are determined through established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) and the assessment of the condition of assets (through capital master planning), drive the priorities of the capital replacement program.

The WQL Instrumentation Replacement Program is included in the Utilities Capital Improvement Planning and Prioritization process and has been ranked as the No. 9 (out of 38) priority for the Water Fund. The priority is high because Utilities depends on the WQL to provide required analytical testing and is certified by the Colorado Department of Public Health & Environment to do so. Staff performs daily and weekly tests on the City's drinking water supply and ensures that our citizens' drinking water is of the highest quality and is in full compliance with all state and federal regulations.

Instrumentation to be replaced include those that have a significant dollar cost.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information



Offer 6.11: Capital Replacement: Utilities: Water - Water Quality Instrumentation

- The Water Quality Lab is certified by the Colorado Department of Health & Environment, providing state-required analytical services for the City's raw and treated water. Staff perform daily and weekly tests on the City's drinking water supply and ensure that our citizens drinking water is of the highest quality and is in full compliance with all State and Federal regulations.
- The WQL performs several tests that are not available at other regional labs and generates revenue for the City by performing fee-based water quality testing and reporting for other regional water providers. Replacement of critical instrumentation in the Lab will ensure continuance of a high quality drinking water supply for the citizens of Fort Collins and a supplemental source of revenue.
- Efficiencies associated with this offer include the replacement of older equipment with energy efficient equipment, improved reliability of the drinking water supply through less unplanned and planned lab instrument down times, and cost savings through reductions in unplanned instrumentation repairs.
- Compared to a 2003-2008 average of 46,905 analytical tests per year at the WQL, there has been a 42% increase to 66,709 tests at the WQL in 2015. The PCL has seen a 30% increase in tests since 2011. The instruments that perform these tests need to be replaced as they wear out.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/water-quality>
- http://www.fcgov.com/utilities/img/site_specific/uploads/Water_Quality_Report_2014_Final.pdf

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: The WQL provides critical testing of the City's raw water sources to ensure that treated water meets all regulatory requirements and customer expectations. Well functioning and maintained instrumentation is key to providing this service.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: The WQL tests finished water to ensure that it meets all regulatory requirements and customer expectations. Well functioning and maintained instrumentation is key to providing this service.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: his offer will ensure that capital investments made in laboratory equipment contribute to achieving defined levels of service, contribute to meeting performance targets, and are the most cost effective and efficient.

Improvements & Efficiencies

- Replacement of older equipment with newer, safer, more energy efficient instrumentation and equipment.



Offer 6.11: Capital Replacement: Utilities: Water - Water Quality Instrumentation

- Improved water quality through the replacement of critical water quality monitoring processes.
- Cost savings through reductions in the number of unplanned equipment repairs and breakdowns.
- Improved reliability of testing and reporting services through less unplanned and planned lab process interruptions

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.11: Capital Replacement: Utilities: Water - Water Quality Instrumentation

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	50,000	50,000	- %
570000 - Other	50,000	50,000	- %
Total Expenses	50,000	50,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	50,000	50,000	- %
Funding Source Total	50,000	50,000	- %



Offer 6.16: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality Lab Infrastructure Replacement

2017: \$1,300,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,300,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds replacement of critical building infrastructure within the Water Quality Lab (WQL).

As part of its Asset Management Program, the Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high-quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility.

Replacement program priorities are determined through established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) and the assessment of the condition of assets (through capital master planning), drive the priorities of the capital replacement program.

The Water Quality Lab Capital Replacement Project is included in the Utilities Capital Improvement Planning and Prioritization process and has been ranked as the No. 2 priority for the Water Fund. This building was not included in the Asset Management Program and project prioritization in the past and was added for the first time in 2016. Consequently, substantial repair and replacement is needed. Replacement needs to be addressed include:

- Electrical, heating, cooling, and plumbing systems for the building have reached the end of their useful life and need to be replaced
- Deterioration of the building systems also is a potential safety hazard, as portions of the electrical system are in violation of the current electrical code and several electrical panels are past their useful life
- The HVAC system, including the boiler, is past the end of its planned life span and is difficult and costly to repair and maintain

The cost estimate for this project is based on a conceptual design. A complete design may result in an increase or decrease in the cost to meet the project deliverables.



Offer 6.16: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality Lab Infrastructure Replacement

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- The Water Quality Lab is certified by the Colorado Department of Health & Environment, providing state-required analytical services for the City's raw and treated water. Staff perform daily and weekly tests on the City's drinking water supply and ensure that our citizens drinking water is of the highest quality and is in full compliance with all State and Federal regulations.
- The WQL performs several tests that are not available at other regional labs and generates revenue for the City by performing fee-based water quality testing and reporting for other regional water providers. Replacement of critical building systems in the Lab will ensure continuance of a high quality drinking water supply for the citizens of Fort Collins and a supplemental source of revenue.
- Efficiencies associated with this offer include the replacement of older equipment with energy efficient equipment, improved reliability of the drinking water supply through less unplanned and planned lab process interruptions, and cost savings through reductions in unplanned equipment repairs and breakdowns.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Due to the large disturbances and the expired age of the building equipment associated with the renovations, there is minimal scalability associated with this offer.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/water-quality>
- http://www.fcgov.com/utilities/img/site_specific/uploads/Water_Quality_Report_2014_Final.pdf

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: This offer will ensure the continued supply of high quality water through the continued implementation of a comprehensive water quality monitoring program.



Offer 6.16: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality Lab Infrastructure Replacement

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer directly addresses the management, maintenance, and improvements to the City's water assets.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer will ensure the continued supply of high quality drinking water to the citizens of Fort Collins through timely water quality monitoring.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 120. Reliability: Water Production Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362328>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not Applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.16: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality Lab Infrastructure Replacement

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	1,300,000	1,300,000	- %
570000 - Other	1,300,000	1,300,000	- %
Total Expenses	1,300,000	1,300,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,300,000	1,300,000	- %
Funding Source Total	1,300,000	1,300,000	- %



Offer 6.17: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality/Pollution Control Master Plan

2017: \$210,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will prepare a long term Capital Project Master Plan for the Water Quality (WQL) and Pollution Control Lab (PCL). Both labs provide analytical services for water and wastewater treatment, analysis of drinking water, and monitoring of local mountain watersheds and surface waters.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high-quality service to our water customers. Capital master planning is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility.

The WQL Capital Project Master Plan will provide a long-term strategy for addressing current and future capital investment needs. Master plans provide an assessment of the condition of current assets, consider future regulatory requirements and technologies, and evaluate future capital investment alternatives. This ensures that the Utilities bases its capital investments on defined levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety and that any investment contribute to meeting established performance targets.

Specifically, the master plan will include the following:

- Evaluation of continued use of two separate labs, or the consolidation of the two labs into a single regional lab
- A cost-of-service analysis for the services provided by both labs. This analysis will identify means to maximize the financial efficiency of both facilities.
- The identification of new revenue streams by offering additional fee based testing, analysis and reporting services to nearby entities
- A long-term vision for the labs that will allow the City to quickly respond to future changes in water quality regulations and technologies
- Planning for upgraded LIMS database software that will be used to store and organize the large amounts of data collected daily by both labs



Offer 6.17: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality/Pollution Control Master Plan

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- The WQL performs required monitoring of the City's source and treated drinking water supplies to ensure that our citizen's drinking water is high quality and is in full compliance with regulations. The PCL performs required monitoring of the City's wastewater to monitor compliance with all regulations. The PCL also performs a surface water monitoring program of the river and urban creeks.
- This offer directly addresses the City's adopted the Water Quality Policy in 1993, which includes a commitment to "provide water quality monitoring...to protect the drinking water and wastewater systems, to respond to customer concerns..., to meet current and future planning and design needs, and to meet or exceed the requirements of the safe Drinking Water Act, and its amendments".
- Efficiencies associated with the preparation of a Master Plan include;
 - Identify potential efficiencies by consolidating the two labs
 - Identify new revenue streams through a new regional lab that could provide multiple analytical and regulatory reporting services that are not available to local municipalities and Districts.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer is not scalable. Master Plan studies are typically performed in a single continuous phase using holistic process that captures all of the pertinent data at a single point in time.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/water-quality>
- http://www.fcgov.com/utilities/img/site_specific/uploads/Water_Quality_Report_2014_Finala.pdf
- <http://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab>

Linkage to Strategic Objectives



Offer 6.17: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality/Pollution Control Master Plan

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer will directly address this objective through the continued cost effective and efficient monitoring of the drinking water quality in the City.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: As more stringent regulations are imposed on the City's wastewater streams and drinking water, the Pollution Control Lab and the Water Quality Lab will need to be poised to provide continued testing and analysis services to ensure compliance.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer will provide a long term vision for the future of both labs, and will ensure that the City optimizes our current lab assets, and that we pro-actively plan for future financial needs.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not Applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

This offer and Offer 6.16 are somewhat linked, although the needs in Offer 6.16 are more immediate than the needs that would be identified in this proposed Master Plan. The Master Plan will look out 20 or 30 years to define a long term vision for both labs. Offer 6.16 addresses immediate repairs to the HVAC, electrical, and plumbing systems necessary for the continued day-to-day operations of the Water Quality Lab.

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



**6.17: ENHANCEMENT CAPITAL - Utilities: Water - Water Quality/Pollution Control
Master Plan**

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		210,000	-	- %
	570000 - Other	210,000	-	- %
	Total Expenses	210,000	-	- %
Funding Sources				
502-Water Fund: Ongoing Revenue	Ongoing Restricted	110,000	-	- %
503-Wastewater Fund: Reserves	Reserve	100,000	-	- %
	Funding Source Total	210,000	-	- %



Offer 6.18: ENHANCEMENT - 1.0 FTE Utilities: Water - Database Analyst

2017: \$95,914 and 1.00 FTE, 0.00 Hourly FTE

2018: \$118,452 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds a full time classified Database Analyst in the Process and Supervisory Control (PSC) Division. The PSC Division supports and maintains the Supervisory Control and Data Acquisition (SCADA) systems that monitor and control water and wastewater treatment processes and collect and store data in associated databases.

A Database Analyst in the PSC Division was reassigned to support of the implementation of the Maximo Enterprise Asset Management System. The PSC Division needs to replace this position in order to meet current and future workload demands. The Database Analysts perform duties that would normally be identified by separate positions for database administrator, systems administrator, network administrator, application developer and support technician.

The Division manages five Oracle databases and application servers containing eight databases, as well as six Microsoft SQL Server database servers containing six databases. The primary function of these systems is the collection and reporting of 1 million SCADA data records per day from the City's three water and wastewater treatment facilities. Server management tasks include everything from procurement of hardware to end user customer support. This includes installation and configuration of operating systems; backups, installation and configuration of database software; designing databases; setting user access permissions and security; patching, upgrades and troubleshooting.

SCADA systems are separated from typical IT systems due to the criticality of ensuring those systems are functioning properly and protected 24/7 to meet regulatory requirements and to ensure the safety of the public. In addition, operation and maintenance of SCADA systems is a specialized skill and is unique compared with other systems and databases maintained by the Utility and the City.

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance

Additional Information

- The division's Database Analysts develop and support several forms-based user data entry applications for SCADA data quality control; laboratory information management; watershed data and septic waste hauler data.
- The laboratory information management system is the Pollution Control Laboratory's mission-critical application for analyzing samples and reporting data related to the NPDES permits and the City's industrial pretreatment ordinances.



Offer 6.18: ENHANCEMENT - 1.0 FTE Utilities: Water - Database Analyst

- The Database Analysts also develop and support many reporting applications that provide critical regulatory data to the State of Colorado for monitoring water and wastewater quality, and provide necessary information to treatment plant operators to make informed decisions about process control.
- As each process area within the facilities is physically upgraded to meet stricter regulations, the associated data load increases. The need for an additional Database Analyst has reached a critical level where it is no longer possible to shift the load on others without creating additional risks. The division’s ability to respond to data requests and

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$118,000

Scalability and explanation

Not applicable

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: SCADA systems ensure that water treatment processes are appropriately controlled and monitored to ensure that treated water quality meets regulatory requirements and customer expectations.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Promote, protect and enhance a healthy & sustainable environment - Providing enhanced reporting and timely process feedback to our customers ensures regulatory compliance and high quality products.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 22. Turbidity of City drinking water
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=91491>



Offer 6.18: ENHANCEMENT - 1.0 FTE Utilities: Water - Database Analyst

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not Applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.18: ENHANCEMENT - 1.0 FTE Utilities: Water - Database Analyst

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	70,136	86,268	23.0%
512000 - Benefits	25,778	32,184	24.9%
510000 - Personnel Services	95,914	118,452	23.5%
Total Expenses	95,914	118,452	23.5%

Funding Sources

502-Water Fund: Ongoing Revenue	Ongoing Restricted	47,957	59,226	23.5%
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	47,957	59,226	23.5%
Funding Source Total		95,914	118,452	23.5%



Offer 6.19: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Coordinator

2017: \$70,724 and 1.00 FTE, 0.00 Hourly FTE

2018: \$75,394 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will deliver savings and efficiencies in outdoor water use, which accounts for up to 60% of treated water use (and waste) in the summer months. This offer will provide:

- An improved and expanded water wise landscape program
- New, innovative outdoor efficiency education efforts
- Improved landscape standards for new development
- A landscape volunteer organization
- Better integration of water efficiency into land use planning – a key initiative in the Colorado Water Plan

This offer is needed to achieve the new goal adopted by City Council to reduce community water use to 130 gallons per capita per day (GPCD) by the year 2030, an 11% reduction from current use. This offer helps ensure a sustainable water future. Utilities will be seen as a reliable resource for the community, which increasingly demands credible, unbiased information and programs on how to be more efficient outdoors. A 1.0 FTE with specific skills and professional horticulture/landscape experience is needed to deliver these services and savings.

Traditional landscapes use up to 80% more water than water wise landscapes. Since 40% of all treated water is used outdoors each year, we need to significantly reduce wasted water while keeping Fort Collins beautiful. This offer is timely as both the City Land Use Code and plant list will benefit from this expertise as they are slated to be updated in 2017.

Climate change will impact water supplies and our ability to thrive socially and economically in a semi arid climate. This offer provides the needed resource to achieve water savings and an environment that is adapted and more resilient to the anticipated hot, dry summers.

This offer will allow the Water Conservation Manager more time for strategic planning, regional water collaboration on conservation with water districts in the Growth Management Area, improvement of the team's work life balance, employee training, collaboration with other departments, etc.



Offer 6.19: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Coordinator

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices

Additional Information

- This Offer also has the additional environmental co-benefits of habitat creation, healthier ecosystems, attractive landscapes, enhancement of and access to nature, and support of Fort Collins' invaluable sense of place and conservation ethic.
- Outdoor water use is a key driver of peak demand and stress on treatment facilities and system infrastructure. Peak water use drives the capacity design for these facilities; reducing peak demands will reduce the size and cost requirements for expensive future infrastructure needs.
- In 2015 the Water Conservation and Program Management Office teams comprehensively reviewed the Xeriscape program to see how it could best support the needs/goals of the City and Utilities customers. A complete redesign was recommended and the new pilot program was launched in 2016. The program is an enormous success with over 60 residents already on their way to a new water-wise landscape.
- The most popular conservation programs are related to outdoor topics and staff cannot keep up with the current demand for audits, education, assistance, etc. For example, the Sprinkler Audit Program has grown by over 30% since 2011. Also, in 2015 the four water-related Residential Environmental Program Series (REPS) classes had 66% of the total attendance of all REPS classes (10 in total).
- The proposed FTE will collaborate with Parks, the Gardens on Spring Creek, Natural Areas, Planning, Sustainability, CSU Extension and other community partners to deliver more consistent messaging and coordinated efforts. This position will also support training and educational efforts for landscape/irrigation industry professionals to improve the quality of resources in the community.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$75,000

Scalability and explanation



Offer 6.19: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Coordinator

1.0 FTE is proposed to deliver water savings from programs that will otherwise be understaffed or impossible to implement in 2017-18. This position could be initially contractual. If 0.5 FTE is available, programs are possible but will have limited reach and scope. No funding will decelerate sustained water savings and climate change adaptation. It will be impossible to expand the water-wise landscape programs to new development, multi-family, or commercial customers.

Links to Further Details:

- <http://www.fcgov.com/water-efficiency-plan>
- <http://fcgov.com/xeriscape>
- <http://www.fcgov.com/water-wise-lawncare/>
- <http://voices.nationalgeographic.com/2015/04/20/one-colorado-towns-answer-to-a-catch-22-of-water-conservation/>
- <http://cwcb.state.co.us/environment/climate-change/Pages/main.aspx>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: The Colorado Water Plan states that “Long-term water conservation should be viewed as a long-term investment”. Water storage and conservation are complementary long-term strategies to a sustainable water future – water that is not used (conserved) can be stored for other beneficial purposes or for future use.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: In addition to the regular occurrence of drought cycles, climate change will likely increase water demands and reduce water supplies. The environmental, economic and social health of the community need a reliable water supply – conservation and efficiency programs help to stretch existing water supplies and build a community that can maintain a high quality of life/industry even in drought years.
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: Community water literacy is a key area of opportunity identified in the new Water Efficiency Plan and is a key lever of the Colorado Water Plan. Outreach, education and engagement lead to sustained change, which is especially important as newer residents may be unfamiliar with constraints of life in a semi-arid climate. A well-informed community means increased efficiency and less wasted water.

Performance Metrics

- ENV 104. Overall water conservation program effectiveness
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121094>
- ENV 102. Residential Annual Water Demand in Gallons Per Capita Per Day



Offer 6.19: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Coordinator

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121092](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121092)

- ENV 101. Water Conservation Plan annual targets and actual use

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121091](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121091)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Updated the narrative to reflect improvements suggested by BFO team.

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.19: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Coordinator

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	48,498	54,229	11.8%
512000 - Benefits	18,526	20,965	13.2%
510000 - Personnel Services	67,024	75,194	12.2%
555000 - Office & Related Supplies	3,400	-	- %
556000 - Health & Safety Supplies	100	100	- %
559000 - Other Supplies	200	100	-50.0%
550000 - Supplies	3,700	200	-94.6%
Total Expenses	70,724	75,394	6.6%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	70,724	75,394	6.6%
Funding Source Total	70,724	75,394	6.6%



Offer 6.20: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Specialist, Contractual

2017: \$72,596 and 1.00 FTE, 0.00 Hourly FTE

2018: \$77,541 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will create a formal commercial and industrial (C&I) water efficiency strategy, which was identified as a key opportunity in the Water Efficiency Plan adopted in March by City Council. The offer will deliver:

- Targeted, customized C&I efficiency programs
- Build relationships with customers
- Conduct research, analysis and evaluation
- Promote market transformation toward innovative water efficient technologies and practices

This offer will deliver similar programs for City facilities; all departments will reduce their use and save on water costs. This offer will also support ClimateWise and other commercial sector efforts.

This offer is needed to achieve the new goal adopted by City Council to reduce community water use to 130 gallons per capita per day (GPCD) by the year 2030, which requires an 11% reduction from current use. This offer will provide environmental and economic health by helping businesses reduce their needs for natural resources, lower their costs, and reduce vulnerability to the effects of climate change. This is paramount to ensure that the business community can thrive in a semi arid climate. This offer will create and foster partnerships within the water innovation sector to support prosperity while ensuring sustainable, long term water supplies.

Unlike the Energy Conservation team, Water Conservation does not have staff dedicated solely to commercial efforts and therefore cannot meet the need and the interest of the commercial sector without causing other programs to suffer. With this offer, there will no longer be a gap in service.

This offer will allow the Water Conservation Manager more time for strategic planning, regional water collaboration on conservation with water districts in the Growth Management Area, improvement of the team's work life balance, employee training, collaboration with other departments, etc.



Offer 6.20: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Specialist, Contractual

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information

- Efficiency projects in the C&I sector can generate far greater savings per project than residential programs: There are only 2200 C&I customers consuming 40% of total treated water vs. over 30,000 residential customers consuming 40% of total treated water. E.g., one recent project improving pool filter efficiency saves an estimated 800,000 gallons each year, which is the use of about 10 homes.
- Several key industries (breweries, high-tech firms) in Fort Collins rely on a sustainable, high-quality, long-term water supply. By providing the resources to succeed, C&I conservation will lower the cost of doing business and support employment, job growth, and a high quality of life while improving the sustainability of the community's water supplies.
- This position would provide the bandwidth for the Water Conservation team to provide support for the new frontier of conservation opportunities (e.g. graywater systems) and support efficiency in new construction/re-development projects. Re-development and infill projects are an opportunity for moving toward a highly efficient built environment.
- Conservation efforts in a commercial setting have trickle-down benefits of influencing the water-use behaviors of the employees and the customers who are patrons of that business. Highlighting conservation efforts in the business community is an additional opportunity to educate the community. These efforts help to make efficient behavior a consistent part of everyday life.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$83,000

Scalability and explanation

This Offer could be scaled up to a 1.0 FTE position to deliver the identified services and savings on a more stable, permanent basis. 1.0 FTE could attract better candidates, too. Not funding this Offer will continue to constrain the capacity to generate sustained water savings in the business community, and the team's ability to deliver other increasingly popular and effective programs. Commercial savings, both water and monetary, will continue to be under-realized.



Offer 6.20: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Specialist, Contractual

Links to Further Details:

- <http://www.fcgov.com/water-efficiency-plan>
- <http://voices.nationalgeographic.com/2015/04/20/one-colorado-towns-answer-to-a-catch-22-of-water-conservation/>
- <http://www.fcgov.com/utilities/conserve/>
- <http://www.fcgov.com/utilities/business/improve-efficiency>
- <http://www.fcgov.com/business/pdf/FortCollins-EconomicHealthStrategicPlan-FINAL.pdf>

Linkage to Strategic Objectives

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: Smart, sustained water efficiency is critical for reliable water and to ensure long-term availability at competitive rates. This FTE Offer will help businesses become more efficient and sustainable, while lowering costs and increasing their profitability.
- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: The Colorado Water Plan states that “Long-term water conservation should be viewed as a long-term investment”. Water storage and conservation are complementary long-term strategies to a sustainable water future – water that is not used (conserved) can be stored for other beneficial purposes or for future use.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: On top of the regular occurrence of drought cycles, climate change will likely increase water demands and reduce water supplies. The environmental, economic and social health of the community need a reliable water supply – conservation and efficiency programs help to stretch existing water supplies and build a community that can maintain a high quality of life/industry even in drought years.

Performance Metrics

- ENV 104. Overall water conservation program effectiveness
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121094>
- ENV 101. Water Conservation Plan annual targets and actual use
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121091>
- ENV 102. Residential Annual Water Demand in Gallons Per Capita Per Day
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6347&object=measure&objectID=121092>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 6.20: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Specialist, Contractual

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Changes to narrative and scalability reflect suggested improvements from the BFO team.

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



**6.20: ENHANCEMENT - 1.0 FTE Utilities: Water - Conservation Specialist,
Contractual**

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	54,318	60,737	11.8%
512000 - Benefits	14,778	16,804	13.7%
510000 - Personnel Services	69,096	77,541	12.2%
555000 - Office & Related Supplies	3,400	-	- %
559000 - Other Supplies	100	-	- %
550000 - Supplies	3,500	-	- %
Total Expenses	72,596	77,541	6.8%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	72,596	77,541	6.8%
Funding Source Total	72,596	77,541	6.8%



Offer 6.21: ENHANCEMENT - 1.0 FTE Utilities: Water - Planner Scheduler Dispatcher (Field Operations)

2017: \$95,236 and 1.00 FTE, 0.00 Hourly FTE

2018: \$98,058 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will create the position planner/scheduler/dispatcher to work very closely with our maintenance crews in relation to our new Computer Maintenance Management System (CMMS). They will ensure accurate data entry, provide system training/support, and act as a central dispatcher for taking and distributing all calls for Water Engineering and Field Services. This role will support equipment and inventory maintenance, provide high level metric reporting and act as a stopgap for the many clerical duties within the department. Without the establishment of this position, these duties will fall on current staff, leading to a decrease in time working in the field.

Fort Collins Utilities is undergoing a large scale, enterprise CMMS implementation. This will streamline asset/work management and provide a single source for metric reporting, asset replacement/maintenance planning, and system condition monitoring. This new initiative and coinciding increase in workload on staff has highlighted the need to establish the role of a planner/scheduler/dispatcher.

This robust CMMS is designed to support the work of roughly 50 field crew and 40 office personnel within the division, and serve as the system of records for hundreds of thousands of assets throughout the City. To fully leverage the skills and knowledge of our maintenance operators, engineers and management team, it is essential that we do not burden them with excessive clerical, data entry and dispatch duties. In recent years there has been an increase in the demand for high level system reporting capabilities, thorough asset condition monitoring, streamlined maintenance planning/scheduling and improved customer service. Leveraging an advanced CMMS solution to facilitate these demands is not unique to the City – it is an industry standard.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- SAFE 5.6 - Optimize the use of data and technology to improve service and protect mission critical infrastructure

Additional Information



Offer 6.21: ENHANCEMENT - 1.0 FTE Utilities: Water - Planner Scheduler Dispatcher (Field Operations)

- Maintenance management industry standards state there should be one Planner/Scheduler for every 20-30 maintenance personnel. Although this role would be supporting up to 50 maintenance personnel and 40 office personnel, it would still greatly improve our ability to increase ‘wrench time’ and decrease downtime for our crews.
- Water Distribution, Waste Water Collection and Storm Water Collection, receives in excess of 1500 customer service calls annually. This puts a large burden on our skilled operators and managers, which takes away from their ability to quickly and efficiently do work. This position will assume all of these responsibilities, freeing up time for our staff to focus on their specific skill sets.
- The new CMMS will utilize standard operating procedure documents, job plans and scheduled preventative maintenance – all of which are designed to improve the efficiency of our crews in the field. This position will assume the responsibility of creating, updating and maintaining all of this information rather than pushing these duties onto non-technical, maintenance personnel.
- Parallel to the CMMS implementation, we are also implementing an enterprise Geographic Information System (GIS) to replace legacy CAD maps. With maps being a core component of business processes, there will be many changes in workflow for crews and supporting office staff. This position will alleviate many of these pressures by assuming some tasks that would otherwise fall on map staff.
- Various crew members and crew chiefs have been coming in from the field up to an hour early to fill out work orders, update inventories, and run reports. This position will assume many of these responsibilities, which will free up time for our crews to spend more time in the field doing maintenance.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$100,000

Scalability and explanation

Maintenance management industry standards state there should be one Planner/Scheduler for every 20-30 maintenance personnel. This position would greatly improve our ability to increase ‘wrench time’ and decrease downtime for our crews.

This position is being created in the other utility divisions to support the enterprise Computer Maintenance Management System. This allows coverage between the divisions and the ability for divisions to scale up or down based on current workloads.

Links to Further Details:

- <http://www.reliableplant.com/Read/30326/planning-and-scheduling>



Offer 6.21: ENHANCEMENT - 1.0 FTE Utilities: Water - Planner Scheduler Dispatcher (Field Operations)

- <http://www.genessolutions.com/wp-content/uploads/2015/05/Inspectioning-Journal-GenesisSolutions-MarchApril-2015.pdf>
- http://reliabilityweb.com/articles/entry/maintenance_planning_back_to_basics/
- http://reliabilityweb.com/articles/entry/reliability_excellence_and_the_planner_scheduler_function/
- <http://www.idcon.com/resource-library/articles/planning-and-scheduling/508-maintenance-planning-scheduling.html>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Planned, programatic, and proactive replacement and rehabilitation projects allow us to maintain a reliable and sustainable infrastructure system while protecting water quality and reducing waste.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The continued replacement of aging assets and equipment ensures that the City's drinking water will continue to meet and exceed all State and Federal drinking water regulations.
- SAFE 5.6 - Optimize the use of data and technology to improve service and protect mission critical infrastructure: The planner/scheduler/dispatcher to work very closely with our maintenance crews in relation to our new Computer Maintenance Management System (CMMS). This position will insure accurate data entry, provide system training/support, act as a central dispatcher for Water Engineering and Field Services (WEFS), support equipment and inventory maintenance, and provide high-level metric reporting.

Performance Metrics

- ENV 49. Customer Service Calls (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109792>
- ENV 27. Water quality complaints per 1000 customers
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6346&object=measure&objectID=91492>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.21: ENHANCEMENT - 1.0 FTE Utilities: Water - Planner Scheduler Dispatcher (Field Operations)

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	65,914	67,562	2.5%
512000 - Benefits	29,322	30,496	4.0%
510000 - Personnel Services	95,236	98,058	3.0%
Total Expenses	95,236	98,058	3.0%
Funding Sources			
502-Water Fund: Ongoing Revenue	47,618	49,029	3.0%
Ongoing Restricted			
503-Wastewater Fund: Ongoing Revenue	47,618	49,029	3.0%
Ongoing Restricted			
Funding Source Total	95,236	98,058	3.0%



Offer 6.22: ENHANCEMENT - 1.0 FTE Utilities: Water - Contractual Maintenance Specialist (Production)

2017: \$67,747 and 1.00 FTE, 0.00 Hourly FTE

2018: \$83,576 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds a contractual Maintenance Specialist to assist in the implementation of a Utility-wide Computerized Maintenance Management System (CMMS) at the Water Treatment Facility. The proposed contractual period is 2 years.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high-quality service to our water customers. To support this effort, Utilities is implementing an enterprise wide computer management system that streamlines asset/work management and provides a single source for metric reporting, asset replacement/maintenance planning, and system condition monitoring.

System implementation is a multi year effort that requires additional staff resources to document over 3,500 facility assets and to ensure the system is populated with accurate maintenance and job safety plans and other information critical to operations and effective asset management.

Facility staff proposes to temporarily assign a current Maintenance Specialist to fully support new system implementation. The Maintenance Specialist will be responsible for issuing work orders, scheduling work, documenting inventory, generating life-cycle reports, and planning for all preventive and corrective maintenance work throughout the water facility and at off-site infrastructure.

The contractual position will backfill for the temporarily reassigned Maintenance Specialist and will be responsible for performing maintenance tasks throughout the facility and supporting the Maximo implementation effort.

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- This offer aligns with the City's Drinking Water Quality Policy which states " The City will ensure that water system materials, components, processes, and operations are sufficiently safe and dependable to avoid foreseeable situations that may jeopardize water quality".



Offer 6.22: ENHANCEMENT - 1.0 FTE Utilities: Water - Contractual Maintenance Specialist (Production)

- CMMS implementation is a multi-million dollar effort based on best practices in the Utility industry. Additional staff to support implementation is a relatively small but essential investment for realizing a return on this effort.
- Efficiencies associated with this offer include;
 - Cost savings through less unplanned corrective maintenance work by Maintenance staff and improved performance of facility equipment.
 - Improved reliability through less unplanned and planned shutdowns.
 - Cost savings in the form of extended equipment life.
- The City's strategic plan recognizes that residents appreciate a reliable, high quality water supply for their use and that high tech and microbrew industries depend upon it. CMMS is a critical part of maintained infrastructure to ensure that our customers receive a high quality water supply.
- The strategic plan also recognizes that as assets age, renewal and replacement is critical to maintaining the City's character and appeal. Replacement programs ensure that asset's are managed according to Utilities' adopted methodology.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$84,000

Scalability and explanation

Not applicable

Links to Further Details:

- <https://www.youtube.com/watch?v=sjEGun2hJo&feature=plcp>
- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment>

Linkage to Strategic Objectives

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer will ensure the continued maintenance and asset management of the equipment required to produce a high quality water supply for the citizens of Fort Collins.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The continued replacement of aging assets and equipment at the Water Treatment Facility (enabled through CMMS) ensures that the City's drinking water will continue to meet and exceed all State and Federal drinking water regulations.



Offer 6.22: ENHANCEMENT - 1.0 FTE Utilities: Water - Contractual Maintenance Specialist (Production)

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer will directly address the planning, preventative maintenance, and asset management process at the Water Treatment Facility through the dedication of a single person to coordinate these programs.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 120. Reliability: Water Production Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362328>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



**6.22: ENHANCEMENT - 1.0 FTE Utilities: Water - Contractual Maintenance Specialist
(Production)**

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	49,935	61,421	23.0%
512000 - Benefits	17,812	22,155	24.4%
510000 - Personnel Services	67,747	83,576	23.4%
Total Expenses	67,747	83,576	23.4%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	67,747	83,576	23.4%
Funding Source Total	67,747	83,576	23.4%



Offer 6.23: ENHANCEMENT - 1.0 FTE Utilities: Inspector

2017: \$84,842 and 1.00 FTE, 0.00 Hourly FTE

2018: \$87,228 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will create a new position to perform inspection on utility infrastructure installed by developers or through capital projects.

Any water, wastewater or stormwater utility installation inspection currently is being managed by the Engineering inspectors for the Fort Collins Utilities service areas only. This staff is already grossly overloaded and cannot provide a sufficient level of attention to ensure the quality of installation of buried assets. This inspection at time of construction is the only time personnel can have a visual record of installation locations and quality. Unlike other infrastructure assets, it is not possible to check the condition of the assets after they have been constructed. Therefore it is critical to have sufficient personnel to check assets during the actual installation process. This level of quality assurance cannot be achieved with the current staffing levels.

This inspection for utility installation in the surrounding District service providers is being done by utility inspectors by those agencies. By creating a Utility-specific inspector, we can leverage internal expertise and achieve the necessary level of quality needed for the future.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- Not applicable

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$87,000

Scalability and explanation

The need is for a full time position.

Links to Further Details:



Offer 6.23: ENHANCEMENT - 1.0 FTE Utilities: Inspector

- <http://www.fcgov.com/utilities/what-we-do/water/>
- <http://www.fcgov.com/engineering/inspection.php>
- <http://www.fcgov.com/developmentreview/>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: The quality and integrity of underground utility infrastructure is vital to our long term sustainability.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City has the ultimate responsibility and liability for infrastructure assets it maintains. Proper inspection at the time of installation is vital to ensuring all regulatory requirements are properly adhered to.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: A properly installed and well maintained system ensures the highest quality of water and service for our customers. inspection and condition assessment of infrastructure is a foundational piece of an Asset Management and necessary to meet or exceed established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety.

Performance Metrics

- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109791>
- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109736>
- SAFE 69. System Improvement (LF of Pipe Improved) (Stormwater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7721&object=measure&objectID=110003>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.23: ENHANCEMENT - 1.0 FTE Utilities: Inspector

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	63,454	65,041	2.5%
512000 - Benefits	21,388	22,187	3.7%
510000 - Personnel Services	84,842	87,228	2.8%
Total Expenses	84,842	87,228	2.8%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	84,842	87,228	2.8%
Funding Source Total	84,842	87,228	2.8%



Offer 6.24: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solar Energy System

2017: \$0 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,883,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the construction of a photovoltaic power array capable of producing up to 500 kilowatts (kW) of electricity at the Water Treatment Facility. This array will add to the existing 100 kW solar array currently operating at the facility.

The Water Treatment Facility currently consumes about 3 million kilowatt hours (kWh) of electricity at a cost of ~ \$250,000 per year. The proposed 500 kW solar array will offset current power supply needs, will reduce GHG emissions by 1,163 metric tons of CO₂, and will result in a cost savings of ~\$81,000 per year.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The proposed 500 kW solar project was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked No. 29 out of 38 projects. The relatively low rating was driven by comparing this project to other capital projects that contribute significantly to safety, regulatory compliance and/or reliability. The solar array project, while rating low for its contribution to safety, compliance and reliability, ranked high for sustainability for its contribution to the City's 2020 goals. The installation of the solar array will eliminate the annual burning of about 1.0 million pounds of coal while providing power to the City's drinking water treatment process.

The project will pay for itself in 18 years, which is close to the expected life of the solar panels in the array. It should be noted that the project cost estimate is based upon a conceptual design level that was developed during the Water Treatment Facility Master Plan process.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information



Offer 6.24: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solar Energy System

- This offer directly addresses the City's Climate Action goals through the reduction of greenhouse gas emissions.

http://www.fcgov.com/climateprotection/pdf/2014_CAPStatus_WebFinal.pdf

- Efficiencies associated with this offer include;
 - Reduce electric power costs by approximately \$81,000 per year.
 - Recoups project costs through credits from Xcel on Facility electricity bill.
 - Increased reliability in the power supply to the Water Treatment Facility.
 - Contribute to Climate Action Plan goals.
 - Demonstrates the City's commitment to GHG reductions.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer is scalable. The solar array can be scaled to provide from 50 kw of power up to 500 kw of power (as proposed). A reduction in the power output of the array may result in a less cost efficient project, but will reduce up front capital costs.

Links to Further Details:

- http://live.deckmonitoring.com/?id=fort_collins_water_treatment_facility
- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer will directly reduce greenhouse gases by replacing coal burning produced electricity at the Water Treatment Facility with solar panels.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: This offer will directly address the City's net zero energy goals by replacing coal burning produced electricity at the Water Treatment Facility with solar panels.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer will supply clean electricity to the Water Treatment Facility to produce high quality water for the community.

Performance Metrics

- ENV 25. Total new installed solar capacity (kilowatts)



Offer 6.24: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solar Energy System

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398>

- ENV 26. Percent renewable energy towards compliance with State Renewable Energy Standards
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91399>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.24: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solar Energy System

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	-	1,883,000	- %
570000 - Other	-	1,883,000	- %
Total Expenses	-	1,883,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	-	1,883,000	- %
Funding Source Total	-	1,883,000	- %



Offer 6.25: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solids Drying Pad

2017: \$1,350,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the construction of a 54,000-square-foot concrete solids drying pad and drainage system at the Water Treatment Facility. Installation of the drying pad and drainage system will decrease solids drying time and improve solids handling operations.

The City's water treatment process removes solids from the water supply and stores it in eight open ponds where the solids are dried over a long period of time. The solids are then transported to Larimer County Landfill, where the material is used as daily cover. The solids do not have organic value and cannot be recycled.

The solids take up to two years to dry. The drying pad will accelerate the solids drying and handling process and will allow the solids to be turned and dried more frequently. The pad will also include a drainage system to dewater the solids. A faster solids drying time will free up room in the drying ponds which have the potential to limit the water treatment capacity of the facility.

As part of its Asset Management Program, the Utilities determines its capital project priorities through established levels of service for sustainability, product quality and availability, reliability, compliance, customer satisfaction and safety. Performance and targets for established levels of service and organizational objectives drive the priorities of the Utilities Capital Improvement Plan (CIP).

The proposed solids drying pad and drainage system was evaluated in the Utilities CIP and Prioritization process and ranked No. 25 out of 38 projects within the Water Fund. The project ranked high for reliability and regulatory compliance as it improves operations and assists in meeting regulations.

It should be noted that the project cost estimate is based upon a conceptual design developed during the Water Treatment Facility Master Plan process. The project budget contains a 20% contingency; however a complete design may result in an increase or decrease in the cost to meet the project deliverables.



Offer 6.25: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solids Drying Pad

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- The new pad will replace the current drying area - a dirt pad where the solids are stored and turned periodically for drying. During wet weather periods, typically in spring and summer, staff cannot access the drying area due to wet, muddy conditions, thus prolonging the drying process. The construction of the pad will allow for year round access and a more efficient solids handling process.
- The pad will improve the solids drying process and reduce the number of man hours to dry and remove solids from the facility. The pad will also facilitate continued conformance with state solids handling regulations.
- This offer directly addresses improvements to the solids handling process, improves the water treatment process, and saves the City's customers money through the increased efficiency of operations.
- Efficiencies associated with this offer include:
 - Accelerated drying time, which reduces man and equipment hours needed to dry solids.
 - Reduction in future pond system expansion costs.
 - Improvements to the drinking water treatment process by freeing up existing ponds for solids drying.
 - Improved conformance with solids handling regulations.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

The pad is sized to provide the minimum space needed to handle and dry the peak production of solids from the water treatment process. Based on this minimum space requirement, the pad needs to be constructed to its design size in a single phase.

Links to Further Details:

- [Picture of a solids drying pad - http://www.ndsd.org/solids_treatment.html](http://www.ndsd.org/solids_treatment.html)
- <https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp>



Offer 6.25: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solids Drying Pad

- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment>

Linkage to Strategic Objectives

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer supports the treatment of sludge which is a byproduct of the water treatment process.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Funding of this offer will allow the Water Treatment Facility to continue to meet all of the regulatory requirements as they relate to the processing and safe disposal of sludge.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This project was evaluated and prioritized in the Utilities Asset Management Process based on established levels of service for key criteria. The project was also identified in the WTF 2015 Master Planning process.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>
- ENV 22. Turbidity of City drinking water
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=91491>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.25: ENHANCEMENT CAPITAL- Utilities: Water - Water Treatment Solids Drying Pad

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
<hr/>				
Expenses				
579000 - Other		1,350,000	-	- %
	570000 - Other	1,350,000	-	- %
	Total Expenses	1,350,000	-	- %
<hr/>				
Funding Sources				
502-Water Fund: Reserves	Reserve	1,350,000	-	- %
	Funding Source Total	1,350,000	-	- %



Offer 6.26: ENHANCEMENT CAPITAL- Utilities: Water - Underground Electrical Power Supply

2017: \$650,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$650,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will annex the Water Treatment Facility (Facility) into Utilities Light & Power service area and construct a reliable underground electric power supply to the Facility.

The Facility currently consumes approximately 3 million kilowatt hours of electricity to produce 8 billion gallons of clean, safe drinking water per year for the citizens of Fort Collins. Due to the Facility's location outside the City limits, electric power supply is provided by Xcel Energy, not by Fort Collins Utilities Light and Power. Xcel's distribution system is an above-ground system that is susceptible to frequent outages due to high wind, snowstorms, and downed power poles in traffic accidents. About 98% of the Fort Collins Utilities Light and Power system is located underground and therefore experiences significantly fewer outages than Xcel's system. These frequent outages in the Facility's Xcel-provided power supply can cause serious disruption to the water treatment process and frequently cause the Facility to run for extended periods of time on diesel-powered generators. The outages also have caused disruptions to the point where the Facility has experienced unplanned emergency shutdowns which severely affect the supply and the quality of the City's drinking water.

To increase the reliability of the Facility's power supply, this offer proposes to annex the Facility into Light & Power's service area, and install a 1.6 mile buried electric line from the Utilities substation at Mulberry and Overland to the Facility. This buried power line will be installed and maintained by L&P and will greatly increase the reliability of the Facility's power supply. The elimination of outages also will reduce greenhouse gas emission from the Facility's diesel-powered generators. The buried line will ensure a continued supply of safe, clean drinking water to Fort Collins citizens.

This Offer supports the following Strategic Objectives:

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information



Offer 6.26: ENHANCEMENT CAPITAL- Utilities: Water - Underground Electrical Power Supply

- Efficiencies associated with this offer include;

Increased reliability in the power supply to the Water Treatment Facility.
Reduce overtime costs expended in responding to power outages.
Contributes to the City's Climate Action Plan goals through the reduction of GHGs.
Demonstrates the City's commitment to GHG reductions.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Not applicable

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment>

Linkage to Strategic Objectives

- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer will provide a reliable, uninterrupted, electricity to the Water Treatment Facility to produce high quality water for the community.
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer will reduce GHGs produced by the frequent running of the diesel powered generators at the Facility.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: This offer will increase the resiliency of the Facility's operations in the cases of extreme weather and widespread power outages. This increased resiliency is essential in continuing our mission of providing safe, clean drinking water to Fort Collins citizens.

Performance Metrics

- ENV 22. Turbidity of City drinking water
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=91491>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 6.26: ENHANCEMENT CAPITAL- Utilities: Water - Underground Electrical Power Supply

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Question - 5/27/16- more clearly quantify the number of times the plant is forced to use backup power and quantify the related GHG emissions savings ;

Since December of 2015, the Water Treatment Facility's three fixed generators and the single mobile generator ran on the following days;

- 6 hours on 12-30-2015
- 1hr on 2-15-2016
- 14 hours on 2-16-2015
- Mobile generator ran for 13 hours on 2-16-2015 – this powers the Water Quality Lab. The WQL has a UPS battery power backup system that can run the lab for about 5 hours.

GHG emissions for all 4 generators on these days were 8.5 metric tons of CO₂.

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.26: ENHANCEMENT CAPITAL- Utilities: Water - Underground Electrical Power Supply

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	650,000	650,000	- %
570000 - Other	650,000	650,000	- %
Total Expenses	650,000	650,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	650,000	650,000	- %
Funding Source Total	650,000	650,000	- %



Offer 6.27: ENHANCEMENT - Utilities: Water - Watershed Protection

2017: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will protect the City’s source drinking water supplies through investment in watershed and forest health management projects in collaboration with local and regional partners such as the Coalition for the Poudre River Watershed (CPRW), the U.S. Forest Service and other key stakeholders.

The types of projects proposed include: 1) forest treatments that reduce hazardous fuels loads and encourage beneficial forest growth to reduce risks associated with large catastrophic wildfires; and 2) stream channel and riparian area improvements to reduce or prevent sediment erosion.

Nearly 50,000 acres of the Poudre watershed burned in 2012, resulting in prolonged, severe and expensive impacts on the City’s water quality, supply availability and water treatment operations. The remaining 260,000 unburned acres are considered “functioning at risk” with specific concerns related to “fire regime” and “forest health” conditions according to the USFS Watershed Condition Framework (2011).

Water utilities like Denver Water and Colorado Springs Utilities and others across the western U.S. are partnering with watershed coalitions, the U.S. Forest Service and other agencies to mitigate the imminent threats that wildfires pose to drinking water supplies. It serves the City’s many economic, social and environmental interests to lead by example and adopt similar best practices for protecting our source water supplies. By leveraging partnerships with CPRW and others, the City can work across land management jurisdictions to protect our water supplies, with the direct benefits of minimizing water quality impacts, avoiding increased treatment costs, preventing negative impacts to our local economy, and maintaining the continuity of water supplies.

The City's Strategic Plan states that "... monitoring and protecting our watershed is critical", and "... protecting watershed and resources ensure long term water availability". This offer directly supports these objectives.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems



Offer 6.27: ENHANCEMENT - Utilities: Water - Watershed Protection

Additional Information

- The Fort Collins Drinking Water Quality Policy specifies that, “the City will protect raw water sources from contamination or any other activities that would diminish the quality of water provided to customers, or that would result in increased treatment costs.” This offer would directly support this policy by funding work that mitigates an identified threat to raw water quality and treatment.
- Utilities staff are currently working with CPRW along with other stakeholders to complete the Poudre Watershed Resiliency Plan (Fall 2016) that will identify priority areas in need of on-the-ground treatments to protect values at risk. Other participants in this effort include Larimer County, City of Greeley, The Nature Conservancy, Natural Resources Conservation Service and US Forest Service.
- As a non-profit organization, the majority of CPRW funds for watershed restoration projects come from state and federal grants. By working with CPRW, City funds will be leveraged for greater impact, as they can be used as a match to secure additional funding for wildfire hazard mitigation projects.
- The City’s Source Water Protection Plan (SWPP), completed with assistance from State of Colorado and the Colorado Rural Water Assn. (March 2016), identifies wildfires as the biggest current threat to the City’s water supplies. This funding will help Utilities implement best practices for mitigating wildfire risks as identified in the SWPP.
- The benefits of proactively mitigating wildfires hazards go beyond protecting water supplies, as they also support the City’s GHG emission reduction goals set forth in the 2016 Climate Action Plan by helping to avoid the massive CO2 emissions generated by large, intense wildfires. Wildfire smoke can also pose a serious health concern to Fort Collins residents and be detrimental to local tourism.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$80,000

Scalability and explanation

This offer is scalable; the funding level is directly related to the acreage treated. As written, it would fund 50 acres of treatment per year, at a cost of \$1,600 per acre, a cost estimate is that used by the Colorado State Forest Service for mechanical forest treatments. Lower funding translates to fewer acres treated in a given year and vice versa.

Links to Further Details:

- <https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp>
- <http://www.fcgov.com/utilities/what-we-do/water/water-quality/source-water-monitoring>



Offer 6.27: ENHANCEMENT - Utilities: Water - Watershed Protection

- <http://www.poudrewatershed.org/>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Collaborative watershed protection offers a proactive, cost-effective approach to protecting the City’s water supplies from impacts of wildfires. Forest and stream restoration projects help regulate the size and intensity of wildfires and protect key facilities and downstream resources by reducing ash and sediment loading into rivers, reservoirs and pipelines.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: Wildfires and other natural disturbances are expected to increase in frequency, extent and severity over the coming decades in response to changes in climate and weather. Protecting the quality and continuity of water supplies is critical to ensuring all customers have access to adequate, affordable drinking water to meet personal and business needs.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Protecting the condition of the Poudre watershed above the canyon mouth provides many direct benefits to downstream reaches of the Poudre through Fort Collins. The consistent supply of cold, clean water helps temper nutrient loading from urban and agricultural drainage, maintains sediment transport (key to flood conveyance) and supports downstream fisheries and other aquatic wildlife.

Performance Metrics

- ENV 22. Turbidity of City drinking water
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=91491>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267045>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.27: ENHANCEMENT - Utilities: Water - Watershed Protection

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	80,000	80,000	- %
570000 - Other	80,000	80,000	- %
Total Expenses	80,000	80,000	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	80,000	80,000	- %
Funding Source Total	80,000	80,000	- %



Offer 6.28: ENHANCEMENT - Utilities: Water - Supply Vulnerability Assessment

2017: \$250,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$100,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the completion of a water supply vulnerability assessment for the Utilities, which will be used to better plan, develop and manage the City's water supply assets. The offer will fund a consulting firm to perform the vulnerability assessment.

To ensure customers have an adequate and reliable water supply, Fort Collins must develop water sources today to balance tomorrow's water demands. Like other water providers across the West, the City faces an uncertain future. Aging infrastructure, increasing competition for water resources, and an evolving regulatory and legal landscape are some of the challenges. A study of the City's vulnerabilities, and the opportunities that exist to address vulnerabilities and help Utilities be a better steward of the City's water resources is needed to better plan the future of the City's water supply.

This assessment will clarify future water uncertainties, specifically investigating hydrologic changes resulting from a warming climate, risks of water supply disruptions such as wildfires and infrastructure failures, and changes in water usage resulting from shifts in population and water demand patterns. The study will develop risk based scenarios and tools to test the response and resiliency of the City's water system to future water supply disruptions and demand changes. Identifying and quantifying such risks will provide valuable input that can be used when updating City policy related to water supply, water conservation, and water restriction planning. It also will be useful in allocating future budgets and capital improvements. Similar risk based studies are being developed for several Front Range water providers, including Denver, Aurora and Colorado Springs.

This Offer supports the following Strategic Objectives:

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability
- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information

- Utilities currently plans its water supply to withstand a 1-in-50 year drought, which was defined via a Drought Study completed in the mid-1980s. A number of Water Board members have requested an update to the Drought Study to incorporate climate change projections and recent trends in regional hydrology.



Offer 6.28: ENHANCEMENT - Utilities: Water - Supply Vulnerability Assessment

- A more detailed study of potential climate change impacts to the City's water resources is overdue. As stated in both the 2012 Water Supply and Demand Management Plan and the 2015 Water Efficiency Plan, "The City will continue to monitor climate change information and, if necessary, will revise its water supply planning criteria and assumptions to ensure future water supply reliability."
- City Staff will incorporate the results of the vulnerability assessment into ongoing water supply modeling and future updates to the Water Supply and Demand Management Policy, which is required by 2020.
- The offer will leverage existing City and community expertise in water supply planning. The offer proposes for a wide range of City Staff to provide input, oversight, and technical capabilities to the study, including Staff in the Water Resources, Water Production, Planning, Water Conservation, and Asset Management programs.
- Continued from bullet 4: Also, the study may draw upon local experts from Colorado State University and professionals from the Water Board.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer has scalability based on the scope of work requested of the consultants. The proposed amount of \$350,000 should provide for a robust assessment that includes most potential vulnerabilities to the City. Scaling the offer down would result in less vulnerabilities being studied.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/water-supply-demand>
- http://www.fcgov.com/utilities/img/site_specific/uploads/wsdm-policy.pdf
- Example:
<https://www.csu.org/Pages/iwrp-r.aspx>
- Example:
<http://www.awra.org/meetings/Denver2015/doc/PP/powerpoint/Session%2034%20210%20Paulson.pdf>

Linkage to Strategic Objectives

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: The vulnerability study would specifically address this objective as it relates to water resources. It may identify conditions that could decrease the Utilities ability to meet the City's water needs by potentially lowering the firm yield of the Utilities' water supplies and/or increasing the City's water use (see performance measure ENV 32) so Utilities can better prepare for those conditions.



Offer 6.28: ENHANCEMENT - Utilities: Water - Supply Vulnerability Assessment

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: The vulnerability study would specifically address this objective as it relates to water resources.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: The vulnerability study may identify conditions that suggest necessary changes to how we sustain high quality water for economic vitality.

Performance Metrics

- ENV 32. Annual water demand as percent of firm yield
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=121465>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb
Lead Department: Utility Financial Operations



6.28: ENHANCEMENT - Utilities: Water - Supply Vulnerability Assessment

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	250,000	100,000	-60.0%
520000 - Purchased Prof & Tech Services	250,000	100,000	-60.0%
Total Expenses	250,000	100,000	-60.0%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	250,000	100,000	-60.0%
Funding Source Total	250,000	100,000	-60.0%



Offer 6.29: ENHANCEMENT CAPITAL - Utilities: Water - Cathodic Protection

2017: \$0 and 0.00 FTE, 0.00 Hourly FTE

2018: \$2,280,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this Offer will add a Cathodic Protection System to our most critical potable water transmission line across the north side of the City. This transmission line is also the primary source supplying the Utility's single largest customer.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Cathodic Protection Program was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked #17 in priority.

Cathodic protection is a program to reduce electrochemical corrosion of underground pipelines. Electrochemical corrosion of pipelines occurs as a result of the small electric current created by contact between metal surfaces, water, and the chemicals present in soils and water. Cathodic protection counteracts the corrosion of the pipeline by supplying a 'sacrificial' material which will corrode via this electrochemical reaction before the steel of the water line.

Cathodic protection systems are vital in maintaining the integrity of the water transmission system. The mains they protect are very expensive to design and build. A failure of a transmission main can result in the loss of a large volume of water, and would be costly to repair and could potentially affect water service to customers for several days. As a result, Cathodic Protection systems are an important aspect of preserving and conserving the City's water resource as well as maintaining reliable, uninterrupted water service for Utility customers.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information



Offer 6.29: ENHANCEMENT CAPITAL - Utilities: Water - Cathodic Protection

- Cathodic Protection systems reduce the corrosion rate by shifting the corrosion potential of the pipeline toward a sacrificial material of less oxidizing potential. Cathodic protection prevents corrosion by converting all of the anodic (active) sites on the metal surface to cathodic (passive) sites by supplying electrical current (or free electrons) from an alternate source.
- Typical systems take the form of galvanic anodes, which are more active than steel. This practice is also referred to as a sacrificial system, since the galvanic anodes sacrifice themselves to protect the structural steel or pipeline from corrosion.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

The Offer funds a full program to protect the north side water transmission system. We would have the ability to break this into multiple phases. However this extends the continued deterioration of the pipeline thereby increasing overall risk. Lengthening the overall time frame will also increase the overall cost due to re-mobilization of our contractors.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>
- <http://www.fcgov.com/utilities/what-we-do/water>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Proactive rehabilitation and preventative maintenance projects allow us to maintain a reliable and sustainable infrastructure system while protecting water quality and reducing waste.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The continued maintenance and protection of aging assets and equipment ensures that the City's drinking water will continue to meet and exceed all State and Federal drinking water regulations.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: A well maintained system ensures the highest quality of water and service for our customers. The use of technological approaches to repair and asset life extension ensures this program is accomplished in a manner that meets or exceeds established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety.

Performance Metrics



Offer 6.29: ENHANCEMENT CAPITAL - Utilities: Water - Cathodic Protection

- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109791>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.29: ENHANCEMENT CAPITAL - Utilities: Water - Cathodic Protection

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		-	2,280,000	- %
	570000 - Other	-	2,280,000	- %
	Total Expenses	-	2,280,000	- %
Funding Sources				
502-Water Fund: Ongoing Revenue	Ongoing Restricted	-	2,146,989	- %
502-Water Fund: Reserves	Reserve	-	133,011	- %
	Funding Source Total	-	2,280,000	- %



Offer 6.30: ENHANCEMENT CAPITAL - Utilities: Water - Azalea Waterline Replacement

2017: \$450,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide a final design, project management and construction of the water line replacement in Azalea Drive. The project is located at the 3200 Azalea Drive townhome complex. The existing 1,700 foot water main has experienced multiple failures over the last several years.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Azalea Waterline Replacement Project was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked #3 in priority.

The Utilities Capital Projects group has conducted geotechnical investigation, preliminary design, and alternative analysis to select the best replacement methodology. A phased project approach has been selected to minimize impact to residents in the area.

The Asset Management approach to Master Planning process contains five phases that contribute towards the overall purpose: condition assessment, hydraulic modeling, improvement recommendations, project prioritization and implementation.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance

Additional Information

- The Water Utility annually completes replacement projects to maintain the water distribution system. There are more than 500 miles of water lines with more than 40 miles ranked high priority for replacement. Systematic replacement of faulty lines minimizes inconveniences to customers and mitigates the need for emergency repairs.



Offer 6.30: ENHANCEMENT CAPITAL - Utilities: Water - Azalea Waterline Replacement

- All potential projects have been rated for condition assessment and risk of failure impact. The Asset Management system created a prioritization of needs, which in turn will be used to identify specific projects for construction.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

The project has been phased into 4-5 segments to minimize impact. The construction will be continuous for the entire length. Scaling the project down to separate construction timelines would significantly increase costs or the contractors to move in and out of the area. It would also lengthen the amount of time to overall project completion.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>
- <http://www.fcgov.com/utilities/what-we-do/water>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Proactive replacement and rehabilitation projects allow us to maintain a reliable and sustainable infrastructure system while protecting water quality and reducing waste.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: A well maintained system ensures the highest quality of water and service for our customers. The use of an Asset Management approach to prioritization ensures this replacement program is accomplished in a manner that meets or exceeds established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The continued replacement of aging assets and equipment ensures that the City's drinking water will continue to meet and exceed all State and Federal drinking water regulations.

Performance Metrics

- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109791>

Explanation of Any Adjustments to Personnel Costs using object 519999



Offer 6.30: ENHANCEMENT CAPITAL - Utilities: Water - Azalea Waterline Replacement

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.30: ENHANCEMENT CAPITAL - Utilities: Water - Azalea Waterline Replacement

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	450,000	-	- %
570000 - Other	450,000	-	- %
Total Expenses	450,000	-	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	450,000	-	- %
Funding Source Total	450,000	-	- %



Offer 6.31: ENHANCEMENT CAPITAL - Utilities: Water - Poudre Canyon Raw Water Line Improvements

2017: \$800,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide for the investigation, condition assessment and creation of design alternatives for the City's 24 inch Poudre River raw water supply pipeline that runs from Gateway Park in the Poudre Canyon to Bellevue. This is one of three pipelines used to divert raw water from the Poudre River to the Water Treatment Facility.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Poudre Canyon Raw Waterline Project was evaluated in the Utilities Capital Improvement process and ranked #11 (out of 38) in priority.

The Poudre pipeline was constructed in 1924. Originally built to supply treated water from Plant #1 at Gateway Park, the pipeline was converted to a raw water supply pipeline in 1987 with the construction of the new Water Treatment Facility.

The pipeline has experienced several leaks since its construction. All of the known pipeline leaks have been fixed; however, several sections of the pipe are located either under State Highway 14 or in inaccessible locations in the Poudre Canyon that make evaluation and repairs very difficult and dangerous. This evaluation of the pipeline will use non invasive techniques, which allows an evaluation of the pipeline in locations previously inaccessible.

The evaluation will provide recommendations on the most cost-effective, feasible methods in which to line the pipeline and prolong its useful life. If the pipeline were to fail and be out of service for a considerable time, the City could potentially face drinking water supply shortages. These shortages could be exacerbated if the pipe would fail during a drought.



Offer 6.31: ENHANCEMENT CAPITAL - Utilities: Water - Poudre Canyon Raw Water Line Improvements

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information

- Upon completion, it is anticipated that a mid cycle BFO offer for the complete rehabilitation of the pipeline using innovative pipe lining techniques will be prepared for consideration. The City faces the challenge of replacing this aging infrastructure in a timely and cost-effective manner. As this infrastructure approaches a century old, concerns over performance and reliability have developed.
- The Water Utility annually receives approximately 50% of its annual water use from water rights of the Cache La Poudre River. Any disruption to this pipeline has significant risk to the City's residents. In addition, there is a high degree of environmental risk resulting from a failure of this raw water delivery system.
- This offer aligns with the City's Drinking Water Quality Policy that states "The City will protect raw waters sources from contamination or any other activities that would diminish the quality of water provided to customers, or that would result in increased treatment costs."
- The implementation of this project will mitigate negative impacts to the City's raw water quality while reducing potential water treatment costs. It will also improve conformance with State of Colorado drinking water regulations.
- Efficiencies associated with this offer include;
Capital cost savings through the prolonged life of the pipeline.
Reduction in pipe maintenance and water treatment costs.
Provides redundancy in the City's drinking waters supply, particularly in times of drought.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This is a one-time project that needs to be completed in a single phase. The actual condition cannot be determined without this project. The pipeline will need to be cut open to insert the camera equipment needed to evaluate the condition of the pipe's interior. The pipeline can only be out of service for a short time so not to interrupt the City's drinking water supply. As this pipeline is integral to providing 50% of our water rights, it has a significantly high consequence of failure.



Offer 6.31: ENHANCEMENT CAPITAL - Utilities: Water - Poudre Canyon Raw Water Line Improvements

Links to Further Details:

- <https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp>
- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>
- <http://www.fcgov.com/utilities/what-we-do/water>
- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment>

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: Proactive replacement programs help reduce waste from leaks and eliminates constrictions in delivery from decades of sedimentation in our delivery pipes.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: A well maintained system ensures the highest quality of water and service for our customers. The use of an Asset Management approach to prioritization ensures this replacement program is accomplished in a manner that meets or exceeds established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This pipeline is a critical link in delivering water from one of our two primary sources. The Utility switches between the two sources as needed to select whichever source can provide the best water quality economically and efficiency. Any failure in this deliver system eliminates that option and will result in reduced water quality and higher treatment costs to the community.

Performance Metrics

- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109791>
- ENV 50. Repairs - Water Main Break Repairs (Water)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=109793>
- ENV 32. Annual water demand as percent of firm yield
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=121465>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 6.31: ENHANCEMENT CAPITAL - Utilities: Water - Poudre Canyon Raw Water Line Improvements

Question - 05/24/16 We understand the importance of this, but are wondering what plan is in place if major issues are discovered? Where would the funds come from to cover repairs?

Answer - If major issues are discovered within the pipeline that require immediate repairs, those funds will likely come from the Water Production Replacement Fund that has a current balance of approximately \$1.7 million. These types of localized repairs can typically be covered using Replacement funds.

The primary purpose of the assessment of the line is to determine the suitability of the pipeline to be lined with a SmartPipe liner. If the assessment results indicate that the pipeline is suitable for this new liner technology, it is anticipated that funds for this lining project would likely come from future Water Fund bonds. These bonds would need to be approved by City Council prior to their availability for this project.

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.31: ENHANCEMENT CAPITAL - Utilities: Water - Poudre Canyon Raw Water Line Improvements

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		800,000	-	- %
	570000 - Other	800,000	-	- %
	Total Expenses	800,000	-	- %
Funding Sources				
502-Water Fund: Reserves	Reserve	800,000	-	- %
	Funding Source Total	800,000	-	- %



Offer 6.40: Utilities: Wastewater - Core Operations

2017: \$8,710,177 and 62.68 FTE, 3.26 Hourly FTE

2018: \$8,856,228 and 62.68 FTE, 3.05 Hourly FTE

Offer Summary

Funding this offer will provide for all Wastewater Fund operations core services, including the management, operation and maintenance of the following services:

Water Reclamation and Biosolids Division: includes operation of two wastewater treatment facilities treating an average of over 13 million gallons of wastewater per day which is discharged to the Poudre River and Fossil Creek Reservoir or is reused at Rawhide Power Plant. The Division also manages a 26,600 acre ranch where biosolids are beneficially applied. Other services include the industrial pretreatment, grease trap inspection and management of septage handling facilities.

Supervisory Control Systems: manages systems used to control and monitor processes at the wastewater treatment facilities.

Pollution Control Lab: provides laboratory services to ensure all wastewater facilities meet regulatory requirements. The lab also implements a comprehensive surface water monitoring program of the Poudre River and urban creeks.

Wastewater Trunk & Collection: operates and maintains a 430-mile wastewater collection system that includes maintenance of more than 10,000 manholes, mainline televising, sewer cleaning, root removal, lining and rehabilitation, infiltration/inflow control and customer service.

Wastewater Engineering: provides engineering services including facility design, project management and engineering consultation for wastewater capital projects.

Wastewater Development Review: reviews plans for new wastewater improvements within the City and ensures proposed improvements will work with existing and proposed infrastructure. This Division works collaboratively with developers, engineers and planning consultants to assist in planning for service to new development projects in a manner that will meet adopted master plans and design standards.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability



Offer 6.40: Utilities: Wastewater - Core Operations

Additional Information

- This offer is regulatory based and provides the community of Fort Collins with wastewater collection, treatment, analytical services, infrastructure management, and wastewater treatment services prior to being returned to the environment.
- This offer ensures that wastewater and biosolid residuals are collected and treated to protect the health and safety of our community; to comply with all local, state and federal regulations; and to protect the environment.
- In 2015, over 5 billion gallons of wastewater was collected and treated with a 100% compliance rate, meeting all state and federal requirements.
- In 2015, the Water Reclamation Division treated over 2300 tons of biosolids and beneficially reused 100% of those solids.

Links to Further Details:

- <http://www.fcgov.com/utilities/>
- <http://www.fcgov.com/utilities/what-we-do/wastewater>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: All City water reclamation facilities are operated 24 hours per day, seven days a week in compliance with state-issued discharge permits and state and federal regulations.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Wastewater operations primary role is to collect, contain, and treat wastewater to standards that will not adversely affect the environment. This offer includes work performed by the Pollution Control Lab which provides analytical support and data reporting to ensure the health and water quality of the Poudre, Horsetooth Reservoir, Stormwater, and Urban Creek monitoring programs.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: A well maintained system ensures the highest quality of service for our customers. This offer ensures that the basic need to collect and treat wastewater will be provided for and will provide that level of resiliency and preparedness that the community expects.

Improvements & Efficiencies

- The collection system maintenance has developed systematic programs for system jetwashing to clean minor collection the system on a 3 year cycle and the interceptor mains every 5 years or less. Field Operations has cleaned over 2.5 million feet in 2013.



Offer 6.40: Utilities: Wastewater - Core Operations

- Closed Circuit TV inspection has been formalized to achieve a 10 year cycle of video information capture. Over 320,000 feet of sewer was inspected in 2013.
- The maintenance group continues to expand the use of trenchless technologies to line wastewater lines. This method is much more economical and sustainable than traditional open trench construction.
- Both wastewater facilities operate under an ISO 14001 Certified Environmental Management Systems which focuses on continual improvement of environmental performance and achievement of key environmental objectives.
- Approximately 3,100 acre-feet per year of treated effluent is reused by Platte River Power Authority for cooling water at the Rawhide power plant.
- Meadow Springs Ranch is a member of the National Biosolids Partnership and was recently recognized at the Bronze level.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 70. Blockages Cleared (Wastewater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109767>
- ENV 117. Reliability: Biosolids Produced per MGD
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=351150>

Personnel Changes

- Personnel Enhancements are requested as separate Offers.

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- Knowledge transfer will require the use of 519999.

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile



Offer 6.40: Utilities: Wastewater - Core Operations

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.40: Utilities: Wastewater - Core Operations

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	62.68	62.68	- %
Hourly (FTE)	3.26	3.05	-6.4%
Expenses			
511000 - Salaries & Wages	4,476,486	4,575,659	2.2%
512000 - Benefits	1,506,070	1,559,429	3.5%
519000 - Other Personnel Costs	(446,513)	(457,798)	2.5%
510000 - Personnel Services	5,536,043	5,677,290	2.6%
521000 - Professional & Technical	256,328	256,248	- %
522000 - Governmental Services	99,000	99,000	- %
529000 - Other Prof & Tech Services	212,200	212,200	- %
520000 - Purchased Prof & Tech Services	567,528	567,448	- %
531000 - Utility Services	929,443	947,160	1.9%
532000 - Cleaning Services	41,930	42,330	1.0%
533000 - Repair & Maintenance Services	367,875	368,475	0.2%
534000 - Rental Services	728	728	- %
530000 - Purchased Property Services	1,339,976	1,358,693	1.4%
542000 - Communication Services	10,900	10,900	- %
543000 - Internal Admin Services	5,000	5,000	- %
544000 - Employee Travel	39,950	40,450	1.3%
549000 - Other Purchased Services	16,741	16,741	- %
540000 - Other Purchased Services	72,591	73,091	0.7%
551000 - Vehicle & Equipment Supplies	329,563	330,100	0.2%
552000 - Land & Building Maint Supplies	62,788	62,800	- %
553000 - Infrastructure Maint Supplies	14,000	14,000	- %
554000 - Utility Supplies	12,000	12,000	- %
555000 - Office & Related Supplies	69,456	69,816	0.5%
556000 - Health & Safety Supplies	16,486	16,400	-0.5%
558000 - Chemical Supplies	513,250	498,250	-2.9%
559000 - Other Supplies	176,496	176,340	-0.1%
550000 - Supplies	1,194,039	1,179,706	-1.2%
Total Expenses	8,710,177	8,856,228	1.7%



Funding Sources

503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	8,710,177	8,856,228	1.7%
	Funding Source Total	<u><u>8,710,177</u></u>	<u><u>8,856,228</u></u>	<u><u>1.7%</u></u>



Offer 6.41: Capital Replacement - Utilities: Wastewater - Collection System Master Plan Priority Projects

2017: \$450,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$350,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide for design, project management, and construction of sewer infrastructure replacement projects in our highest priority areas based upon an Asset Management approach to Master Planning. These projects are entirely coordinated with Water Distribution System Replacements in the same geographic area.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction, and safety. Performance and targets for established levels of service (see performance measures) as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Wastewater Collection System Replacement Master Plan Priority Projects were evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked No. 10 and No. 13 in priority.

Portions of the wastewater collection system are approaching the end of their useful life. When this happens, the deterioration of the pipe and manholes causes sewer line breaks and failures, which causes infiltration of groundwater into the collection system resulting in higher treatment costs, possible contamination of groundwater and causes damage to streets and private property. Each year, the Wastewater Utility designs and constructs sewer lines and infrastructure replacement projects to correct deficiencies in the system and upgrade facilities. Systematic replacement of faulty lines minimizes inconveniences to customers and mitigates the need for emergency repairs.

The Asset Management approach to Master Planning process contains five phases that contribute toward the overall purpose: condition assessment, hydraulic modeling, improvement recommendations, project prioritization and implementation. Each phase is described in the Highlights section below.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability



Offer 6.41: Capital Replacement - Utilities: Wastewater - Collection System Master Plan Priority Projects

Additional Information

- The purpose of the Master Plan is to develop recommendations for replacement to meet current and future system requirements.
- Condition Assessment: This phase utilizes existing information (such as: age, size, # of main breaks, etc.) for the water and wastewater system to gain an understanding of the performance and reliability of the existing systems. This information is also later used to prioritize projects within the study area so the areas with the most severe problem get addressed first.
- Hydraulic Analysis: The City of Fort Collins maintains InfoWater and InfoSewer models for the entire water and wastewater systems. This phase investigates the hydraulic capacity of the water and wastewater system for existing land development conditions and future redevelopment conditions to determine if any capacity improvements are needed.
- Recommended Improvements: This phase identifies the recommended improvements and associated cost to bring the water and wastewater systems up to current standards.
- Project Prioritization: The recommended improvement projects are prioritized so that the areas with the most significant problems get addressed first.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/wastewater>
- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Wastewater Operations is heavily regulated by the EPA, State of Colorado and local regulations. The regulatory oversight provides validation of our role in protecting the public and environmental health of the community.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Wastewater operations primary role is to collect, contain, and treat wastewater to standards that will not adversely affect the environment. Deteriorated or failed collection infrastructure will be resolved through this Offer.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: A well maintained system ensures the highest quality of service for our customers. This offer ensures that the basic need to collect and treat wastewater will be provided for and will provide that level of resiliency and preparedness that the community expects.

Improvements & Efficiencies



Offer 6.41: Capital Replacement - Utilities: Wastewater - Collection System Master Plan Priority Projects

- The Utility completed a Master Plan assessment of the oldest areas of the City in order to accurately prioritize our needs. In past years this was determined only by age and number of blockages. The new Master Plan expands that analysis to include condition assessment, potential redevelopment needs, and consequence of failure in determining the priority of projects.
- Water distribution and wastewater collection projects are combined in each area for efficiency. Coordinated projects reduce the impact to our citizens and overall costs to citizens and customers.
- Every project is checked against the proposed Street Pavement Management Program. Coordinated projects reduce the impact to our citizens and overall costs to citizens and customers.
- Projects have been grouped geographically to reduce down time and reduce impact to customers.

Performance Metrics

- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109736>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- The new Master Plan expands that analysis to include condition assessment, potential redevelopment needs, and consequence of failure in determining the priority of projects. Water distribution and wastewater collection projects are combined in each area for efficiency.
- Specific projects are updated for each budget cycle. The use of the Asset Management System ensures we are provided the right level of service on the right infrastructure.
- Every project is checked against the proposed Street Pavement Management Program. Coordinated projects reduce the impact to our citizens and overall costs to citizens and customers.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



**6.41: Capital Replacement - Utilities: Wastewater - Collection System Master Plan
Priority Projects**

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		450,000	350,000	-22.2%
	570000 - Other	450,000	350,000	-22.2%
	Total Expenses	450,000	350,000	-22.2%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	450,000	350,000	-22.2%
	Funding Source Total	450,000	350,000	-22.2%



Offer 6.42: Capital Replacement - Utilities: Wastewater - Collection System Small Projects

2017: \$706,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$743,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide for design and construction of smaller, high priority wastewater sewer main replacement projects. This offer allows the Utility to adapt as conditions, and therefore priorities, change by performing these projects using in house resources.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Wastewater Collection System Replacement Program was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked #8 in priority.

The current estimated plan for 2017 2018 construction is as follows:

2017

- Cypress Dr. 1001 Cypress to Clearview
- Poplar Dr. 2436 Poplar to Ponderosa
- Tamarac Dr. 2432 Tamarac to Ponderosa
- Crabtree Dr. Cypress to 2420 Crabtree to Ponderosa
- Ponderosa Dr. Elizabeth to 1024 Ponderosa
- Hillcrest Dr. 1001 Hillcrest to 1021 Hillcrest
- Briarwood Dr. 1032 Briarwood to Clearview
- S. Shields St. 415 S. Shields to Olive
- N. Shields St. 403 N Shields to 345 N Shields

2018

- Yale Way Yale to 220 Yale Way
- Dartmouth Tr. 404 Dartmouth to Stover
- Dartmouth Cir. Dartmouth to 125 Dartmouth Cir
- Garfield 302 Garfield to 336 Garfield, Smith to Church Parking Lot
- Edwards 300 Edwards to 336 Edwards, Smith to 615 Edwards
- Morgan 1320 Morgan to Pitkin
- Fairview 1109 Fairview to Springfield to 1352 Fairview



Offer 6.42: Capital Replacement - Utilities: Wastewater - Collection System Small Projects

- City Park 1129 City Park to Springfield to 1309 City Park

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information

- Portions of the wastewater collection system are approaching the end of their useful life. When this happens, the deterioration of the pipe and manholes causes sewer line breaks and failures, which causes infiltration of ground water into the collection system resulting in higher treatment costs, possible contamination of ground water and causes damage to streets and private property.
- The systematic replacement of portions of the aging system allows the Utility to utilize staff time more efficiently, to perform the work under safe and controlled conditions, to minimize inconvenience to customers and to avoid the higher costs which relate to emergency repair situations.
- The use of in house forces saves considerable costs and complements the use of contracted labor. This work helps maintain a familiarity with the system and a sense of ownership by Fort Collins Utilities employees.
- All potential projects have been rated for condition assessment and risk of failure impact. The Asset Management system created a prioritization of needs which in turn will be used to identify specific projects for construction.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/wastewater>
- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Wastewater Operations is heavily regulated by the EPA, State of Colorado and local regulations. The regulatory oversight provides validation of our role in protecting the public and environmental health of the community.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Wastewater operations primary role is to collect, contain, and treat wastewater to standards that will not adversely affect the environment. Deteriorated or failed collection infrastructure will be resolved through this Offer.



Offer 6.42: Capital Replacement - Utilities: Wastewater - Collection System Small Projects

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: A well maintained system ensures the highest quality of service for our customers. This offer ensures that the basic need to collect and treat wastewater will be provided for and will provide that level of resiliency and preparedness that the community expects.

Improvements & Efficiencies

- Projects are closely coordinated with the Pavement Management Program which selects the streets to be rebuilt during the following construction season. By working corroboratively with Engineering to coordinate with the Pavement Management Program, the excavation of newly paved streets can be avoided. Coordinated projects reduce the impact to our citizens and overall costs to citizens.
- The crews performing this work have been provided the equipment and other resources that will ensure the most efficient operations. Examples include high efficiency excavators and semi-tractors with side dump trailers that haul twice the amount of material which reduces trips in half.
- Projects have been grouped geographically to reduce down time and reduce impact to customers.

Performance Metrics

- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109736>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Specific projects are updated for each budget cycle.
- The use of the Asset Management System ensures we are provided the right level of service on the right infrastructure.
- Every project is checked against the proposed Street Pavement Management Program. Coordinated projects reduce the impact to our citizens and overall costs to citizens and customers.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits



Offer 6.42: Capital Replacement - Utilities: Wastewater - Collection System Small Projects

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.42: Capital Replacement - Utilities: Wastewater - Collection System Small Projects

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		706,000	743,000	5.2%
	570000 - Other	706,000	743,000	5.2%
	Total Expenses	706,000	743,000	5.2%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	706,000	743,000	5.2%
	Funding Source Total	706,000	743,000	5.2%



Offer 6.43: Capital Replacement - Utilities: Wastewater - Cured in Place Pipe Lining

2017: \$450,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$450,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will improve the integrity of several thousand lineal feet of sanitary sewer main through the installation of Cured In Place Pipe (CIPP) lining.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Wastewater Collection System CIPP Program was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked No. 9 in priority.

CIPP lining is considered a trenchless rehabilitation method meaning it does not require excavating in the street. CIPP is a jointless, seamless, pipe within a pipe to rehabilitate pipes. A resin saturated felt tube made of polyester, fiberglass cloth or a number of other materials suitable for resin impregnation, is inverted or pulled into a damaged pipe. It is usually done from the upstream access manhole. Lateral connections (services) are also restored without excavation via a remote controlled device that drills a hole in the liner at the point of the lateral connection.

Portions of the wastewater collection system are approaching the end of their useful life. The deterioration of the pipes causes sewer line breaks and failures, infiltration of groundwater into the collection system resulting in higher treatment costs, possible contamination of groundwater, and causes damage to streets and private property.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information



Offer 6.43: Capital Replacement - Utilities: Wastewater - Cured in Place Pipe Lining

- Portions of the wastewater collection system are approaching the end of their useful life. When this happens, the deterioration of the pipe and manholes causes sewer line breaks and failures, which causes infiltration of ground water into the collection system resulting in higher treatment costs, possible contamination of ground water and causes damage to streets and private property.
- The systematic replacement of portions of the aging system allows the Utility to utilize staff time more efficiently, to perform the work under safe and controlled conditions, to minimize inconvenience to customers and to avoid the higher costs which relate to emergency repair situations.

Links to Further Details:

- <https://www.youtube.com/watch?v=okstE4bSVmk>
- <http://www.fcgov.com/utilities/what-we-do/water/infrastructure-improvements>
- <http://www.fcgov.com/utilities/what-we-do/wastewater>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Wastewater Operations is heavily regulated by the EPA, State of Colorado and local regulations. The regulatory oversight provides validation of our role in protecting the public and environmental health of the community.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Wastewater operations primary role is to collect, contain, and treat wastewater to standards that will not adversely affect the environment. Deteriorated or failed collection infrastructure will be resolved through this Offer.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: A well maintained system ensures the highest quality of service for our customers. This offer ensures that the basic need to collect and treat wastewater will be provided for and will provide that level of resiliency and preparedness that the community expects.

Improvements & Efficiencies

- Projects have been grouped geographically to reduce down time and reduce impact to customers.
- All potential projects have been rated for condition assessment and risk of failure impact. The Asset Management system created a prioritization of needs which in turn will be used to identify specific projects for construction.

Performance Metrics

- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)



Offer 6.43: Capital Replacement - Utilities: Wastewater - Cured in Place Pipe Lining

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109736>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Specific projects are updated for each budget cycle.
- The use of the Asset Management System ensures we are provided the right level of service on the right infrastructure.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.43: Capital Replacement - Utilities: Wastewater - Cured in Place Pipe Lining

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		450,000	450,000	- %
	570000 - Other	450,000	450,000	- %
	Total Expenses	450,000	450,000	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	450,000	450,000	- %
	Funding Source Total	450,000	450,000	- %



Offer 6.44: Capital Replacement - Utilities: Wastewater - Water Reclamation and Biosolids

2017: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the capital replacement program for the Drake Water Reclamation Facility (DWRF), Mulberry Water Reclamation Facility (MWRF), Meadow Springs Ranch (MSR), and the Pollution Control Lab (PCL). Capital replacement projects include the major maintenance, repair, and replacement of aging infrastructure at these facilities.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high-quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility.

Replacement projects for Water Reclamation are included in the Utilities Capital Improvement Planning and Prioritization process and are ranked as the No. 12 priority (out of 46 projects).

Replacement program priorities are determined through established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) and the assessment of the condition of assets (through capital master planning), drive the priorities of the capital replacement program and the projects outlined in this offer. Proposed projects include but are not limited to:

1. South Blower Building HVAC Modifications
2. Food Waste Receiving Modifications
3. Digester Building HVAC Replacement
4. Belt Press Removal
5. Primary Odor Control Fan Replacement
6. 2016 Programmable Logic Controller Replacements
7. Mulberry House Deconstruction
8. Replacement of Digester Recirculation Pumps
9. North Tunnel NPW Strainer
10. Influent Pump Station Modification



Offer 6.44: Capital Replacement - Utilities: Wastewater - Water Reclamation and Biosolids

This Offer supports the following Strategic Objectives:

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- Replacement projects are identified through a five year master planning process. The master plan process includes a condition assessment of existing equipment and facilities and uses industry adopted methodology for prioritizing maintenance and replacement needs.
- Replacement projects are considered in relationship to the Utilities defined levels of service for key attributes including sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction, and safety. Utility performance in these areas and asset condition drive the projects articulated in this replacement offer.
- Criteria used to assess the need for replacement of assets include:
 - Safety
 - Age and condition of asset
 - Excessive amount of corrective maintenance costs
 - Inefficient/outdated asset

The consequence of asset failure is also evaluated to determine if the asset should be replaced proactively or delayed until a later time. Delaying a project may not be necessary because of the importance of the asset.

- The City's strategic plan recognizes that wastewater facilities must meet "more stringent regulations for nutrients, metals, temperature, and ammonia". Well maintained infrastructure is a critical part of ensuring that the City is in compliance with these regulations.
- The City's strategic plan also recognizes that as assets age, renewal and replacement is critical to maintaining the City's character and appeal. Replacement programs ensure that asset's are managed according to Utilities' adopted methodology.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives



Offer 6.44: Capital Replacement - Utilities: Wastewater - Water Reclamation and Biosolids

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: The City's wastewater facilities are permitted to discharge directly to the Poudre River. A well maintained facility contributes to ensuring that those discharges meet all regulatory requirements and do not impair the ecosystems of the Poudre River.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer will optimize the use of the City's existing wastewater treatment assets through the measured, timely replacement of aging or obsolete equipment and buildings.

Improvements & Efficiencies

- Replacement of older equipment with newer, more energy efficient equipment
- Cost savings through reductions in the number of unplanned equipment repairs and breakdowns
- Improved effluent quality through the replacement of critical wastewater treatment process equipment
- Improved reliability of the wastewater treatment through less unplanned and planned shutdowns
- Cost savings through energy reductions from more efficient equipment

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362326>
- ENV 119. Reliability: Water Reclamation Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362327>

Personnel Changes

-

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 6.44: Capital Replacement - Utilities: Wastewater - Water Reclamation and Biosolids

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.44: Capital Replacement - Utilities: Wastewater - Water Reclamation and Biosolids

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		1,000,000	1,000,000	- %
	570000 - Other	1,000,000	1,000,000	- %
	Total Expenses	1,000,000	1,000,000	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	1,000,000	1,000,000	- %
	Funding Source Total	1,000,000	1,000,000	- %



Offer 6.45: Capital Replacement - Utilities: Wastewater - Pollution Control Lab Instrumentation

2017: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$30,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide non lapsing capital replacement dollars to replace critical instrumentation used at the Pollution Control Lab (PQL) to test the public health safety, quality and regulatory compliance of the City's wastewater treatment processes and discharges.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high-quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility.

Replacement program priorities are determined through established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service (see performance measures) and the assessment of the condition of assets (through capital master planning), drive the priorities of the capital replacement program.

The Pollution Control Lab Instrumentation Replacement Program is included in the Utilities Capital Improvement Planning and Prioritization process and has been ranked as the #2 priority for the Wastewater Fund. The priority is high because the wastewater treatment facilities rely on the PCL to perform process monitoring and state required testing of its processes and discharges. The Lab also performs specialized tests on Poudre River samples for nearby regional agencies as part of a formal cooperative monitoring program approved by CDPHE. Thereby, the PCL generates revenue for the City by performing fee based testing and reporting for those water reclamation agencies.

Instrumentation to be replaced include those that have a significant dollar cost.

This Offer supports the following Strategic Objectives:

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information



Offer 6.45: Capital Replacement - Utilities: Wastewater - Pollution Control Lab Instrumentation

- The PCL is authorized by the Colorado Department of Health & Environment (CDPHE) to perform and report discharge permit regulatory compliance test results. The lab uses advanced (expensive) analytical instruments to perform those tests. After 10 to 15 years of use, factory spare parts and maintenance contracts become unavailable and the instruments need to be replaced.
- The accuracy and timeliness of the tests and reports performed at the PCL may be compromised without funds for replacement instrumentation. This offer would provide an ongoing source of funds to purchase needed replacement analytical instruments.
- The PCL has seen a 30% increase in tests since 2011. Over the years, the analytical instrumentation that performs these tests wears out, is no longer supported by the manufacturer, wears out and needs to be replaced.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/water/water-quality/lower-poudre-monitoring>
- http://www.fcgov.com/utilities/img/site_specific/uploads/pmp-article-epa.pdf
- http://www.fcgov.com/utilities/img/site_specific/uploads/pmp-sampling.pdf

Linkage to Strategic Objectives

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: The Poudre River and urban creek monitoring program implemented by the PCL contributes significantly to key outcomes for related to the Poudre River and associated ecosystems. Well-functioning lab instrumentation that meets detection limits is an integral part of meeting those goals.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The PCL provides critical analytical services to ensure that the wastewater facility meets all regulatory requirements. Data generated by the PCL must be reported monthly to the state to meet reporting requirements.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer will ensure that capital investments made in laboratory equipment contribute to achieving defined levels of service, contribute to meeting performance targets, and are the most cost effective and efficient.

Improvements & Efficiencies

- Efficiencies associated with this offer include:
 - Replacement of older equipment with newer, safer, more energy efficient instrumentation and equipment.
 - Improved water quality through the replacement of critical water quality monitoring processes.



Offer 6.45: Capital Replacement - Utilities: Wastewater - Pollution Control Lab Instrumentation

- Efficiencies associated with this offer include (Continued):
 - Improved reliability of testing and reporting services through less unplanned and planned lab process interruptions
 - Cost savings through reductions in the number of unplanned equipment repairs and breakdowns.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362326>
- ENV 119. Reliability: Water Reclamation Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362327>

Personnel Changes

- Not Applicable - No proposed personnel changes.

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.45: Capital Replacement - Utilities: Wastewater - Pollution Control Lab Instrumentation

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		50,000	30,000	-40.0%
	570000 - Other	50,000	30,000	-40.0%
	Total Expenses	50,000	30,000	-40.0%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	50,000	30,000	-40.0%
	Funding Source Total	50,000	30,000	-40.0%



Offer 6.46: Utilities: Wastewater - Payments and Transfers

2017: \$8,889,364 and 0.00 FTE, 0.00 Hourly FTE

2018: \$9,120,841 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This package includes the payments and transfers made from the Wastewater Fund including:

- Payment in Lieu of Taxes (PILOT) to the General Fund
- Payment for General Fund services
- Risk Management expenses
- Debt service
- Wastewater Fund's share of Utilities Customer Service and Administrative Services Fund
- Payments to other City funds for miscellaneous services

Payment in Lieu of Taxes to the General Fund is equal to 6% of operating revenues. The administrative transfer to the General Fund pays for administrative services including investments, finance, purchasing, human resources, City Manager, City Attorney and information technology services. A large portion of this offer includes payments attributed to bond principal and interest obligations of the Wastewater Fund.

This Offer supports the following Strategic Objectives:

- HPG 7.1 - Provide world-class services that meet the needs of the community
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses

Additional Information

- This offer includes the following payments and transfers to other funds in 2017:
 - \$1.3 million Payment in Lieu of taxes to the General Fund
 - \$714,000 Administrative transfer to General Fund
 - \$307,000 Risk Management expenses
 - \$2.9 million Bond Principal & Interest
 - \$3.0 million Transfer to the Utility Customer Service & Admin Fund
 - Other miscellaneous transfers are also included
- This offer includes the following payments and transfers to other funds in 2018:
 - \$1.3 million Payment in Lieu of taxes to the General Fund
 - \$732,000 Administrative transfer to General Fund
 - \$315,000 Risk Management expenses
 - \$2.9 million Bond Principal & Interest
 - \$3.2 million Transfer to the Utility Customer Service & Admin Fund
 - Other miscellaneous transfers are also included



Offer 6.46: Utilities: Wastewater - Payments and Transfers

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- HPG 7.1 - Provide world-class services that meet the needs of the community: This offer provides direct funding for General Fund departments, the Utilities Customer Connections Department, and other utility support services to accomplish this objective. The Payments in Lieu of Taxes provide a stable revenue source to the General Fund to maintain general government services to the community including police, fire, streets, and traffic operations.
- ECON 3.7 - Sustain high water quality to support the community and water-dependent businesses: This offer also supports the debt service necessary to renew wastewater infrastructure.

Improvements & Efficiencies

- No improvements have been identified for this offer. Improvements and efficiencies related to the programs and services funded by the transfers in this offer are included with the other fund offers.

Performance Metrics

- ENV 7. Community per capita per day of solid waste generation
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91344>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- There are no changes between this offer and the prior offer.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

text change

Offer Profile

Offer Owner: LASmith

Lead Department: Utility Financial Operations



6.46: Utilities: Wastewater - Payments and Transfers

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	-	-	- %	
Expenses				
512000 - Benefits	138,000	138,000	- %	
510000 - Personnel Services	138,000	138,000	- %	
522000 - Governmental Services	8,000	8,000	- %	
529000 - Other Prof & Tech Services	5,000	5,000	- %	
520000 - Purchased Prof & Tech Services	13,000	13,000	- %	
541000 - Insurance	179,000	185,000	3.4%	
543000 - Internal Admin Services	4,975,164	5,186,518	4.2%	
540000 - Other Purchased Services	5,154,164	5,371,518	4.2%	
572000 - Bad Debt Expense	30,000	30,000	- %	
579000 - Other	500,000	500,000	- %	
570000 - Other	530,000	530,000	- %	
581000 - Debt Service	2,861,000	2,867,500	0.2%	
580000 - Debt & Other Uses	2,861,000	2,867,500	0.2%	
591000 - Transfers to Funds	193,200	200,823	3.9%	
590000 - Transfers Out	193,200	200,823	3.9%	
Total Expenses	8,889,364	9,120,841	2.6%	
Funding Sources				
503-Wastewater Fund: Ongoing	Ongoing Restricted	8,889,364	9,120,841	2.6%
Revenue				
Funding Source Total		8,889,364	9,120,841	2.6%



Offer 6.47: Capital Replacement - Utilities: Wastewater - Minor Capital

2017: \$692,844 and 0.00 FTE, 0.00 Hourly FTE

2018: \$913,500 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will pay for the purchase or replacement of minor capital wastewater enterprise related assets. Minor capital may be used for small projects that involve replacement or improvement to current assets, to purchase and/or replace fleet vehicles, and to make computer hardware purchases.

A large majority of the Minor Capital expenditure is for fleet replacement. Fleet Services used an asset management program that considers age, mileage, repair costs, and purchase cost to determine when to replace a vehicle. Each vehicle is also reviewed for how it is used and whether the business need has evolved over time. This allows the department to 'right size' the vehicle for its most efficient and effective use into the future.

Minor capital wastewater enterprise expenditures also include the design and construction of small-scale, minor capital wastewater facility projects. Projects for 2017 and 2018 include but are not limited to:

- Replacement of a 6-inch non potable water line
- North Process Train Aeration Line Repair
- North Process Train Glycol Line and Radiant Heater Replacements

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- SAFE 5.6 - Optimize the use of data and technology to improve service and protect mission critical infrastructure
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- Whenever available, vehicles fueled by Compressed Natural Gas (CNG) are considered in order to reduce GHG emissions.
- Vehicles are evaluated to determine if there is a 'second life' opportunity within the existing structure or with another department. For example, a vehicle that no longer meets the business need of the department may still be valuable to others with different needs.

Links to Further Details:

- Not applicable



Offer 6.47: Capital Replacement - Utilities: Wastewater - Minor Capital

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Updating the equipment in a 20 year old fleet to modern engines will reduce emission due to higher standards manufacturers now follow.
- SAFE 5.6 - Optimize the use of data and technology to improve service and protect mission critical infrastructure: Automated controls in new or improved capital purchases enhance productivity and improve safety.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This offer optimizes the use of the City's existing wastewater assets through the timely repair and replacement of aging or obsolete assets.

Improvements & Efficiencies

- A vehicle replacement plan has been developed in coordination with Fleet Services to proactively plan for future purchases.
- All vehicles purchases are reviewed to 'right size' the business need and optimize fuel economy for the work done.
- The Utilities proactively manages its infrastructure, assets, and resources to support reliable, high quality service to our water customers. Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility. The process continues to evolve and improve each budget cycle.
- Minor capital projects are evaluated by staff according to the priorities for established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction, and safety.

Performance Metrics

- ENV 111. Average Fuel Economy in miles/hours per gallon
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=313972>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362326>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6344&object=measure&objectID=362329>

Personnel Changes

- Not Applicable



Offer 6.47: Capital Replacement - Utilities: Wastewater - Minor Capital

Differences from Prior Budget Cycles

- These purchases were previously included in the Core Offers for each fund.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.47: Capital Replacement - Utilities: Wastewater - Minor Capital

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
555000 - Office & Related Supplies		2,000	2,000	- %
	550000 - Supplies	2,000	2,000	- %
562000 - Buildings		100,000	100,000	- %
565000 - Vehicles & Equipment		590,844	811,500	37.3%
	560000 - Capital Outlay	690,844	911,500	31.9%
	Total Expenses	692,844	913,500	31.8%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	692,844	892,657	28.8%
503-Wastewater Fund: Reserves	Reserve	-	20,843	- %
	Funding Source Total	692,844	913,500	31.8%



Offer 6.50: ENHANCEMENT CAPITAL - Utilities: Wastewater - Inflow-Infiltration Study

2017: \$200,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide additional consulting help to assist the Utility in determining locations of excess water inflow and infiltration (I&I) to the sanitary sewer system and determine the best alternative for reducing or eliminating such occurrences.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality, product availability, regulatory compliance, customer satisfaction and safety. Performance and targets for established levels of service as well as organizational objectives drive the priorities of the Utilities Capital Improvement Plan.

The Collection System I&I Study was evaluated in the Utilities Capital Improvement Planning and Prioritization process and ranked #11 in priority.

I&I is excess water that is essentially clean runoff or groundwater entering the sanitary sewer system. In 2011 2012, the Utility performed studies using flow monitors to determine which areas of the city contributed higher than acceptable levels of I&I to the sanitary sewer collection system. This methodology eliminated over 77% of the system as areas of concern. This project will focus on the remaining areas to pinpoint specific locations of excess I&I and determine the best approach to eliminate it. Methods for locating sources of I&I will include public communication and 'smoke testing' where a nontoxic colored smoke is blown into the sewers to see where it seeps out.

I&I increases the volume of flow to the wastewater treatment plant resulting in increased use of energy, chemicals and plant capacity. Reducing I&I results in lower costs to the customer.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information



Offer 6.50: ENHANCEMENT CAPITAL - Utilities: Wastewater - Inflow-Infiltration Study

- The deterioration of the pipe and manholes causes sewer line breaks and failures, which causes infiltration of ground water into the collection system resulting in higher treatment costs, possible contamination of ground water and causes damage to streets and private property.
- The systematic investigation of the system allows the Utility to utilize staff time more efficiently, to perform the work under safe and controlled conditions, to minimize inconvenience to customers and to avoid the higher costs which relate to emergency repair situations.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

There are 21 basins identified that are contributing excess I&I to our system. This is already a phased approach to investigation. Additional reduction or delay only exacerbates the problem.

Links to Further Details:

- <http://www.fcgov.com/utilities/what-we-do/wastewater>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Wastewater Operations is heavily regulated by the EPA, State of Colorado and local regulations. The regulatory oversight provides validation of our role in protecting the public and environmental health of the community.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Wastewater operations primary role is to collect, contain, and treat wastewater to standards that will not adversely affect the environment. Deteriorated or failed collection infrastructure will be identified through this Offer.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: A well maintained system ensures the highest quality of service for our customers. This offer assists in identifying where to focus our attention so that the basic need to collect and treat wastewater can be met and thereby provide the level of resiliency and preparedness that the community expects.

Performance Metrics

- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109736>

Explanation of Any Adjustments to Personnel Costs using object 519999



***Offer 6.50: ENHANCEMENT CAPITAL - Utilities: Wastewater -
Inflow-Infiltration Study***

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: JHaukaas

Lead Department: Utility Financial Operations



6.50: ENHANCEMENT CAPITAL - Utilities: Wastewater - Inflow-Infiltration Study

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		200,000	-	- %
	570000 - Other	200,000	-	- %
	Total Expenses	200,000	-	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	200,000	-	- %
	Funding Source Total	200,000	-	- %



Offer 6.51: ENHANCEMENT CAPITAL - Utilities: Wastewater - Anaerobic Digester Lid Replacement

2017: \$0 and 0.00 FTE, 0.00 Hourly FTE

2018: \$2,100,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds replacement of one anaerobic digester lid at the Drake Water Reclamation Facility (DWRf). Anaerobic digesters treat the organic solid matter from the wastewater treatment process by reducing the organic matter from a smelly mixture to a relatively odor-free dewaterable substance that can be put to beneficial reuse (biosolids). In the digestion process, biogas is produced and can be put to beneficial reuse as heat and power. Digesters are critical to an effective wastewater treatment process.

This digester lid was originally installed in the 1960s and is beyond its useful life. Replacement is necessary to ensure regulatory compliance with water quality and biosolids regulations, to ensure the operational safety of staff and the public, and to improve anaerobic digestion efficiency and biogas storage capacity.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality and availability, reliability, compliance, customer satisfaction and safety. Performance and targets for established levels of service and organizational objectives drive the priorities of the Utilities Capital Improvement Plan (CIP).

The proposed digester lid replacement was evaluated in the Utilities CIP and Prioritization process and ranked No. 1 project out of 46 within the Wastewater Fund. The project ranked high for safety and reliability due to the hazards associated with the generation of biogas stored under pressure by the digester lid and the importance of the digesters in meeting regulatory requirements.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- Anaerobic digestion produces methane, carbon dioxide, hydrogen sulfide, and ammonia. Along with other biogas components, biogas presents safety risks including explosion, asphyxiation, disease, and hydrogen sulfide poisoning and consequently must be well maintained to prevent any equipment failures and eliminate associated safety risks.



Offer 6.51: ENHANCEMENT CAPITAL - Utilities: Wastewater - Anaerobic Digester Lid Replacement

- Current lids were installed in the 1960's and no longer meet the safety, integrity, or operational needs of the wastewater facility. For example, current lids do not allow as much biogas storage as a replacement lid.
- The replacement of this lid will follow up on the replacement of digester 611 lid in 2015. After completion, DWRF will have replaced 2/4 lids.
- Anaerobic digesters serve a key role in digesting organic waste received from residents and converting that waste to gas and energy. In the future, the City will rely on anaerobic digesters to divert organic waste from the landfill, digest that waste, and convert that waste into energy to be beneficially reused. This is important for meeting City waste to energy CAP goals.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This project is not scalable.

Links to Further Details:

- <http://www.wef.org/Biosolids/page.aspx?id=7554>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): DWRF's anaerobic digesters can process up to 13,687 tons of organic material per year, which represents about 66% of the total organic waste generated by Fort Collins households. If digesters are well maintained, they can process organic waste more effectively and efficiently without process upsets thus contributing to CAP goals.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City's Strategic Plan states that, in order to meet regulatory requirements, the City must manage, maintain, and improve City water and wastewater assets, including treatment facilities. Effectively operating anaerobic digesters are needed to meet permitting requirements.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This project was evaluated and prioritized in the Utilities Asset Management Process based on established levels of service for key criteria. The project was also identified as a priority in the Water Reclamation Master Planning process.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)



Offer 6.51: ENHANCEMENT CAPITAL - Utilities: Wastewater - Anaerobic Digester Lid Replacement

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044)

- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343)

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.51: ENHANCEMENT CAPITAL - Utilities: Wastewater - Anaerobic Digester Lid Replacement

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
<hr/>				
Expenses				
579000 - Other		-	2,100,000	- %
	570000 - Other	-	2,100,000	- %
	Total Expenses	-	2,100,000	- %
<hr/>				
Funding Sources				
503-Wastewater Fund: Reserves	Reserve	-	2,100,000	- %
	Funding Source Total	-	2,100,000	- %



Offer 6.52: ENHANCEMENT CAPITAL - Utilities: Wastewater - Dewatering Improvements

2017: \$2,135,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$2,135,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the replacement and addition of sludge dewatering equipment at the Drake Water Reclamation Facility (DWRF). The dewatering process is needed to remove water, stabilize, transport, and apply biosolids at Meadow Springs Ranch. This offer includes the addition of two centrifuges to the dewatering process. The old centrifuges will serve as back up equipment and provide redundancy during equipment down times.

The dewatering equipment currently in use is outdated, energy inefficient, frequently out of service, and requires a significant amount of staff time to maintain. Vendors no longer are available to help troubleshoot in a timely manner when one or both of the centrifuges go down. In addition, we have very limited on site storage which increases the necessity to have functioning, dependable dewatering equipment.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality and availability, reliability, compliance, customer satisfaction and safety. Performance and targets for established levels of service and organizational objectives drive the priorities of the Utilities Capital Improvement Plan (CIP).

The proposed dewatering improvements were evaluated in the Utilities CIP and Prioritization process and ranked #7 out of 46 projects within the Wastewater Fund. The project ranked high for compliance, safety, and reliability due to the importance of dewatering in meeting regulatory requirements and ensuring that biosolids can be consistently dewatered and transported offsite.

The majority of unscheduled overtime and pay at DWRF is due to weekend work required to dewater solids when equipment has been down for repairs.

The cost estimate for this project is based on a conceptual design. A complete design may result in an increase or decrease in the cost to meet the project deliverables.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information



Offer 6.52: ENHANCEMENT CAPITAL - Utilities: Wastewater - Dewatering Improvements

- Centrifuge operations and maintenance involves the Plant Operator, Mechanical, Electrical, and Meadow Springs Ranch groups. When equipment is not functioning, it impacts the entire Division.
- Dewatering with our current centrifuges is a high energy consumer because of dated technology. Replacing with new units will decrease our energy consumption and energy costs.
- Dewatering removes the water from the biosolids and generates a solid concentration that is safer to haul and more efficient at land application.
- Adding two new centrifuges will reduce maintenance, staff, and downtime costs associated with corrective and emergency repairs on current equipment.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This project is scalable. We could purchase only 1 centrifuge. However the costs associated with engineering, construction, and design would need to incorporate the purchase of two. As a result, while it technically is scalable it would be cost prohibitive to only do one at a time.

Links to Further Details:

- <http://www.wef.org/Biosolids/page.aspx?id=7554>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): The current centrifuges are among the highest energy consumer items at DWRF. Replacing these units with higher energy efficiency units will support CAP goals by decreasing energy consumption compared to current equipment.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City's Strategic Plan states that, in order to meet regulatory requirements, the City must manage, maintain, and improve City water and wastewater assets, including treatment facilities. Effectively operating centrifuges are needed to meet permitting requirements.
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This project was evaluated and prioritized in the Utilities Asset Management Process based on established levels of service for key criteria. The project was also identified as a priority in the Water Reclamation Master Planning process.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)



Offer 6.52: ENHANCEMENT CAPITAL - Utilities: Wastewater - Dewatering Improvements

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044)

[linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044)

- ENV 35. Electricity (GHG) 2020 CAP Goal vs Actual

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=303158)

[linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=303158](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=303158)

- ENV 119. Reliability: Water Reclamation Asset Renewal/Replacement Rate

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362327)

[linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362327](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362327)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.52: ENHANCEMENT CAPITAL - Utilities: Wastewater - Dewatering Improvements

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		2,135,000	2,135,000	- %
	570000 - Other	2,135,000	2,135,000	- %
	Total Expenses	2,135,000	2,135,000	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	2,135,000	2,135,000	- %
	Funding Source Total	2,135,000	2,135,000	- %



Offer 6.53: ENHANCEMENT CAPITAL - Utilities: Wastewater - Facility Sludge Strain Press Redundancy

2017: \$720,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$800,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds one additional sludge strain press for the Drake Water Reclamation Facility's sludge handling process. The sludge straining press process prevents small inorganic particles from entering the primary clarifiers and the anaerobic digesters, reducing the need for significant maintenance and improving the wastewater treatment process.

An additional strain press will provide redundancy and operational flexibility for the facility's existing strain press, which is 16 years old.

Prior to the installation of the current sludge strain press, the majority of the inorganic particles that accumulated in the digesters had to be removed regularly to maintain digester capacity. The sludge strain process removes the sludge and presses it out in a dry mat that can be dropped into a dumpster and landfilled. Removing the inorganics prior to digestion improves digestion efficiency, generates increased volume and quality of biogas, reduces O&M costs, and provides redundancy for existing equipment.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality and availability, reliability, compliance, customer satisfaction and safety. Performance and targets for established levels of service and organizational objectives drive the priorities of the Utilities Capital Improvement Plan (CIP).

The proposed additional sludge strain press was evaluated in the Utilities CIP and Prioritization process and ranked #22 out of 46 projects within the Wastewater Fund. The project ranked high for reliability and compliance as it provides redundancy for current equipment and assists in meeting regulatory requirements. The project ranked relatively low for safety and customer satisfaction.

The cost estimate for this project is based on a conceptual design. A complete design may result in an increase or decrease in the cost to meet the project deliverables.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management



Offer 6.53: ENHANCEMENT CAPITAL - Utilities: Wastewater - Facility Sludge Strain Press Redundancy

Additional Information

- Prior to the current strain press installation, the City's 4 anaerobic digesters were cleaned on a biannual basis. This required ~640 hours and produced tons of trash and hair to be hauled out by hand and sent to the landfill. Installation of the original sludge press in 2000 reduced the digester cleaning time to ~160 hours and the trash was reduced to primarily inorganic grit and struvite.
- DWRf bars screens are old but functional. However, our bar screens have a wider than current technology bar spacing which can allow increased inorganics to the process. This project is a cheaper and preliminary solution to help remove inorganics ahead of the bar screens for increase efficiency down process
- While the sludge strain process generates solid waste, DWRf staff have reduced the number of hauled waste pickups from this process to the landfill by increasing the size of the roll-off container.
- Inorganic material, especially hair is extremely difficult to deal with and negatively impacts the life cycle of down process equipment and increases the O&M staff time to maintain. The sludge strain process is critical for removing this type of material from the process.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer is not scalable.

Links to Further Details:

- <http://www.huber.de/products/sludge-treatment/sludge-screening/huber-sludgecleaner-strainpressr.html>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City's Strategic Plan states that, in order to meet regulatory requirements, the City must manage, maintain, and improve City water and wastewater assets, including treatment facilities. An effectively operating and redundant sludge straining process is needed to maintain permit compliance.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: An effective wastewater treatment process is critical to ensuring that the City's wastewater facilities meet all permit requirements and discharge a high quality effluent to local waterbodies, including the Poudre River.



Offer 6.53: ENHANCEMENT CAPITAL - Utilities: Wastewater - Facility Sludge Strain Press Redundancy

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This project was evaluated and prioritized in the Utilities Asset Management Process based on established levels of service for key criteria. The project was also identified as a priority in the Water Reclamation Master Planning process. The project ranked high relative to reliability due to the redundancy it provides for current processes.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.53: ENHANCEMENT CAPITAL - Utilities: Wastewater - Facility Sludge Strain Press Redundancy

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		720,000	800,000	11.1%
	570000 - Other	720,000	800,000	11.1%
	Total Expenses	720,000	800,000	11.1%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	720,000	800,000	11.1%
	Funding Source Total	720,000	800,000	11.1%



Offer 6.54: ENHANCEMENT CAPITAL - Utilities: Wastewater - Water Reclamation and Biosolids Master Plan

2017: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the completion of a Capital Project Master Plan for the Water Reclamation and Biosolids (WRB) Division of Utilities. The WRB Division is responsible for treating wastewater in compliance with all requirements and returning clean water to local waterbodies, including the Poudre River. In addition, WRB manages and beneficially reuses biosolids generated by the treatment process.

As part of its Asset Management Program, Utilities is committed to proactively managing its infrastructure, assets, and resources to support reliable, high-quality service to our water customers. Capital master planning is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility.

Master plans provide an assessment of the condition of current assets, consider future regulatory requirements and technologies, and evaluate future capital investment alternatives. This ensures that Utilities bases its capital investments on defined levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety and that any investment contributes to meeting established performance targets.

Master plans are typically completed every five years. WRB's last Master Plan (MP) was completed in 2009.

The WRB Master Plan will include an analysis of the following:

- Assessment of current assets
- Future regulatory requirements
- Wastewater as a community resource recovery facility
- Collection system impacts to WW treatment (I&I)
- Waste to Energy options and action items
- Alternative financing strategies
- Pretreatment footprint in the community
- Solids management
- Meadow Springs Ranch management and opportunities
- Emergency preparedness and employee safety



Offer 6.54: ENHANCEMENT CAPITAL - Utilities: Wastewater - Water Reclamation and Biosolids Master Plan

This Offer supports the following Strategic Objectives:

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- The WRB recently transitioned from one engineering firm to another. The proposed MP will be developed with new firms and leadership with a focus on future needs, goals, and innovations.
- The MP process is critical to effective asset management, providing direction for identification and prioritization of capital asset needs.
- The MP considers growth projections, waste strength, collection system goals, CAP impacts, emergency preparedness, and community resiliency.
- Master planning is a best practice of high performing Utilities.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Not applicable

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: The City's wastewater facilities are permitted to discharge directly to the Poudre River. Effective master planning contributes to ensuring that those discharges meet all regulatory requirements and do not impair the ecosystems of the Poudre River.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City's Strategic Plan states that, in order to meet regulatory requirements, the City must manage, maintain, and improve City water and wastewater assets, including treatment facilities. Master plans are a critical component of ensuring the Wastewater Utility meets all permitting requirements.



Offer 6.54: ENHANCEMENT CAPITAL - Utilities: Wastewater - Water Reclamation and Biosolids Master Plan

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This project was evaluated and prioritized in the Utilities Asset Management Process based on established levels of service for key criteria. The project was also identified as a priority in the Water Reclamation Master Planning process.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362326>
- ENV 119. Reliability: Water Reclamation Asset Renewal/Replacement Rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=362327>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.54: ENHANCEMENT CAPITAL - Utilities: Wastewater - Water Reclamation and Biosolids Master Plan

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		500,000	-	- %
	570000 - Other	500,000	-	- %
	Total Expenses	500,000	-	- %
Funding Sources				
503-Wastewater Fund: Reserves	Reserve	500,000	-	- %
	Funding Source Total	500,000	-	- %



Offer 6.55: ENHANCEMENT 1.0 FTE - Utilities: Wastewater - Resource Recovery Specialist

2017: \$62,453 and 1.00 FTE, 0.00 Hourly FTE

2018: \$77,065 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will provide funding for an additional Resource Recovery (RR) Specialist at Meadow Springs Ranch (MSR). MSR is a 26,600-acre property managed by the Water Reclamation and Biosolids Division. The primary function and purpose of MSR is for biosolids land application, cattle grazing and environmental stewardship of rangeland ecology.

RR Specialists perform daily operational activities on MSR, located 30 miles north of Fort Collins. Currently two dedicated FTEs perform all operations on the property. Because of this current lack of FTEs, staff must work alone, which presents a safety risk and limits the efficiency of work completed on such a large property. In addition, because of this lack of redundancy, staff has limited opportunities for training and development. Maintaining an acceptable work/life balance is also a challenge when scheduling vacations and ensuring adequate coverage.

Since 1994, biosolids production has increased 40% with early months of 2016 indicating this increase will continue. Because of the increase, the need to maintain one dedicated biosolids hauler/driver (Resource Recovery Specialist) has further limited the staff available for day-to-day field operations and maintenance activities on Meadow Springs Ranch.

Meadow Springs Ranch is an industry-recognized best management example of successful regulatory compliant biosolids application, cattle operations, endangered species protection, neighbor relationships and environmental stewardship. All of the above have been validated by third-party accreditation through the EPA National Biosolids Management Program (ISO 14001 based), EPA 503 Regulations, revenue generation from cattle grazing operation, and numerous scientific studies with U.S. Environmental Protection Agency (EPA), Colorado State University (CSU), Colorado Fish and Game, Natural Areas and many more.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- HPG 7.4 - Develop and implement initiatives to achieve safety goals and continue to focus on employee health and wellness
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems

Additional Information



Offer 6.55: ENHANCEMENT 1.0 FTE - Utilities: Wastewater - Resource Recovery Specialist

- For the past two years, the gap for this position has been partially filled by seasonal employees. Filling this gap with seasonal help who are less experienced and lack the big picture commitment to the City's Vision, Mission, Values, Safety, and MSR priorities is no longer adequate.
- In 2015, one of our dedicated Resource Recovery staff suffered an injury at a cost >100K. The injury was potentially life altering and could have been avoided. The additional staff funded by this offer will assist in ensuring safe and proper operations at MSR.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$77,000

Scalability and explanation

This offer is not scalable.

Links to Further Details:

- <https://www.epa.gov/biosolids>
- <http://www.wef.org/Biosolids/page.aspx?id=7554>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Meadow Springs Ranch and its operations are regulated by the state and federal environmental agencies. Adequate staff is necessary to ensure continued compliance with regulations
- HPG 7.4 - Develop and implement initiatives to achieve safety goals and continue to focus on employee health and wellness: Additional staffing at the ranch will allow staff to perform the majority of work in pairs and not alone in remote areas of the Ranch. It will also contribute to better work/life balance of current MSR employees.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: Meadow Springs Ranch provides multiple environmental benefits. It serves as critical habitat for endangered species protection and has served as a location for numerous scientific studies with EPA, CSU, Colorado Fish and Game, and Natural Areas. Appropriate staffing is needed to ensure MSR continues to provide this benefit.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 117. Reliability: Biosolids Produced per MGD



Offer 6.55: ENHANCEMENT 1.0 FTE - Utilities: Wastewater - Resource Recovery Specialist

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=351150)

[linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=351150](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=351150)

- HPG 5. City Employee Safety - Days Away Restricted or Transferred (DART) Rate YTD

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6281&object=measure&objectID=91471)

[linkID=BFO&view=drill&scorecardID=6281&object=measure&objectID=91471](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6281&object=measure&objectID=91471)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.55: ENHANCEMENT 1.0 FTE - Utilities: Wastewater - Resource Recovery Specialist

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %	
Hourly (FTE)	-	-	- %	
Expenses				
511000 - Salaries & Wages	45,395	55,836	23.0%	
512000 - Benefits	17,058	21,229	24.5%	
510000 - Personnel Services	62,453	77,065	23.4%	
Total Expenses	62,453	77,065	23.4%	
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	62,453	77,065	23.4%
Funding Source Total		62,453	77,065	23.4%



Offer 6.56: ENHANCEMENT CAPITAL - Utilities: Wastewater - Sidestream Treatment

2017: \$0 and 0.00 FTE, 0.00 Hourly FTE

2018: \$4,300,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the design and installation of a wastewater side stream treatment system to meet future nutrient (nitrogen and phosphorus) regulations. The recycle stream from biosolids dewatering carries high nutrient concentrations back to the main stream treatment system. Side stream treatment will remove nutrients from the recycle stream, which can potentially be turned into fertilizer and reused.

The offer funds the design and installation of the side stream treatment system, a building to house the equipment; and ancillary piping, structural, and electrical improvements. Depending on equipment chosen, the equipment manufacturers also assist with handling and selling of the fertilizer to the marketplace.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for sustainability, product quality and availability, reliability, compliance, customer satisfaction and safety. Performance and targets for established levels of service and organizational objectives drive the priorities of the Utilities Capital Improvement Plan (CIP).

The proposed dewatering improvements were evaluated in the Utilities CIP and Prioritization process and ranked No. 4 out of 46 projects within the Wastewater Fund. The project ranked high for compliance and sustainability due to the importance of side stream treatment in meeting regulatory requirements and the opportunity to beneficially reuse the solids produced for fertilizer.

The cost estimate for this project is based on a conceptual design. A complete design may result in an increase or decrease in the cost to meet the project deliverables.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization
- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information



Offer 6.56: ENHANCEMENT CAPITAL - Utilities: Wastewater - Sidestream Treatment

- MWRf and DWRf's current discharge permits contain compliance schedules that require the City to take defined steps to meet phosphorus limits by 2020. The compliance schedules include specific dates in 2017 and 2018 where the City will need to finalize design and plan for construction of necessary infrastructure (which includes sidestream treatment) to meet permit limits.
- The Phosphorus and Nitrogen removed by sidestream treatment is a high value waste diversion strategy in which the City should invest.
- The City uses the 2015 Hierarchy of Materials Management as a guide in determining best use waste diversion strategies. This project will deliver on the second to highest best use as defined as 'Reduce Waste, Toxicity, Consumption, and Packaging.'
- This project also will reduce solids processing and disposal requirements; and has the potential to reduce power consumption and chemical usage. The potential payback for the sidestream treatment system is estimated to be less than 10 years based upon similarly sized installations in the U.S.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This project is not scalable.

Links to Further Details:

- <http://ostara.com/>
- <http://cnp-tec.com/>
- <http://www.multiformharvest.com/>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City's Strategic Plan states that in order to meet regulatory requirements, the City must manage, maintain, and improve City water and wastewater assets, including treatment facilities. The proposed side stream treatment is necessary to comply with current and future nutrient regulations. Without this project, DWRf would be challenged in meeting those requirements.
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization: This offer supports the City's CAP waste diversion goals by diverting solids from land application through nutrient recycling and producing an eco-friendly fertilizer that can be reused.



Offer 6.56: ENHANCEMENT CAPITAL - Utilities: Wastewater - Sidestream Treatment

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: This project was evaluated and prioritized in the Utilities Asset Management Process based on established levels of service for key criteria. The project was also identified as a priority in the Water Reclamation Master Planning process.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=267044>
- ENV 12. Tons of community recycled or composted materials, including cardboard
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91348>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.56: ENHANCEMENT CAPITAL - Utilities: Wastewater - Sidestream Treatment

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
<hr/>				
Expenses				
579000 - Other		-	4,300,000	- %
	570000 - Other	-	4,300,000	- %
	Total Expenses	-	4,300,000	- %
<hr/>				
Funding Sources				
503-Wastewater Fund: Reserves	Reserve	-	4,300,000	- %
	Funding Source Total	-	4,300,000	- %



Offer 6.65: Utilities: Light & Power - Energy Services

2017: \$4,234,054 and 9.00 FTE, 0.01 Hourly FTE

2018: \$4,263,877 and 9.00 FTE, 0.01 Hourly FTE

Offer Summary

This offer funds energy services programs, including the staffing and resources to deliver annual efficiency and conservation program savings at an ongoing level from 2015 and 2016. Together with offers 76 and 77 (Energy Services Enhancement and FTE), this offer will achieve the Energy Policy annual portfolio savings targets in 2017 and 2018 (1.75% and 2.0% of community electricity use respectively). Program planning, administration and funding are coordinated with Platte River Power Authority.

This offer funds:

- Efficiency Works Business incentives and technical assistance
- Efficiency Works Home incentives, technical assistance and program management
- Consumer product incentives
- Home energy reports
- Staff implementation and coordination for the Energy Policy, Journey to 2020, FortZED, ClimateWise, On Bill Financing, Green Building, Renewable Energy and Demand Response initiatives

Savings also result in annual carbon emissions reductions of more than 20,000 metric tons annually. Efficiency program savings are generated at an average cost of 3.5 cents per kilowatt hour, 40% lower than the cost of wholesale electricity. Approximately 75% of the funding in this offer provides direct rebates or services to customers.

The City's efficiency and conservation programs are important pieces to the Journey to 2020 plan, comprising over 50% of the required savings to reach the 2020 goals. Efficiency and conservation are widely acknowledged as the most cost-effective path toward carbon emissions reductions. These programs directly address the triple bottom line by generating savings through lower utility bills; creating jobs by providing services to customers; reducing criteria pollutants and greenhouse gas emissions; and improving the comfort, safety and productivity of homes and businesses. Utilities reports on progress related to these outcomes with an annual update to City Council.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information



Offer 6.65: Utilities: Light & Power - Energy Services

- This ongoing offer supports the objectives of the Energy Policy and Climate Action Plan.
- Efficiency and conservation programs provide the lowest cost energy savings and net benefits for utility customers and the community.
- The implementation plans include continuous improvement of existing programs, development of new collaborative programs with Platte River Power Authority and other member cities, streamlining and simplifying customer participation processes, and comprehensive outreach strategies.

Links to Further Details:

- http://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf
- <http://www.fcgov.com/dashboard/index.php?action=detail&mid=33>
- http://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2014_Energy_Policy_annual_update.pdf
- <http://www.fcgov.com/utilities/residential/conserve/rebates-programs>
- <http://www.fcgov.com/utilities/business/improve-efficiency>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Energy efficiency strategies comprise 50% of the 2020 CAP strategic plan reductions. Develop and implement building codes, green building programs and energy conservation programs that drive efficiency and conservation, and reduce GHG emissions.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Existing buildings account for two-thirds of Fort Collins' GHG emissions. Significant opportunities exist through efficiency and conservation to reduce impacts. Support fundamental shifts toward renewable energy, which will be needed to meet community GHG and energy goals.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Improvements & Efficiencies

- Under the Efficiency Works brand, Fort Collins continues to collaborate with Platte River Power Authority and other member Cities to develop comprehensive regional efficiency program approaches. These approaches provide for continuous improvement to simplify implementation for both internal and external customers.
- Platte River has plans to increase efficiency funding, of which Fort Collins receives an equity share of nearly 50%. These funds help support Fort Collins Energy Policy and CAP goals.



Offer 6.65: Utilities: Light & Power - Energy Services

Performance Metrics

- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91396>
- ENV 3. Community Energy Use
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91392>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- Personnel costs are lower because of a change in the structure of the Customer Connections Service Area; program coordinators are now budgeted in their on-going offer.
- In a mid-cycle CAP budget process, an FTE was approved for a new Energy Code Compliance Specialist position. 50% of this FTE personnel costs are budgeted in this offer.
- Staffing is covered under this offer for ongoing offers for demand response and renewable energy programs and services.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

None

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.65: Utilities: Light & Power - Energy Services

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	9.00	9.00	- %
Hourly (FTE)	0.01	0.01	- %
Expenses			
511000 - Salaries & Wages	841,679	862,726	2.5%
512000 - Benefits	239,651	248,419	3.7%
519000 - Other Personnel Costs	(20,399)	(20,399)	- %
510000 - Personnel Services	1,060,931	1,090,746	2.8%
521000 - Professional & Technical	1,255,000	1,255,000	- %
520000 - Purchased Prof & Tech Services	1,255,000	1,255,000	- %
533000 - Repair & Maintenance Services	6,873	6,881	0.1%
530000 - Purchased Property Services	6,873	6,881	0.1%
544000 - Employee Travel	12,250	12,250	- %
549000 - Other Purchased Services	84,000	84,000	- %
540000 - Other Purchased Services	96,250	96,250	- %
555000 - Office & Related Supplies	8,500	8,500	- %
559000 - Other Supplies	1,500	1,500	- %
550000 - Supplies	10,000	10,000	- %
573000 - Rebates & Incentives	1,805,000	1,805,000	- %
570000 - Other	1,805,000	1,805,000	- %
Total Expenses	4,234,054	4,263,877	0.7%
Funding Sources			
501-Light & Power Fund: Ongoing	4,234,054	4,263,877	0.7%
Ongoing Restricted Revenue			
Funding Source Total	4,234,054	4,263,877	0.7%



Offer 6.67: Utilities: Light & Power - Residential & Commercial Solar Rebates

2017: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports small scale solar rebates for residential and commercial customers. This offer supports the Fort Collins Energy Policy goal of 2% local distributed renewable generation by 2020, the Climate Action Plan (CAP) 2020 Strategic Plan and community targets for the Colorado Renewable Energy Standard (RES).

This offer funds:

- Solar rebates for small scale solar systems for residential and business customers (\$500,000 annually)
- The solar photovoltaic (PV) rebate program, which offers a \$0.50 per Watt incentive for residential and commercial projects - the rebate and funding amount are expected to be able to provide a year-round rebate program for customers
- This supports the installation of 150 to 200 projects and 1,000 kW annually
- Rebate amounts may be adjusted in response to market conditions

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information

- Offer supports Fort Collins climate action and Energy Policy goals for carbon reduction and local distributed electric generation.
- Offer supports meeting Fort Collins commitments to the Colorado Renewable Energy Standard (RES).
- Offer supports demonstrated customer interest for solar projects.

Links to Further Details:

- www.fcgov.com/solar
- www.fcgov.com/solar-rebates
- www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf
- www.fcgov.com/environmentalservices/climateaction.php



Offer 6.67: Utilities: Light & Power - Residential & Commercial Solar Rebates

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Emission reduction strategies to meet greenhouse gas reduction goals are outlined in the CAP Framework, including strategies for buildings and energy supply.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Support fundamental shifts toward renewable energy, which will be needed to meet community GHG and energy goals.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Improvements & Efficiencies

- Solar rebates are adjusted annually to reflect on-going industry pricing for solar systems. This has the result that stable funding for solar rebates supports more system installations each year.

Performance Metrics

- ENV 25. Total new installed solar capacity (kilowatts)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- In the last budget cycle solar rebates were split between one ongoing (59.1) and a portion of one enhancement offers (59.2). This offer separates small scale solar rebates into a stand-alone ongoing offer. A second ongoing renewable energy offer addresses purchased power agreements. Three enhancement offers are submitted which address expanding local renewable energy options.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile



Offer 6.67: Utilities: Light & Power - Residential & Commercial Solar Rebates

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.67: Utilities: Light & Power - Residential & Commercial Solar Rebates

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	-	-	- %	
Expenses				
521000 - Professional & Technical	7,000	7,000	- %	
529000 - Other Prof & Tech Services	1,875	1,875	- %	
520000 - Purchased Prof & Tech Services	8,875	8,875	- %	
549000 - Other Purchased Services	1,000	1,000	- %	
540000 - Other Purchased Services	1,000	1,000	- %	
555000 - Office & Related Supplies	125	125	- %	
550000 - Supplies	125	125	- %	
573000 - Rebates & Incentives	490,000	490,000	- %	
570000 - Other	490,000	490,000	- %	
Total Expenses	500,000	500,000	- %	
Funding Sources				
501-Light & Power Fund: Ongoing Revenue	Ongoing Restricted	500,000	500,000	- %
Funding Source Total		500,000	500,000	- %



Offer 6.68: Utilities: Light & Power - Core Renewable Energy

2017: \$2,960,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$3,052,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports ongoing renewable energy power purchase needs from multiple sources. It supports the Fort Collins Energy Policy goal of 2% local distributed renewable generation by 2020, the Climate Action Plan (CAP) 2020 Strategic Plan and community targets for the Colorado Renewable Energy Standard (RES).

This offer provides:

- Funding to purchase 76,000,000 kilowatt hours of renewable energy under Platte River Power Authority wholesale Tariff 7 (\$1,824,000 annually). Tariff 7 is comprised of wind energy and wind energy credits, and meets a portion of the RES and voluntary purchases of renewable energy through Utilities' Green Energy Program. The cost of the voluntary portion of the purchases is offset by customer revenue (approximately \$350,000).
- Funding for solar power purchase agreements (PPA) for the Solar Power Purchase Program (SP3, \$850,000 annually). The basis of the SP3 is a fixed-price, 20-year PPA between Fort Collins Utilities and commercial customers for solar energy generation. This arrangement is commonly known as a "feed in tariff."
- Funding for the virtual net metering solar payments to subscribers of the Riverside Community Solar project (\$70,000 annually).
- Funding for the net production payments for residential and commercial net metered customers (\$140,000 annually).

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information

- Offer supports Fort Collins climate action and Energy Policy goals for carbon reduction and local distributed electric generation.
- Offer supports meeting Fort Collins commitments to the Colorado Renewable Energy Standard (RES).
- Offer supports contractual obligations for power purchase agreements.



Offer 6.68: Utilities: Light & Power - Core Renewable Energy

Links to Further Details:

- www.fcgov.com/solar
- <http://www.fcgov.com/utilities/residential/renewables/green-energy>
- www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf
- www.fcgov.com/environmentalservices/climateaction.php

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Emission reduction strategies to meet greenhouse gas reduction goals are outlined in the CAP Framework, including strategies for buildings and energy supply.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Support fundamental shifts toward renewable energy, which will be needed to meet community GHG and energy goals.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Improvements & Efficiencies

- Utilities collaborates with Platte River Power Authority to continually review the sources for Tariff 7 renewable energy with a focus to purchase bundled wind energy.
- Solar rebates are adjusted annually to reflect on going industry pricing for solar systems. This has the result that stable funding for solar rebates supports more system installations each year.
- The solar power purchase program is the first of its kind in Colorado and one of a handful in the country. Based on this funding commitment, the amount of distributed solar energy in Fort Collins will increase by approximately 300% in two years.

Performance Metrics

- ENV 25. Total new installed solar capacity (kilowatts)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398>
- ENV 26. Percent renewable energy towards compliance with State Renewable Energy Standards
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91399>
- ENV 35. Electricity (GHG) 2020 CAP Goal vs Actual
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=303158>



Offer 6.68: Utilities: Light & Power - Core Renewable Energy

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- In the last budget cycle the renewable purchased power component was combined with solar rebates (offer 59.1). This offer recognizes that all renewable energy purchased power payments need to have funding appropriated. This is new with the virtual net metering of the community solar project and with the monthly net production settlement for traditional net metered premises.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Added the word "Core" to the title as suggested by the BFO team

Offer Profile

Offer Owner: tmccollough

Lead Department: Utility Financial Operations



6.68: Utilities: Light & Power - Core Renewable Energy

Ongoing Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
557000 - Purchased Power		2,960,000	3,052,000	3.1%
	550000 - Supplies	2,960,000	3,052,000	3.1%
	Total Expenses	2,960,000	3,052,000	3.1%
Funding Sources				
501-Light & Power Fund: Ongoing Revenue	Ongoing Restricted	786,306	1,996,936	154.0%
501-Light & Power Fund: Reserves	Reserve	2,173,694	1,055,064	-51.5%
	Funding Source Total	2,960,000	3,052,000	3.1%



Offer 6.69: Utilities: Light & Power - Demand Response

2017: \$794,950 and 0.00 FTE, 0.00 Hourly FTE

2018: \$620,400 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports ongoing operations of Utilities Demand Response Management System (DRMS). The current demand response system, known as the Peak Partners Program, has over 4,500 enrolled households with thermostats and electric water heaters, along with a loan program for home energy monitors with the library.

This offer includes:

- DRMS software, hosting and maintenance
- Call center customer support
- Field service technicians to support maintenance and installation. 2018 field services to be provided by a subcontractor, reducing costs by \$70,000
- Program management services for all of the above, provided by Converge
- Incentives for residential participants (2017 only) and for multi-family property management companies

The DRMS forecasts, dispatches and controls air conditioning systems and electric water heaters, and commercial facilities in order to reduce consumption at peak times. The DRMS also provides inventory management and work orders for installation and maintenance, and supports two way, real time communications with devices, providing a forecast of available and verification of load reduction.

Currently the program delivers avoided power purchases of approximately \$300,000 per year by reducing wholesale demand charges. However, the DRMS is evolving to become a Distributed Energy Resource Management System. This will be an innovative and flexible platform to control, manage and dispatch grid resources with a focus on resources that are located in customers' homes and businesses (e.g., behind the meter). Various resources that could be integrated include thermostats from multiple manufacturers, electric vehicle charging stations, smart solar inverters and battery storage systems. Over time, it is expected that this system will be able to deliver additional value to the electric system beyond the simple reduction of peak demand.

The Peak Partners Program was established with ARRA funds and partial Utilities funding in 2015/16.

This Offer supports the following Strategic Objectives:

- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)



Offer 6.69: Utilities: Light & Power - Demand Response

Additional Information

- This ongoing offer supports the objectives of the Energy Policy and Climate Action Plan.
- Demand response is an enabling strategy for higher penetration of renewable energy and future electricity storage. As such, the DRMS is a foundational system to support future programs which will allow a better management of the electric grid supporting further penetration of renewables.
- In addition to the avoided power purchases this program supports customer engagement via the thermostat portal, which registered over 130,000 sessions during 2015.
- In anticipation of upcoming Time of Use rates, direct customer incentives are expected to be phased out in 2018. With a Time of Use rate structure, participating customers will benefit from the DRMS capabilities to shift electric use from on-peak to off-peak hours and delivering financial savings.

Links to Further Details:

- <http://www.fcgov.com/utilities/residential/conserve/energy-efficiency/peak-partners>
- <https://peakpartnersfortcollins.com/overview>
- http://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf

Linkage to Strategic Objectives

- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: This offer directly impacts the progress towards net zero energy by supporting customers to manage their use and the development of advanced grid solutions.
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer supports higher penetration of distributed energy resources over time.

Improvements & Efficiencies

- Funding for field services in 2018 is planned to shift from Comverge to a sub-contractor. This will save over \$70,000 in 2018 while providing for the best quality field services during the critical first year of normal operations. Field staff from Comverge in 2017 may be able to provide additional utility services at no additional cost.
- With the anticipated implementation of time of use rates (2018), the program will be able to eliminate residential customer incentives while continuing to provide a financial benefit. This will save \$120,000 in 2018.



Offer 6.69: Utilities: Light & Power - Demand Response

Performance Metrics

- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91396>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- This offer was an “enhancement” with the aim of deploying the new DRMS. This included setup and integration of the software, purchase of the new equipment (thermostat & water heaters controllers), marketing services, installation of the equipment and ongoing project management. The deployment was also supported by the Advanced Meter Fort Collins project, with funding from the Department of Energy.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.69: Utilities: Light & Power - Demand Response

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	350,950	359,050	2.3%
520000 - Purchased Prof & Tech Services	350,950	359,050	2.3%
533000 - Repair & Maintenance Services	294,000	231,350	-21.3%
530000 - Purchased Property Services	294,000	231,350	-21.3%
573000 - Rebates & Incentives	150,000	30,000	-80.0%
570000 - Other	150,000	30,000	-80.0%
Total Expenses	794,950	620,400	-22.0%
Funding Sources			
501-Light & Power Fund: Ongoing Ongoing Restricted Revenue	794,950	620,400	-22.0%
Funding Source Total	794,950	620,400	-22.0%



Offer 6.75: ENHANCEMENT - Utilities: Light & Power - Distributed Energy Resource Management System

2017: \$179,400 and 0.00 FTE, 0.00 Hourly FTE

2018: \$50,712 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer supports the evolution of the current Demand Response Management System into a Distributed Energy Resource Management System (DERMS). DERMS is an innovative and flexible platform to control, manage and dispatch grid resources located in customers' homes and businesses (e.g. behind the meter). This offer is related to L&P offer 5.23, Operational Technology, which is related to distribution system DER management. Resources that could be integrated include thermostats, electric vehicle chargers, smart solar inverters and battery storage systems. Over time, it is expected that this system will be able to deliver additional value to the electric system beyond the simple reduction of peak demand.

This offer includes:

- Adding 500 homes to the thermostat program in 2017 and 'Bring your own Device' (BYOD) to enable selected thermostats from third party manufacturers to be enrolled in the program
- Adding 500 homes to the program will continue to build the peak resource by approximately 500 kW, with additional avoided power purchases of approximately \$25,000 annually. Additional capacity supports demonstration with Platte River Power Authority for managing demand response for overall system benefits. It should be noted that the base offer already includes the installation costs of these 500 homes (a \$55,000 value) –even if no installations are performed as the vendor technicians will be doing maintenance service during 2017.

While it would likely add a limited number of customers during this two year period, BYOD is an enhancement to develop experience with new technologies to prepare for upcoming Internet of Things technologies and provide exceptional customer service through choice.

This Offer supports the following Strategic Objectives:

- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)

Additional Information

- This enhancement offer supports the objectives of the Energy Policy and Climate Action Plan.



Offer 6.75: ENHANCEMENT - Utilities: Light & Power - Distributed Energy Resource Management System

- Distributed energy resources are expected to become an increasingly important resource, and in some cases challenge, for utilities moving forward with low carbon strategies. As such, the DERMS is a foundational system to support future programs which will allow a better management of the electric grid supporting further penetration these distributed resources.
- In anticipation of upcoming Time of Use rates, direct customer incentives are expected to be phased out in 2018. With a Time of Use rate structure, participating customers will benefit from the DERMS capabilities to manage electric use in relation to on-peak to off-peak periods.
- The ongoing annual cost of \$21,000 is to maintain connectivity with third party thermostats.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$60,000

Scalability and explanation

The BYOD and expansion of participating customers are independent scopes and could be the basis for scaling the offer.

If scaling is selected, staff recommends to delay implementation of the BYOD to a future budget cycle. Delaying the expansion of participating customers will result in increased installation service costs of at least \$55,000 plus staff time.

This offer can also be scaled up to enroll up to 1000 Thermostats during the budget cycle at a cost of \$231,715.

Links to Further Details:

- <http://www.fcgov.com/utilities/residential/conserves/energy-efficiency/peak-partners>
- <https://peakpartnersfortcollins.com/overview>
- http://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf

Linkage to Strategic Objectives

- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: This offer directly impacts the progress towards net zero energy by supporting customers to manage their use and the development of advanced grid solutions.



Offer 6.75: ENHANCEMENT - Utilities: Light & Power - Distributed Energy Resource Management System

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer supports higher penetration of distributed energy resources over time.

Performance Metrics

- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91396>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Revised offer by removing the customized tips scope of work to reduce costs. Clarified language regarding demonstration benefits of bring your own device, the leverage of field services costs embedded in offer 6.69 and correction of the ongoing costs related to this enhancement offer.

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.75: ENHANCEMENT - Utilities: Light & Power - Distributed Energy Resource Management System

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	70,805	22,321	-68.5%
520000 - Purchased Prof & Tech Services	70,805	22,321	-68.5%
533000 - Repair & Maintenance Services	79,958	23,209	-71.0%
530000 - Purchased Property Services	79,958	23,209	-71.0%
573000 - Rebates & Incentives	28,637	5,182	-81.9%
570000 - Other	28,637	5,182	-81.9%
Total Expenses	179,400	50,712	-71.7%
Funding Sources			
501-Light & Power Fund: Reserves Reserve	179,400	50,712	-71.7%
Funding Source Total	179,400	50,712	-71.7%



Offer 6.76: ENHANCEMENT - Utilities: Light & Power - Energy Services

2017: \$950,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$950,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer provides incremental funding to achieve the increased goals of the Energy Policy and Climate Action Plan. The Energy Policy annual portfolio savings targets increase in 2017 and 2018 to 1.75% and 2.0% of community electricity use respectively.

This offer funds:

- Continuing the pilot Efficiency Works Neighborhoods program on an ongoing basis. The pilot of this new program model already shows great promise in reaching higher project savings and increased participation levels for existing home efficiency projects. The program accomplishes this through streamlined customer and contractor processes for home improvement packages tailored to specific neighborhoods and enhanced targeted outreach (\$250,000).
- Additional incentives to support increased participation in the Efficiency Works Business program (\$600,000)
- Additional incentives to support increased participation in the Integrated Design Assistance Program (\$100,000)

This offer is also related to offer 77, which would provide one Energy Services Engineer FTE. This incremental staff position will enable the Energy Services team to both plan and develop new programs and services while continuing to serve a growing level of participation in efficiency programs.

Savings also result in annual carbon emissions reductions of more than 5,000 metric tons. Efficiency program savings are generated at an average cost of 3.5 cents per kilowatt hour, 40% lower than the cost of wholesale electricity. 100% of the funding in this offer provides direct rebates or services to customers.

The City's efficiency and conservation programs are important parts of the Climate Action Plan (CAP), comprising over 50% of the required savings to reach the 2020 goals. Efficiency and conservation are widely acknowledged as the most cost-effective path toward carbon emissions reductions.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information



Offer 6.76: ENHANCEMENT - Utilities: Light & Power - Energy Services

- This enhancement offer supports the objectives of the Energy Policy and Climate Action Plan.
- Implementation of these programs also supports key strategic outcomes and objectives within Environmental Health, Economic Health, and Neighborhood Livability and Social Health. Utilities reports on progress related to these outcomes with an annual update to City Council.
- These programs directly address the triple bottom line by generating savings through lower utility bills; creating jobs by providing services to customers; reducing criteria pollutants and greenhouse gas emissions; and improving the comfort, safety and productivity of homes and businesses.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Over 90% of the proposed funding in this offer provides direct rebates or services to customers. This component of the offer (\$1M) can be scaled up or down and would result in proportional increase or decrease in energy and carbon savings. The proposed offer amount is estimated to meet customer interest in efficiency projects and to meet the goals of the Energy Policy.

Links to Further Details:

- <http://www.fcgov.com/utilities/residential/conserv/home-performance-packages/>
- <http://www.fcgov.com/utilities/business/improve-efficiency>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Energy efficiency strategies comprise 50% of the 2020 CAP strategic plan reductions. Develop and implement building codes, green building programs and energy conservation programs that drive efficiency and conservation, and reduce GHG emissions.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Significant opportunities exist through efficiency and conservation to reduce impacts.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Performance Metrics

- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91396>
- ENV 3. Community Energy Use



Offer 6.76: ENHANCEMENT - Utilities: Light & Power - Energy Services

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91392)

[linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91392](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91392)

- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline

[https://www.clearpointstrategy.com/publish/direct.cfm?](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343)

[linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

- Not applicable

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.76: ENHANCEMENT - Utilities: Light & Power - Energy Services

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	100,000	100,000	- %
520000 - Purchased Prof & Tech Services	100,000	100,000	- %
573000 - Rebates & Incentives	850,000	850,000	- %
570000 - Other	850,000	850,000	- %
Total Expenses	950,000	950,000	- %
Funding Sources			
501-Light & Power Fund: Reserves Reserve	950,000	950,000	- %
Funding Source Total	950,000	950,000	- %



Offer 6.77: ENHANCEMENT - 1.0 FTE - Utilities: Light & Power - Energy Services Engineer

2017: \$101,260 and 1.00 FTE, 0.00 Hourly FTE

2018: \$104,073 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer provides incremental funding to support one new Energy Services Engineer FTE. This incremental staff position will enable the Energy Services team to both plan and develop new programs and services while continuing to serve a growing level of participation in efficiency programs.

This offer is related to offers 65 (Energy Services Ongoing) and 76 (Energy Services Enhancement).

The Energy Policy annual portfolio savings targets in increase in 2017 and 2018 to 1.75% and 2.0% of community electricity use respectively. This position, along with the Energy Services offers, provides the resources necessary to meet these increasing goals.

The City's efficiency and conservation programs are important parts to the Climate Action Plan (CAP), comprising over 50% of the required savings to reach the 2020 goal. Efficiency and conservation are widely acknowledged as the most cost effective path toward carbon emissions reductions.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information

- This enhancement offer supports the objectives of the Energy Policy and Climate Action Plan.
- Implementation of these programs also supports key strategic outcomes and objectives within Environmental Health, Economic Health, and Neighborhood Livability and Social Health. Utilities reports on progress related to these outcomes with an annual update to City Council.
- These programs directly address the triple bottom line by generating savings through lower utility bills; creating jobs by providing services to customers; reducing criteria pollutants and greenhouse gas emissions; and improving the comfort, safety and productivity of homes and businesses.



Offer 6.77: ENHANCEMENT - 1.0 FTE - Utilities: Light & Power - Energy Services Engineer

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$100,000

Scalability and explanation

Offer is for one FTE and is not scalable

Links to Further Details:

- <http://www.fcgov.com/utilities/residential/conserves/home-performance-packages/>
- <http://www.fcgov.com/utilities/business/improve-efficiency>
- <http://www.fcgov.com/utilities/business/improve-efficiency/rebates-incentives/integrated-design-assistance>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Develop and implement energy programs that drive efficiency and conservation, and reduce GHG emissions.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Existing buildings account for two-thirds of Fort Collins' GHG emissions. Significant opportunities exist through efficiency and conservation to reduce impacts.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Performance Metrics

- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91396>
- ENV 3. Community Energy Use
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91392>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 6.77: ENHANCEMENT - 1.0 FTE - Utilities: Light & Power - Energy Services Engineer

- Not applicable

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.77: ENHANCEMENT - 1.0 FTE - Utilities: Light & Power - Energy Services Engineer

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	78,175	80,130	2.5%
512000 - Benefits	23,085	23,943	3.7%
510000 - Personnel Services	101,260	104,073	2.8%
Total Expenses	101,260	104,073	2.8%
Funding Sources			
501-Light & Power Fund: Ongoing Ongoing Restricted Revenue	101,260	104,073	2.8%
Funding Source Total	101,260	104,073	2.8%



Offer 6.78: ENHANCEMENT - Utilities: Light & Power - Renewable Non-Residential Solar Power Purchases

2017: \$72,500 and 0.00 FTE, 0.00 Hourly FTE

2018: \$282,500 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports the expansion of midsize non residential solar projects through twenty year power purchase agreements. Projects of this type are generally located on large commercial rooftops or may be ground mounted, and are “in front of meter” resource purchases which benefit all rate payers. These projects are comparable to utility owned generation except that it is distributed over multiple roofs and/or sites and purchased under long term contract with the site owner and/or developer. These local solar resources increase the renewable energy portion of the community's electricity mix.

This offer addresses goals of the Climate Action Plan (CAP) and the Fort Collins Energy Policy goal of 2% local distributed renewable and 20% overall renewable generation by 2020. As proposed this offer, over the 2017 18 period, has the potential add 2.0 megawatts of new local solar capacity.

This offer funds:

- First and second year payments for power purchase agreements for midsize solar systems in the non residential sector
- The expanded solar program will support up to 1000 kilowatts installed annually for two years at a target rate of \$0.095 per kilowatt hour

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information

- Offer continues the feed-in tariff model which was piloted in 2014-2015 with the Solar Power Purchase Program (SP3).
- Offer supports Fort Collins climate action and Energy Policy goals for carbon reduction and local distributed electric generation.
- Offer supports demonstrated customer interest for solar projects.
- Cumulative impact of adding 2 megawatts of solar with anticipated carbon reduction of 2000 metric tons annually.



Offer 6.78: ENHANCEMENT - Utilities: Light & Power - Renewable Non-Residential Solar Power Purchases

- Ongoing power purchase agreement production payments estimated at \$280,000 annually ongoing for a period of 20 years.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$280,000

Scalability and explanation

This offer of a purchase program model is best considered in tandem with offer EH 6.79 for non-residential midsize solar rebates. The choice of the power purchase agreement rate and overall program size can be scaled as well as coordinated with program size chosen for non-residential solar rebates. The two offers are intended to support up to 4 megawatts of solar capacity over 2017/2018 using distinctly different customer incentives – stable contract over time versus a one-time upfront rebate.

Links to Further Details:

- www.fcgov.com/solar
- www.fcgov.com/solar-rebates
- www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf
- www.fcgov.com/environmentalservices/climateaction.php

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Emission reduction strategies to meet greenhouse gas reduction goals are outlined in the CAP Framework, including strategies for buildings and energy supply.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Support fundamental shifts toward renewable energy, which will be needed to meet community GHG and energy goals.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Performance Metrics

- ENV 25. Total new installed solar capacity (kilowatts)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398>

Explanation of Any Adjustments to Personnel Costs using object 519999



***Offer 6.78: ENHANCEMENT - Utilities: Light & Power - Renewable
Non-Residential Solar Power Purchases***

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Revised description in response to BFO team questions.

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.78: ENHANCEMENT - Utilities: Light & Power - Renewable Non-Residential Solar Power Purchases

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	1,000	1,000	- %
529000 - Other Prof & Tech Services	500	500	- %
520000 - Purchased Prof & Tech Services	1,500	1,500	- %
549000 - Other Purchased Services	1,000	1,000	- %
540000 - Other Purchased Services	1,000	1,000	- %
557000 - Purchased Power	70,000	280,000	300.0%
550000 - Supplies	70,000	280,000	300.0%
Total Expenses	72,500	282,500	289.7%
Funding Sources			
501-Light & Power Fund: Reserves Reserve	72,500	282,500	289.7%
Funding Source Total	72,500	282,500	289.7%



Offer 6.79: ENHANCEMENT - Utilities: Light & Power - Renewable Non-Residential Solar Rebates

2017: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports expansion of midsize non residential solar projects through up front rebates. Utilities currently does not offer rebates for projects greater than 20 kilowatts. Projects of this type are generally located on large commercial rooftops and are “net metered” to benefit the project owner through reduction in on site utility bills. These projects increase the amount of local solar resources.

This offer addresses goals of the Climate Action Plan (CAP) and the Fort Collins Energy Policy goal of 2% local distributed renewable and 20% overall renewable generation by 2020. As proposed this offer, over the 2017-18 period, has the potential to add 2.0 megawatts of new local solar capacity.

This offer funds rebates for midsize non residential solar projects. An expanded solar photovoltaic rebate program would serve five to ten projects at a 100 to 200 kilowatt scale (total of up to 1,000 kilowatts for each year) with a rebate incentive in the range of \$0.50 per Watt.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information

- Offer supports Fort Collins climate action and Energy Policy goals for carbon reduction and local distributed electric generation.
- Offer supports demonstrated customer interest to pursue larger (>100kW) solar projects.
- Cumulative impact of adding 2 megawatts of solar with anticipated carbon reduction of 2000 metric tons annually.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$10,000



Offer 6.79: ENHANCEMENT - Utilities: Light & Power - Renewable Non-Residential Solar Rebates

Scalability and explanation

This offer of new non-residential solar rebates is best considered in tandem with offer EH 6.78 for non-residential solar power purchase agreements. The amount of rebates under this offer can be scaled, as well as coordinated with program size chosen for non-residential power purchases. The two offers are intended to support up to 4 megawatts of solar capacity over 2017/2018 using distinctly different customer incentives – stable contract over time versus a one-time upfront rebate.

Links to Further Details:

- www.fcgov.com/solar
- www.fcgov.com/solar-rebates
- www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf
- www.fcgov.com/environmentalservices/climateaction.php

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Emission reduction strategies to meet greenhouse gas reduction goals are outlined in the CAP Framework, including strategies for buildings and energy supply.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Support fundamental shifts toward renewable energy, which will be needed to meet community GHG and energy goals.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Performance Metrics

- ENV 25. Total new installed solar capacity (kilowatts)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Revised description in response to BFO team questions

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.79: ENHANCEMENT - Utilities: Light & Power - Renewable Non-Residential Solar Rebates

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	1,000	1,000	- %
520000 - Purchased Prof & Tech Services	1,000	1,000	- %
549000 - Other Purchased Services	1,000	1,000	- %
540000 - Other Purchased Services	1,000	1,000	- %
573000 - Rebates & Incentives	498,000	498,000	- %
570000 - Other	498,000	498,000	- %
Total Expenses	500,000	500,000	- %
Funding Sources			
501-Light & Power Fund: Reserves Reserve	500,000	500,000	- %
Funding Source Total	500,000	500,000	- %



Offer 6.80: ENHANCEMENT - Utilities: Light & Power - Renewable Community Shared Solar

2017: \$250,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$250,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports expansion of community shared solar projects by providing customer rebate funding which can be applied to shared solar developments. This offer addresses goals of the Climate Action Plan (CAP) and the Fort Collins Energy Policy goal of 2% local distributed renewable and 20% overall renewable generation by 2020.

This offer funds rebates for Fort Collins customers to participate in a planned Platte River Power Authority community shared solar project (2017) and additional local community solar projects (2018). Over the two year period, this offer has the potential to add 1.0 megawatts of shared solar capacity.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates

Additional Information

- Offer is linked to a draft project charter between Platte River Power Authority and the four member cities, including Fort Collins, to develop and build a new community shared solar project. The project is expected to be completed in 2017.
- Offer supports Fort Collins climate action and Energy Policy goals for carbon reduction and local distributed electric generation.
- Offer supports demonstrated customer interest for community shared solar projects and will support the participation of approximately 300 residential customers.
- Cumulative impact of adding 1000 kilowatts of solar with anticipated carbon reduction of 1000 metric tons annually.
- Ongoing costs for virtual net metering power purchases estimated at \$60,000 annually.



Offer 6.80: ENHANCEMENT - Utilities: Light & Power - Renewable Community Shared Solar

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$60,000

Scalability and explanation

This enhancement offer is aligned with CAP and Energy Policy 2020 targets. Incentive support of community shared solar can be scaled from 50% to 200% of the proposed amount depending on policy direction to seek smaller or larger shared solar projects and in coordination with other residential and non-residential solar incentive programs (Offers EH 6.67, 6.78, 6.79)

Links to Further Details:

- www.fcgov.com/solar
- www.fcgov.com/solar-rebates
- [www.fcgov.com/utilities/img/site_specific/uploads/Fort Collins 2015 Energy Policy.pdf](http://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy.pdf)
- www.fcgov.com/environmentalservices/climateaction.php

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Emission reduction strategies to meet greenhouse gas reduction goals are outlined in the CAP Framework, including strategies for buildings and energy supply.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Support fundamental shifts toward renewable energy, which will be needed to meet community GHG and energy goals.
- ECON 3.8 - Maintain electric utility systems, services, infrastructure integrity and stable, competitive rates: Design and maintain an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Performance Metrics

- ENV 25. Total new installed solar capacity (kilowatts)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Revised description in response to BFO team questions



***Offer 6.80: ENHANCEMENT - Utilities: Light & Power - Renewable
Community Shared Solar***

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utility Financial Operations



6.80: ENHANCEMENT - Utilities: Light & Power - Renewable Community Shared Solar

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	1,000	1,000	- %
520000 - Purchased Prof & Tech Services	1,000	1,000	- %
549000 - Other Purchased Services	1,000	1,000	- %
540000 - Other Purchased Services	1,000	1,000	- %
573000 - Rebates & Incentives	248,000	248,000	- %
570000 - Other	248,000	248,000	- %
Total Expenses	250,000	250,000	- %
Funding Sources			
501-Light & Power Fund: Reserves Reserve	250,000	250,000	- %
Funding Source Total	250,000	250,000	- %



Offer 6.86: Utilities: Stormwater - Household Hazardous Waste Collection and Spill Response Services

2017: \$139,060 and 0.00 FTE, 0.00 Hourly FTE

2018: \$139,060 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide resources for two Household Hazardous Waste (HHW) collection events as well as 24/7 response to hazardous materials spills to the stormwater system. Both of these programs provide citizens with services that enhance environmental stewardship, regulatory compliance, and a safe and resilient community.

Household Hazardous Waste Collection Events

Two HHW collection events will be provided for Fort Collins residents. The single-day collection events provide residents with the opportunity to dispose of a variety of household hazardous waste free of cost. The collected waste is either recycled or disposed of according to local, state and federal regulations.

Current staff provides project management, event support, and regulatory compliance services for both events. The requested budget includes funding for recycling and disposal services, event support and supplies, and extra staffing for the event. In the near future, it is anticipated that these one day events will be held at the new City of Fort Collins Community Recycling Center (CRC).

Community Spill Response Services

A 24/7 City staff response team will be funded to respond to hazardous spills to the stormwater system and to conduct remediation of small scale spills to protect the quality of our urban watersheds and reduce pollution from stormwater runoff. Current Utilities staff provides on call support for this offer. Staff responds to between 40 60 illicit discharges of pollutants to the stormwater system annually, often coordinating the response with Poudre Fire Authority and Larimer County Health Department personnel.

This Offer supports the following Strategic Objectives:

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance
- SAFE 5.3 - Partner with Poudre Fire Authority to provide high quality fire and emergency services
- HPG 7.1 - Provide world-class services that meet the needs of the community

Additional Information



Offer 6.86: Utilities: Stormwater - Household Hazardous Waste Collection and Spill Response Services

- The Household Hazardous Waste Collection Events are highly utilized by Fort Collins citizens. Approximately 900 cars drive through each event and drop off on average of 66 pounds of household hazardous waste to be recycled or disposed of according to local, state, and federal regulations. An average of 60,000 pounds of household hazardous waste has been collected during each event since 2011.
- Household Hazardous Waste events are an excellent example of partnerships both within the organization and with external partners. Environmental Regulatory Affairs (ERA) staff collaborates with Sustainability Services, Streets, Customer Connections, Light and Power, and Stormwater to successfully offer each event.
- The City's Municipal Separate Storm Sewer System (MS4) Permit requires the City to address spills to the City's stormwater system. This offer provides support to ensure that spills are addressed 24/7.
- The offer funds resources to staff an on-call spill response team, to purchase materials to contain spills, to dispose of waste collected, and to provide training to spill responders.

Links to Further Details:

- [City of Fort Collins Household Hazardous Waste Event Yearly Results:](http://www.fcgov.com/utilities/residential/hazwaste/yearly-results)
<http://www.fcgov.com/utilities/residential/hazwaste/yearly-results>

Linkage to Strategic Objectives

- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: Responding to illicit discharges of pollutants to the City's stormwater system is required by the Municipal Separate Storm Sewer System Permit and the Clean Water Act; By providing citizens with a convenient option for disposal of HHW, the City has developed a program that protects the stormwater system and landfill and goes beyond compliance with requirements.
- SAFE 5.3 - Partner with Poudre Fire Authority to provide high quality fire and emergency services: Partnering with PFA on spill response provides efficient, safe, and effective response to hazardous materials spills, ensuring citizen safety, and property and environmental protection
- HPG 7.1 - Provide world-class services that meet the needs of the community: The community has come to rely on and expect two HHW events per year.

Improvements & Efficiencies

- The spill response staff has built a very effective partnership with Poudre Fire Authority which has benefited the City significantly related to emergency response coordination, hazardous materials education and training, and waste disposal resulting in safer and more efficient responses to illicit discharge reports, as well as improved environmental protection.



Offer 6.86: Utilities: Stormwater - Household Hazardous Waste Collection and Spill Response Services

- Cost savings is realized by utilizing in-house staff to respond to spills rather than a spill remediation contractor. Qualified contractors for hazardous materials response are not local to Fort Collins and often mobilize from Denver. A typical response to a spill of diesel fuel, for instance, can average \$3000-6000 for mobilization, cleanup and disposal services.

Performance Metrics

- ENV 75. Average direct cost per HHW participant
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6339&object=measure&objectID=113498>
- ENV 76. Number of participating households in HHW events
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6339&object=measure&objectID=113501>
- SAFE 62. Stormwater Quality: number of reported Illicit Discharges to the stormwater system
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6339&object=measure&objectID=109728>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- There exists a potential opportunity for these events to be integrated into the routine operations of the Community Recycling Center (CRC). Hosting at the CRC will not change the overall cost of the events.
 - Staff is planning on holding one HHW event at the new CRC is late 2016, with the intent of having all future events at the location.
- The CRC can potentially accept a variety of waste materials year round; specifically, antifreeze, batteries, oil and paint (ABOP).(Note: Approximately 70% of the material collected at each event falls into the ABOP category)
 - Utilize the CRC's existing collection structures and disposal contracts.
- All architecture paint products collected can be packaged separately and be managed under the Colorado architecture paint stewardship law that went into effect July 1, 2015.
 - Hosting the 2016 events at the CRC will help promote what materials will be accepted at the CRC year round

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 6.86: Utilities: Stormwater - Household Hazardous Waste Collection and Spill Response Services

CPIO Edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utility Financial Operations



6.86: Utilities: Stormwater - Household Hazardous Waste Collection and Spill Response Services

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	29,760	29,760	- %
510000 - Personnel Services	29,760	29,760	- %
521000 - Professional & Technical	91,850	91,850	- %
529000 - Other Prof & Tech Services	11,000	11,000	- %
520000 - Purchased Prof & Tech Services	102,850	102,850	- %
532000 - Cleaning Services	1,000	1,000	- %
533000 - Repair & Maintenance Services	500	500	- %
534000 - Rental Services	400	400	- %
530000 - Purchased Property Services	1,900	1,900	- %
549000 - Other Purchased Services	2,000	2,000	- %
540000 - Other Purchased Services	2,000	2,000	- %
559000 - Other Supplies	2,550	2,550	- %
550000 - Supplies	2,550	2,550	- %
Total Expenses	139,060	139,060	- %

Funding Sources

504-Stormwater Fund: Ongoing	Ongoing Restricted	139,060	139,060	- %
Revenue				
	Funding Source Total	139,060	139,060	- %



Offer 6.87: ENHANCEMENT: Biogas to Co-Gen Update

2017: \$440,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This budget revision request for 2017 is for the recently updated scope for the design/build of a cogeneration and gas conditioning system at the Drake Water Reclamation Facility (DWRf). The updated scope is in partnership with Woodward and will better align this project with current and future CAP opportunities.

This request is for additional funding needed to deliver on re scoped cogeneration and gas conditioning system project that better aligns with operational needs and CAP implementation strategies. The purpose of these offers is to develop or expand City programs that will aid in or directly affect the reduction of the community’s greenhouse gas emissions.

Biogas generated from the wastewater treatment process through anaerobic digestion can be fed to a cogeneration system to generate energy and waste heat. With our partnership with Woodward, four 220 kW engines will be installed at substantial savings to the City. In order to optimize anaerobic digester biogas, one 220 scfm gas conditioning system will be installed. This is larger than the previous project and will enable growth potential in the system if needed for food waste digestion. This new configuration will enable the cogeneration project to increase efficiency of biogas capture and use. In working with Woodward, the City will gain engineering and operational support and Woodward will gain an international showcase site for similar engine and control applications. Woodward is also strongly committed and motivated to contribute to the Fort Collins community.

This Offer supports the following Strategic Objectives:

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability

Additional Information

- According to the EPA GHG equivalence tables, the estimated potential annual savings from this project is roughly 4100 metric tons of carbon, is equivalent to offsetting the GHG emissions of 858 passenger vehicles driven for one year and the CO2 emissions equivalent to 600 City of Fort Collins electrical needs for one year.
- This project is currently in design phase with construction scheduled for 2016. This project will move the CAP energy consumption needle 8.5% closer to achieving the 2020 goal of 20% reduction.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.



Offer 6.87: ENHANCEMENT: Biogas to Co-Gen Update

Scalability and explanation

n/a

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- ENV 4.2 - Protect and provide a high quality water supply and implement appropriate conservation efforts and long-term water storage capability: X

Performance Metrics

- ENV 65. Sewer Main Rehabilitation - LF Lined (Wastewater)
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6345&object=measure&objectID=109738>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

offer name change per Utilities

Offer Profile

Offer Owner: JGraham

Lead Department: Utility Financial Operations



6.87: ENHANCEMENT: Biogas to Co-Gen Update

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	440,000	-	- %
570000 - Other	440,000	-	- %
Total Expenses	440,000	-	- %
Funding Sources			
503-Wastewater Fund: Reserves Reserve	440,000	-	- %
Funding Source Total	440,000	-	- %



Offer 26.1: Environmental Services Department

2017: \$1,568,917 and 11.50 FTE, 1.67 Hourly FTE

2018: \$1,602,028 and 11.50 FTE, 1.67 Hourly FTE

Offer Summary

Funding this offer will support the Environmental Services Dept. (ESD) to provide programs & services to the community & municipal organization to efficiently pursue Council policies on sustainability, air, climate, waste reduction, citizen engagement, & performance measurement. It will deliver reductions in indoor & outdoor air pollution including ozone, increase waste diversion & recycling, reduce the environmental footprint of the community and municipal organization, and provide rigorous environmental data tracking & reporting.

ESD supports a healthy, sustainable environment through:

- Planning and implementation of Climate Action Plan; leads City and community involvement
- Increased resiliency through climate preparedness planning
- Innovation and partnerships through FortZED
- Raising awareness of multiple benefits of green building and developing financing mechanisms
- Empowering citizens to reduce air pollution & address complaints
- sustainable materials management to find highest & best use of materials instead of discarding
- Programs and regional/state planning to reduce ozone emissions
- Healthy Homes program, radon program & zero interest loans to lessen air emissions
- business assistance & rebates to increase recycling
- Mindful Movies, challenges and classes
- Maintaining the City as a PLATINUM Climate Wise partner
- Helping the City lead by example through campaigns, innovation funding, & technical assistance to reduce environmental impact
- Expertise on local oil and gas issues
- Robust carbon accounting, data management & reporting

These programs are needed to help meet City Council's carbon reduction goals and zero waste goal. Fort Collins is out of compliance for ground level ozone and 25% of homes have a citizen with respiratory problems. Programs are needed that improve air quality, reduce environmental impact, enhance innovation, & support a high quality of life. Effective citizen engagement is critical to sustaining a healthy environment.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.4 - Implement indoor and outdoor air quality improvement initiatives
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization



Offer 26.1: Environmental Services Department

Additional Information

- Community now almost halfway to 2020 GHG goal. ESD provides long term coordination of CAP to accelerate pace. Leads public and private sector engagement, supports CAP Executive Team plus 70 staff and 30 citizens on CAP teams, leads the CAP Community Advisory Committee, builds bridges and collaborates with regional, state and federal organizations to advance climate resiliency & action.
- Air Quality: Reduces ozone & other air pollution through education & engagement campaigns, rebates, zero interest loans (88% uptake in 2015). Works with state agencies on regulations that reduce ozone & improve air quality. Continues successful Healthy Homes program- a free, in-depth home health assessment conducted by volunteers- has assessed over 500 homes with a 84% recommendation uptake rate.
- Materials Management: Researches materials flow to determine highest & best use, promotes organics waste diversion, source reduction, and recycling. Provides Christmas tree recycling, the Waste Reduction and Recycling Assistance Program (WRAP) to support recycling by multi-family & businesses, and administers pay-as-you-throw trash ordinance. Achieved 68% community waste diversion in 2014.
- Sustainability Engagement: leads programs to mobilize employees & citizens to reduce environmental impact; supports City departments toward measurable progress on sustainability goals with special focus on energy; ensures the City continues to achieve ClimateWise Platinum status; supports the City's Sustainability Assessment process. City leads by example with GHG emissions 12% below 2005 level.
- This offer contains \$130,000/year in on-going KFCG funds for the Municipal Innovation Fund, Air Quality Zero Interest Loans, Road to Zero Waste, Healthy Sustainable Homes staff support, and Lawnmower Rebates. Additionally, \$10,000/year is provided to support FortZED.

Links to Further Details:

- <http://www.fcgov.com/environmentalservices/>
- <http://www.fcgov.com/climateaction/>
- <http://www.fcgov.com/airquality/>
- <http://www.fcgov.com/recycling/>
- <http://www.fcgov.com/sustainability/>

Linkage to Strategic Objectives



Offer 26.1: Environmental Services Department

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Implements reduction in GHG emissions from energy (City Energy Project to improve efficiency of large commercial buildings, HEAL program to expand energy retrofits) transportation (vehicles idling, lawn & garden equipment) and waste (recycling and organics diversion, waste to energy assessment).
- ENV 4.4 - Implement indoor and outdoor air quality improvement initiatives: Reduces ozone pollution through campaigns and lawn mower rebates, improves indoor air quality through Healthy Homes program and community education, works to resolve neighborhood air pollution concerns including wood smoke and dust, works at State level to advance regulations that protect air quality.
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization: ESD provides waste diversion rebates and assistance to business and apartments through the WRAP program, assists organizations with cardboard and construction debris recycling, administers ordinances to ensure residential recycling is available, provides education to the public, administers the City's Waste Innovation Program fund, & strategically explores opportunities for organics diversion.

Improvements & Efficiencies

- ESD led the City organization to develop the CAP 2020 Strategic Plan, including formation of 10 strategic teams, a core team, and an Executive Leadership team, as well as a Citizen Advisory Committee. This robust organizational structure has facilitated significant progress on CAP planning and implementation and supported creation of the City's CAP cost benefit analysis model.
- In 2015, ESD led the process to develop a fundable approach to build the Timberline Recycling Center that will provide citizens with the opportunities to recycle more items at greater convenience. The TRC broke ground in 2016 and is expected to open in August 2016.
- In 2015, 88% of the Zero Interest loan funding was used by citizens for radon mitigation, and wood stove upgrades.
- Mindful Movies (Community sustainability movie series) and other sustainability outreach engaged over 6,000 citizens. ESD employee engagement and technical assistance supported the City organization to lead by example by lowering its carbon footprint 12% below 2005 levels.
- The 2015 Lawn Mower rebate program supported over 270 purchases of clean lawn and garden equipment, plus citizen recycled old mowers, all helping to reduce ground level ozone pollution.
- The Healthy Home program, a volunteer driven national best practice program that provides assessments of indoor air quality and offers free to low cost solutions completed over 500 assessments since its inception, using significant volunteer hours.



Offer 26.1: Environmental Services Department

- Through a series of three interdepartmental workshops, significant progress was made in clarifying the City response plans to the two greatest threats from climate change: extreme heat events and wildfire smoke.
- Supported new contractual Green Building Program Coordinator who led development of pilot Home Energy Affordability Loan that offers home assessments and access to credit union low interest loans to employees through their workplace, with goal to expand credit union financing much further. Also consolidated green building info and benefits on one web page.
- ESD coordinates FortZED, a public private partnership providing a testbed for innovative technical and behavioral energy solutions, including outreach to the community on Lose A Watt, our participation in a national competition to reduce energy. As of April 2016, Fort Collins is in 10th place of 50 communities, and has the potential to win the \$5M prize for the community.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>
- ENV 10. Community solid waste diversion rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91346>
- ENV 16. Cumulative number of homes assessed for Healthy Homes
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91350>

Personnel Changes

- Personnel increase of 13.1% is attributed to several staff JAQ reclassifications since the last budget cycle, a position added through a CAP initiative exception in 2016, and a \$34,000 shift of project incidentals to hourly personnel.

Differences from Prior Budget Cycles

- The 9.4% decrease in incidentals is attributed to the shift of project dollars to personnel to more closely reflect actual intentions and spending. No increase in net budget.
- \$10,000/year is provided to support FortZED.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Taxes associated with DBA cards.

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.1: Environmental Services Department

.5 FTE Sr. Environmental Planner labor distribution transferred to Utilities per the 2016 CAP appropriation language and intent. Added 4,180 for approved ongoing incidentals for new position inadvertently missed Round 1.

Added 10,824 in 2017 and 11,364 in 2018 for variable hourly benefits associated with the full time hire of a CAP hourly position - Approved by HR.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.1: Environmental Services Department

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	11.50	11.50	- %
Hourly (FTE)	1.67	1.67	- %
Expenses			
511000 - Salaries & Wages	926,713	948,718	2.4%
512000 - Benefits	290,624	301,705	3.8%
519000 - Other Personnel Costs	(22,139)	(22,139)	- %
510000 - Personnel Services	1,195,198	1,228,284	2.8%
521000 - Professional & Technical	64,281	64,281	- %
529000 - Other Prof & Tech Services	59,306	59,306	- %
520000 - Purchased Prof & Tech Services	123,587	123,587	- %
532000 - Cleaning Services	15,000	15,000	- %
533000 - Repair & Maintenance Services	2,900	2,900	- %
534000 - Rental Services	950	950	- %
530000 - Purchased Property Services	18,850	18,850	- %
542000 - Communication Services	19,318	19,318	- %
543000 - Internal Admin Services	821	846	3.0%
544000 - Employee Travel	24,175	24,175	- %
549000 - Other Purchased Services	48,478	48,478	- %
540000 - Other Purchased Services	92,792	92,817	- %
555000 - Office & Related Supplies	6,500	6,500	- %
559000 - Other Supplies	25,045	25,045	- %
550000 - Supplies	31,545	31,545	- %
569000 - Other Capital Outlay	50,000	50,000	- %
560000 - Capital Outlay	50,000	50,000	- %
573000 - Rebates & Incentives	7,500	7,500	- %
574000 - Grants	22,445	22,445	- %
579000 - Other	27,000	27,000	- %
570000 - Other	56,945	56,945	- %
Total Expenses	1,568,917	1,602,028	2.1%



Funding Sources

100-General Fund: One-time Revenue	One-Time Restricted	10,000	10,000	- %
100-General Fund: Ongoing	Ongoing	1,429,124	1,461,507	2.3%
254-KFCG Fund: Other Community Priorities	Ongoing Restricted	129,793	130,521	0.6%
	Funding Source Total	1,568,917	1,602,028	2.1%



Offer 26.2: Timberline Recycling Center

2017: \$337,600 and 0.00 FTE, 0.13 Hourly FTE

2018: \$337,600 and 0.00 FTE, 0.13 Hourly FTE

Offer Summary

Funding this offer will support operational costs at the new Timberline Recycling Center (TRC).

As a 14 year old service to citizens, Fort Collins provides a recycling drop off site that accepts conventional recyclable materials such as paper, cardboard, bottles and cans, at no charge to users, and which operates as an unstaffed facility. A yearly budget of about \$83,000 has typically been used to operate the drop off site, including \$16,500 for lease payments to the property owner, Rivendell School. In 2016, the facility is being relocated from Riverside Avenue to property owned by the City on Timberline. This budget offer is proposed to cover the modeled net gap in operating costs at the new location.

At the Timberline Recycling Center, basic activities will continue unchanged, in conjunction with a unique new service, in a separate area of the site, to accept less conventional, “hard to recycle” materials. The “old” services offered by the City for conventional materials will be managed separately, at least initially, because operating the hard to recycle materials program will require regular and possibly frequent adjustments in the first year or two.

The new site will allow the city to pilot additional services, starting with plastic film collection in 2017.

This Offer supports the following Strategic Objectives:

- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)

Additional Information

- Largest portion of this offer is used to pay truck transport/delivery costs to a contractor for hauling recyclables to Larimer County Recycling Plant on Taft Hill Road.
- \$11,514 is budgeted to pay for snow removal services, and for security services to a contractor that opens and closes the gate each day.
- Additional expenses include some weekly site clean-up (five hours/week) plus supplies and signage.

Links to Further Details:

- <http://www.fcgov.com/recycling/dropoff.php>
- <http://www.fcgov.com/recycling/timberline.php>



Offer 26.2: Timberline Recycling Center

Linkage to Strategic Objectives

- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization: Provides increased opportunities for citizens to divert “hard to recycle” materials from landfill disposal, resulting in measurable tons of waste diversion and also to the measurement of the number of pounds of waste per person that are generated in the Fort Collins community. Creates a year-round recycling drop-off point for some household hazardous materials.
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: Enables residents and members of the business community to take recycling to the next level and adopt new waste management tactics, such as bringing household hazardous waste to the new TRC on a regular, ongoing basis. It will function as an active learning/demonstration site that heightens peoples’ interest, enthusiasm and confidence for participating in environmental stewardship.
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Members of the Fort Collins community will reduce greenhouse gas emissions associated with landfills in our region, help prevent emissions that are generated from resource extraction activities and manufacturing, and contribute to carbon sequestration that occurs when organics are composted and used as a soil supplement.

Improvements & Efficiencies

- Saves \$16,500 annually in lease payments, compared to previous operations budget.
- Provides enhanced user experience at a newly developed location that has been specially designed as a recycling center, as opposed to simply leasing an old parking lot.
- As the owner-operator, allows the City to manage the new facility with flexibility for making future changes on-site that could further enhance services to customers.

Performance Metrics

- ENV 10. Community solid waste diversion rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91346>
- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>
- ENV 11. Cumulative number of individuals with new or improved access to recycling through WRAP
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91347>

Personnel Changes

- Not applicable



Offer 26.2: Timberline Recycling Center

Differences from Prior Budget Cycles

- The Rivendell portion of this offer was previously budgeted in the ESD Ongoing Offer. It has been pulled out and combined with the Timberline Recycling Center portion.
- \$41,000 of this offer was funded with KFCG in 2016. We are requesting this amount to go back to General Fund in 2017 & 2018.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

In response to the Budget Office request to reduce General Fund Ongoing Offer asks, GF funding was reduced by 337,600 and KFCG funding increased by the same.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.2: Timberline Recycling Center

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	0.13	0.13	- %
Expenses			
511000 - Salaries & Wages	4,100	4,100	- %
512000 - Benefits	386	386	- %
510000 - Personnel Services	4,486	4,486	- %
521000 - Professional & Technical	4,464	4,464	- %
529000 - Other Prof & Tech Services	257,050	257,050	- %
520000 - Purchased Prof & Tech Services	261,514	261,514	- %
531000 - Utility Services	600	600	- %
532000 - Cleaning Services	43,500	43,500	- %
533000 - Repair & Maintenance Services	9,500	9,500	- %
539000 - Other Property Services	8,000	8,000	- %
530000 - Purchased Property Services	61,600	61,600	- %
549000 - Other Purchased Services	8,000	8,000	- %
540000 - Other Purchased Services	8,000	8,000	- %
559000 - Other Supplies	2,000	2,000	- %
550000 - Supplies	2,000	2,000	- %
Total Expenses	337,600	337,600	- %
Funding Sources			
254-KFCG Fund: Other Community Ongoing Restricted Priorities	337,600	337,600	- %
Funding Source Total	337,600	337,600	- %



Offer 26.4: ENHANCEMENT: Municipal Resiliency and Adaptation Planning

2017: \$0 and 0.00 FTE, 0.00 Hourly FTE

2018: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide support for development of a municipal resiliency and adaptation plan as required by the City’s commitment in the Compact of Mayors, signed by Mayor Troxell in 2015. Participating cities across the world have committed to reducing their greenhouse gas emissions and adapting to a changing climate. As a participant, the City must complete a plan by the end of 2018 that addresses climate change impacts to City operations, services and resources.

Funding would provide support to develop a cross-departmental resiliency and adaptation plan with goals, strategies and identified actionable measures for the City organization. Additionally, a small portion of the funds will support ongoing participation in the Western Adaptation Alliance, a regional collaboration with 12 intermountain/southwest communities. Since 2009, the Alliance has provided an opportunity for dialogue about best practices in creating solutions to shared regional challenges, such as water availability, floods and wildfires.

Climate change has the potential to threaten many of our cherished Northern Colorado attributes. Projected impacts include exacerbated conditions already experienced including: diminished clean water supplies, wildfire and smoke, increased hot and very hot summer days, intense storms, flooding events and others.

While the City has completed risk and vulnerability assessments and developed mitigation actions to key hazards such as flooding, the organization has not yet completed a formal integrated plan with identified goals, strategies and tactics. This Plan will increase the organization’s focus and inclusion of climate change considerations, improving organizational disaster preparedness, resiliency and business continuity.

This Offer supports the following Strategic Objectives:

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information

- Planning will likely focus on cross departmental function areas (water, ecosystem services, services to vulnerable populations, etc.)
- Climate change is identified as an executive level risk in Financial Services Strategic Risk Management Report



Offer 26.4: ENHANCEMENT: Municipal Resiliency and Adaptation Planning

- Offers 26.4 & 26.5 are separate because they provide planning at a different scale & require different resources. Municipal adaptation planning calls for a customized, departmental approach to synthesize previous efforts into a single plan with goals, strategies, metrics. Internal work has been ongoing since 2008 so this offer does not require the level of outreach & engagement as offer 26.5.
- The 2015 CAP Framework Plan recognized a complementary role for resiliency planning & implementation. Many community resiliency strategies such as distributed energy generation for key community service buildings and carbon sequestration also mitigate GHG emissions. Funding resiliency planning would allow for the strategies identified from the CAP initial work to be addressed.
- The City's commitment under the Compact of Mayors requires an Adaptation Plan by 2018.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Offer can be scaled up. Additional funding would provide increased resources for cross departmental planning, accompanying research of best practices and final reporting. This would help departments increase understanding of climate change impacts within City operations; aligning services to potentially reduce long term implementation costs. Not funding this offer will mean that Fort Collins may not be able to fulfill the terms of the Compact of Mayors.

Links to Further Details:

- www.compactofmayors.org
- <http://cwcb.state.co.us/environment/climate-change/Pages/main.aspx> . See [2014 Climate Change in Colorado Report](#)
- <http://www.fcgov.com/enviro/climate-protection.php>

Linkage to Strategic Objectives

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: This offer and its outcomes directly support increasing the city organization's ability to plan, prepare and adapt to changes in climate and weather related events. Reducing risk, improving resource allocation and organizational capacity will help ensure business continuity, protection of citizens and property and the ability to rebound quickly after events.

Performance Metrics

- SAFE 41. % of citizens responding very good/good quality of - emergency preparedness in Fort Collins



Offer 26.4: ENHANCEMENT: Municipal Resiliency and Adaptation Planning

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109964](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109964)

- SAFE 53. % of citizens responding very good/good quality of - Disaster response and restoration of services in Fort Collins

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109976](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109976)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Shifted the expenses from 2017 to 2018

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.4: ENHANCEMENT: Municipal Resiliency and Adaptation Planning

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	-	50,000	- %
520000 - Purchased Prof & Tech Services	-	50,000	- %
Total Expenses	-	50,000	- %
Funding Sources			
100-General Fund: One-time Revenue		50,000	- %
One-Time Restricted	-		
Funding Source Total	-	50,000	- %



Offer 26.5: KFCG ENHANCEMENT: Community Resiliency and Adaptation Planning

2017: \$0 and 0.00 FTE, 0.00 Hourly FTE

2018: \$100,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will provide support and outreach assistance to develop a community wide resiliency and adaptation plan. Built upon a municipal resiliency/adaptation plan and other regional planning efforts, this plan will expand focus and engagement to include external partners, stakeholders and citizens. Funding will be used to facilitate community engagement activities, gather expertise and research best practices, and develop a public summary report.

Over time, a changing climate with extreme weather events, economic downturns and other stressors and shocks can negatively impact the community. Observed data shows that Fort Collins already is experiencing increased warming. Projected climate change impacts include: diminished water supply/quality, increased wildfire and smoke, increased hot/very hot days, intense storms and flooding. Managing these impacts will be especially challenging for vulnerable/sensitive populations such as children, elderly, homeless, outdoor workers and small businesses. To address these impacts, the City has limited control and influence in areas such as community health services, regional watersheds, public land management, and air quality. An expanded planning process that develops community wide goals, strategies, and responsibilities on shared impacts will help reduce risk, increase resiliency and identify collaborative opportunities for the community. Many adaptation strategies and actions complement and will strengthen current activities, programs and projects in the community. These include: Nature in the City, water/energy efficiency, local food initiatives, FortZED, housing, and other efforts.

Without this type of integrated planning, there are likely larger community costs such as: disruption of core services, displaced populations, health impacts, increased utility rates, and loss of key industries such as craft brewing, technology, natural resource based businesses and tourism.

This Offer supports the following Strategic Objectives:

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information

- Completing this plan will contribute to meeting the requirements of the Compact of Mayors, signed by Mayor Troxell in 2015. The City's commitment under the Compact of Mayors requires a completed Adaptation Plan by 2018, but it doesn't specify municipal only or community-wide.



Offer 26.5: KFCG ENHANCEMENT: Community Resiliency and Adaptation Planning

- Offers 26.4 and 26.5 are separate offers because the needs for each planning effort is at a different scale and requires different resources. Community resiliency planning will require a comprehensive planning and engagement effort with multiple external stakeholders.
- The \$100k will include a comprehensive review of best management practices in this planning area, analysis of community vulnerabilities and risks, facilitated workshops and/or focus groups, consideration of the integration into existing city plans, work to align with other regional planning efforts, and a community summary report.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer can be scaled up. Reducing the dollar amount will reduce the scope and effectiveness of comprehensive community engagement and expertise needed.

Links to Further Details:

- <http://www.fcgov.com/enviro/climate-protection.php>
- www.compactofmayors.org
- <http://cwcb.state.co.us/environment/climate-change/Pages/main.aspx> . See [2014 Climate Change in Colorado Report](#)
- <https://health2016.globalchange.gov/>
- <https://sites.google.com/a/state.co.us/coloradounited/>

Linkage to Strategic Objectives

- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: This offer and its outcomes directly support increasing the city organization's ability to plan, prepare and adapt to changes in climate and weather related events. Reducing risk, improving resource allocation, and increasing organizational and community capacity will help ensure business continuity, protection of citizens and property and the ability to rebound quickly after events.

Performance Metrics

- SAFE 41. % of citizens responding very good/good quality of - emergency preparedness in Fort Collins
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109964>
- SAFE 53. % of citizens responding very good/good quality of - Disaster response and restoration of services in Fort Collins



Offer 26.5: KFCG ENHANCEMENT: Community Resiliency and Adaptation Planning

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109976>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Offers 26.4 and 26.5 are separate offers because the needs for each planning effort is at a different scale and requires different resources.

Community resiliency planning will require a comprehensive planning and engagement effort with multiple external stakeholders. The \$100k will include a comprehensive review of best management practices in this planning area, analysis of community vulnerabilities and risks, facilitated workshops and/or focus groups, consideration of the integration into existing city plans, work to align with other regional planning efforts, and a community summary report.

The City's commitment under the Compact of Mayors requires a completed Adaptation Plan by 2018, but it doesn't specify municipal only or community-wide.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.5: KFCG ENHANCEMENT: Community Resiliency and Adaptation Planning

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	-	92,000	- %
529000 - Other Prof & Tech Services	-	2,000	- %
520000 - Purchased Prof & Tech Services	-	94,000	- %
549000 - Other Purchased Services	-	2,000	- %
540000 - Other Purchased Services	-	2,000	- %
559000 - Other Supplies	-	4,000	- %
550000 - Supplies	-	4,000	- %
Total Expenses	-	100,000	- %
Funding Sources			
254-KFCG Fund: Other Community Reserve	-	100,000	- %
Priorities Reserves & One-Time Use Tax			
Funding Source Total	-	100,000	- %



Offer 26.7: ENHANCEMENT: Expanded Municipal Innovation Fund

2017: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will support innovative, sustainability focused improvements to the City's property, buildings and operational procedures and build upon past success. In 2015, the Innovation Fund financed the City's first Innovation Workshop, FC Innovates, which received stellar evaluations from participants. FC Innovates, planned again in 2016, is an opportunity for staff to form cross-functional groups to discuss key ideas in an open forum and identify resources and opportunities to pilot ideas. Projects developed through this Fund have been replicated across the organization and have leveraged and engaged non profits, academic partners, HOAs, businesses and community members.

Over the past five years, more than \$500,000 was invested in projects through the Innovation Fund. The investments yielded \$3,160,365 in cumulative savings and carbon emissions reductions of 58,590 metric tons. These projects also reduced energy, water use and transportation emissions. Projects are evaluated by an interdepartmental team using a triple bottom line approach in a weighted database scoring tool. To support intelligent risk taking and promote innovation, funding is needed for projects that are experimental in nature and should be piloted first. Additionally, the program has undergone an annual evaluation.

In 2016, the Innovation Fund Team awarded 10 grants to employees who are building on the credibility of the City as a leader, using the concept of continuous improvement, and enhancing innovation, Road to 2020 goals and sustainability efforts. 10 awards were funded to 7 departments; 2 awards are projects serving all departments.

More than \$130,000 in requests were considered for 2016. This is the third year that proposal requests were 3X the available funds. Additional funding will facilitate greater savings and GHG reduction.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization

Additional Information

- Contributes to zero waste, decreased energy use and peak demand goals. Reduces greenhouse gas emissions and air pollution.
- Engages employees in innovative sustainability strategies.



Offer 26.7: ENHANCEMENT: Expanded Municipal Innovation Fund

- Implements leading–edge & innovative practices that drive performance excellence and quality improvements across all City Service Areas. Projects such as the Pet Waste Campaign implemented through this Fund have received national recognition. The Fund has been so successful it's been highlighted in the City's Performance Excellence applications.
- Improves community health and economic assets. Allows the organization to replicate successful projects across the organization and showcase the projects to the local, state and federal government as well as business partners.
- Many communities and organizations have implemented similar programs. Poudre School District has its own version, which has helped the District save millions of dollars in operational costs while reducing environmental impacts.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer is scalable. The Innovation Fund was funded from 2010 through 2014 at \$100,000/year, and was reduced to \$50,000/year in 2015. Competitive submissions over the last three years have exceeded allotted funds by three times the amount of funds available for distribution. This offer is to enhance the \$50,000 in approved on-going funding in the Environmental Services Core offer (26.1) to levels matching the need in the organization.

Links to Further Details:

- http://www.fcgov.com/cityclerk/pdf/supporting-documentation-eac/Innovation_Community.pdf
- <http://citynet.fcgov.com/innovationfund>
- <http://citynet.fcgov.com/innovation/>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer is an enabling initiative that aligns with the 2020 Climate Action Plan. Funding this offer will support innovation including energy, water and local food initiatives. Successful projects can be brought to scale.
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization: The Innovation Fund has repeatedly financed projects that increase our recycling diversion rates.

Performance Metrics

- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline



Offer 26.7: ENHANCEMENT: Expanded Municipal Innovation Fund

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>

- ENV 20. Percentage of annual Innovation Fund awarded

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91354>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

The proposal is to expand the fund to a total of \$150K in order to meet anticipated future demand. The offer was scaled up because for the last three annual cycles, the Innovation Fund Team has received ~ \$150,000 in requests for projects and programs. The Innovation Fund originally focused on energy efficiency projects but now includes other sustainability programs such as local food, renewable energy projects and diversity training. The fund also covers the annual FC Innovates Conference.

The offer funds innovation projects that are evaluated using the following criteria (weighted by the number in parentheses)

- Degree of innovation (2)
- Financial Proposal (2)
- Leverage Additional Funds (5)
- Cost effectiveness ROI (Prefer projects that meet 7 year simple payback) (1)
- Environmental impacts (1)
- Social impacts (1)
- Sustainability Goals (1)
- Project Timing/Urgency/Opportunity (1)

The Innovation Fund has historically funded discrete projects, not on-going programs.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.7: ENHANCEMENT: Expanded Municipal Innovation Fund

Enhancement to Programs and Services

		2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
569000 - Other Capital Outlay		50,000	50,000	- %
560000 - Capital Outlay		50,000	50,000	- %
Total Expenses		50,000	50,000	- %
Funding Sources				
100-General Fund: One-time Revenue	One-Time Restricted	50,000	50,000	- %
Funding Source Total		50,000	50,000	- %



Offer 26.8: KFCG ENHANCEMENT: Road to 2020 Pilot Projects and Innovation Fund

2017: \$382,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$53,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will establish Efficiency Innovation/Pilot Projects Fund to foster locally innovative and relevant approaches to goals outlined in the City's 2020 goals. The goal is to leverage and engage the world class expertise that exists in Fort Collins to achieve the goals. In addition, the fund will allow the City to act nimbly when presented with related opportunities (i.e., cash match for grants) and to test focused concepts that might be replicated throughout the city and the nation.

Building on the 2016 CAP Pilot Projects and Innovation Fund (funded by City Council in April 2016), this fund would be open to projects developed within City departments, collaborations with community organizations, and projects from neighborhoods, businesses, and academia. Funding at this level could include implementing the following initiatives:

- Incentive based competition focused on outcomes and solutions (“reverse RFP”), e.g., how would you or your business eliminate 200,000 metric tons of carbon from our community or how would you engage 10,000 residents to reach the 2020 goals.
- Do it Yourself Workshops for the private sector to implement initiatives, e.g., workshops for landlords/tenants, for energy efficiency upgrades or to support shifts toward more sustainable living practices.
- Waste to Energy solutions at scale.
- A “hackathon” to identify messages to engage the public or to reduce policy barriers to achieving 2020 goals.
- Incorporate 2020 initiatives into existing efforts, e.g., neighborhood connections or social equity initiatives.
- Emerging demonstration projects that advance goals and explore and measure new models to connect energy, financial and behavioral systems.

Other cities have incorporated similar funding tools into their Climate Action Plans. Portland, OR, for example, uses a Clean Energy Fund focused on making GHG reducing efforts accessible to households and building owners throughout the community.



Offer 26.8: KFCG ENHANCEMENT: Road to 2020 Pilot Projects and Innovation Fund

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices
- ECON 3.2 - Enhance employment opportunities through business retention, expansion, incubation and attraction

Additional Information

- Meeting the CAP goals will require significant public/private partnerships and research innovations that respond to emerging opportunities and enable the initiation of demonstration projects.
- The sample list above is offered as examples to illustrate the possible opportunities that could be achieved through this funding. Both programs explore internal policies and procedures necessary to utilize the City as a platform for demonstration/pilot projects to test innovative products and ideas.
- Local expertise could be leveraged for both project implementation as well as project evaluation, e.g., FortZED, Places of Invention Network, CSU, etc.
- This offer will collaborate with Offer 25.11 KFCG Enhancement: Innovation Community Program in leveraging similar competitive processes for the “Reverse RFP” efforts.
- This offer is separate from Offer 26.7: KFCG ENHANCEMENT: Expanded Municipal Innovation Fund in that all of the efforts are designed to be community facing and is a tool to engage the community and private sector in developing and investing in solutions that advance CAP.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Essentially, it’s all scalable.

Links to Further Details:

- www.fcgov.com/climateaction
- [Fort Collins Recognized as Place of Invention: http://www.fcgov.com/news/?id=5935](http://www.fcgov.com/news/?id=5935)

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer is an enabling initiative to achieving the Climate Action Plan goals. Funding this offer will support the innovation economy around climate action and will leverage the community as a platform for piloting conceptual ideas before bringing them to scale.



Offer 26.8: KFCG ENHANCEMENT: Road to 2020 Pilot Projects and Innovation Fund

- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: This offer will leverage community expertise through a Reverse RFP process to engage the community in achieving CAP goals and ultimately to foster sustainable living practices.
- ECON 3.2 - Enhance employment opportunities through business retention, expansion, incubation and attraction: The Economic Health Strategic Plan has the Climate Economy as a strategic focus area. Funding the CAP Pilot Projects/Innovation Fund will stimulate economic growth in the community by engaging private, public, and academic sectors in the development of strategies and services to achieve CAP Goals.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.8: KFCG ENHANCEMENT: Road to 2020 Pilot Projects and Innovation Fund

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	382,000	53,000	-86.1%
520000 - Purchased Prof & Tech Services	382,000	53,000	-86.1%
Total Expenses	382,000	53,000	-86.1%
Funding Sources			
254-KFCG Fund: Other Community Reserve Priorities Reserves & One-Time Use Tax	382,000	53,000	-86.1%
Funding Source Total	382,000	53,000	-86.1%



Offer 26.10: KFCG ENHANCEMENT: Community and Municipal Electric Vehicle Readiness Roadmap

2017: \$40,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will create a strategic plan for the community & City government to advance electric vehicle (EV) use in Fort Collins. Deployment of EV's is a major component of the 2015 Climate Action Plan Framework, with an objective of achieving over 17,000 electric vehicles cumulatively in Fort Collins between 2015 and 2030.

The City organization strives to lead by example with a goal to reduce traditional fuel use and has 67 EV's in its own fleet. In 2013, Fort Collins partnered with Loveland, Colorado State University, and the Electrification Coalition on the Drive Electric Northern Colorado (DENC) initiative that offers opportunities for the public and City staff to test drive and learn about EVs, thus reducing barriers to EV use.

While many efforts are underway, the City and community need a coordinated strategic plan to increase EV usage and align internal/external resources. The offer will fund outside expertise to develop the readiness plan in close cooperation with City staff from several departments, DENC and other key partners. The proposed EV Readiness Plan will seek to address the following elements:

- Infrastructure needs & placement locally and regionally
- Education, outreach & incentives
- Policies, codes, permitting & enforcement
- State & federal regulations/legislation
- Timeframes to optimize progress in alignment with the greening of Fort Collins electric supply
- Electric rate structures to shift peak load and incent EV use
- Bidirectional charging issues
- City fleet & transit opportunities
- Roles & responsibilities of the public sector (multiple City departments) & the private sector

The EV Readiness Plan will provide the clarity and alignment needed to advance Fort Collins to the next level of EV adoption. It can inform City Plan and the Transportation Master Plan update and the upcoming analyses of the electric grid distribution system planned by Fort Collins Utilities.



Offer 26.10: KFCG ENHANCEMENT: Community and Municipal Electric Vehicle Readiness Roadmap

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- TRAN 6.6 - Develop long-term transportation plans that improve local and regional transportation networks

Additional Information

- EV adoption provides multiple triple bottom line benefits, including enhanced energy security through reduced petroleum usage, economic opportunity, reduction in air pollution emissions that can harm health, and reduction in greenhouse gas emissions.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Offer is scalable. Reduced funding will limit the scope of elements the roadmap can address.

Links to Further Details:

- <http://www.fcgov.com/utilities/sustainability-leadership/EVs>
- <http://driveelectricnoco.org/>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Electric vehicles are envisioned to be a key component of progress on Fort Collins CAP, especially when they are fueled by ever lower carbon-intensity electric sources.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Electric vehicles will contribute to this objective when powered by renewable energy sources.
- TRAN 6.6 - Develop long-term transportation plans that improve local and regional transportation networks: Create, collaborate and implement long-term transportation planning while helping local and regional transportation networks, including the airport, operate at a high level of efficiency. This offer will be coordinated with and support the anticipated update to the Transportation Master Plan and City Plan.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline



Offer 26.10: KFCG ENHANCEMENT: Community and Municipal Electric Vehicle Readiness Roadmap

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

n/a

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.10: KFCG ENHANCEMENT: Community and Municipal Electric Vehicle Readiness Roadmap

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	40,000	-	- %
520000 - Purchased Prof & Tech Services	40,000	-	- %
Total Expenses	40,000	-	- %
Funding Sources			
254-KFCG Fund: Other Community Reserve Priorities Reserves & One-Time Use Tax	40,000	-	- %
Funding Source Total	40,000	-	- %



Offer 26.11: ENHANCEMENT: 0.5 FTE Road to Zero Waste Support

2017: \$47,318 and 0.50 FTE, 0.00 Hourly FTE

2018: \$48,741 and 0.50 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will allow the City to continue important systems based, long term planning & enhance targeted education and support for business and resident recycling undertakings that are critical for the Fort Collins community to reach adopted Zero Waste and Climate Action goals.

What we typically think of as “waste” is a material that has energy embodied in it and may have economic value. Finding better uses for these resources than landfilling them is at the heart of “Sustainable Materials Management” concept. Sustainable Materials Management is an innovative and effective method for comprehensively addressing the products, materials and food coming into the community, as well the waste going out, and examining their full life-cycle impacts rather than only disposal impacts.

This offer creates 0.5 FTE to expand the existing 0.5 FTE planner working to foster the innovations and transitions necessary to build a comprehensive materials management framework in the municipal organization and community. It funds a targeted analysis of community solid waste by Colorado State University that will provide critical information for strategies and policies designed to curb waste. Implementing the materials management approach, within a collaborative, regional context, will support our local economy, reduce greenhouse gas emissions, inform purchasing decisions and reduce inefficiencies.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization

Additional Information

- Life-cycle assessment (LSA) research with CSU:

Work with CSU to develop LCAs for commonly purchased materials / services and create policies to support using the optimal product or service to reduce GHG, waste and toxicity in the environment (helps to meet both climate plan and zero waste goals).



Offer 26.11: ENHANCEMENT: 0.5 FTE Road to Zero Waste Support

- Lead regional watershed planning:
Continue & expand regional collaboration by engaging with regional & state partners to generate new ideas, technological advances & innovative solutions that embrace reduction, reuse, recycling & composting
 - o Implement a semi-annual community waste audit to provide real-time feedback about effectiveness of programs & identify opportunities for waste reduction.
- Expand educational efforts that help support SMM:
Launch education campaign that encourages source reduction, pollution prevention and sustainable purchasing practices and uses PPD (pounds per person per day) generated as the metric for measuring success (uses adopted SMM waste hierarchy).
- Expand educational efforts that help support SMM:
Develop tools to enhance business opportunities for material reuse and recycling. Explore regional development of a Materials Recovery Economics Cluster or Eco-Business Park to foster innovation, job creation, economic development and efficiencies within the production/consumption system.
- Explore/pursue local waste-to-energy opportunities:
Explore using appropriate technology to convert material discards to energy, either thermally or biologically, as a means of waste disposal and to enhance the resilience of the local energy system.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$50,000

Scalability and explanation

The proposed Analysis of Solid Waste Material is scalable between a tier 1 and tier 2 option. Tier 2 would be \$20,500 more than the Tier 1, and would provide a much more detailed evaluation of some materials.

The Volunteer Coordinator position could be part-time, but would be far less effective at implementing critical strategies.

Consulting is scalable from \$38,000 - \$58,500.

Links to Further Details:

- <http://www.fcgov.com/recycling/business-recycling.php>
- <http://www.fcgov.com/recycling/update.php>

Linkage to Strategic Objectives



Offer 26.11: ENHANCEMENT: 0.5 FTE Road to Zero Waste Support

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): By accounting for the full impacts of goods, food & waste thru life cycle analysis, SMM will help more accurately measure GHG emissions generated by a wide variety of activities. By better identifying materials flows & waste stream composition (landfilled waste causes some of the more damaging GHG emissions, e.g. methane), the City will develop targeted strategies to support Climate Action goals.
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: This offer deploys volunteer “recycling ambassadors” to increase 1-on-1 support for businesses that are new-to-recycling, educates residents about sustainable behaviors, & helps provide real-world solutions for businesses to recycle more effectively. The number of contacts made with the public and business/commercial sector will increase, as will adoption of new recycling practices by businesses.
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization: Reaching zero waste goals is enhanced thru a Sustainable Materials Management approach that treats waste as a resource instead of using traditional landfilling practices & relying only on recycling. Using life cycle analyses enables exploring new ways to apply SMM measures (e.g. waste prevention, product redesign, systems-management), & will provide a roadmap for future City programs/policies.

Performance Metrics

- ENV 7. Community per capita per day of solid waste generation
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91344>
- ENV 11. Cumulative number of individuals with new or improved access to recycling through WRAP
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91347>
- ENV 12. Tons of community recycled or composted materials, including cardboard
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91348>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.11: ENHANCEMENT: 0.5 FTE Road to Zero Waste Support

This Offer has been scaled back to only include the new 0.5 FTE as indicated above. The following was removed:

- a new FTE to work with the business Waste Reduction & Recycling Assistance Program (WRAP). Half of this position's time will support businesses & apartments in starting or improving recycling or composting programs through education and on-site assessments, & will increase outreach to support construction and demolition debris recycling. The other half-time will recruit, train and lead volunteers to assist with business outreach and amplify the program's impact. The offer funds advertisement & support for the volunteer program, and educational materials for businesses and multi-family complexes.
- all other non-personnel expenses originally submitted (mostly consulting)

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.11: ENHANCEMENT: 0.5 FTE Road to Zero Waste Support

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	0.50	0.50	- %	
Hourly (FTE)	-	-	- %	
Expenses				
511000 - Salaries & Wages	33,182	34,012	2.5%	
512000 - Benefits	14,136	14,729	4.2%	
510000 - Personnel Services	47,318	48,741	3.0%	
Total Expenses	47,318	48,741	3.0%	
Funding Sources				
100-General Fund: Ongoing	Ongoing	47,318	48,741	3.0%
Funding Source Total	47,318	48,741	3.0%	



Offer 26.12: ENHANCEMENT: Indoor Air Quality- Evaluating and Enhancing Existing Programs to Reach More Residents and Improve Program Outcomes

2017: \$54,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will allow the Indoor Air Quality programs to improve and expand services to residents. This offer supports a Healthy Homes program evaluation, the development of a Do It Yourself assessment tool, and program materials in Spanish. Healthy Homes is a volunteer-driven program that provides training for Master Home Educators, who offer residents information and tools to improve the indoor air quality of their homes. The need for this program is two fold:

First, indoor air quality is a national and local priority - it is something residents and businesses can easily improve. The EPA considers poor indoor air quality among its top 5 concerns and notes that indoor air quality is typically 5 times worse than outdoor air. Fort Collins' air quality surveys show 1 in 4 homes has a family member with respiratory problems. Additionally, 3 in 4 Fort Collins' households report high levels of radon, a naturally occurring radioactive gas.

Second, residents want to improve their indoor air quality, as evidenced by the demand for Healthy Homes assessments. Since its inception in 2011, the program has trained more than 125 volunteers and assessed more than 500 homes, with more than 84% of participants implementing recommendations made by staff and volunteers. In the first three months of 2016, almost 100 assessments were requested and more than 400 radon kits were issued to residents to test their radon levels.

Meeting residents' needs with indoor air quality programs is a challenge with current staffing, and this offer will allow staff to accomplish the following (In order of priority):

1.) Program evaluation, 2.) Development assessment & 3.) Spanish translation of program materials

This Offer supports the following Strategic Objectives:

- ENV 4.4 - Implement indoor and outdoor air quality improvement initiatives
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach

Additional Information



Offer 26.12: ENHANCEMENT: Indoor Air Quality- Evaluating and Enhancing Existing Programs to Reach More Residents and Improve Program Outcomes

- After five years since implementation, it is time to evaluate the program to build upon success and identify opportunities for improvement.
The development of a DIY assessment will support more efficient use of volunteer and staff time, as well as engage more residents who would prefer this method. Materials in Spanish will also reach more members of our community.
- Indoor air quality is a critical element of a resilient community in light of climate change and the City’s efforts on the Climate Action Plan. HH and the City’s indoor air quality programs are helping to prepare residents’ homes to be as healthy as they can be in light of future extreme weather events, e.g., floods and wildfires, and higher temperatures that will drive residents to stay indoors.
- Making your personal residence the best it can be, and knowing you have done everything to provide a safe haven for your families can significantly reduce the impact of these health implications.
- Healthy Homes has consistently conducted 40+ community outreach and education programs reaching over 2,000 community members annually since 2012.
 - o 500 Homes assessed since June 2011. 2015 goal was to assess 100 homes – 165 homes were assessed. First quarter of 2016, HH request for assessments were up by 33%.
- Health implications of climate change include increases in:
 - vector borne diseases
 - asthma and respiratory disease due to the lengthening of allergy and pollen seasons
 - stress from extreme weather events
 - strokes from extreme heat
 - damp environments from flooding encourage mold growth and pest infestations.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

N/A

Links to Further Details:

- www.Fcgov.com/healthyhomes
- <https://health2016.globalchange.gov/>
- http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes
- <https://www.epa.gov/sites/production/files/2014-08/documents/Environmental-Justice-Indoor-Air-Quality-and-Community-Based-Action.pdf>



Offer 26.12: ENHANCEMENT: Indoor Air Quality- Evaluating and Enhancing Existing Programs to Reach More Residents and Improve Program Outcomes

Linkage to Strategic Objectives

- ENV 4.4 - Implement indoor and outdoor air quality improvement initiatives: Healthy Homes is the City’s program to improve indoor air quality initiatives. Residents who have completed the program have adopted 84% of the 3-5 recommendations made by staff, which reduce chemical contaminants, biological pollutants and address safety concerns.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: Preparing homes for extreme weather events, increasing community’s preparedness and resiliency for changes in climate, weather and resource availability. As temperatures increase vulnerable populations will increase time spent indoors. HH partners with Poudre Fire Authority distributing CO detectors, fire and smoke alarms and safety planning materials.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices – educating residents about community resources, energy audits, recycling, transportation, recreation, etc. A key aspect of Healthy Homes is engaging underserved residents, who are most vulnerable to climate change and need no- to low-cost solutions for how to make their homes healthier.

Performance Metrics

- ENV 16. Cumulative number of homes assessed for Healthy Homes
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91350>
- SAFE 41. % of citizens responding very good/good quality of - emergency preparedness in Fort Collins
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109964>
- HPG 70. % of citizens responding very good/good to the City's performance in - Encouraging sustainability in the community
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109928>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.12: ENHANCEMENT: Indoor Air Quality- Evaluating and Enhancing Existing Programs to Reach More Residents and Improve Program Outcomes

The Indoor Air Quality program evaluation will gauge the processes used to evaluate homes, recruit, train, support and recognize volunteers, and determine the impact of the general outreach and education programs we provide. This will occur through focus groups with residents, volunteers and community members who have experienced the City’s indoor air quality programs (Healthy Homes, radon awareness, and Zero Interest Loans). We are incorporating CAP initiatives to help residents with resiliency and making their homes the best they can be, and cross pollinating messages on energy efficiency and resources available.

The return on investment from evaluating the program will be to ensure we are engaging people with the most effective messages that can help us reach our CAP goals as we educate residents around the importance of indoor air quality.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.12: ENHANCEMENT: Indoor Air Quality- Evaluating and Enhancing Existing Programs to Reach More Residents and Improve Program Outcomes

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	54,000	-	- %
520000 - Purchased Prof & Tech Services	54,000	-	- %
Total Expenses	54,000	-	- %
Funding Sources			
100-General Fund: One-time Revenue	54,000	-	- %
Funding Source Total	54,000	-	- %



Offer 26.13: KFCG ENHANCEMENT: Leading By Example: Municipal Strategic Initiatives

2017: \$270,250 and 0.00 FTE, 0.36 Hourly FTE

2018: \$21,800 and 0.00 FTE, 0.36 Hourly FTE

Offer Summary

This offer will enhance the organization and community ability to achieve the 2020, and accelerated 2030 carbon reduction goals and Road to Zero Waste goals. As the City adds buildings and services, meeting the new and existing goals (i.e., peak demand, on site distributed energy, alternative fuels, biodiversity, water reductions, health and wellness) has become a challenge. This offer includes using internal expertise to mentor managers, staff, and community members about projects that optimize operations through resource conservation.

To “Lead by Example,” funding this offer will support the following projects (cost estimates in parentheses):

1. Electric Vehicle Charging Stations: to increase adoption rates. Current adoption rate is less than 1 %. CAP Framework plan calls for 50% by 2030. (\$46,000)
2. Sustainability Home Tour: to showcase homes that incorporate energy efficiency and renewable energy. (\$2,500)
3. Solar Showmobile: to replace coal generated electricity with solar as a demonstration project. (\$26,000)
4. Pet waste Composting Structure: to enclose and expand pilot composting bins. Estimated 30 MT carbon reductions. (\$27,000)
5. Recycling Containers at Golf Courses: to increase municipal diversion rate. (\$3,500)
6. Electric Zamboni: to replace the 11-year-old Zamboni with a cleaner fuel source to improve indoor air quality. Estimated savings: \$20,000 and 59 MT of carbon. (\$145,300)
7. Electric Cart: to be used at the Senior Center to enhance EV/LEV Program. (\$ 8,950)
8. Water Bottle Dispensers: to reduce use of single serving plastic bottles. The dispensers are more energy efficient than the water fountains at the Northside Aztlan Center. (\$10,500)

Funds are needed to:

- Implement and model potential strategies, support tracking and progress reporting.
- Replicate successful programs across the organization and community.
- Respond to and provide leadership on emerging CAP strategies.



Offer 26.13: KFCG ENHANCEMENT: Leading By Example: Municipal Strategic Initiatives

This Offer supports the following Strategic Objectives:

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- TRAN 6.5 - Fill the gaps for all modes of travel and improve the current transportation infrastructure while enhancing the aesthetic environment

Additional Information

- Regional coordination on electric vehicle infrastructure & EV adoption rates through the Drive Electric Northern Colorado, National Renewable Energy Lab and SWEEP, and national leadership through the commitments established for the Department of Energy's Workplace Charging Challenge. Municipal EV installations are being utilized to develop best management practices for the private sector.
- - Collaboration on climate protection initiatives with local, regional, and state agencies (i.e. Colorado Green Building Guild), support of federal and state legislations that align with CAP (i.e. EV tax incentives and rebates) and enhanced education in coordination with real estate community and historic preservation society about voluntary green building techniques to strength market value.
- - This offer will fund projects that have a high return on investment and are part of identified strategies from building audits and LEED building certification standards adopted by the municipal organization. Several projects such as load shedding have been identified as financial and environmental game changers. Load shedding can be used through demand side use of EVs.
- Funds technical expertise and implementation costs of community services so the local government operations reach reductions similar to renewable energy innovators such as:
 - Aspen (100%)
 - Burlington (100%)
 - Greensboro (100%)and carbon reduction leaders such as:
 - Palo Alto (53%)
 - Dallas (39%)
 - Seattle (77%)The City of Fort Collins has < 10% renewables and carbon reductions.
- Enhance the municipal organization's ability to Lead By Example; achieve CAP 2020 goals, and meet organizational sustainability goals. It will include enhanced education and outreach activities by the Sustainability Team utilizing existing programs and partnerships such as International Society of Sustainability Professionals, U.S Sustainability Directors Network and US Green Building Council.



Offer 26.13: KFCG ENHANCEMENT: Leading By Example: Municipal Strategic Initiatives

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$22,000

Scalability and explanation

This offer can be scaled in either direction. However, reducing the dollar amount will limit the scope and effectiveness. Plus, the internal sustainability initiatives have had 1 or less FTE for the past nine years. Despite staffing limitations, education outreach soared in 2015 with over 40 events reaching over 6,000 citizens.

Links to Further Details:

- www.fcgov.com/sustainability/goals
- www.fcgov.com/climateprotection
- www.fort.usgs.gov
- www.fcgov.com/sustainability-leadership
- www.fcgov.com/zerowaste

Linkage to Strategic Objectives

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: The offer will fund leading edge sustainability and continuous improvement practices that increase productivity, effectiveness, employee engagement, customer services and citizen satisfaction.
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This enabling offer addresses reducing peak energy loads, could support piloting bidirectional energy storage and load, shows off grid solar applications and use of alternative fuels.
- TRAN 6.5 - Fill the gaps for all modes of travel and improve the current transportation infrastructure while enhancing the aesthetic environment: Electric vehicles are a key component of the 2020 CAP. Current rates of market penetration are 1.5% and the CAP targets are 50% by 2030.

Performance Metrics

- HPG 70. % of citizens responding very good/good to the City's performance in - Encouraging sustainability in the community
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109928>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>



Offer 26.13: KFCG ENHANCEMENT: Leading By Example: Municipal Strategic Initiatives

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

All the projects in the offer would be implemented by the municipal government and many would have benefits to external customers. The implementation of the projects will be administered through the inter-departmental Sustainability Team which has representatives from all City departments.

Offer was reduced as follows in Round 2:

- 549000: Reduce by \$200 in both 2017 and 2018
- 569000: Reduce by \$117,500 in 2017

Offer Profile

Offer Owner: WBricher
Lead Department: Environmental Services



26.13: KFCG ENHANCEMENT: Leading By Example: Municipal Strategic Initiatives

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	-%
Hourly (FTE)	0.36	0.36	-%
Expenses			
511000 - Salaries & Wages	8,985	8,985	-%
512000 - Benefits	1,015	1,015	-%
510000 - Personnel Services	10,000	10,000	-%
529000 - Other Prof & Tech Services	10,000	10,000	-%
520000 - Purchased Prof & Tech Services	10,000	10,000	-%
549000 - Other Purchased Services	1,800	1,800	-%
540000 - Other Purchased Services	1,800	1,800	-%
569000 - Other Capital Outlay	248,450	-	-%
560000 - Capital Outlay	248,450	-	-%
Total Expenses	270,250	21,800	-91.9%
Funding Sources			
254-KFCG Fund: Other Community Ongoing Restricted Priorities	21,800	21,800	-%
254-KFCG Fund: Other Community Reserve Priorities Reserves & One-Time Use Tax	248,450	-	-%
Funding Source Total	270,250	21,800	-91.9%



Offer 26.14: ENHANCEMENT: 1.0 FTE Local Food Coordinator & Local Food Systems Program

2017: \$225,456 and 1.00 FTE, 0.50 Hourly FTE

2018: \$158,262 and 1.00 FTE, 0.50 Hourly FTE

Offer Summary

This offer proposes to fund Local Food System Coordination through a 1) a manager, 2) a market feasibility study and 3) an enhanced community educational campaign. Several City departments and Councilmembers have been involved in economic, regulatory and engagement activities that promote local food consumption, production and distribution, such as the Let's Move program and local food cluster. Coordination of existing projects and pilot programs will build upon and strengthen these efforts.

As outlined in the Climate Action Plan, the importance of promoting a vibrant local food system has become increasingly evident in addressing a number of prevalent issues including public health, zero waste, food insecurity, and sustainable economic development. Food Resiliency programs integrate the City's triple bottom line principles by supporting economic (increased sales tax, diversified economy, agricultural innovation), environmental (biodiversity, reduced carbon footprint) and social (community health, food equity) values. Most of our food comes from sources thousands of miles away via a highly industrialized and fossil fuel based supply chain. Our food system is the 3rd highest emitter of greenhouse gasses in the United States. Increasing local food production is a practical way to mitigate this.

To "Lead By Example," the manager will also help the City organization meet its local food goal adopted in 2013, which states 20% of food purchased by staff for City functions will be grown within 50 miles or prepared by a local business. By buying local, the City helps to save agricultural land, reduce truck traffic and carbon emissions from transport, and reduce packaging production and refrigeration.

There is great community interest in the local food movement. Coordination will advance urban agriculture and organic farming by identifying and addressing gaps, aligning resources and fostering partnerships.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)

Additional Information



Offer 26.14: ENHANCEMENT: 1.0 FTE Local Food Coordinator & Local Food Systems Program

- The Market Feasibility Study will address existing processing and distributions barriers. Recent studies show: 1 of every 7 children faces a form of food insecurity, and 1 of every 4 Fort Collins child is overweight. Increased access to local foods positively impacts their health. The offer supports the Social Sustainability Strategic Plan; Community Wellness -"Strengthen local food systems".
- Local Food Systems Coordination will help to address existing gaps such as developing a community marketplace accessible by bus, subsidizing SNAP (i.e. food stamp) benefits, and purchasing a vehicle to create a mobile farmer's market for low income areas and food deserts. From 2004 to 2015, the number of local CSAs tripled but accessing them remains a challenge.
- In the U.S. the largest 4% of farms account for more than 50% of the total output. Monoculture and large-scale chemical intensive agriculture practice damage and deplete the soil, upsetting balanced ecosystems. This offer will support small, local farmers through marketing and conduct water and energy audits for environmental health.
- The typical American plate of food travels 1500 miles and contributes to land clearing in developing countries. Tropical rain forests have been reduced by 50% through clear-cutting, which releases large volumes of CO2. Growing 10% more local produce would result in an estimated annual savings of approximately 280,000 gallons of fuel and a reduction in 4,000 MT of CO2e emissions.
- Local Food Systems Coordination and the market feasibility study will collaborate with community partners and businesses in identifying a location for minimal processing and cold storage, incentivizing CSA memberships and conducting a CSA competition to strengthen the regional market for locally sourced value-added products.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$158,262

Scalability and explanation

This offer can be scaled in either direction. Staffing could range from .50 to 1.0 FTE. Local food interest is evident by the results of recent citizen surveys.

Links to Further Details:

- <http://www.nocofoodcluster.com/>
- <http://www.larimer.org/foodassessment>
- [http://www.fcgov.com/\(planfortcollins;citymanager/pdf/strategic-plan-2015.pdf;business/pdf/FortCollins-EconomicHealthStrategicplan-FINAL.pdf\)](http://www.fcgov.com/(planfortcollins;citymanager/pdf/strategic-plan-2015.pdf;business/pdf/FortCollins-EconomicHealthStrategicplan-FINAL.pdf))
- <http://www.fcgov.com/sustainability>
- <http://farmtotable.colostate.edu/>



Offer 26.14: ENHANCEMENT: 1.0 FTE Local Food Coordinator & Local Food Systems Program

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: By funding this offer access to existing healthy food options such as existing farms within the community (i.e. Shire, On the Vine and Garden Sweet) will be enhanced.
- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature: This offer is directly related to the City's Lets Move Initiative.
- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer supports the goals of the Climate Action Plan, City Plan, Nature in the City goals, and will support the Local Food Cluster projects.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>
- ECON 38. Number of Primary Jobs retained/created through EHO activities
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6280&object=measure&objectID=114784>
- HPG 70. % of citizens responding very good/good to the City's performance in - Encouraging sustainability in the community
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109928>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.14: ENHANCEMENT: 1.0 FTE Local Food Coordinator & Local Food Systems Program

How will the City work with the existing local leaders in this space to complement their work and provide additional support?

The City currently works very closely with leaders through our involvement with the Northern Colorado Food Cluster, a community non-profit with an emphasis on small business support, food access, and economic development. NCFC includes multiple stakeholders. Additionally, several departments work with non-profits, religious groups and the academic community to ensure influential community leaders are included in existing and potential projects. A Market Feasibility Study could incorporate previous studies by the NCFC and LC Food Bank and close gaps in areas we have not analyzed. It could also serve as a match for community organizations and state agencies interested in partnering on a study. A Project Manager could streamline external support, oversee internal program development and long term planning has been a priority of those involved in local food.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.14: ENHANCEMENT: 1.0 FTE Local Food Coordinator & Local Food Systems Program

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %	
Hourly (FTE)	0.50	0.50	- %	
Expenses				
511000 - Salaries & Wages	84,974	100,930	18.8%	
512000 - Benefits	21,452	26,302	22.6%	
510000 - Personnel Services	106,426	127,232	19.5%	
521000 - Professional & Technical	45,500	25,500	-44.0%	
520000 - Purchased Prof & Tech Services	45,500	25,500	-44.0%	
542000 - Communication Services	1,320	1,320	- %	
543000 - Internal Admin Services	60	60	- %	
544000 - Employee Travel	2,300	2,300	- %	
549000 - Other Purchased Services	100	100	- %	
540000 - Other Purchased Services	3,780	3,780	- %	
555000 - Office & Related Supplies	9,750	1,750	-82.1%	
550000 - Supplies	9,750	1,750	-82.1%	
565000 - Vehicles & Equipment	60,000	-	- %	
560000 - Capital Outlay	60,000	-	- %	
Total Expenses	225,456	158,262	-29.8%	
Funding Sources				
100-General Fund: One-time Revenue	One-Time Restricted	67,194	-	- %
100-General Fund: Ongoing	Ongoing	158,262	158,262	- %
Funding Source Total		225,456	158,262	-29.8%



Offer 26.15: ENHANCEMENT: 1.0 Contractual FTE: Climate Action Plan Program Assistant

2017: \$48,501 and 1.00 FTE, 0.00 Hourly FTE

2018: \$49,961 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will establish a permanent contractual position within Environmental Services to provide program support to the City’s Journey to 2020 efforts. This position has been supported by a full time hourly position, and due to the changes in City policy, staff is seeking to provide these services via a contractual position. The vision is to provide a two year opportunity to recent graduates or those with a strong passion for sustainability issues to develop and hone their communication, research, and logistics skills while providing key support for the City’s efforts to reach its goals. The framing of this position as a two year opportunity is why staff is seeking a contractual FTE.

The City is on a 34 year journey to achieve carbon neutrality, and this journey requires dedicated resources to assist in the coordination of the 11 Strategic Initiative Teams, the Executive Team, and the Community Advisory Committee – all of which include almost 80 City staff members and 45 citizens. Providing this entry level position not only supports the community’s goals, it also provides recent graduates with a critical learning opportunity to learn about the municipal government organization and interaction with sustainability leadership at all levels.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- HPG 7.3 - Improve core Human Resources systems, develop a total reward system and address workforce planning and career development

Additional Information

- The key outcome of funding this position is the coordination of the 125 individuals, including staff and citizens, engaged in the Climate Action Planning process.
- Additional outcomes are developing future leaders around climate action planning and communicating the role of local governments in achieving these goals. In addition, this position will ensure the 125 individuals engaged in the CAP are using best practice research to advance the various strategies and initiatives associated with the planning effort.
- This position will provide administrative services including note-taking at CAP meetings, document preparation, coordinating presentations, participating in strategic planning, etc. The position will also continuously analyze the climate action environment across the country & world to scan for best practices & share these practices with teams to ensure the City continues to lead on this issue.



Offer 26.15: ENHANCEMENT: 1.0 Contractual FTE: Climate Action Plan Program Assistant

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$75,311

Scalability and explanation

Currently, the position is requested at an AP02 level; to save program funding, the position could be hired at an AP01.

Links to Further Details:

- www.fcgov.com/climateaction

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer is an enabling initiative to achieve the Climate Action Plan goals. Funding this offer will provide the implementation infrastructure to achieve the City's goals and provide direct support to the 125 staff and citizen members engaged in planning and implementation.
- HPG 7.3 - Improve core Human Resources systems, develop a total reward system and address workforce planning and career development: This offer provides an opportunity to early career professionals to develop hone their communication, administration, and project management skills.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Hourly personnel cost - requested conversion to contractual status.

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.15: ENHANCEMENT: 1.0 Contractual FTE: Climate Action Plan Program Assistant

- This offer is very similar to the City Manager's Graduate Management Assistant position, in that it supports the over 70 staff members (through 11 teams and the CAP Executive Team) and 45+ citizens actively involved in the Climate Action Plan. A key aspect of success in the CAP is ensuring that all of these parties' collaborative interactions are successful, and that cannot happen without significant coordination.
- o This position's main focus is to ensure that this use of resources is well invested and is successful.
- In addition, there is communitywide recognition that Fort Collins achieving its goals in a vacuum will not be enough to halt the irreversible impacts of climate change. Thus, this position is designed to build future leaders, so that we can leverage the ambitious goals set by Fort Collins into other communities as they try to establish and/or implement their goals.

Reduced by 24,810 and 25,350 as hourly funding in our core offer available to offset cost.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.15: ENHANCEMENT: 1.0 Contractual FTE: Climate Action Plan Program Assistant

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %	
Hourly (FTE)	-	-	- %	
Expenses				
511000 - Salaries & Wages	52,906	54,229	2.5%	
512000 - Benefits	15,615	16,288	4.3%	
519000 - Other Personnel Costs	(24,810)	(25,350)	2.2%	
510000 - Personnel Services	43,711	45,167	3.3%	
521000 - Professional & Technical	500	500	- %	
520000 - Purchased Prof & Tech Services	500	500	- %	
542000 - Communication Services	1,320	1,320	- %	
543000 - Internal Admin Services	70	74	5.7%	
544000 - Employee Travel	1,800	1,800	- %	
549000 - Other Purchased Services	100	100	- %	
540000 - Other Purchased Services	3,290	3,294	0.1%	
555000 - Office & Related Supplies	1,000	1,000	- %	
550000 - Supplies	1,000	1,000	- %	
Total Expenses	48,501	49,961	3.0%	
Funding Sources				
100-General Fund: One-time Revenue	One-Time Restricted	48,501	49,961	3.0%
Funding Source Total		48,501	49,961	3.0%



Offer 26.16: ENHANCEMENT: Alternative Fuel Municipal Lawn and Garden Equipment Fund

2017: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will accelerate the turnover of municipally owned gasoline and diesel lawn and garden equipment, in favor of alternatives such as compressed natural gas (CNG) and electric powered engines.

Reduction of these emissions is important as they contribute to ozone pollution and greenhouse gas (GHG) concentrations. Currently, the City is part of the Denver Metro/North Front Range Ozone Non Attainment Area, which means our highest measured ozone levels exceed the EPA health-based standards. Additionally, the City has adopted ambitious carbon reduction goals which will require significant reductions in fossil fuel consumption.

Although this is relatively new technology, the City already trends toward purchasing alternative fuel heavy equipment during equipment turnover, and currently owns one large liquid propane gas mid sized turf mower and a number of electric hand blowers, chain saws and hedge trimmers. These additional funds would help Parks, Cemetery, Natural Areas and Operations Services accelerate turnover of smaller municipally owned gas powered lawn & garden equipment (e.g., hand blowers, hedgers, weed whips, chain saws, push mowers, small roto tillers, etc.) and larger conventionally fueled equipment (e.g., riding lawn mowers). This would also demonstrate and promote the feasibility of alternatively fueled commercial lawn and garden equipment for the private sector.

Specific purchases with these funds will be informed by leveraging market research from the Regional Air Quality Council (RAQC), an organization that leads regional planning efforts to reduce emissions that contribute to ozone formation. The RAQC is conducting market research on current technologies and impacts of alternatively fueled lawn and garden equipment, with a report expected in summer 2016. These funds will enable purchase of equipment as information from the RAQC becomes available, and leading by example will help the RAQC promote these strategies in other communities.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.4 - Implement indoor and outdoor air quality improvement initiatives

Additional Information

- RAQC emissions inventories show that approximately 7% of the volatile organic carbon (VOC) emissions that contribute to ozone formation in our region come from commercial lawn and garden equipment.



Offer 26.16: ENHANCEMENT: Alternative Fuel Municipal Lawn and Garden Equipment Fund

- The City currently operates approximately 36 large riding mowers and 49 small riding mowers, which contributed to about 10% of total municipal diesel fuel use in 2015.
- In addition to being cleaner burning, alternative engines eliminate evaporative fuel emissions and spillage, which add to the VOC emissions that can contribute to ozone formation.
- With proven feasibility, the City could explore the possibility of providing incentives or requirements for use of alternative fuel lawn and garden equipment for work contracted by the City. Notably, the City already contracts with Clean Air Lawn Care in Fort Collins, who provide small scale clean energy lawn and garden services.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

Specific equipment has not been identified, as purchase decisions will leverage market research expected from the Regional Air Quality Council (RAQC) in the summer of 2016. The proposed funds could cover approximately 10% of the existing large lawn and garden equipment by 2018. This amount could be scaled up or down, depending on the pace desired for accelerated equipment turnover.

Links to Further Details:

- [U.S. Department of Energy, Clean Cities' Guide to Alternative Fuel Commercial Lawn Equipment \(http://www.afdc.energy.gov/pdfs/48369.pdf\)](http://www.afdc.energy.gov/pdfs/48369.pdf)
- [U.S. Department of Energy, Alternative Fuel and Renewable Energy, Alternative Fuel and Advanced Technology Commercial Lawn Equipment \(http://www.afdc.energy.gov/uploads/publication/lawn equip 2014.pdf\)](http://www.afdc.energy.gov/uploads/publication/lawn equip 2014.pdf)

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Conventionally fueled commercial lawn and garden equipment contributes to our municipal carbon inventory, due to the combustion of diesel fuel. These carbon emissions represent a small percentage of the municipal vehicle inventory (~2%), but these reductions are necessary step towards a zero carbon goal, and an important "lead by example" strategy to demonstrate feasibility for the community.
- ENV 4.4 - Implement indoor and outdoor air quality improvement initiatives: Replacement of conventionally fueled commercial lawn and garden equipment with cleaner burning equipment has been identified by regional planners as an important strategy to reduce emissions that are precursors to ozone formation. Fort Collins currently does not meet EPA health-based standards for ozone prevention.



Offer 26.16: ENHANCEMENT: Alternative Fuel Municipal Lawn and Garden Equipment Fund

Performance Metrics

- ENV 4. Outdoor Air Quality Index (AQI) - Ozone
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91341>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

The RAQC is not currently offering matching funds, but they are offering market research and outreach.

For commercial outreach, the RAQC has offered to send a representative to present market research, and we could invite large private businesses to participate.

Per grounds maintenance requirements, RAQC representatives claim that equipment currently available can meet our needs, but the proof will be in the actual purchase and use of the equipment. Parks has already purchased one large compressed natural gas (CNG) mower for use in 2016, and will evaluate use at the end of the season.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.16: ENHANCEMENT: Alternative Fuel Municipal Lawn and Garden Equipment Fund

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
569000 - Other Capital Outlay	50,000	50,000	- %
560000 - Capital Outlay	50,000	50,000	- %
Total Expenses	50,000	50,000	- %
Funding Sources			
100-General Fund: One-time Revenue	One-Time Restricted 50,000	50,000	- %
Funding Source Total	50,000	50,000	- %



Offer 26.17: ENHANCEMENT: City Energy Project - Matching Funds for Fort Collins Participation

2017: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will allow the City to compete in the City Energy Project (CEP), which is a national initiative run jointly by the Institute for Market Transformation (IMT) and Natural Resources Defense Council (NRDC). An initial 10 cities are just finishing their two-year projects, and IMT and NRDC are searching for the next 10 cities to participate in 2017-2018. CEP works in collaboration with participating cities to develop innovative solutions to energy efficiency in existing buildings. While CEP cities can prioritize the initiatives they ultimately pursue, they all share three primary goals, which are aligned with the City's Road to 2020: (1) substantially reducing citywide energy use and carbon pollution; (2) improving the local economy by investing in skilled local jobs; and (3) expanding market opportunities for private sector investment in energy efficiency.

This offer provides \$50,000 in 2017 and \$50,000 in 2018 to match CEP funds, which will be provided on at least a 1:1 basis. For this match, the City receives the following:

- A full time staff person hired by IMT and NRDC for two and a half years and staffed at the City to assist us in implementing our energy efficiency goals;
- A position of national leadership and recognition as one of the participating cities;
- Additional assistance from IMT and NRDC, including access to hub staff at their main offices, communications and technical support, and network access to other participating cities.
- Some limited additional funding may be available from IMT and NRDC for contracting with local consultants and conference travel.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- HPG 7.7 - Address long-term funding requirements by diversifying the revenue base and finding new revenue sources

Additional Information

- This offer is a part of implementing CAP Initiative Building Energy Disclosure and Scoring, as well as other CAP Initiatives, including Business Energy Efficiency. Fifty percent of the Fort Collins' 2020 CAP goals will come from energy efficiency improvements in buildings.
- This opportunity leverages Fort Collins' investment with private sector funding at a minimum of a 1:1 ratio.



Offer 26.17: ENHANCEMENT: City Energy Project - Matching Funds for Fort Collins Participation

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

N/A

Links to Further Details:

- www.fcgov.com/climateaction
- www.cityenergyproject.org
- <http://www.fcgov.com/enviro/green-building.php>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer directly implements the Energy Efficiency and Building Energy Disclosure and Scoring Initiative in the 2020 CAP Strategic Plan. Funding this offer will provide the implementation infrastructure to achieve Energy Efficiency goals and engage in a public conversation and policy development around energy efficiency in existing buildings.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Buildings account for over half of the community’s GHG emissions, and this position directly supports programs to reduce those emissions and overall energy consumption.
- HPG 7.7 - Address long-term funding requirements by diversifying the revenue base and finding new revenue sources: This funding leverages the City’s investment with private sector dollars on a minimum of a 1:1 basis.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>
- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91396>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.17: ENHANCEMENT: City Energy Project - Matching Funds for Fort Collins Participation

- Not applicable

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.17: ENHANCEMENT: City Energy Project - Matching Funds for Fort Collins Participation

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	50,000	50,000	- %
520000 - Purchased Prof & Tech Services	50,000	50,000	- %
Total Expenses	50,000	50,000	- %
Funding Sources			
100-General Fund: One-time Revenue	One-Time Restricted 50,000	50,000	- %
Funding Source Total	50,000	50,000	- %



Offer 26.18: ENHANCEMENT: Climate Action Plan Support

2017: \$1,500,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,500,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will establish a Climate Action Plan (CAP) Reserve account. This Fund will allow the City to respond nimbly to opportunities and initiatives as they arise. Meeting the CAP goals will require significant public/private partnerships and these opportunities will not always align with a two year cycle.

Why fund this offer? There are only two budget cycles (including this cycle) until 2020, which is the City’s first goal around the Climate Action Plan – to achieve a 20% reduction in greenhouse gas emissions below 2005 levels. The most recent inventory puts the community’s emissions 9% below 2005 levels. Significant work remains to achieve the 2020 goal and engage the community in these efforts both for this interim goal and as the community moves toward the 2030 goal (80% reduction) and being carbon neutral by 2050.

The establishment of a CAP Fund was discussed with City Council in a Work Session, and Councilmembers recommended establishing this fund to support new projects as they come online, new opportunities emerge, or new technology becomes available.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information

- Funding this offer is a commitment to establishing the CAP Fund, though specific initiatives will still require Council vetting and approval. As proposed, funding would come from the General Fund. There may be funding available from Utility Enterprise Funds through a debt issuance or a rate adjustment.
- Examples of off-cycle initiatives include newly developed, shovel ready and high impact projects, a partnership with the Clinton Climate Initiative and the Vermont Energy Investment Corporation to establish alternative financing to achieve energy efficiency goals, matching requirements for private and government grants, and providing additional incentives/rebates to meet community demand.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.



Offer 26.18: ENHANCEMENT: Climate Action Plan Support

Scalability and explanation

Essentially it's all scalable...

Links to Further Details:

- www.fcgov.com/climateaction
- [Fort Collins Recognized as Place of Invention: http://www.fcgov.com/news/?id=5935](http://www.fcgov.com/news/?id=5935)

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer is an enabling initiative to achieving the Climate Action Plan goals. Funding this offer will support the innovation economy around climate action and will leverage the City's resources for new projects as they come online, new opportunities emerge, or new technology becomes available.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: This offer leverages opportunities for climate mitigation strategies that improve the community's resiliency in light of climate change impacts, e.g., extreme weather events.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91345>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team



Offer 26.18: ENHANCEMENT: Climate Action Plan Support

There are only two budget cycles to achieve the 2020 CAP goals and there are initiatives that could be acted upon outside of the typical budget cycle, but for funding.

How did we get to the \$1.5M number? The offer seeks as much room as possible to meet future opportunities for many different types of projects.

What projects are you thinking? Criteria for rating and picking the projects? All projects will be based on initiatives that have either been modeled or are key enabling initiatives, e.g., messaging and engagement, and reviewed by the CAP Executive Team, and then ultimately by City Council.

How many projects are you thinking for this offer? It could range from 2-3 projects that have high impact, e.g., a community solar garden and energy efficiency incentives, to multiple projects that engage the community and look toward future needs, e.g., targeted outreach or analysis to address community engagement in light of affordable housing.

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



26.18: ENHANCEMENT: Climate Action Plan Support

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	1,500,000	1,500,000	- %
520000 - Purchased Prof & Tech Services	1,500,000	1,500,000	- %
Total Expenses	1,500,000	1,500,000	- %
Funding Sources			
100-General Fund: Reserves	1,500,000	1,500,000	- %
Reserve	1,500,000	1,500,000	- %
Funding Source Total	1,500,000	1,500,000	- %



Offer 30.2: ENHANCEMENT: Police Solar Panels/Covered Parking

2017: \$480,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will fund approximately 120 kilowatts of solar power generation using photovoltaic panels at the Police Services building. This commitment to alternative energy also provides convenient parking awnings for on duty patrol officers. The original building design for Police Services included covered close in parking for multiple shifts of on duty patrol officers that make hundreds of trips a day into and out of the building.

In the winter, snow and ice accumulate in the edges and corners of the parking lot where it is difficult to plow. Police employees have suffered significant injuries, to include broken bones, falling on ice within 15 feet of the entry door. During snowstorms, officers are delayed, sometimes significantly, when clearing their police cars of snow and windshield ice while also needing to respond to an emergency. To generate 120 kilowatts of solar power, about 35 covered parking spaces would be created. On a typical weekend night, as many as 40 patrol officers are on duty in Fort Collins. Police Services has already taken steps to mitigate the pooling of water and ice by re engineering the parking lot drainage to move standing water away from the entry doors. PV parking awnings would complete a corrective plan to reduce injuries in the parking lot.

In the summer, the south side of the Police Services building provides an excellent platform for PV panels. While collecting power, the panels would shade the on duty patrol cars when officers are working in the building, making their vehicles more comfortable and reducing the need for excessive air conditioning in the vehicle.

Currently, Police Services does not have on site alternative energy generation capabilities. This project would provide benefits to the community by reducing employee injuries, reducing greenhouse gasses, and increasing the City's alternative energy portfolio.

This project includes 1% going to Art in Public places.

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- HPG 7.4 - Develop and implement initiatives to achieve safety goals and continue to focus on employee health and wellness

Additional Information



Offer 30.2: ENHANCEMENT: Police Solar Panels/Covered Parking

- PV panels affixed to parking awnings would provide about 120 kilowatts of electricity for the Police Services building.
- The PV parking awnings at Intel Corporation on East Harmony Road and those at Rocky Mountain Innosphere on East Vine Drive are examples of local uses of these structures.
- Police Services would be able to take advantage of a rebate program through Utilities that would offset as much as \$60,000 of the total project cost.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer would fund approximately 275 linear feet of PV parking awnings covering 35 parking spaces in three rows near the entry doors. The remainder of the south parking lot could easily be converted with the same type of structures.

Links to Further Details:

- [Innosphere parking:](http://mountaintownnews.net/2013/02/20/vail-global-energy-forum/solar-parking-panels/)
<http://mountaintownnews.net/2013/02/20/vail-global-energy-forum/solar-parking-panels/>

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): Reduced reliance on coal and natural gas through the use of solar panels contributes positively to overall air quality.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Using a systems approach, Police Services is transforming our energy diet by purchasing alternatively-fueled vehicles, maintaining our building's LEED certification, solar power generation on our patrol vehicle rooftops, and the proposed PV Parking Awnings.
- HPG 7.4 - Develop and implement initiatives to achieve safety goals and continue to focus on employee health and wellness: These structures would significantly reduce the amount of snow and ice on-duty officers walk through several times during their shift in the winter months. The mitigation of risk from a fall cannot be overstated.

Performance Metrics

- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>
- ENV 25. Total new installed solar capacity (kilowatts)



Offer 30.2: ENHANCEMENT: Police Solar Panels/Covered Parking

[https://www.clearpointstrategy.com/publish/direct.cfm?
linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398](https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91398)

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Added commentary and altered the expense split out for Art in Public Places

Offer Profile

Offer Owner: ermartin

Lead Department: Office of the Chief



30.2: ENHANCEMENT: Police Solar Panels/Covered Parking

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	-	-	- %	
Expenses				
551000 - Vehicle & Equipment Supplies	475,200	-	- %	
559000 - Other Supplies	4,800	-	- %	
550000 - Supplies	480,000	-	- %	
Total Expenses	480,000	-	- %	
Funding Sources				
100-General Fund: Reserves	Reserve	480,000	-	- %
Funding Source Total		480,000	-	- %



Offer 61.1: KFCG ENHANCEMENT: Expand Downtown Recycling

2017: \$58,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$32,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will enhance the capabilities of the Parks Department to meet the City's Road to Zero Waste Plan by providing increased recycling opportunities downtown. The Parks Department proposes to purchase 58 new recycling receptacles. Each recycling receptacle will be placed next to existing matching trash receptacles throughout the downtown core at City facilities and parks. This offer includes metal signage that will be attached to the recycling receptacles educating the public about recycling standards.

In 2015, the Parks Department successfully increased recycling opportunities by developing standards and instituting new guidelines to achieve a 1:1 recycling/trash ratio throughout our developed park properties. These new standards helped increase the Parks Department's waste diversion by 19% in one year. The second phase of the project focuses on the downtown core. The core area has the highest visitation by the general public of any venue or park in the City. Providing more recycling opportunities in the downtown area reinforces the waste diversion efforts in all venues. The Parks Department will also be better equipped to meet the aggressive goals set by City Council when it adopted the "Road to Zero Waste" plan.

This Offer supports the following Strategic Objectives:

- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization
- HPG 7.1 - Provide world-class services that meet the needs of the community

Additional Information

- This offer promotes and reinforces a Zero Waste culture in Fort Collins by encouraging recycling efforts. It helps support the goal of zero waste by 2030 and diverts waste being sent to the landfill which is estimated to have a remaining life span of approximately 10 years.
- This offer also helps support the City's municipal sustainability goal of reducing solid waste from public access facilities by 5% each year.
- The Parks Department diverted 34% of waste collected in 2015 from the landfill. It is estimated that this offer will increase that diversion rate to 45%.
- The cost of this offer is being spread over two years to reduce the impacts on the City's budget from requesting all the funding in 2017.



Offer 61.1: KFCG ENHANCEMENT: Expand Downtown Recycling

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

The Parks Department would like to spread the recycling receptacle purchases across two years. In 2017, the Parks Department would purchase 36 recycling receptacles, and in 2018 the remaining 22 recycling receptacles. This offer could be scaled by purchasing less recycle cans, but this would hinder meeting waste diversion goals.

Links to Further Details:

- <http://www.fcgov.com/zerowaste/>
- <http://www.fcgov.com/parks/recycle.php>

Linkage to Strategic Objectives

- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: This offer will provide educational signage about recycling opportunities on the recycling receptacles, provide consistency with 'paired receptacles' (one recycling receptacle to one trash receptacle) in all locations throughout the parks, trails, recreation facilities and the downtown core. In addition, it will promote and encourage a Zero Waste culture.
- ENV 4.6 - Work towards long-term zero waste goals within the community and the City organization: Waste diverted from these receptacles will be included in waste stream audits and will increase the community waste diversion rate.
- HPG 7.1 - Provide world-class services that meet the needs of the community: In order to provide world class services to Fort Collins citizens the Parks Department will provide alternatives to trash cans, increase recycling opportunities for the community, and set a good example to encourage citizens to recycle in public as well as at home.

Performance Metrics

- ENV 7. Community per capita per day of solid waste generation
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91344>
- ENV 10. Community solid waste diversion rate
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91346>
- ENV 12. Tons of community recycled or composted materials, including cardboard
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91348>

Explanation of Any Adjustments to Personnel Costs using object 519999



Offer 61.1: KFCG ENHANCEMENT: Expand Downtown Recycling

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

In response to the results team's question regarding whether the Downtown Development Authority (DDA) has paid for recycle cans or would pay for these cans, the recycle cans purchased with this offer will be placed at City owned facilities and parks. The DDA pays for recycle cans in areas Parks maintains. i.e. Old Town Square and DDA renovated alleys, but this request will not be placing recycle cans in DDA maintained areas.

Offer Profile

Offer Owner: DGorkowski

Lead Department: Parks



61.1: KFCG ENHANCEMENT: Expand Downtown Recycling

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
552000 - Land & Building Maint Supplies	58,000	32,000	-44.8%
550000 - Supplies	58,000	32,000	-44.8%
Total Expenses	58,000	32,000	-44.8%
Funding Sources			
254-KFCG Fund: Other Community Reserve	58,000	32,000	-44.8%
Priorities Reserves & One-Time Use			
Tax			
Funding Source Total	58,000	32,000	-44.8%



Offer 84.1: Nature in the City Implementation Capacity

2017: \$76,243 and 1.00 FTE, 0.00 Hourly FTE

2018: \$78,472 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

The purpose of this offer is to continue support for a one FTE contractual Environmental Planner to assist in the implementation of Nature in the City.

The Nature in the City (NIC) strategic plan was unanimously adopted by City Council in March 2015 after identifying the program as one of its Priority Items for the 2014 2015 year. NIC is part of the Community Capital Improvement Program (CCIP) tax initiative and will receive \$3 million in capital projects funding through 2026.

Implementation of NIC began in 2016 and is supported by a one year contractual Environmental Planner approved in the mid cycle budget process. The CCIP funding for Nature in the City provides \$3M over 10 years for capital projects, but provides no funds for staffing.

Examples of NIC projects currently underway that will be supported by this position include: continuation and enhancement of a tree planting program; working with Poudre School District to create outdoor classrooms and nature areas near schools; a nature play area in the new southeast community park; installation of pollinator gardens; completion of a living wall; monitoring the ability of citizens' ability to access nature within a 10 minute walk; and, wildlife connectivity analysis.

NIC is adequately staffed and implementing a number of pilot projects and other Strategic Plan policies in 2016. Continued funding for the contractual Environmental Planner for the 2017 2018 budgets is critical to the City's ability to continue implementing current project and to allow NIC to expand into new opportunities in future years.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems

Additional Information

- The NIC Strategic Plan was adopted by City Council on a unanimous vote
- NIC was included in the Community Capital Improvement Program tax and will receive \$3M for capital projects over the next ten years



Offer 84.1: Nature in the City Implementation Capacity

- This position will support the implementation of on-the-ground projects to restore and provide access to nature close to where we live, work, and play
- Extending the NIC contractual Environmental Planner for the 2017-2018 budget cycle ensures continued implementation of the NIC strategic plan for years two and three of the CCIP
- Over 80% of the anticipated short term action items detailed in the NIC strategic plan have already been completed or are on track for completion by the end of 2016

Links to Further Details:

- [Nature in the City Strategic Plan: http://www.fcgov.com/natureinthecity/pdf/sttrategic_plan_small.pdf](http://www.fcgov.com/natureinthecity/pdf/sttrategic_plan_small.pdf)
- [Nature in the City website: http://fcgov.com/natureinthecity](http://fcgov.com/natureinthecity)

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: The goal of NIC is to provide a ten-minute walk to nature from all areas and all neighborhoods within the City.
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: NIC goals include support for high quality natural areas within neighborhoods that are easily accessed by residents.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: NIC will help support, improve, restore, and protect wildlife habitat throughout the city. Much of the work of NIC will be driven by citizen science efforts to identify and map wildlife movement corridors within the City, and to implement projects to improve or protect natural areas and wildlife habitat within these important areas.

Improvements & Efficiencies

- Funding this position will allow for ongoing implementation.
- The public committed capital development funding for NIC through the passage of CCIP. Staff is needed to design and implement projects.
- The goal for the NIC program is to leverage one dollar in matching funds for every NIC dollar spent. To date we are leveraging over 90 cents on the dollar, not including the value of in-kind or volunteer contributions.

Performance Metrics

- A performance measure has not yet been identified; please see Additional Information above

Personnel Changes

- Not applicable



Offer 84.1: Nature in the City Implementation Capacity

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Update on the performance metric and an updated offer summary as well as an added improvement & efficiencies.

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



84.1: Nature in the City Implementation Capacity

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	61,502	63,040	2.5%
512000 - Benefits	16,297	16,988	4.2%
519000 - Other Personnel Costs	(1,556)	(1,556)	- %
510000 - Personnel Services	76,243	78,472	2.9%
Total Expenses	76,243	78,472	2.9%
Funding Sources			
254-KFCG Fund: Other Community Ongoing Restricted Priorities	76,243	78,472	2.9%
Funding Source Total	76,243	78,472	2.9%



Offer 84.2: ENHANCEMENT: 1.0 FTE Conversion from Contractual to Classified to support Nature in the City Implementation Capacity

2017: \$9,889 and 0.00 FTE, 0.00 Hourly FTE

2018: \$10,135 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

The purpose of this offer is to convert a contractual Environmental Planner to a permanent classified position. The contractual Environmental Planner was approved in a mid budget process to assist in the implementation of Nature in the City (NIC) in 2016. The Community Capital Improvement Program (CCIP) tax funding for NIC provides \$3M over 10 years for capital projects, and limited staff funding for operation and maintenance of capital projects.

Many identified NIC projects will require long-range planning and relationship building, often over months and at times, years of effort. Funding this position in two year increments limits the opportunity for staff continuity that is important to plan longer range projects and build the relationships that are critical to success. The public recently made a 10 year commitment to NIC with the passage of the CCIP tax. Converting this position to a classified status allows the City to match that level of commitment. The City Attorney’s Office recently approved funding this offer using CCIP funds to reflect the estimated portion of staff time spent on the operation and maintenance of NIC capital projects.

Examples of long-term (2017 2021 and beyond) NIC strategic plan initiatives linked to this position include: operation and maintenance of existing NIC capital projects; acquisition of key parcels in partnership with Natural Areas; long term biodiversity monitoring through citizen science programs; creation of design guidelines and training resources for developers, contractors, and homeowners; partnerships with other city departments to streamline wayfinding to nature; implementation of night sky policies and regulatory structure to create a darker night sky; partnerships with small farmers to support urban agriculture; assessing the value of ecosystem services and carbon sequestration provided by the City’s “green” infrastructure; and, partnering with the Stormwater Utility to update stormwater basin guidelines.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems

Additional Information

- The NIC Strategic Plan was adopted by City Council on a unanimous vote



Offer 84.2: ENHANCEMENT: 1.0 FTE Conversion from Contractual to Classified to support Nature in the City Implementation Capacity

- NIC was included in the Community Capital Improvement Program (CCIP) tax and will receive \$3M for capital projects over the next ten years
- This position will support the implementation of on-the-ground projects to restore and provide access to nature close to where we live, work, and play
- Converting the NIC contractual Environmental Planner to a permanent classified employee will match the City's commitment to NIC to that shown by the public with the passage of CCIP. Converting this position will allow for the staff continuity for long range planning and project implementation.
- The planned metric at this time is the number of citizens who can access nature within a 10 minute walk of their residence, but we are still determining how to best collect that data

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$10,000

Scalability and explanation

This offer is not scalable. The amount requested is the difference in pay between a contractual and classified Environmental Planner position.

Links to Further Details:

- http://www.fcgov.com/natureinthecity/pdf/ststrategic_plan_small.pdf
- <http://fcgov.com/natureinthecity>

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: The goal of NIC is to provide a ten minute walk to nature from all areas and all neighborhoods within the City.
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: NIC goals include support for high quality natural areas within neighborhoods that are easily accessed by residents
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: NIC will help support, improve, restore, and protect wildlife habitat throughout the city. Much of the work of NIC will be driven by citizen science efforts to identify and map wildlife movement corridors within the City, and to implement projects to improve or protect natural areas and wildlife habitat within these important areas

Performance Metrics



Offer 84.2: ENHANCEMENT: 1.0 FTE Conversion from Contractual to Classified to support Nature in the City Implementation Capacity

- A performance measure has not yet been identified; please see Additional Information above

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

The classified position was added to this offer to reflect accurate costing of the position to fully benefited and the contractual position was deleted, leaving the difference. The contractual position still resides in the original offer 84.1. This also eliminated the use of 519999.

Some minor edits to the offer summary, including explaining the use of the CCIP funds.

Changing funding from General Fund:Ongoing to fund 255 CCIP: Ongoing Revenue

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



84.2: ENHANCEMENT: 1.0 FTE Conversion from Contractual to Classified to support Nature in the City Implementation Capacity

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	4,863	4,985	2.5%
512000 - Benefits	5,026	5,150	2.5%
510000 - Personnel Services	9,889	10,135	2.5%
Total Expenses	9,889	10,135	2.5%
Funding Sources			
255-Community Capital Improvement Program (CCIP) Fund: Ongoing Revenue	Ongoing Restricted 9,889	10,135	2.5%
Funding Source Total	9,889	10,135	2.5%



Offer 84.3: KFCG ENHANCEMENT: Nature in the City Programmatic Funding

2017: \$20,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$20,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer is to provide programmatic funding to assist in the implementation of Nature in the City.

The Nature in the City (NIC) strategic plan was unanimously adopted by City Council in March 2015 after identifying the program as one of its priority items for the 2014 2015 year. NIC is part of the Community Capital Improvement Program (CCIP) tax initiative and will receive \$3M in capital projects funding through 2026.

Approved by voters in 2015, the CCIP sales tax provides \$3M over 10 years for capital projects related to NIC and restricts funds for program needs to costs that are tied directly to a capital project. A programmatic budget is an essential component needed to implement the non capital components outlined in the NIC strategic plan.

Examples of NIC program components that would be funded by this offer include:

- Communication and outreach materials for the NIC program
- Program management (e.g. phone, computer, mileage, clothing and safety materials, food, etc.)
- Outreach and training efforts for developers, contractors and homeowners on NIC principals and techniques

While many NIC staff engagement efforts will relate to a specific capital project, others will be more general in nature and are not within the allowable use of CCIP funds. The general funds in this offer will help leverage \$200k per year of the CCIP funds.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems

Additional Information

- The NIC Strategic Plan was adopted by City Council on a unanimous vote
- NIC was included in CCIP and will receive \$3M for capital projects over the next ten years



Offer 84.3: KFCG ENHANCEMENT: Nature in the City Programmatic Funding

- This funding will support the implementation of on-the-ground projects to restore and provide access to nature close to where we live, work, and play
- Providing programmatic funding for NIC for the 2017-2018 budget cycle allows funding of non-capital implementation of the NIC strategic plan for years two and three of the CCIP
- The planned metric at this time is the number of citizens who can access nature within a 10 minute walk of their residence, but we are still determining how to best collect that data

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$20,000

Scalability and explanation

This offer is not scalable. Programmatic funding will provide non-capital funding needed to implement NIC for two additional years.

Links to Further Details:

- [Nature in the City Strategic Plan: http://www.fcgov.com/natureinthecity/pdf/sttrategic_plan_small.pdf](http://www.fcgov.com/natureinthecity/pdf/sttrategic_plan_small.pdf)
- [Nature in the City website: http://fcgov.com/natureinthecity](http://fcgov.com/natureinthecity)

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: The goal of NIC is to provide a ten minute walk to nature from all areas and all neighborhoods within the City.
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: NIC goals include support for high quality natural areas within neighborhoods that are easily accessed by residents.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: NIC will help support, improve, restore, and protect wildlife habitat throughout the city. Much of the work of NIC will be driven by citizen science efforts to identify and map wildlife movement corridors within the City, and to implement projects to improve or protect natural areas and wildlife habitat within these important areas.

Performance Metrics

- A performance measure has not yet been identified; please see Additional Information above

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 84.3: KFCG ENHANCEMENT: Nature in the City Programmatic Funding

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Reduced the offer amount from \$35K to \$20K based on some CAO decisions on what CCIP funds could be spent on, and edited text accordingly.

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



84.3: KFCG ENHANCEMENT: Nature in the City Programmatic Funding

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	20,000	20,000	- %
520000 - Purchased Prof & Tech Services	20,000	20,000	- %
Total Expenses	20,000	20,000	- %
Funding Sources			
254-KFCG Fund: Other Community Ongoing Restricted Priorities	20,000	20,000	- %
Funding Source Total	20,000	20,000	- %



Offer 84.4: ENHANCEMENT: Community Capital Improvement Program - Nature in the City Capital Projects Implementation

2017: \$190,111 and 0.00 FTE, 0.00 Hourly FTE

2018: \$189,865 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer is to provide capital project funding to assist in the implementation of Nature in the City.

The Nature in the City (NIC) strategic plan was unanimously adopted by City Council in March 2015 after identifying the program as one of its priority items for the 2014 2015 year. The City Manager and Executive Leadership Team supported NIC during the development of the Strategic Plan, and NIC was included in the Community Capital Improvement Program (CCIP) tax initiative and will receive \$3M in capital projects funding through 2026.

Approved by voters in 2015, the CCIP sales tax provides \$3M in dedicated funding over 10 years for capital projects related to NIC. Examples of NIC capital projects that would be funded by this offer may include: installation of nature play facilities on private and City lands, acquire access easements and construct trail connections, assist in the funding of outdoor classrooms at Poudre School District schools, assist in acquisition of key parcels in partnership with Natural Areas, restoration of sites for wildlife habitat, installation of pollinator gardens, partner in small and large scale tree planting projects, among many other opportunities to be identified later in the 10 year life of the CCIP funding life cycle.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems

Additional Information

- The NIC Strategic Plan was adopted by City Council on a unanimous vote
- NIC was included in CCIP and will receive \$3M for capital projects over the next ten years
- This funding will support the implementation of on-the-ground projects to restore and provide access to nature close to where we live, work, and play
- CCIP funds for the 2017-2018 budget cycle allows funding of capital implementation of the NIC strategic plan for years two and three of the CCIP cycle



Offer 84.4: ENHANCEMENT: Community Capital Improvement Program - Nature in the City Capital Projects Implementation

- The planned metric at this time is the number of citizens who can access nature within a 10 minute walk of their residence, but we are still determining how to best collect that data

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This Offer is not scalable

Links to Further Details:

- [Nature in the City Strategic Plan: http://www.fcgov.com/natureinthecity/pdf/sttrategic_plan_small.pdf](http://www.fcgov.com/natureinthecity/pdf/sttrategic_plan_small.pdf)
- [Nature in the City website: http://fcgov.com/natureinthecity](http://fcgov.com/natureinthecity)

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: The goal of NIC is to provide a ten minute walk to nature from all areas and all neighborhoods within the City.
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: The community placed a high value on NIC through the passage of CCIP that included capital funds for NIC. NIC goals include creating high quality and accessible natural areas close to areas where we live, work, and play.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: NIC will expand, improve, restore, and protect wildlife habitat throughout the city. Much of the work of NIC will be driven by citizen science efforts to identify and map wildlife movement corridors within the city, and to implement projects to improve or protect natural areas and wildlife habitat within these important areas.

Performance Metrics

- A performance measure has not yet been identified; please see Additional Information above

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Changed to Enhancement Offer

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



84.4: ENHANCEMENT: Community Capital Improvement Program - Nature in the City Capital Projects Implementation

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	190,111	189,865	-0.1%
520000 - Purchased Prof & Tech Services	190,111	189,865	-0.1%
Total Expenses	190,111	189,865	-0.1%
Funding Sources			
255-Community Capital Improvement Program (CCIP) Fund: Ongoing Revenue	190,111	189,865	-0.1%
Funding Source Total	190,111	189,865	-0.1%



Offer 85.1: West Nile Virus Management Program

2017: \$341,510 and 0.00 FTE, 0.00 Hourly FTE

2018: \$346,632 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will mitigate the public health risks of West Nile virus (WNV) via a contract to control the number of WNV carrying mosquitoes throughout the City. Since 2003, Colorado has experienced 5,335 human cases of WNV with 904 occurring in Larimer County.

City Council adopted resolutions in 2003, 2004, 2008, and 2014 directing City staff to implement actions aimed at reducing citizens' risk of contracting WNV. Using a Technical Advisory Committee, composed of experts from Centers for Disease Control, Larimer County Department of Health and Environment and Colorado State University as well as advocates for reduced pesticide use, the WNV program is improved annually. This offer funds proactive measures to reduce the frequency and geographic extent of adulticide fogging applications recommended by the Larimer County Health Director and conducted under the authority of a declared local public health emergency. Funded measures include; the most comprehensive municipal monitoring network in the country, mosquito larvae control with state of the art environmentally friendly products, site mapping, dip testing, identification, mosquito eating fish distribution, information hotline services, a comprehensive public engagement and communication program, and quality control and virus testing services provided by CSU.

This program has no funds dedicated to mosquito insecticide fogging applications in Fort Collins.

WNV is an endemic mosquito borne disease that historically has a higher prevalence of risk to the northern Colorado area than most other areas of the country. Health impacts can include severe fever, neuro encephaly, and sometimes fatalities (13 in Larimer County since 2003).

This Offer supports the following Strategic Objectives:

- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices
- SAFE 5.1 - Improve community involvement, education and regional partnerships to make our community safer and stronger

Additional Information

- The WNV Management Program utilizes an Integrated Pest Management approach which is recommended by the EPA and the CDC for pest control.



Offer 85.1: West Nile Virus Management Program

- The surveillance system employed in this offer is the most extensive municipal network in the country allowing for a robust set of data to guide decisions during the mosquito season.
- Implementation of the WNV communication plan will allow staff to continually reach targeted at-risk audiences while broadcasting prevention messaging during times of increased risk.
- The continual improvement process is implemented annually with the review by the TAC.
- No metric has yet been identified for the West Nile Virus Management Program

Links to Further Details:

- <http://www.fcgov.com/westnile/>

Linkage to Strategic Objectives

- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature: WNV is endemic to the community and a major concern for several segments or the community.
- ENV 4.3 - Engage citizens in ways to educate and encourage behaviors toward more sustainable living practices: The WNV management program educates citizens to make long term behavioral changes while utilizing the most environmentally friendly management products available on the market to help reduce the risk of WNV transmission to the community.
- SAFE 5.1 - Improve community involvement, education and regional partnerships to make our community safer and stronger: Local content experts and concerned citizens, as members of the TAC, provide a broad viewpoint for recommendations for improvements to Council on an annual basis.

Improvements & Efficiencies

- A pilot project is currently underway to explore the feasibility and cost effectiveness of providing single use insect repellent wipes at major trailheads during the high risk WNV season.
- Although the WNV program will continue to increase citizen awareness of risks and preventative measures, additional media efforts will focus on target audiences including; youth, outdoor recreationists, and those in the 60+ age range.
- Communication enhancements will improve the ability to educate citizens on prevention tools and rationale behind the management program. Increased collaboration with Larimer County Department of Health and Environment staff will allow for broader reach of education efforts and a more consistent message on the risk and prevention of WNV.

Performance Metrics

- A performance measure has not yet been identified; please see Additional Information above



Offer 85.1: West Nile Virus Management Program

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- The Consumer Price Index ratchet as it applies to the Colorado State University testing services and the Colorado Mosquito Control contract incrementally increase the costs.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



85.1: West Nile Virus Management Program

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	341,510	346,632	1.5%
520000 - Purchased Prof & Tech Services	341,510	346,632	1.5%
Total Expenses	341,510	346,632	1.5%
Funding Sources			
254-KFCG Fund: Other Community Ongoing Restricted Priorities	341,510	346,632	1.5%
Funding Source Total	341,510	346,632	1.5%



Offer 86.1: Natural Areas Stewardship

2017: \$2,716,125 and 10.90 FTE, 8.21 Hourly FTE

2018: \$2,452,693 and 10.90 FTE, 8.21 Hourly FTE

Offer Summary

The purpose of this offer is to support resource stewardship services related to vegetation, soils, wetlands, wildlife, cultural, water resources, and scenic values on the City's natural areas. This offer supports two distinct management units in the Natural Areas Department: Resource Management and Land and Water Management.

Resource Management has three primary functions: general ecological restoration, resource management planning, and vegetation and wildlife management. Land and Water Management functions consist of property management, management of agricultural activities, management of the Conservation Easement stewardship program, water and water rights administration, instream flow and river connectivity, cultural resource management, mined land restoration, mineral resource management, and management of Soapstone Prairie Natural Area.

Many of the Environmental Health principles and policies in 2011 Plan Fort Collins under "Open Lands" encompass the work to be performed via this offer. Specifically Policy ENV 2.5 – Provide Land Conservation and Stewardship, Policy ENV 2.3 – "Partner, Collaborate, and Coordinate on Open Lands" and Policy 4.2 – "Enhance and Restore Streams."

This Offer supports the following Strategic Objectives:

- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability

Additional Information

- General ecological restoration which consists of a variety of activities ranging from conversion of former dryland farms to native prairies, gravel mine reclamation, and conversion of highly impacted sites to native vegetation.
- Site management plan development as well as updates and related public involvement; implementation of wildlife conservation plans; ecological restoration projects; and, habitat enhancement projects.



Offer 86.1: Natural Areas Stewardship

- Wildlife and vegetation management efforts geared toward sustaining native wildlife through habitat management and human conflict mitigation. Wildlife management efforts at Soapstone Prairie focus on management efforts to influence the abundance of key wildlife species and the reintroduction of native species such as plains bison, black-footed ferret, and redbelly dace.
- Water resource management that addresses opportunities related to environmental flows, instream connectivity, and river health within the urban core and regional properties. Also includes water administration, development of substitute water supply plans, water augmentation plans, water acquisition, and coordinating legal activities associated with water administration and management.
- Supports real property matters such as managing mineral interests, agricultural activities, and oversight of the Conservation Easement Program. The offer also supports oversight of utility easement requests and construction across Natural Areas properties.

Links to Further Details:

- www.fcgov.com/naturalareas

Linkage to Strategic Objectives

- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: Natural Areas has conserved over 41,000 acres of land including 34,842 acquired for public use. Conserved lands are found throughout the city, within the foothills and the regional landscape. Natural Areas' stewardship efforts focus on increasing the health and resilience of natural areas, habitat restoration and wildlife management and providing for public access and recreation.
- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature: Natural Areas manages 43 natural areas, 40 of which are open to public use. Visitation rates are high with over 2 million total visitors annually. Included within the natural area system are over 100 miles of natural surface trails and an additional 3.5 miles of concrete trails.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: Natural Areas has conserved over 60% of the Poudre River floodplain through the urban reach of the river. Restoration and management efforts focus on restoring floodplain connectivity, riparian forest health and expansion, and aquatic health and connectivity.

Improvements & Efficiencies

- Natural Areas, in partnership with Utilities completed the design and restoration of 120 acres of former sand and gravel mines adjacent to the Poudre River. This work was accomplished as part of the Rigden Reservoir construction project and material excavated to create the reservoir was used to fill former sand and gravel mine sites to create wetland habitats.



Offer 86.1: Natural Areas Stewardship

- Natural Areas reintroduced black-footed ferrets onto Soapstone Prairie Natural Area and Meadow Springs in partnership with Colorado Parks and Wildlife and the U.S. Fish and Wildlife Service. Collaborative efforts continue and focus on a ferret and prairie dog monitoring, and disease management and research including a vaccine for sylvatic plague.
- Reduced the amount of staff time required to monitor Conservation easements held by the Natural Areas by 25%. Efficiencies were gained by use of iPads, fillable PDF report forms, and prioritizing visits to conservation easements.
- Natural Areas, the North Poudre Irrigation Company, and Colorado Parks and Wildlife joined together to complete a fish passageway on the Poudre River at the Fossil Creek Reservoir Inlet Ditch diversion structure. North Poudre and Natural Areas shared in the cost of the project and Colorado Parks and Wildlife provided technical assistance in the design and monitoring of the passage structure.
- Natural Areas increased the effectiveness of its weed treatment and restoration programs by utilizing iPad apps that allow crews to accurately and immediately report on work in the field. The apps facilitate good record keeping and eliminate voluminous paper documentation.

Performance Metrics

- ENV 98. % of citizens responding very good/good quality of - Natural areas and open space
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109883>
- ENV 8. Post Restoration Status of Urban Natural Areas
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6287&object=measure&objectID=91393>

Personnel Changes

- This Offer shifts 30% of the funding for the Watershed Planner to the General Fund. The Watershed Planner is a position created in 2016 that focuses on the Poudre River, but also on local streams. This offer provides support for that portion of the Planner's work that goes beyond the mission, purposes, and funding of NAD. While NAD owns many properties along the floodplain, recent focus on river health requires a significant portion of this planner's time to be spent on landscape level questions and applications. Key duties of the Planner include: 1) Extensive participation in cross department teams, in particular teams associated with water quality and stormwater; 2) River health monitoring; 3) Scientific modeling of river ecology 4) staff support for matters pertaining to water development projects, including the Northern Integrated Supply Project; 5) water rights administration related to augmentation plans; and, 6) fostering cross-departmental integration of water related teams.

Differences from Prior Budget Cycles

- Not applicable



Offer 86.1: Natural Areas Stewardship

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Updated Improvements & Efficiencies

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



86.1: Natural Areas Stewardship

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	10.90	10.90	- %
Hourly (FTE)	8.21	8.21	- %
Expenses			
511000 - Salaries & Wages	1,153,366	1,180,984	2.4%
512000 - Benefits	338,453	350,472	3.6%
519000 - Other Personnel Costs	(16,795)	(16,795)	- %
510000 - Personnel Services	1,475,024	1,514,661	2.7%
521000 - Professional & Technical	100,000	100,000	- %
529000 - Other Prof & Tech Services	129,315	99,857	-22.8%
520000 - Purchased Prof & Tech Services	229,315	199,857	-12.8%
531000 - Utility Services	32,700	33,114	1.3%
532000 - Cleaning Services	5,000	5,000	- %
533000 - Repair & Maintenance Services	155,357	137,492	-11.5%
534000 - Rental Services	24,207	24,783	2.4%
535000 - Construction Services	480,000	220,000	-54.2%
539000 - Other Property Services	10,000	10,000	- %
530000 - Purchased Property Services	707,264	430,389	-39.1%
542000 - Communication Services	16,440	16,440	- %
544000 - Employee Travel	16,800	16,800	- %
549000 - Other Purchased Services	9,500	9,500	- %
540000 - Other Purchased Services	42,740	42,740	- %
551000 - Vehicle & Equipment Supplies	17,603	19,363	10.0%
552000 - Land & Building Maint Supplies	60,000	60,000	- %
556000 - Health & Safety Supplies	3,200	3,200	- %
558000 - Chemical Supplies	15,000	15,000	- %
559000 - Other Supplies	54,450	54,450	- %
550000 - Supplies	150,253	152,013	1.2%
565000 - Vehicles & Equipment	96,529	98,033	1.6%
560000 - Capital Outlay	96,529	98,033	1.6%
574000 - Grants	15,000	15,000	- %
570000 - Other	15,000	15,000	- %

Environmental Health



Total Expenses	<u>2,716,125</u>	<u>2,452,693</u>	<u>-9.7%</u>
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Funding Sources

100-General Fund: Ongoing	Ongoing	27,445	28,242	2.9%
272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	2,688,680	2,424,451	-9.8%
	Funding Source Total	<u>2,716,125</u>	<u>2,452,693</u>	<u>-9.7%</u>



Offer 86.3: Natural Areas Visitor Services

2017: \$3,392,138 and 16.90 FTE, 8.11 Hourly FTE

2018: \$3,532,141 and 16.90 FTE, 9.11 Hourly FTE

Offer Summary

This offer finances the public improvements (infrastructure), ranger services, facility operations, education, and volunteer management functions of the Natural Areas Department; all supported with dedicated City and County sales taxes (Open Space Yes!, Help Preserve Open Space). Providing citizens access to natural areas and providing opportunities to recreate, as well as to develop a deeper understanding, appreciation, and connection to natural areas, is an important component of maintaining Fort Collins' quality of life.

Educational programming and activities include: the involvement of over 1,800 citizen volunteers; development of materials for the community such as maps and brochures as well as interpretive signs; technology and free activities; and, events and classes. In 2015, 18,000 citizens took advantage of public programs provided by this offer (it is estimated that approximately 3 million visitors a year access natural areas).

In addition to outreach activities, this offer supports the operation, maintenance, and improvement of recreational amenities and operational facilities. The City manages 48 natural areas encompassing nearly 36,000 acres. Public improvements (trails, parking lots, fences, restrooms, signage, etc.) enrich recreational opportunities on the 40 natural areas currently open to the public. Facility operations maintain essential equipment, field supplies, and buildings (e.g., offices, shops, regional ranger residences, Primrose Studio rental facility).

Rangers and associated staff work seven days a week to provide consistent coverage throughout the 36,000 acre natural areas system. Rangers and Gate Attendants are crucial front line customer service representatives for the City's natural area and trail system.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature

Additional Information

- Free educational activities reach over 11,000 people a year and focus on underserved audiences.



Offer 86.3: Natural Areas Visitor Services

- Public improvements are built recreational amenities designed to enhance visitor use, enjoyment, and safety, while helping to protect natural resource values of natural areas. Maintaining and improving these community features are vital to ensuring continued wellness opportunities, high quality of life, and natural settings for public recreation.
- Facility Operations is responsible for construction and maintenance of buildings that support Natural Areas staff and programs. Natural Areas building needs are met through natural areas dedicated tax revenues and are not funded by the City's General Fund.
- This offer includes ranger patrol, city code enforcement, visitor education and resource protection on the City's Natural Areas and recreational trail system plus continued 24-hr (on-site) ranger presence at Bobcat Ridge and Gateway Natural Areas.

Links to Further Details:

- www.fcgov.com/naturalareas

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: Fort Collins is special because of our natural areas and trails, in fact the outdoors are mentioned in most of the community's awards. By funding Natural Areas, this offer protects and preserves a key element of our quality of life and neighborhoods.
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: This offer strengthens sense of place by supporting natural areas, trails, and visitor services such as rangers, education, and volunteer management. Natural areas are a leading expression of our community's values, hopes and aspirations.
- CR 2.3 - Promote health and wellness within the community and provide sustainable access to nature: Access to nature is a key strategy in promoting healthy outdoor lifestyles. This offer provides the public with the amenities that are needed to accommodate sustainable access, it ensures safety through the ranger program, and it provides free educational activities and volunteer opportunities that promote health.

Improvements & Efficiencies

- Public Improvements actively maintained or improved more than 50 miles of trails in 2015, resulting in more than 87% of trails rated in good condition and only 1% in bad condition by the end of the year.
- Public Improvements opened a new river access parking lot at Shields Street and completed a 1/4-mile boardwalk reconstruction, handicapped parking, and accessible trail at Riverbend Ponds in 2015; additional accessible improvements are planned for 2016.



Offer 86.3: Natural Areas Visitor Services

- Facility Operations meets the needs of field and office staff responsible for managing more than 35,000 acres of natural areas through maintenance of six facilities (13 buildings), purchasing field supplies and tools, maintaining equipment, and accommodating public and staff meetings.
- Facility Operations installed additional solar panels on the Nix Farm Shop roof to cover all electrical use for that building and added an all-electric vehicle to its fleet; the Nix Farm Main Office achieved status as the most energy-efficient City building after 1 year of operation.
- Education has consistently exceeded its goal of directly reaching 8-10% of the community with audience demographics reflecting the demographics of the community.
- Natural Area volunteers donated over 15,000 hours in 2015, the equivalent of seven-and-a-half full-time staff members and a value of nearly \$360,000.
- Rangers have daily contacts with natural area and trail users. Daily interactions, including friendly and educational contacts, municipal code enforcement, phone inquiries, agency assists and more are recorded by rangers. Rangers logged 8,468 positive visitor contacts in 2015.
- Ranger and Education staff co-manages the Volunteer Ranger Assistant (VRA) Program with Larimer County. Volunteer Rangers Assistants greet visitors, promote outdoor safety and assist rangers by giving reasons for policies and regulations in a one-on-one manner. In 2015 VRA's made 8,845 positive public contacts, a 50% increase from 2014.

Performance Metrics

- CR 6. Natural Areas Programs - Cumulative Participation per Capita
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6287&object=measure&objectID=91374>
- ENV 98. % of citizens responding very good/good quality of - Natural areas and open space
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109883>
- SAFE 38. % of citizens responding always safe/usually safe - Trails
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109961>

Personnel Changes

- An additional 9-month seasonal and a 3-month seasonal are being proposed for Public Improvements in 2018 to accommodate the need to maintain the increased number of parking lots, trails, and other public improvements.

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999



Offer 86.3: Natural Areas Visitor Services

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Updated summary

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



86.3: Natural Areas Visitor Services

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	16.90	16.90	- %
Hourly (FTE)	8.11	9.11	12.3%
Expenses			
511000 - Salaries & Wages	1,425,602	1,490,652	4.6%
512000 - Benefits	471,527	491,033	4.1%
519000 - Other Personnel Costs	(27,799)	(27,799)	- %
510000 - Personnel Services	1,869,330	1,953,886	4.5%
521000 - Professional & Technical	343,822	348,874	1.5%
529000 - Other Prof & Tech Services	10,200	10,200	- %
520000 - Purchased Prof & Tech Services	354,022	359,074	1.4%
531000 - Utility Services	39,500	39,500	- %
532000 - Cleaning Services	22,359	22,828	2.1%
533000 - Repair & Maintenance Services	308,538	315,634	2.3%
534000 - Rental Services	8,090	8,090	- %
535000 - Construction Services	85,000	60,000	-29.4%
530000 - Purchased Property Services	463,487	446,052	-3.8%
542000 - Communication Services	33,315	33,315	- %
544000 - Employee Travel	28,700	28,700	- %
549000 - Other Purchased Services	194,754	289,342	48.6%
540000 - Other Purchased Services	256,769	351,357	36.8%
551000 - Vehicle & Equipment Supplies	28,111	30,922	10.0%
552000 - Land & Building Maint Supplies	131,661	132,965	1.0%
555000 - Office & Related Supplies	2,020	2,020	- %
556000 - Health & Safety Supplies	16,503	16,601	0.6%
559000 - Other Supplies	82,619	83,695	1.3%
550000 - Supplies	260,914	266,203	2.0%
565000 - Vehicles & Equipment	68,710	70,085	2.0%
569000 - Other Capital Outlay	118,906	85,484	-28.1%
560000 - Capital Outlay	187,616	155,569	-17.1%
Total Expenses	3,392,138	3,532,141	4.1%



Funding Sources

272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	3,392,138	3,532,141	4.1%
	Funding Source Total	<u>3,392,138</u>	<u>3,532,141</u>	<u>4.1%</u>



Offer 86.5: Natural Areas - Department Management and Land Conservation

2017: \$4,749,343 and 5.70 FTE, 0.00 Hourly FTE

2018: \$4,293,265 and 5.70 FTE, 0.00 Hourly FTE

Offer Summary

This offer provides funding for the Department Management and Land Conservation work groups of the Natural Areas Department (NAD) with designated city and county sales tax revenues.

The offer includes all costs associated with department management: staff (4.35 FTE's), office supplies for the entire program, and the Administrative and IT charges to the program. Management activities include: personnel management; budgeting; long range planning; development and administration of general management guidelines and policies; and the development of site management plans. Natural Areas, now in its 24th year, has evolved from focusing primarily on land conservation to become a multi faceted department which includes the following work groups: department management; education, outreach and volunteer coordination; visitor services/enforcement; resource management; public improvements; land conservation; facility operations; and land and water management.

The offer includes all costs associated with land conservation: staff (1.1 FTE's), legal advice, real estate services support, consulting costs, appraisals, and surveys. Land conservation activities include: acquisition of land or interests in land (conservation easements and leases) and the acquisition of water rights in accordance with the Natural Areas Master Plan and City Plan. While some conservation services are contracted outside the City, most of the services are provided internally by Real Estate Services and the City Attorney's Office who are compensated by the NAD.

This Offer supports the following Strategic Objectives:

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems

Additional Information

- This offer provides management support of NAD which has grown from 3 FTE's in 1993 to 52.68 FTE's in 2016 (30.35 Permanent and 22.43 Seasonal Employees) and that now manages 35,920 acres.
- This offer supports the core real estate functions of NAD. In all, 42,904 acres of land have been conserved: 5,816 acres of conservation easements; 893 acres leased; and 35,195 acres of fee owned land.



Offer 86.5: Natural Areas - Department Management and Land Conservation

Links to Further Details:

- www.fcgov.com/naturalareas

Linkage to Strategic Objectives

- NLSH 1.4 - Protect and preserve the City's quality of life and neighborhoods: Overall management of the NAD is crucial to providing good service to the community in support of its quality of life and neighborhoods. Land and water conservation activities support the City's sense of place and provide access to nature.
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: This offer helps maintain and build the City's beautiful natural areas system and improves the City's sense of place.
- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: The land and water conservation efforts supported by this offer are crucial to the City's efforts to improve and expand wildlife habitat and the Poudre River corridor.

Improvements & Efficiencies

- In 2015, NAD closed on 5 land transactions that conserved 1,117 acres. It also entered into a long-term non-use mineral lease at Soapstone Prairie on 3,873 acres.
- This offer provides management of a new conceptual site master plan for future shop, office and parking space at the Natural Areas Nix Farm Operations Campus.
- This offer provides management support for an additional shop and parking space in 2018 to accommodate the growing operational needs for the department's stewardship activities.
- NAD partners with many agencies and private parties on conservation projects to leverage funding, including: Parks, Utilities, Larimer County Open lands, Loveland and Great Outdoors Colorado.
- Staff supported by this offer arranged a partnership with Parks, Loveland and Larimer County to construct the Longview Trail along the east side of Shields to tie the Loveland Trail system into the Fort Collins Trail system and connect the two cities.

Performance Metrics

- ENV 108. Natural Area Land Conservation Average Revenues Spent over 3 Years
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6287&object=measure&objectID=225632>
- ENV 98. % of citizens responding very good/good quality of - Natural areas and open space



Offer 86.5: Natural Areas - Department Management and Land Conservation

<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109883>

Personnel Changes

- Not applicable

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

CPIO Edits

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



86.5: Natural Areas - Department Management and Land Conservation

Ongoing Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	5.70	5.70	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	449,064	460,295	2.5%
512000 - Benefits	142,544	147,903	3.8%
519000 - Other Personnel Costs	(11,142)	(11,142)	- %
510000 - Personnel Services	580,466	597,056	2.9%
521000 - Professional & Technical	359,000	359,000	- %
529000 - Other Prof & Tech Services	10,000	10,000	- %
520000 - Purchased Prof & Tech Services	369,000	369,000	- %
531000 - Utility Services	500	500	- %
533000 - Repair & Maintenance Services	20,019	20,620	3.0%
534000 - Rental Services	74,811	77,678	3.8%
539000 - Other Property Services	25,000	25,000	- %
530000 - Purchased Property Services	120,330	123,798	2.9%
541000 - Insurance	20,972	21,601	3.0%
542000 - Communication Services	8,570	8,570	- %
543000 - Internal Admin Services	229,469	235,236	2.5%
544000 - Employee Travel	12,550	12,550	- %
549000 - Other Purchased Services	7,650	7,650	- %
540000 - Other Purchased Services	279,211	285,607	2.3%
551000 - Vehicle & Equipment Supplies	462	508	10.0%
555000 - Office & Related Supplies	23,000	23,000	- %
559000 - Other Supplies	22,400	22,400	- %
550000 - Supplies	45,862	45,908	0.1%
561000 - Land	3,069,672	2,577,455	-16.0%
565000 - Vehicles & Equipment	16,511	16,842	2.0%
560000 - Capital Outlay	3,086,183	2,594,297	-15.9%
579000 - Other	100,000	100,000	- %
570000 - Other	100,000	100,000	- %
591000 - Transfers to Funds	168,291	177,599	5.5%

Environmental Health



590000 - Transfers Out	168,291	177,599	5.5%
Total Expenses	4,749,343	4,293,265	-9.6%

Funding Sources

100-General Fund: Ongoing	Ongoing	51,357	52,290	1.8%
272-Natural Areas Fund: Ongoing	Ongoing Restricted	4,697,986	4,240,975	-9.7%
Revenue				
Funding Source Total		4,749,343	4,293,265	-9.6%



Offer 86.6: ENHANCEMENT: Natural Areas - Shop Expansion

2017: \$125,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,250,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will expand the existing Natural Areas field operations shop and equipment yard area at Nix Farm, which is the primary hub for all field operations staff.

The expansion will include a 5,000 SF vehicle storage building for storing vehicles, materials and equipment that require indoor winterized storage; expansion of the equipment yard to accommodate parking and storage for vehicles, materials and equipment that can be parked outside; and enlarging the restroom, shower, locker, break room areas in the existing shop.

The existing Natural Areas Shop was constructed in 2002. At that time, there were fewer than 10 field staff managing 5,000 acres and now there are more than 30 field staff managing 36,000 acres and still growing. Simply put, Natural Areas has outgrown its shop and yard and needs more room for current operations plus room for growth. This expansion should meet the field operations needs for the next 15 years; it will allow the field operations to remain efficient and productive and will greatly improve the flexibility of the existing shop and shop yard.

This Offer supports the following Strategic Objectives:

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management

Additional Information

- The vehicle storage building will be used to store water trucks and other equipment that need to be stored indoors and kept from freezing.
- The building will be well insulated and minimally heated to prevent freezing; so that it will require minimal energy use.
- The south facing roof is being designed to support a large array of solar photo-voltaic panels that will help the Natural Areas Department attain its net-zero energy goal and it's carbon foot print reduction goal.
- The PV system will be phased in; starting as early as 2019.
- No metric has been identified for this Offer

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.



Offer 86.6: ENHANCEMENT: Natural Areas - Shop Expansion

Scalability and explanation

This Offer is not scalable

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- HPG 7.8 - Optimize the use of City assets through capital improvement planning, preventative maintenance and asset management: The current asset of the Natural Areas Shop Facility cannot support the increased size of the program and personnel additions that have occurred since it was originally built in 2002

Performance Metrics

- A performance measure has not yet been identified; please see Additional Information above

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

Updated additional information - bullet point 4

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



86.6: ENHANCEMENT: Natural Areas - Shop Expansion

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	-
Hourly (FTE)	-	-	-
Expenses			
521000 - Professional & Technical	123,750	-	-
520000 - Purchased Prof & Tech Services	123,750	-	-
562000 - Buildings	-	1,237,500	-
560000 - Capital Outlay	-	1,237,500	-
591000 - Transfers to Funds	1,250	12,500	900.0%
590000 - Transfers Out	1,250	12,500	900.0%
Total Expenses	125,000	1,250,000	900.0%
Funding Sources			
272-Natural Areas Fund: Reserves Reserve	125,000	1,250,000	900.0%
Funding Source Total	125,000	1,250,000	900.0%



Offer 89.1: ENHANCEMENT: River Health

2017: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

2018: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

The purpose of this offer is to support a suite of efforts to further the City's vision for a healthy and resilient Poudre River. It includes: fish passage, in stream flow and the State of the Poudre Assessment and Report.

Specifically this offer will support:

- 1.Modifications to one of several existing water diversion structures to increase habitat connectivity for fish and other aquatic species.
- 2.Ongoing pursuit and support of a various initiatives to achieve environmentally beneficial Poudre River flows.
- 3.Follow-up efforts to the 2016 State of the Poudre Assessment and Report (SOPAR) such as methods improvements, filling of data gaps, staff training, and ongoing communication and outreach.

The efforts supported through this offer individually strengthen critical parts of the ecosystem and collectively can have a landscape level impact on the river's condition. Moreover, these efforts increase the resilience of the river to future pressures such as climate change.

This Offer supports the following Strategic Objectives:

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability
- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems

Additional Information

- This offer includes a \$25,000 match from Natural Areas for in-stream flow and the Utilities Water Fund will match \$30,000 to the SOPAR given its relevance to river water quality, stormwater conveyance and water supply management issues.
- Collaboration is essential to achieving river health, resiliency and sustainability. The projects supported in this offer demonstrate innovative, out of the box thinking that reinforce departmental and disciplinary cross-connections, encourage continual improvement of existing programs, and support new and vital regional relationships.



Offer 89.1: ENHANCEMENT: River Health

- Flows are central to river health. The pursuit of legally protected instream flows have been a City goal for many decades. This offer will enable staff and City partners to continue work on innovative approaches to protected flows, including the approach described to Council in spring of 2016.
- The SOPAR initiative tracks river health metrics over time and across the landscape. It enables staff to quantitatively define and measure success of various river-related projects and provides a science based approach to adaptive management in the context of future changes and increases to system vulnerability. This offer ensures rigorous ongoing data collection and a solid public outreach plan.
- The fragmented condition of Poudre River habitats limits the potential for sustaining native fish, a world class trout fishery and thriving riverside forests. Floodplain restoration and the creation of fish passage are multi-year projects that require extensive planning, permitting, and construction. This offer will enable the City to continue to execute these long-term, complex projects.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This offer is scalable. Removing elements will either slow down, or eliminate progress. In particular floodplain restoration would be slowed down for perhaps several years, and instream flow related matters would struggle to advance. The SOPAR may have reduced scientific rigor for some metrics within the assessment and limited outreach capacity.

Links to Further Details:

- <http://www.fcgov.com/naturalareas/pdf/river-health-report-final.pdf>
- <http://cwi.colostate.edu/ThePoudreRunsThroughIt/Flows.shtml>
- <http://cpw.state.co.us/learn/Pages/RA-Fish-Barrier-Studies.aspx>
- <http://www.fcgov.com/news/?id=5950>

Linkage to Strategic Objectives

- ENV 4.8 - Expand, improve, restore and protect wildlife habitat, urban forests and the ecosystems of the Poudre River and other ecosystems: This offer supports projects and outcomes directly related to the ecosystem functions and health of the Poudre River, associated condition of wildlife populations and the watershed services a healthy river provides the Fort Collins community.
- ENV 4.7 - Increase the community's preparedness and resiliency for changes in climate, weather and resource availability: Supporting and enhancing resiliency of the river ecosystem is directly linked to the community resiliency in the context of climate change. For example maintaining river channel capacity is critical for maintaining capacity and reduced flood risk to neighborhoods during large flood events.



Offer 89.1: ENHANCEMENT: River Health

- CR 2.1 - Improve the community's sense of place with a high value on natural areas, culture, recreation and park systems: The Poudre River is a central component of the Fort Collins identity. The community has continuously expressed support for river management through support of ballot initiatives, surveys, and support of specific river initiatives.

Performance Metrics

- ENV 8. Post Restoration Status of Urban Natural Areas
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6287&object=measure&objectID=91393>
- ENV 44. Poudre River riparian restoration measured by cumulative area brought into the 5 year floodplain
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6287&object=measure&objectID=343437>
- ENV 98. % of citizens responding very good/good quality of - Natural areas and open space
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=7718&object=measure&objectID=109883>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

spelling correction, updated offer summary

Offer Profile

Offer Owner: BBrock

Lead Department: Natural Areas



89.1: ENHANCEMENT: River Health

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	80,000	80,000	- %
520000 - Purchased Prof & Tech Services	80,000	80,000	- %
Total Expenses	80,000	80,000	- %
Funding Sources			
272-Natural Areas Fund: Ongoing Ongoing Restricted Revenue	80,000	80,000	- %
Funding Source Total	80,000	80,000	- %



Offer 94.1: ENHANCEMENT: Wind and Solar Energy for Municipal Operations

2017: \$951,037 and 0.00 FTE, 0.00 Hourly FTE

2018: \$1,022,851 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Purchasing this offer will allow the City of Fort Collins to buy 40,800 MWh of wind and solar energy for municipal purposes. This amount is 100% of the City’s municipal energy use. (Excluding street lights). If the City were to acquire this energy through Platte River’s Renewable Energy Service (known as Tariff 7), the estimated cost would be \$723,189 in 2017 and \$758,856 in 2018. The following is a breakdown of usage by department and cost.

General Fund	2015 Electricity Use (kWh)	2017 Cost	2018 Cost
Community Services	7,820,859	\$195,521	\$205,165
Safer Community	115,504	\$2,888	\$3,030
High Perf. Gov't	2,461,917	\$61,548	\$64,583
Fleet	145,800	\$3,645	\$3,825
Golf	676,766	\$16,919	\$17,754
Library	4,263	\$107	\$112
Parking	1,441,069	\$36,027	\$37,804
Streets	512,840	\$12,821	\$13,453
Traffic Operations	149,920	\$3,748	\$3,933
Transfort	749,048	\$18,726	\$19,650
Sub total	14,077,986	\$351,950	\$369,308

Utilities Fund	2015 Electric Use (KWh)	2017 Cost	2018 Cost
Utilities	11,825,881	\$295,647	\$310,228
LaPorte Water Trmt.	3,023,674	\$75,592	\$79,320
Subtotal	14,849,555	\$371,239	\$389,548
Grand Total	28,927,541	\$723,189	\$758,856



Offer 94.1: ENHANCEMENT: Wind and Solar Energy for Municipal Operations

This Offer supports the following Strategic Objectives:

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs)
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance

Additional Information

- The City currently purchases 76,000 MWhs through the Tariff 7 each year to meet the community commitments. Approximately 13,000 MWhs of that energy is purchased through the voluntary Green Energy Program.
- This offer will result in the elimination of 26,988 metric tons of greenhouse gases annually.
- The Energy policy adopted by City Council states has a goal of 20% renewable energy by 2020 and this is one strategy to accomplish that.
- The premium cost for Tariff 7 energy is .025 in 2017 and .0262 in 2018.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$1,022,851

Scalability and explanation

This offer can be scaled at any percentage desired. Currently 40,800 MWh makes up 100% of the municipal energy use (excluding street lighting)

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

- ENV 4.1 - Achieve Climate Action Plan (CAP) goals by reducing greenhouse gases (GHGs): This offer will result in 6.8 metric tons of greenhouse gases annually.
- ENV 4.5 - Work towards long-term net zero energy goals within the community and the City organization using a systems approach: Solar and Wind Energy are strategies to accomplish our community net zero goals.
- ENV 4.9 - Meet all regulatory requirements while supporting programs that go beyond compliance: The City of Fort Collins will lead by example by purchasing wind and solar energy.

Performance Metrics



Offer 94.1: ENHANCEMENT: Wind and Solar Energy for Municipal Operations

- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6282&object=measure&objectID=91343>
- ENV 35. Electricity (GHG) 2020 CAP Goal vs Actual
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6289&object=measure&objectID=303158>
- ENV 26. Percent renewable energy towards compliance with State Renewable Energy Standards
<https://www.clearpointstrategy.com/publish/direct.cfm?linkID=BFO&view=drill&scorecardID=6290&object=measure&objectID=91399>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

Summary of Changes Requested by BFO Teams or the Budget Lead Team

The original data on usage was based on 2014 usage, we have updated to 2015 usage now. The funding sources are now broken out into General fund and Utilities Fund. Changed 6.8 metric tons Greenhouse gas reductions to 26,988 metric tons because of a error plus the increased MWh.

Offer Profile

Offer Owner: TOchsner
Lead Department: Operation Services



94.1: ENHANCEMENT: Wind and Solar Energy for Municipal Operations

Enhancement to Programs and Services

	2017 Projected Budget	2018 Projected Budget	2017 to 2018 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	-	-	- %	
Expenses				
531000 - Utility Services	951,037	1,022,851	7.6%	
530000 - Purchased Property Services	951,037	1,022,851	7.6%	
Total Expenses	951,037	1,022,851	7.6%	
Funding Sources				
100-General Fund: Ongoing	Ongoing	351,850	368,738	4.8%
501-Light & Power Fund: Ongoing	Ongoing Restricted	599,187	654,113	9.2%
Revenue				
Funding Source Total		951,037	1,022,851	7.6%