

Environmental Health



Offer 9.2: Utilities: Water - Core Operations

2019: \$14,320,131 and 86.19 FTE, 6.99 Hourly FTE

2020: \$14,558,863 and 86.19 FTE, 6.99 Hourly FTE

Offer Summary

This offer funds core services for the Water Fund, including the management, operations and maintenance of the following services:

- Water Resources: manages the City's raw water resources 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 Systems Engineering: provides engineering services including facility design, project management and engineering consultation for water capital projects.
- Water Engineering Field Support and Mapping: provides project management, engineering, mapping and technical expertise to Water Field Operations.
- Water Metering: installs and maintains customer water meters and ensures that customers receive accurate, efficient and reliable metered water service.
- Water Transmission & Distribution: Installs and maintains water mains, valves, taps and hydrants for the City and Utilities customers. Responds to customer calls and implements the backflow prevention program.
- Water Development Review: Reviews plans for new water improvements within the City and



Offer 9.2: Utilities: Water - Core Operations

ensures proposed improvements meet Utility requirements.

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

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- ENV 4.7 - Continually improve environmental regulatory performance
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information

- The Water Resources Division manages a water rights portfolio valued at \$1.3 billion and consistently meets all treated water demands without the need for water restrictions. This offer includes a contractual position titled: Maintenance Specialist in the Operations & Maintenance Division.
- The Water Production and Water Distribution Divisions produced and delivered 8.24 billion gallons of treated water in 2017.
- Water Distribution operated and maintained 539 miles of water mains, 701 locator stations, 490 cathodic protection test stations, 12,701 valves, 3,763 fire hydrants and 38,469 water service lines in the City's water distribution system.
- The Water Quality Lab achieved 100% acceptable results in tests on 99 different audit samples in 2017.
- The Water Meter Division maintained 35,138 water meters and 34,798 radio modules in support of Advanced Metering Infrastructure. The Division replaced a total of 1,488 meters; 1,409 for routine maintenance and 79 for corrective maintenance.

Links to Further Details:

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

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: All services funded with this offer work collaboratively to deliver a reliable high quality water supply. Water Resources Division ensures the availability of water for treatment and distribution by our Water Production and Distribution Divisions. Water Quality Services Division monitors source of supply and treated water to ensure the highest quality.



Offer 9.2: Utilities: Water - Core Operations

- ENV 4.7 - Continually improve environmental regulatory performance: This offer funds critical services that are essential to maintaining and improving environmental performance. All Divisions collaborate to consistently maintain compliance with all regulatory requirements at >99%. The Water Production Division utilizes best in class standards including ISO certification and the Partnership for Safe Water to continually improve performance.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: All Divisions provide maintenance services aligned with adopted asset management principles. Preventive and corrective maintenance is performed on facility and linear assets by internal staff and is managed via the maintenance management system - Maximo - which is being implemented throughout the water utility. Adequately maintaining infrastructure is critical to keeping costs low and quality high

Improvements & Efficiencies

- The Water Production Division received the President's Award for Phase IV of the Partnership for Safe Water for the second year in a row, one of 30 treatment plants in the nation to achieve this level.
- Water Distribution Construction Crews replaced a total of 9,606 feet of water main, exceeding the previous year's replacement of water mains by 1,210.
- The Water Resources Division initiated a Water Supply Vulnerability Assessment, which will improve the Utility's ability to provide a reliable water supply when experiencing future vulnerabilities, including droughts, climate change, extreme weather events.
- The Water Production Division continued implementation of Maximo - a computerized maintenance management system. The Division has inventoried the majority of its assets and is now measuring planned/corrective maintenance ratios, which are indicators of an effective and efficient maintenance program.
- The Water Quality Lab initiated the replacement of the Laboratory Information Management System, or LIMS, a critical information management tool for the labs and its customers to ensure they receive timely, accurate, and defensible data for decision-making.
- The Chlorine Contact Basin project was constructed and commissioned at the Water Treatment Facility. The project provides 2.5 MG of capacity for chlorine contact time providing the water treatment facility to fully utilize the capacity of the two existing storage reservoir for greater reliability of the water supply.
- A multi-disciplinary Utilities team completed development and adoption of changes to the City's Water Supply Requirements, which more accurately reflects future needs and assists the Utility in recovering adequate fees from development to provide a firm water supply.



Offer 9.2: Utilities: Water - Core Operations

- A Water/Wastewater Construction Inspector was hired to ensure that public water and wastewater infrastructure constructed with private and/or public development is built per the approved Development Plan Documents and per the City's construction specifications. This inspector was hired in late February 2017 and completed over 2,000 site visits requiring 10,000 miles of vehicle trips to job sites.
- Water Engineering completed the Azalea Water Main Replacement Project, a key replacement project that included the installation of 950 ft of new PVC water main to replace the existing water main. The Division also completed the Pine Street Water Main Replacement Project, including the construction of 320 ft of water main to replace a 100 year old main.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>
- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- ENV 32. Annual water demand as percent of firm yield
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=121465.html>

Personnel Changes

- The allocation of time billed to a specific project for Project Managers was changed for more accuracy.
Engineering positions were reclassified in 2016 to reflect the market and received a pay adjustment. New FTE positions approved in the last budget cycle are now part of Core Services.

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- This object will be used in the offer.

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

CPIO edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.2: Utilities: Water - Core Operations

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	86.19	86.19	- %
Hourly (FTE)	6.99	6.99	- %
Expenses			
511000 - Salaries & Wages	6,615,909	6,828,764	3.2%
512000 - Benefits	2,063,253	2,168,114	5.1%
519000 - Other Personnel Costs	(881,604)	(925,678)	5.0%
510000 - Personnel Services	7,797,558	8,071,200	3.5%
521000 - Professional & Technical	352,750	352,750	- %
522000 - Governmental Services	45,000	45,000	- %
529000 - Other Prof & Tech Services	145,500	145,500	- %
520000 - Purchased Prof & Tech Services	543,250	543,250	- %
531000 - Utility Services	509,100	428,100	-15.9%
532000 - Cleaning Services	54,500	54,500	- %
533000 - Repair & Maintenance Services	3,269,528	3,304,728	1.1%
534000 - Rental Services	18,300	18,500	1.1%
539000 - Other Property Services	10,000	10,000	- %
530000 - Purchased Property Services	3,861,428	3,815,828	-1.2%
542000 - Communication Services	35,075	35,075	- %
543000 - Internal Admin Services	7,500	7,500	- %
544000 - Employee Travel	69,850	69,850	- %
549000 - Other Purchased Services	86,500	86,500	- %
540000 - Other Purchased Services	198,925	198,925	- %
551000 - Vehicle & Equipment Supplies	296,850	310,850	4.7%
552000 - Land & Building Maint Supplies	174,650	174,650	- %
553000 - Infrastructure Maint Supplies	74,500	74,500	- %
554000 - Utility Supplies	180,060	180,600	0.3%
555000 - Office & Related Supplies	65,600	63,700	-2.9%
556000 - Health & Safety Supplies	51,200	51,200	- %
558000 - Chemical Supplies	853,150	853,150	- %
559000 - Other Supplies	213,960	212,010	-0.9%
550000 - Supplies	1,909,970	1,920,660	0.6%
561000 - Land	9,000	9,000	- %

Environmental Health



560000 - Capital Outlay	<u>9,000</u>	<u>9,000</u>	<u>- %</u>
Total Expenses	<u>14,320,131</u>	<u>14,558,863</u>	<u>1.7%</u>

Funding Sources

502-Water Fund: Ongoing Revenue Ongoing Restricted	<u>14,320,131</u>	<u>14,558,863</u>	<u>1.7%</u>
Funding Source Total	<u>14,320,131</u>	<u>14,558,863</u>	<u>1.7%</u>



Offer 9.3: Utilities: Water - Conservation

2019: \$1,051,066 and 6.00 FTE, 2.54 Hourly FTE

2020: \$1,076,153 and 6.00 FTE, 2.54 Hourly FTE

Offer Summary

Funding this offer will sustain the Utilities' Water Conservation programs that saved more than 86 million gallons in 2017, up 72 percent from 2015 and 23 percent from 2016. This offer includes the resources and staffing for programs and services that help customers cut waste and use water efficiently. These include high-efficiency incentives, irrigation system audits, landscape and irrigation assistance and incentives, informational reports, leak notifications, educational programs, low-income direct-install programs, new development assistance and more. This offer also supports efficiency opportunities for City residents beyond the Utilities water service area; collaboration among water providers is a priority for 2019-20.

The Water Efficiency Plan was approved by City Council in 2016 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 2010-2015 average of 146 GPCD.

Water savings from conservation programs cost less than a penny per gallon saved. For comparison, a new share of Colorado-Big Thompson water conservatively costs more than 15 times more per gallon. 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; reducing risks to water-using businesses; creating jobs, training and skills in water-related industries; and improving the productivity of homes and businesses.

Climate change is here. If we do not act, water use will increase from hotter and drier conditions while water availability becomes less reliable. By improving efficiency and reducing waste, we can build a more resilient, prepared community. Conservation and efficiency programs will ease the physical and monetary effects on individuals, businesses and landscapes.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- ENV 4.5 - Develop strategies to improve the community's climate resiliency
- ENV 4.2 - Improve indoor and outdoor air quality

Additional Information



Offer 9.3: Utilities: Water - Conservation

- Water use in 2017 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 3500 people attending a variety of classes and events in 2017 alone, up 16 percent from 2015. Another 3,000 customers participated in programs like rebates, audits, and more.
- Sustained water savings allows Utilities to avoid or delay long-term capital expenses. Treatment facilities and infrastructure can be smaller and cost less; the Halligan Water Supply Storage project was downsized saving \$6 million. Conservation created excess treatment capacity, which is sold to another district (PIF = \$12.5 million plus ongoing payments for treatment costs).
- Approximate costs for the major programs are: rebates and incentives \$250K; sprinkler audit program \$ 60K, xeriscape \$70K, informational reports \$160K; education, classes, events \$80K; low-income program \$35K. The home water reports and the low-income program are provided by consultants and generate significant water savings that the in-house team would not be able to otherwise provide.
- Offer 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, Planning, Operation Services, and other water districts.
- This Offer includes one contractual position. This Offer's success is dependent upon Enhancement #9.30 to continue critical support for commercial customers and Enhancement #9.38 for customer service support. Offer is related to Enhancement Offer 9.19 to expand and shift the nature of conservation programs, and to Enhancement Offer 19.37 for a 1.0 FTE Municipal Water Efficiency Specialist.

Links to Further Details:

- [The Water Efficiency Plan website includes the overall goal as well as information about the Key Areas of Opportunity needed to build upon the existing, foundational conservation programs:](http://www.fcgov.com/water-efficiency-plan)
<http://www.fcgov.com/water-efficiency-plan>
- [This article details the value of conservation. A local Colorado community demonstrated significant savings to its ratepayers and the utility through sustained conservation efforts: "without conservation, water rates would have nearly doubled."](http://voices.nationalgeographic.com/2015/04/20/one-colorado-towns-answer-to-a-catch-22-of-water-conservation/)
<http://voices.nationalgeographic.com/2015/04/20/one-colorado-towns-answer-to-a-catch-22-of-water-conservation/>
- [As an example of the Water Conservation team's work, this link includes many of our residential programs, services and education: https://www.fcgov.com/residential-water-efficiency](https://www.fcgov.com/residential-water-efficiency)

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)



Offer 9.3: Utilities: Water - Conservation

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: Protect and provide a water 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
- ENV 4.5 - Develop strategies to improve the community's climate resiliency: Increase the community’s resiliency and preparedness 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 w
- ENV 4.2 - Improve indoor and outdoor air quality: Engage citizens in ways to educate and change behavior 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

Improvements & Efficiencies

- Staff has developed new tools to transform water use data into graphics and engaging insights for customers. For example, a landscape budget report uses water use data, weather, and landscape information to show excess watering and pairs this free report with a 1:1 consultation bringing together property managers/owners and their landscape contractors. Customer are very appreciative.
- Staff is working to improve program evaluation and metrics. This takes several forms, including improved dashboards and tracking tools, increased research supporting savings calculations and other evaluation, measurement & verification methods. Staff has a partnership with a CSU research team to analyze water use patterns across customer types to identify benchmarks and potential savings.
- With a fully dedicated staff for xeriscape (water-wise landscape) programs, we have doubled completed Xeriscape Incentive Program projects, launched the popular Garden in a Box rebate program, and doubled attendance at the annual Xeriscape Garden Party. This position collaborates on various projects with Parks and Nature in the City, too.
- Staff is expanding support of conservation programs for customers of neighboring water providers. Water Conservation staff provides sprinkler audits to residents in the community outside of the Utilities’ service area. This expanded beyond the City limits to include the entire service areas of Fort Collins-Loveland and ELCO water districts. Participation increased 36% and 50% respectively.



Offer 9.3: Utilities: Water - Conservation

- Staff is leveraging an existing vendor relationship with WaterSmart (used for the residential Home Water Reports program), to create a free notification service for commercial customers who are trying to keep their water use under their annual allocation. This is a critical customer support service as the surcharge for exceeded an allotment is tripled starting in 2018.
- Staff evolved the Continuous Consumption program and is currently testing out three outreach approaches for residential customers and is piloted a postcard notification approach for commercial customers. 50% of new commercial leaks have been resolved in 2018 Q1 as a result.
- Staff built a Certified Landscape Professionals program, which encourages professionals to obtain water efficiency certifications. We have over 20 professionals enrolled; this creates a valuable set of community partners to help achieve water efficiency goals. Staff used this group's expertise to redesign our approach to incentivizing efficient irrigation systems on commercial properties.
- In partnership with the GIS team, staff created a landscape mapping tool for customers to plan xeriscape and irrigation projects. This tool will also be leveraged this summer to map out customer irrigation system details and issues through our Sprinkler Audit program. This is one example of delivering customers free information and tools that are engaging and easy to understand and use.
- 99% of customers said the Sprinkler Audit Program exceeded (86% - up 14 points) or met their expectations (13%). 90% (up 3 points) of Home Water Reports customers agree that Utilities helps them to understand their water use, and 84% (up 7 points) agree that Utilities take steps to use water efficiently. 100% of Xeriscape Incentive Program participants would recommend the program to a friend.
- Based on customer feedback on our annual survey of Home Water Report recipients, 91% want to keep receiving the reports and believe that Utilities helps them understand their water use. Customers also said they wanted comparisons to their own historical water use in addition to comparisons to other similar households, so Staff worked with the vendor to add in this information.

Performance Metrics

- ENV 101. Water Conservation Plan annual targets and actual use
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105089&object=measure&objectId=121091.html>
- ENV 104. Overall water conservation program effectiveness
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105089&object=measure&objectId=121094.html>
- ENV 102. Residential Annual Water Demand in Gallons Per Capita Per Day
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105089&object=measure&objectId=121092.html>



Offer 9.3: Utilities: Water - Conservation

Personnel Changes

- This Offer now includes one Classified 1.0 FTE (hourly conversion) and one Contractual 1.0 FTE (enhancement offer) acquired during the 2017-18 cycle, above the staffing level in the 2015-16 cycle.

Differences from Prior Budget Cycles

- Offer reflects a X.X% increase from the 2017 budget, reflecting inflation and increased costs. Non-salary costs are only increasing by about 1.4%. Services and programs have been improved through collaborative, internal and business model efficiencies. Increased salary costs reflect the need for quality seasonal staff to support the expansion of the sprinkler audit program.
- Some funds have been reallocated among programs to better reflect the best use of the funding and more accurate accounting.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Expenses needed to correct total compensation for position ID 8084-800.

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

CPIO edits

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utilities Strategic Planning



9.3: Utilities: Water - Conservation

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	6.00	6.00	- %
Hourly (FTE)	2.54	2.54	- %
Expenses			
511000 - Salaries & Wages	442,415	455,711	3.0%
512000 - Benefits	133,585	140,343	5.1%
519000 - Other Personnel Costs	(4,584)	(4,751)	3.6%
510000 - Personnel Services	571,416	591,303	3.5%
521000 - Professional & Technical	193,250	193,250	- %
520000 - Purchased Prof & Tech Services	193,250	193,250	- %
534000 - Rental Services	1,300	1,300	- %
530000 - Purchased Property Services	1,300	1,300	- %
542000 - Communication Services	1,500	1,500	- %
544000 - Employee Travel	9,900	10,100	2.0%
549000 - Other Purchased Services	38,000	38,000	- %
540000 - Other Purchased Services	49,400	49,600	0.4%
555000 - Office & Related Supplies	5,350	5,350	- %
556000 - Health & Safety Supplies	800	800	- %
559000 - Other Supplies	49,800	49,800	- %
550000 - Supplies	55,950	55,950	- %
573000 - Rebates & Incentives	177,250	179,250	1.1%
574000 - Grants	500	500	- %
579000 - Other	2,000	5,000	150.0%
570000 - Other	179,750	184,750	2.8%
Total Expenses	1,051,066	1,076,153	2.4%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,051,066	1,076,153	2.4%
Funding Source Total	1,051,066	1,076,153	2.4%



Offer 9.4: CAPITAL REPLACEMENT - Utilities: Water - Minor Capital

2019: \$1,721,200 and 0.00 FTE, 0.00 Hourly FTE

2020: \$1,738,800 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the purchase or replacement of minor capital water enterprise related assets. Minor capital is used for small projects that involve replacement or improvement to current assets, purchase and/or replacement of fleet vehicles, computer hardware purchases, minor building and office improvements, and purchase of water rights.

Minor capital projects and expenditures anticipated for the 2019-2020 budget cycle include but are not limited to:

Water Production Division:

- Treatment filter media replacement
- Improvements to powder activated carbon feed system
- Treatment Train drainage improvements
- Minor building improvements & renovations
- Repairs and improvements to building appurtenances including sidewalks and stairs
- minor repairs to the flow blend structure

Water Quality Services: purchase of lab equipment, office furniture and small lab instruments

Supervisory Control Systems: Replacement of software and Programmable Logic Controllers

Water Transmission & Distribution: Replacement or upkeep of vehicles and equipment in accordance with guidelines from Fleet Services.

Water Resources: Purchase of water rights and other related expenses

In addition, all Divisions will incur expenses related to minor building and office repairs and improvements, as well as vehicle replacement as indicated by the Fleet Services vehicle replacement schedule, which considers age, mileage, repair costs and purchase cost to determine replacement date.

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



Offer 9.4: CAPITAL REPLACEMENT - Utilities: Water - Minor Capital

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates
- ✓ ENV 4.6 - Provide a reliable, high-quality water supply

Additional Information

- Minor capital projects are evaluated by staff according to priorities for established levels of service for compliance, quality, reliability, and system capacity.
- Minor capital projects associated with operations and building replacements are driven by master plans, which are updated approximately every 5 years. Master plans are developed utilizing a robust assessment methodology, which considers asset lifecycle and maintenance history, asset condition, and asset performance.
- All fleet vehicle purchases are driven by a robust methodology which includes evaluation of vehicle age, mileage, repair costs, and purchase cost. Each vehicle is reviewed by Fleet and Department staff to determine if vehicles are meeting business needs, ensuring the fleet is right sized for each operation.
- Water rights purchases by the Water Resources Division are utilized to develop the Utilities water rights portfolio and aligns with the City's Water Supply and Demand Management Policy.

Links to Further Details:

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

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: Monitoring the age and use of all equipment, buildings and other assets that Utilities uses for providing essential services is needed to prevent an interruption in service from failure of a system. Doing so in a systematic way so that the assets can be replaced or renewed in a predictable manner prior to failure helps reduce lifecycle costs.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Proactive maintenance of assets within the water utility system help ensure proper operation of the systems and therefore compliance with environmental regulations. Having a forward looking program for maintenance helps identify highest priority needs so that timely investments can be made prior to failure which would increase costs and create unpredictability in trying to manage rates.
- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: Maintaining functionality of these assets is critical to reliable operation of the water utility systems and services to the community.

Improvements & Efficiencies



Offer 9.4: CAPITAL REPLACEMENT - Utilities: Water - Minor Capital

- Maximo, the Utilities Maintenance Management System, is now assisting in determining minor capital needs by providing data on asset performance, maintenance history, and asset condition. This is an improvement of the previous budget cycle.
- Vehicle purchase are now fully driven by Fleet Services vehicle replacement philosophy in partnership with operations staff.
- The Utilities Asset Management Program is maturing and is now providing key insights into minor capital replacement, including consideration of key levels of service including compliance, capacity, reliability, efficiency, and quality. The levels of service are prioritized and then those relative priorities are utilized to prioritize projects.
- Minor capital expenses are largely driven by information from Master Plans, which are developed for the majority of water operations.
- A new metric is being developed relative to the link to the strategic objective 3.5. This metric will measure the present of critical infrastructure within 5 years of the end of useful life. This data will be developed in Maximo and will be critical in driving investments in Utilities infrastructure.

Performance Metrics

- ENV 120. Reliability: Water Production Planned-Corrective Maintenance Ratio
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=362328.html>
- ENV 27. Water quality complaints per 1000 customers
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6346&object=measure&objectId=91492.html>
- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>

Personnel Changes

- NA

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

NA



Offer 9.4: CAPITAL REPLACEMENT - Utilities: Water - Minor Capital

Offer Profile

Offer Owner: TConnor

Lead Department: Utilities Strategic Planning



9.4: CAPITAL REPLACEMENT - Utilities: Water - Minor Capital

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	90,000	66,500	-26.1%
520000 - Purchased Prof & Tech Services	90,000	66,500	-26.1%
533000 - Repair & Maintenance Services	50,000	50,000	- %
530000 - Purchased Property Services	50,000	50,000	- %
556000 - Health & Safety Supplies	20,000	10,000	-50.0%
559000 - Other Supplies	32,000	19,000	-40.6%
550000 - Supplies	52,000	29,000	-44.2%
561000 - Land	250,000	250,000	- %
563000 - Infrastructure	487,000	427,000	-12.3%
565000 - Vehicles & Equipment	475,200	737,300	55.2%
569000 - Other Capital Outlay	317,000	179,000	-43.5%
560000 - Capital Outlay	1,529,200	1,593,300	4.2%
Total Expenses	1,721,200	1,738,800	1.0%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,721,200	1,738,800	1.0%
Funding Source Total	1,721,200	1,738,800	1.0%



Offer 9.5: CAPITAL REPLACEMENT - Utilities: Water - Water Treatment and Source of Supply

2019: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the capital replacement program for the Fort Collins Water Treatment Facility (Facility), at several treated water storage tanks, and in the Source of Supply (SOS) system that includes the Michigan Ditch, Joe Wright Reservoir, and the Cache la Poudre River Intake Facility. Capital replacement includes the major maintenance and replacement of aging infrastructure.

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. In 2017, the Facility treated more than 8 billion gallons of water while meeting and exceeding 99.99% of all state and federal requirements for safe drinking water. The ongoing replacement of critical infrastructure is essential for continuing to meet all state and federal drinking water regulations and to provide the quality of water expected by customers.

Replacement projects are systematically identified through master planning and maintenance management (Maximo) and are included in the Utilities Capital Improvement Planning and Prioritization process. Capital Improvement priorities are determined through established levels of service for quality, reliability, system capacity, regulatory compliance and efficiency. Performance and targets for established levels of service and assessing the condition of assets drive the priorities of the capital replacement program and the projects outlined in this offer. Capital Replacement is ranked as the number-one priority.

Planned replacement projects include, but are not limited to:

- Replacing sand and anthracite in dual media filters
- Replacing aging, leaking valves; old water pipelines; and old fluoride tanks
- Replacing undersized and older pumps
- Replacing electrical components such as Motor Control Centers (MCCs), switches and Programmable Logic Controllers (PLCs)
- Replacing aging instruments

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility



Offer 9.5: CAPITAL REPLACEMENT - Utilities: Water - Water Treatment and Source of Supply

Additional Information

- The Replacement Program achieves several Strategic Plan objectives by ensuring 1 - a clean, high quality drinking water, 2 - building and maintaining critical water infrastructure, and 3 - ensuring continuous environmental regulatory conformance.
- This offer directly addresses the goals of the City's Drinking Water Quality policy which states " The City's water supply, treatment, storage, delivery and laboratory facilities will be planned, designed, constructed, maintained, staffed, and operated to assure safe, reliable, and cost-effective service to the residents of Fort Collins and all those served by the City's water utility."
- Capital replacement planning and implementation is a key attribute of the Utilities Asset Management Program and of an effectively managed Utility per the "Effective Utilities Management" guidelines established by the American Water Works Association (www.awwa.org).

Links to Further Details:

- <https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp> - Video of the Fort Collins water treatment process
- <http://www.fcgov.com/utilities/what-we-do/water/water-treatment> - Overview of Fort Collins water treatment

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: The ongoing replacement of aging water treatment equipment will ensure that the Facility will continue to provide a reliable, high quality water supply 365 days a year to Utilities' customers throughout the City.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: This offer will directly address the infrastructure need of the Facility and will provide clean drinking water to maintain public health and a thriving economy in the City.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: This offer directly addresses and funds the facility's maintenance and replacement program. The offer will provide reliable, cost effective equipment a that will prevent unplanned disruptions if the quantity and quality of the city's drinking water supply.

Improvements & Efficiencies



Offer 9.5: CAPITAL REPLACEMENT - Utilities: Water - Water Treatment and Source of Supply

- Efficiencies associated with this offer include;
 - Replacement of older equipment with newer, more energy efficient equipment.
 - 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 reductions in the number of unplanned equipment repairs
- Due to the implementation of Maximo (the Utilities Maintenance Management System), the capital improvement and replacement programs are increasingly data driven. We rely on historical maintenance records and information to drive future capital investments.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>
- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- ENV 121. Reliability: Water Production Asset Renewal/Replacement Rate
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=362329.html>

Personnel Changes

- NA

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

CPIO edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.5: CAPITAL REPLACEMENT - Utilities: Water - Water Treatment and Source of Supply

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 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 9.6: CAPITAL REPLACEMENT - Utilities: Water - Distribution Small Projects

2019: \$1,400,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$1,540,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

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

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 Water Distribution Small Projects coordinate closely with other City departments - primarily the Streets Maintenance Program - to increase efficiency, provide a better product to customers and reduce risk of cutting new streets.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for regulatory compliance, product quality, capacity, reliability and efficiency. 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 in the top 10 in priority.

The current estimated plan for 2019 & 2020 construction is as follows:

2017 Projects:

- Rolling Green Dr.
- Bent Tree Ct.
- Green Gables Ct.
- Hummingbird Dr.
- Warbler Dr.
- Seven Lakes/OCR
- Pepperwood Ln.
- Galvanized Water Service Replacement

2020 Projects:

- Benthaven St.
- Hickory St.
- Red Cedar Cir.
- W. Elizabeth St.



Offer 9.6: CAPITAL REPLACEMENT - Utilities: Water - Distribution Small Projects

- Kimball Rd.
- Glen Haven Dr.
- Galvanized Service Replacement

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility

Additional Information

- Flexibility: Changes in condition and other factors may change the priority of individual projects over time. The Utility using in house design and construction for these projects allows for flexibility to meet changes in conditions and priorities.
- Project Prioritization: The recommended improvement projects are prioritized so that the areas with the most significant problems get addressed first using Condition Assessment and Hydraulic Analysis.
- 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.

Links to Further Details:

- <https://www.youtube.com/watch?v=Ny4T7wTxJK0> - Small Distribution Replacement Project on Howes Street.
- <https://www.youtube.com/watch?v=auawfeDSOUk&t=5s> - Snowcap to Watercap Water Distribution and Water Quality Overview
- <https://www.fcgov.com/utilities/what-we-do/construction-projects/2017-water-sewer-stormwater-infrastructure-improvements> - Overview of 2017 Small Project Replacement Programs

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: Maintaining the distribution system pipelines helps assure reliability of the water supply to customers.



Offer 9.6: CAPITAL REPLACEMENT - Utilities: Water - Distribution Small Projects

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: Thirty-three miles of water main are more than 80 years old and 12.5 miles of water main are more than 100 years old. As water mains age, their probability of breaking increases which causes the reliability of the water system to decrease.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: Preventative maintenance on water mains is cheaper than reacting to breaks and maintains reliability of the system. This program is to proactively address aging water mains.

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 when feasible 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, semi-tractors with side dump trailers that haul twice as much as normal tandem dump trucks reducing trips and saving time.
- Projects have been grouped geographically when feasible to reduce down time and reduce impact to customers.

Performance Metrics

- ENV 49. Customer Service Calls (Water)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=109792.html>
- ENV 43. System Improvement (LF of Pipe Improved) (Water)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=109791.html>
- ENV 50. Repairs - Water Main Break Repairs (Water)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=109793.html>



Offer 9.6: CAPITAL REPLACEMENT - Utilities: Water - Distribution Small Projects

Personnel Changes

- NA

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: TConnor

Lead Department: Utilities Strategic Planning



9.6: CAPITAL REPLACEMENT - Utilities: Water - Distribution Small Projects

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	1,400,000	1,540,000	10.0%
570000 - Other	1,400,000	1,540,000	10.0%
Total Expenses	1,400,000	1,540,000	10.0%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	1,400,000	1,540,000	10.0%
Funding Source Total	1,400,000	1,540,000	10.0%



Offer 9.8: CAPITAL REPLACEMENT - Utilities: Water - Water Quality Instrumentation

2019: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds 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 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 quality, reliability, efficiency, regulatory compliance, and system capacity. Performance and targets for established levels of service and assessing the condition of assets 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 number-two (out of 32) 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 Health & Environment to do so. Staff perform daily and weekly tests on the City's drinking water supply and ensure that it 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, such as gas (GC) and ion (IC) chromatographs, total organic carbon analyzers, low-level mercury analyzers, inductively-couple plasma (ICP) metal analyzers, Total Organic Carbon and ICP-MS metal analyzers.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility

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.



Offer 9.8: CAPITAL REPLACEMENT - Utilities: Water - Water Quality Instrumentation

- 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 fewer unplanned analytical down-times and a reduction in unplanned repairs.
- Compared to a 2003-2007 average of 46,905 analytical tests per year at the WQL, there has been a 106% increase to 96,825 tests at the WQL in 2017. The instruments that perform these tests need to be replaced as they wear out.

Links to Further Details:

- [Utilities website detailing services provided by the Water Quality Lab - https://www.fcgov.com/utilities/what-we-do/water/water-quality](https://www.fcgov.com/utilities/what-we-do/water/water-quality)
- [Utilities website link to 2016 Drinking Water Quality Report - https://www.fcgov.com/utilities/what-we-do/water/water-quality/water-quality-report-2016](https://www.fcgov.com/utilities/what-we-do/water/water-quality/water-quality-report-2016)

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: The WQL provides critical testing of the City's raw water sources and finished drinking water at both the treatment facility and in the distribution system to help ensure that all regulatory requirements and customer expectations are met. Well-functioning and maintained instrumentation is critical for maintaining the laboratory's State certification for drinking water analysis.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: This offer will ensure that capital investments made in laboratory equipment contribute to achieving defined levels of service, meeting performance targets, and are the most cost-effective and efficient.

Improvements & Efficiencies

- This offer supports the replacement of older equipment with newer, safer, and more energy efficient instrumentation and equipment.
- This offer helps maintain affordable, high quality drinking water quality through the replacement of critical water quality monitoring equipment.

Performance Metrics

- SAFE 8. Drinking Water Compliance Rate (% Days)



Offer 9.8: CAPITAL REPLACEMENT - Utilities: Water - Water Quality Instrumentation

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>

- ENV 27. Water quality complaints per 1000 customers

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6346&object=measure&objectId=91492.html>

Personnel Changes

- NA

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: CWebb

Lead Department: Utilities Strategic Planning



9.8: CAPITAL REPLACEMENT - Utilities: Water - Water Quality Instrumentation

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 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 9.9: CAPITAL REPLACEMENT - Utilities: Water - Watershed Protection

2019: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will continue protections to 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 US 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, 2) stream channel and riparian area improvements to reduce or prevent sediment erosion, and 3) wildfire hazard assessment and mitigation related to critical water supply infrastructure in the source watersheds.

Nearly 50,000 acres of the Poudre watershed burned in 2012 and the impacts on the City’s water quality, supply availability and water treatment operations were prolonged, severe and expensive. 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).

In 2017, the City of Fort Collins joined other western water utilities, including Denver Water and Colorado Springs Utilities in partnering directly with watershed coalitions, the US Forest Service, and other agencies to mitigate the imminent threats that wildfires pose to drinking water supplies. Watershed protection work supports the City’s many economic, social and environmental interests and employs emerging best practices for protecting source water supplies.

Working in partnership with CPRW and others, the City is better able to protect the source water supplies by investing in cross-jurisdictional forest management projects designed to minimize water quality impacts. In turn, this work helps maintain the continuity of water supplies, avoid increased water treatment costs and prevent negative impacts to the local economy.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed

Additional Information



Offer 9.9: CAPITAL REPLACEMENT - Utilities: Water - Watershed Protection

- 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 worked with CPRW along and other stakeholders to complete the 2016 Poudre Watershed Resiliency Plan which identifies 53,000 priority acres 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 2016 Source Water Protection Plan (SWPP), completed with assistance from State of Colorado identifies wildfires as the biggest current threat to the City’s water supplies. This funding will help Utilities continue to 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.

Links to Further Details:

- [City's Youtube video, "From Source to Tap: Drinking Water Treatment" highlights importance of healthy watershed and raw water supplies to safe drinking water:](https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp)
<https://www.youtube.com/watch?v=sjjEGun2hJo&feature=plcp>
- [Utilities website describes the water quality monitoring efforts, information about wildfire hazards, and source water protection planning:](http://www.fcgov.com/utilities/what-we-do/water/water-quality/source-water-monitoring)
<http://www.fcgov.com/utilities/what-we-do/water/water-quality/source-water-monitoring>
- [Link to Coalition for the Poudre River Watershed \(CPRW\) - 2016 Poudre Watershed Resiliency Plan:](https://www.poudrewatershed.org/our-work/upper-watershed/planning/)
<https://www.poudrewatershed.org/our-work/upper-watershed/planning/>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: 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.



Offer 9.9: CAPITAL REPLACEMENT - Utilities: Water - Watershed Protection

- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Because the watershed acts as a primary water treatment facility, it is critical to protect watershed health and to maintain long-term storage capability. Mitigating risks from wildfires and other natural disturbances helps ensure that all customers retain access to adequate, affordable drinking water to meet personal and business needs.
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: 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. Watershed protection work is a proactive means to reduce the risks of wildfires not just to the quality of Poudre River water supplies, but also to the ecological integrity of the Poudre River.

Improvements & Efficiencies

- The City of Fort Collins owns less than 1% of the contributing watershed to the Poudre River water supply. Therefore, multi-agency collaboration dramatically increases effectiveness of funding, planning and implementing watershed protection work that must occur across ownership and management jurisdictions.
- Investments in watershed protection offer cost-effective alternative to capital facility upgrades to support enhanced water treatment.
- Targeted forest fuels management projects help maintain high water quality and water storage capacity by reducing the risk of post-wildfire sediment erosion and debris flows - events that can severely impact the integrity of critical infrastructure and reduce capacity of water supply reservoirs.

Performance Metrics

- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>

Personnel Changes

- NA

Differences from Prior Budget Cycles

- This offer would provide ongoing support for watershed wildfire risk reduction work that was initiated in 2017. In 2018, it will also support the completion of a wildfire hazard assessment of water supply infrastructure in the Poudre Watershed, to ensure planned projects target key vulnerabilities.



Offer 9.9: CAPITAL REPLACEMENT - Utilities: Water - Watershed Protection

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: Utilities Strategic Planning



9.9: CAPITAL REPLACEMENT - Utilities: Water - Watershed Protection

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 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 9.16: ENHANCEMENT: CAPITAL - Utilities: Environmental Learning Center Dam Rehabilitation - Design & Permitting

2019: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$250,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds design and permitting of a project to rebuild a severely damaged low-head diversion structure on the Poudre River near the Environmental Learning Center (ELC). The structure must be maintained to ensure a critical instream flow water right at this location, which protects the City and the Poudre from future flow depletions. This funding phase will cover the design and permitting costs, which will occur in 2019 and 2020. The costs to build the structure will be included in the proposed 2021 budget. Funding is proposed to be 1/3 each from the General Fund, Natural Areas and Utilities (Water).

The City’s water right is for up to 30 cubic feet per second (cfs). It is estimated that the water right protects about 10,000 acre-feet per year on average, which provide valuable ecological benefits to the river, particularly in low-flow periods.

The ELC water right requires a low-head diversion structure in the Poudre River to divert water into a side channel of the river that flows through the ELC. The original ELC structure was designed to wash out in higher flows, which has occurred a few times and is the current state. Without the structure, the City will lose this valuable water right, which is possible in 2020 if no significant action is taken before then.

The river bed in the area has moved due to recent floods and the City is exploring a more permanent structure that will be much less prone to washing out. As a result, there is some uncertainty in the cost for permitting and construction. It is currently estimated that design, permitting and construction may cost more than \$3 million. This offer would fund a 60% level design study and pay for permitting costs. At completion of this project, the cost of final design and construction would be developed with higher certainty. Given uncertainties in permit requirements, this budget includes a 20% project contingency.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed
- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- ENV 4.5 - Develop strategies to improve the community's climate resiliency

Additional Information



Offer 9.16: ENHANCEMENT: CAPITAL - Utilities: Environmental Learning Center Dam Rehabilitation - Design & Permitting

- The ELC Dam Project was included in the Utilities Capital Improvement Planning and Prioritization and was ranked as the #6 priority (out of 32). Capital Project priorities are determined through established levels of service for quality, reliability, system capacity, regulatory compliance, and efficiency.
- Performance and targets for established levels of service (see performance measures) and the assessment of the condition of assets drive the priorities of the Asset Management Program and the ELC Dam project outlined in this offer.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

N/A - this offer is not scalable

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: This offer protects flows in this river reach, which typically experiences very low flow conditions. Protecting these flows helps to reduce aquatic habitat fragmentation and improve water quality parameters critical to the survival of Poudre River wildlife.
- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: This offer protects flows in this river reach, which typically experiences very low flow conditions. Protecting these flows provides a community-wide benefit.
- ENV 4.5 - Develop strategies to improve the community's climate resiliency: In anticipation of potential extreme heat conditions due to climate change, this offer protects and enhances low flows essential for maintaining water temperatures and conditions in which the wildlife and a resilient healthy ecosystem depend.

Performance Metrics

- A performance measure has not yet been identified/created; please see Additional Information above

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA



Offer 9.16: ENHANCEMENT: CAPITAL - Utilities: Environmental Learning Center Dam Rehabilitation - Design & Permitting

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

Ignore

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.16: ENHANCEMENT: CAPITAL - Utilities: Environmental Learning Center Dam Rehabilitation - Design & Permitting

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	500,000	250,000	-50.0%
570000 - Other	500,000	250,000	-50.0%
Total Expenses	500,000	250,000	-50.0%

Funding Sources

100-General Fund: One-time Revenue	One-Time Restricted	74,450	-	- %
100-General Fund: Reserves	Reserve	92,050	83,500	-9.3%
502-Water Fund: Ongoing Revenue	Ongoing Restricted	167,000	83,000	-50.3%
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	166,500	83,500	-49.8%
Funding Source Total		500,000	250,000	-50.0%



Offer 9.18: ENHANCEMENT: 1.0 FTE Contractual Project Manager - Halligan Water Supply Project

2019: \$38,320 and 1.00 FTE, 0.00 Hourly FTE

2020: \$26,274 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds one full-time contractual Project Manager position for 1.5 years to assist the Halligan Water Supply Project. Funding for the contractual position will be primarily sourced from the Halligan Project’s capital budget.

The City’s Water Supply and Demand Management Policy identifies a critical need to develop additional water storage, and the Halligan Project is essential to securing additional water storage and water supply for the City. The project is anticipated to cost \$74 million, \$12 million of which has already been spent to date in ongoing federal and state permitting processes. The project will continue in the permitting process for at least another four years, and dam design efforts will commence in 2019. This offer will create a temporary, contractual position to assist in managing dam design efforts. The offer will fund one contractual FTE for six months in 2019 and one contractual FTE for 12 months in 2020.

Current staffing for the project is insufficient to manage both permitting and design phases concurrently. Currently, the City dedicates less than one FTE to managing the Halligan Project. Other Front Range entities proposing large water supply projects (e.g., Denver Water, Northern Water, Colorado Springs Utilities) use large teams (two to four staff) to develop water supply projects. The addition of a project manager during Halligan Dam design will reduce overall project expenses. Compared to hiring a consultant to manage design for the 18 months during 2019 and 2020, the contractual FTE is estimated to save approximately \$140,000. In addition, the contractual FTE can expedite the permitting and design processes, which in turn saves the City money. Larger City staff teams also provide greater oversight and allow greater public engagement.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply
- ENV 4.5 - Develop strategies to improve the community's climate resiliency
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

Additional Information

- Not applicable



Offer 9.18: ENHANCEMENT: 1.0 FTE Contractual Project Manager - Halligan Water Supply Project

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

N/A - this offer is not scalable.

Links to Further Details:

- <https://www.fcgov.com/utilities/what-we-do/water/halligan-water-supply-project>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: Funding this offer will further develop the Halligan Project, which is crucial to providing a reliable water supply for the City.
- ENV 4.5 - Develop strategies to improve the community's climate resiliency: The Halligan Project is designed, in part, to provide water reserves to address droughts and water supply emergencies that may arise from climate change. This offer will
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: This offer will facilitate development of a crucial component of the City's water utility system.

Performance Metrics

- ENV 32. Annual water demand as percent of firm yield
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=121465.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

CPIO edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.18: ENHANCEMENT: 1.0 FTE Contractual Project Manager - Halligan Water Supply Project

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	87,555	72,146	-17.6%
512000 - Benefits	16,765	14,128	-15.7%
519000 - Other Personnel Costs	(73,000)	(60,000)	-17.8%
510000 - Personnel Services	31,320	26,274	-16.1%
559000 - Other Supplies	7,000	-	- %
550000 - Supplies	7,000	-	- %
Total Expenses	38,320	26,274	-31.4%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	38,320	26,274	-31.4%
Funding Source Total	38,320	26,274	-31.4%



Offer 9.20: ENHANCEMENT: Utilities: Legal and Consulting Services for Response to the Northern Integrated Supply Project

2019: \$150,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will fund legal and consulting services supporting the City's response to the Northern Integrated Supply Project (NISP).

The offer will ensure City staff has access to technical and legal experts during staff's review of NISP's permit applications, participation in adaptive management planning, and continued discussions with project proponents. The total offer is \$150,000 split equally between Utilities and General Fund budgets. The Utilities portion of the offer (\$75,000) will be split equally among the Water Fund, Stormwater Fund and Wastewater Fund.

NISP has the potential to negatively impact City interests, including Utilities and Natural Areas assets. In 2019, NISP proponents will seek approval of a water quality discharge permit from the State of Colorado and a 1041 permit from Larimer County. These processes will provide the City an opportunity to provide comments seeking protection of City assets and interests. In addition, it is anticipated the City will continue discussions with NISP participants throughout 2019 and 2020 to further City interests. Input from legal and technical experts is needed to meaningfully respond to NISP to protect City resources and infrastructure.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed
- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

Additional Information

- Not applicable

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer is scalable; however, \$150,000 is the minimum amount that staff judges is prudent to retain for legal and consulting services.



Offer 9.20: ENHANCEMENT: Utilities: Legal and Consulting Services for Response to the Northern Integrated Supply Project

Links to Further Details:

- <https://www.fcgov.com/nispreview/>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: This offer provides funding to respond adequately to a significant threat to Poudre River.
- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: NISP could negatively affect City assets and interests, including natural resources. Input from legal and technical experts is needed to meaningfully respond to NISP.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: NISP could negatively affect water, wastewater, and stormwater systems and services. Input from legal and technical experts is needed to meaningfully respond to NISP.

Performance Metrics

- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- ENV 44. Poudre River riparian restoration measured by cumulative area brought into the 5 year floodplain
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=343437.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

CPIO edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.20: ENHANCEMENT: Utilities: Legal and Consulting Services for Response to the Northern Integrated Supply Project

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	150,000	-	- %
520000 - Purchased Prof & Tech Services	150,000	-	- %
Total Expenses	150,000	-	- %
Funding Sources			
100-General Fund: Ongoing Ongoing	75,000	-	- %
502-Water Fund: Ongoing Revenue Ongoing Restricted	75,000	-	- %
Funding Source Total	150,000	-	- %



Offer 9.21: ENHANCEMENT: CAPITAL - Utilities: Water Solids Handling - Gravity Thickener (Design Only)

2019: \$575,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the design of a new gravity thickener at the Water Treatment Facility. The gravity thickener will receive and thicken the alum sludge byproduct from the water treatment process prior to flowing to the existing treatment lagoons at the Water Treatment Facility. Design funds only are being requested to allow for an accurate construction cost estimate. Construction funds will be requested in the 2021-2022 budget cycle. Currently, the estimated cost of construction is \$3 million.

Sludge (aka solids) is currently treated and dewatered in the Facility's eight open-air sludge lagoons. The lagoons are beyond their design capacity and the addition of a gravity thickener will speed up the sludge dewatering process, allowing the continued use of the sludge lagoons. The lagoons are open to inclement weather and the sludge takes a long time to dry. The longer the sludge stays in the lagoons, the greater the risk of adverse effects to the water treatment process or spills occurring from the lagoons. The gravity thickener will thicken the sludge four times greater than the current flow to the lagoons, speeding up the sludge drying process and increasing available lagoon capacity.

If the gravity thickener is not built, new lagoons or drying beds will need to be constructed at approximately three times the cost of the gravity thickener. However, there is currently not enough room on-site to construct the additional lagoons, so solids may spill out of the existing ponds in periods of high water production. These spills will lead to a violation of EPA and State of Colorado water treatment and solid waste regulations.

Also, sludge may build up in the water treatment trains leading to water treatment issues including increased turbidity and taste and odor issues in the City's drinking water. Increased turbidity is a violation of EPA and State water treatment regulations. Taste and odor issues will adversely affect Utilities customers including several water-quality dependent businesses such as breweries.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ENV 4.6 - Provide a reliable, high-quality water supply
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- ✓ ENV 4.7 - Continually improve environmental regulatory performance

Additional Information



Offer 9.21: ENHANCEMENT: CAPITAL - Utilities: Water Solids Handling - Gravity Thickener (Design Only)

- The narrative above is based upon the results of a study titled "Fort Collins Water Treatment Facility Solids Handling Evaluation" by CH2m, July 22, 2016. The study evaluated the Water Treatment Facility's current Solids Handling program. The report recommended a new gravity thickener to supplement the current lagoon system which is inefficiently operating far beyond it's design capacity.
- The existing solids lagoons can be viewed here - <https://www.google.com/maps/place/Fort+Collins,+CO/@40.5915804,-105.1512804,434m/data=!3m1!1e3!4m5!3m4!1s0x87694a4590f030ad:0xa9b14228b4ab4082!8m2!3d40.5852602!4d-105.084423>
- This offer directly addresses the goals of the City's Drinking Water Quality policy which states " The City's water supply, treatment, storage, delivery and laboratory facilities will be planned, designed, constructed, maintained, staffed, and operated to assure safe, reliable, and cost-effective service to the residents of Fort Collins and all those served by the City's water utility."
- This offer is related to offer 9.23 - sludge drying pad. Both offers propose infrastructure that reduces solids drying time, but each offer individually does not fully address all of the solids management needs. A recent solids management study determined that constructing both the gravity thickener and the drying pad will reduce drying time and staff time to manage solids.
- The Gravity Thickener Project was included in the Utilities Capital Improvement Planning and Prioritization process and are ranked as the number 21 (out of 32) priority. Key drivers included regulatory compliance and system capacity. Capital Improvement priorities are determined through established levels of service for quality, reliability, system capacity, regulatory compliance, and efficiency.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer is not scalable as the gravity thickener is a contiguous building that cannot be phased and needs to be built in a single phase.

Links to Further Details:

- [Here is a link describing what a gravity thickener looks like and its function - https://www.911metallurgist.com/blog/difference-between-clarifier-and-thickener](https://www.911metallurgist.com/blog/difference-between-clarifier-and-thickener)

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)



Offer 9.21: ENHANCEMENT: CAPITAL - Utilities: Water Solids Handling - Gravity Thickener (Design Only)

- ENV 4.6 - Provide a reliable, high-quality water supply: The gravity thickener will allow the Water Treatment Facility to continue to treat and provide a reliable, high quality and good tasting water supply to the Utilities customers. The thickener will prevent taste and odor issues in the drinking water and will enhance the water treatment process.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: The thickener will ensure the continued supply of clean drinking water and will prevent the overflow or spill of solids to the environment.
- ✓ ENV 4.7 - Continually improve environmental regulatory performance: The gravity thickener will prevent the violation of water quality and solid waste regulations by freeing up capacity to safely de-water sludge and prevent excess turbidity and taste and odor problems in the City's drinking water.

Performance Metrics

- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>
- ENV 27. Water quality complaints per 1000 customers
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6346&object=measure&objectId=91492.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

Added estimated cost of construction and relationship to offer 9.23 - solids drying pad.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



**9.21: ENHANCEMENT: CAPITAL - Utilities: Water Solids Handling - Gravity Thickener
(Design Only)**

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
579000 - Other	575,000	-	- %
570000 - Other	575,000	-	- %
Total Expenses	575,000	-	- %
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	575,000	-	- %
Funding Source Total	575,000	-	- %



Offer 9.26: ENHANCEMENT: Utilities: Water - Water Supply and Demand Management Policy Update

2019: \$200,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$100,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will fund an update to the Utilities' Water Supply and Demand Management Policy.

This policy provides a foundational framework for water supply and demand management decisions concerning the City's water supply system. City Council has mandated that the current policy (adopted in 2012) be updated by 2020. The funds for this offer would be used to hire a consultant team to review the current policy, explore policies of other water providers, develop new policy elements and criteria, explore water supply system requirements (e.g., additional storage) for meeting new policy criteria, and providing outreach services to gather input from the public on these changes. The policy update will dovetail with an ongoing Water Supply Vulnerability Assessment, which was funded as a 2017-2018 BFO enhancement offer. It is anticipated that the policy update will be a two-year process.

Given the significance of providing water to the community and the potential impacts of water use on many things like the environment, economic growth and affordable housing, having consultants be part of the policy update provides a broader perspective and brings knowledge and experience around how other water providers and water utilities formulate water supply policy.

The dollars requested are based on the cost of the previous update to the policy, which was approximately \$250,000 in 2012.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply

Additional Information

- The City's 2018 Strategic Plan states that "balancing the water supply and demand is necessary in the face of a changing climate and increasing population, ensuring it is available long term and during times of drought". The Water Supply and Demand Management Policy is a key guiding policy in ensuring that adequate water is available for our future.
- The 2018 Strategic Plan also recognizes that "While the City's water consumption per capita has declined by approximately 25 percent over the past 10 years, additional stress is placed on water resources due to growth, climate change and lack of storage." Again, the Policy guides us in assuring these challenges and stresses are adequately planned for and addressed.



Offer 9.26: ENHANCEMENT: Utilities: Water - Water Supply and Demand Management Policy Update

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer can be scaled based on the level of outreach and analysis conducted to update the policy. The staff can work with the selected consultant to scale the project based on the dollars allocated. For example, we could eliminate exploration of policies of other water providers or minimize public input and outreach. Staff believes, however, that City Council will expect a very robust policy development process due to the current issues around the availability and cost of water.

Links to Further Details:

- https://www.fcgov.com/utilities/img/site_specific/uploads/wsdm-policy.pdf

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: Updating the Policy is essential to providing guidance in developing a reliable water supply.

Performance Metrics

- ENV 32. Annual water demand as percent of firm yield
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=121465.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

Updated scalability section.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.26: ENHANCEMENT: Utilities: Water - Water Supply and Demand Management Policy Update

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	200,000	100,000	-50.0%
520000 - Purchased Prof & Tech Services	200,000	100,000	-50.0%
Total Expenses	200,000	100,000	-50.0%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	200,000	100,000	-50.0%
Funding Source Total	200,000	100,000	-50.0%



**Offer 9.32: ENHANCEMENT: 0.0 Net FTE (Contractual to Classified)
Utilities: Water - Maintenance Specialist**

2019: \$4,269 and 0.00 FTE, 0.00 Hourly FTE

2020: \$4,397 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will fund the conversion of the current contractual Maintenance Specialist position at the Water Treatment Facility to a classified position. This two-year contractual position was created in January 2017 to backfill the transfer of a Maintenance Specialist to perform Maximo Planner/Scheduler duties at the Water Treatment Facility, the Water Quality Lab, and at Source of Supply. The Maintenance Specialist position is responsible for maintaining and repairing all critical water treatment equipment at the facility, and also needs to be available during nights and weekends to address urgent repair issues that may arise.

The Planner/Scheduler duties are now an integral part of everyday work, and without converting the position, staff will have to reassign the Planner/Scheduler back to maintenance duties, therefore losing the ability to continue to implement and use the Maximo Computerized Maintenance Management System (CMMS). Following the direction of the Utilities Executive Director, Water Treatment Facility staff have implemented the Maximo CMMS over the last five years and have successfully integrated Maximo into our daily duties.

The Maximo system is now the only system used to plan, create and execute all plant maintenance activities. With the loss of the Planner/Scheduler position, staff's ability to continue to use and refine Maximo will be severely diminished, adversely affecting their ability to perform timely maintenance on critical Plant equipment. This will lead to increased risk of equipment failures and impacts to the drinking water supply. The plant contains more than 3,500 assets such as pumps, turbidimeters, HVAC units, analyzers, valves, etc. that need to be continuously maintained in a planned manner.

This offer is tied to Offer 9.31.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ENV 4.6 - Provide a reliable, high-quality water supply
- ✓ HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information



**Offer 9.32: ENHANCEMENT: 0.0 Net FTE (Contractual to Classified)
Utilities: Water - Maintenance Specialist**

- This offer directly addresses the goals of the City's Drinking Water Quality policy which states " The City's water supply, treatment, storage, delivery and laboratory facilities will be planned, designed, constructed, maintained, staffed, and operated to assure safe, reliable, and cost-effective service to the residents of Fort Collins and all those served by the City's water utility."
- The addition of this position will;
 - 1 - maximize the efficiency of the Facility's water treatment operations
 - 2 - save money through more efficient maintenance operations and longer equipment life
 - 3 - allow for long term financial planning through improved forecasting of future capital costs.
- The Maintenance Specialist position achieves several Strategic Plan objectives by 1 - ensuring a clean, high quality drinking water and 2 - maintaining critical water treatment assets.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$15,000

Scalability and explanation

N/A

Links to Further Details:

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

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ENV 4.6 - Provide a reliable, high-quality water supply: This position contributes directly to this objective by maintaining and repairing critical water treatment equipment and ensuring that the equipment is capable of treating and providing a reliable, high quality water supply to the citizens of Fort Collins.
- ✓ HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: This position contributes directly to this objective by maintaining and repairing all of the water treatment assets within the Water Treatment Facility.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: This position contributes directly to this objective by maintaining and repairing all of the water treatment infrastructure within the Water Treatment Facility.

Performance Metrics



**Offer 9.32: ENHANCEMENT: 0.0 Net FTE (Contractual to Classified)
Utilities: Water - Maintenance Specialist**

- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>
- SAFE 8. Drinking Water Compliance Rate (% Days)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=267045.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- N/A

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

This offer is being brought back into the BFO process.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.32: ENHANCEMENT: 0.0 Net FTE (Contractual to Classified) Utilities: Water - Maintenance Specialist

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	-	-	- %
512000 - Benefits	4,269	4,397	3.0%
510000 - Personnel Services	4,269	4,397	3.0%
Total Expenses	4,269	4,397	3.0%
Funding Sources			
502-Water Fund: Ongoing Revenue Ongoing Restricted	4,269	4,397	3.0%
Funding Source Total	4,269	4,397	3.0%



Offer 9.41: Utilities: Wastewater - Core Operations

2019: \$8,991,171 and 65.85 FTE, 0.91 Hourly FTE

2020: \$9,205,324 and 65.85 FTE, 0.91 Hourly FTE

Offer Summary

Funding this offer will provide all Wastewater Fund operations core services, including managing, operating and maintaining the following services:

- Water Reclamation and Biosolids Division: includes operation of two wastewater treatment facilities treating an average of more than 13 million gallons of wastewater per day, which is discharged to the Poudre River and Fossil Creek Reservoir, or is reused at the Rawhide Power Plant. The division also manages a 26,600-acre ranch where biosolids are beneficially applied. Other services include industrial pretreatment, grease trap inspection and managing 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 including 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 service to new development projects in a manner that will meet adopted master plans and design standards.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment



Offer 9.41: 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 2017, over 5 billion gallons of wastewater was collected and treated with a 100% compliance rate, meeting all state and federal requirements.
- In 2017, the Water Reclamation Division treated over 2300 tons of biosolids and beneficially reused 100% of those solids .
- Wastewater Trunk & Collection maintains 448 miles of wastewater mains and over 10,000 manholes. In 2017, the Trunk and Collection maintenance crews jet washed 1.6 Million linear feet of sewer lines and TV inspected 259,000 linear feet of sewer lines.

Links to Further Details:

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

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: This offer funds critical services that are essential to maintaining and improving environmental performance. All Divisions collaborate to consistently maintain compliance with all regulatory requirements at >99%.
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: This offer funds critical services for the collection and treatment of wastewater. These services help sustain and improve the health of the Cache la Poudre River.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: All Divisions provide maintenance services aligned with adopted asset management principles. Preventive and corrective maintenance is performed on facility and linear assets by internal staff and is managed via the maintenance management system. Adequately maintaining infrastructure is critical to keeping costs low and quality high

Improvements & Efficiencies

- The Computerized Maintenance Management System (CMMS) / Maximo was deployed in Feb. 2018 for the collection system. The system will allow for optimized maintenance, scheduling, and tracking of wastewater assets in the coming years.



Offer 9.41: Utilities: Wastewater - Core Operations

- 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.
- The collection system maintenance division has developed systematic programs for jetwashing the system using the newly deployed CMMS with a goal of jet washing the entire system every 2 years. Field Operations cleaned 1.7 million feet of wastewater main in 2017.
- Closed Circuit TV inspection has been formalized to achieve a 10 year cycle of video information capture. Over 250,000 feet of sewer was inspected in 2017. Crews have been trained in the national standard for sewer inspections from the National Association of Sewer Service Companies.
- Improvements to the City's Development Review process has taken place in 2018 to provide higher quality service to customers. Wastewater Engineering staff will be an integral part of this process improvement.
- 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 Silver Level.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 70. Blockages Cleared (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>
- ENV 128. Number of New Recorded Environmental Compliance Violations
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=523858.html>

Personnel Changes

- All Divisions provide maintenance services aligned with adopted asset management principles. Preventive and corrective maintenance is performed on facility and linear assets by internal staff and is managed via the maintenance management system - Maximo - which is being implemented throughout the water utility. Adequately maintaining infrastructure is critical to keeping costs low and quality high.



Offer 9.41: Utilities: Wastewater - Core Operations

Differences from Prior Budget Cycles

- All Divisions provide maintenance services aligned with adopted asset management principles. Preventive and corrective maintenance is performed on facility and linear assets by internal staff and is managed via Maximo, which is being implemented throughout the wastewater utility. Adequately maintaining infrastructure is critical to keeping costs low and quality high.

Explanation of Any Adjustments to Personnel Costs using object 519999

- There is -\$18,000 used to adjust for a reclassification of a position inside BU 343000.

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

CPIO edits

Offer Profile

Offer Owner: TConnor

Lead Department: Utilities Strategic Planning



9.41: Utilities: Wastewater - Core Operations

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	65.85	65.85	- %
Hourly (FTE)	0.91	0.91	- %
Expenses			
511000 - Salaries & Wages	4,795,234	4,937,290	3.0%
512000 - Benefits	1,544,955	1,621,804	5.0%
519000 - Other Personnel Costs	(584,884)	(606,136)	3.6%
510000 - Personnel Services	5,755,305	5,952,958	3.4%
521000 - Professional & Technical	254,300	265,300	4.3%
522000 - Governmental Services	95,000	95,000	- %
529000 - Other Prof & Tech Services	245,700	275,700	12.2%
520000 - Purchased Prof & Tech Services	595,000	636,000	6.9%
531000 - Utility Services	960,360	960,360	- %
532000 - Cleaning Services	60,432	60,432	- %
533000 - Repair & Maintenance Services	261,393	237,393	-9.2%
534000 - Rental Services	6,500	4,000	-38.5%
535000 - Construction Services	20,000	20,000	- %
530000 - Purchased Property Services	1,308,685	1,282,185	-2.0%
542000 - Communication Services	18,680	18,680	- %
543000 - Internal Admin Services	5,000	5,000	- %
544000 - Employee Travel	55,825	55,825	- %
549000 - Other Purchased Services	39,350	39,350	- %
540000 - Other Purchased Services	118,855	118,855	- %
551000 - Vehicle & Equipment Supplies	349,500	349,500	- %
552000 - Land & Building Maint Supplies	91,100	91,100	- %
553000 - Infrastructure Maint Supplies	9,000	9,000	- %
554000 - Utility Supplies	12,000	12,000	- %
555000 - Office & Related Supplies	77,550	77,550	- %
556000 - Health & Safety Supplies	18,150	18,150	- %
558000 - Chemical Supplies	474,500	474,500	- %
559000 - Other Supplies	176,526	178,526	1.1%
550000 - Supplies	1,208,326	1,210,326	0.2%
565000 - Vehicles & Equipment	5,000	5,000	- %

Environmental Health



560000 - Capital Outlay	5,000	5,000	-	%
Total Expenses	8,991,171	9,205,324	2.4%	

Funding Sources

503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	8,991,171	9,205,324	2.4%
Funding Source Total		8,991,171	9,205,324	2.4%



Offer 9.42: CAPITAL REPLACEMENT - Utilities: Wastewater - Minor Capital

2019: \$801,500 and 0.00 FTE, 0.00 Hourly FTE

2020: \$827,500 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the purchase or replacement of minor capital wastewater enterprise assets. Minor capital is used for small projects that involve replacement or improvement to current assets, purchase and/or replacement of fleet vehicles, computer hardware purchases, and minor building and office improvements.

The primary outcome of this offer is focused on managing assets to ensure levels of service for Utilities customers are maintained or improved, particularly for reliability, quality and efficiency.

Minor capital projects and expenditures anticipated for the 2019-2020 budget cycle include but are not limited to:

Water Reclamation and Biosolids Division:

- Minor Treatment Train improvements
- Minor building improvements and renovations
- Repairs and improvements to building appurtenances including sidewalks and stairs
- Resource Recovery large vehicle replacement

Water Quality Services: Minor Lab Building improvements and renovations and minor laboratory and equipment purchases.

Supervisory Control Systems: Replacement of software and Programmable Logic Controllers

In addition, all divisions will incur expenses related to minor building and office repairs and improvements, as well as vehicle replacement as indicated by the Fleet Services vehicle replacement schedule, which considers age, mileage, repair costs and purchase cost to determine replacement date.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information



Offer 9.42: CAPITAL REPLACEMENT - Utilities: Wastewater - Minor Capital

- Minor capital projects are evaluated by staff according to priorities for established levels of service for compliance, quality, reliability, and system capacity.
- Minor capital projects associated with operations and building replacements are driven by master plans, which are updated approximately every 5 years. Master plans are developed utilizing a robust assessment methodology, which considers asset lifecycle and maintenance history, asset condition, and asset performance.
- All fleet vehicle purchases are driven by a robust methodology which includes evaluation of vehicle age, mileage, repair costs, and purchase cost. Each vehicle is reviewed by Fleet and Department staff to determine if vehicles are meeting business needs, ensuring the fleet is right sized for each operation.

Links to Further Details:

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

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: Funding this offer ensures that assets are maintained and improved to ensure operation and performance as required to meet regulatory requirements.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: Proper maintenance of assets ensure that costs are managed and that levels of service, including reliability, are met or exceeded.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: This offer specifically addresses maintenance of critical infrastructure that protects people, property, and environment.

Improvements & Efficiencies

- Maximo, the Utilities Maintenance Management System, is now assisting in determining minor capital needs by providing data on asset performance, maintenance history, and asset condition. This is an improvement of the previous budget cycle.
- Vehicle purchase are now fully driven by Fleet Services vehicle replacement philosophy in partnership with operations staff.
- The Utilities Asset Management Program is maturing and is now providing key insights into minor capital replacement, including consideration of key levels of service including compliance, capacity, reliability, efficiency, and quality. The levels of service are prioritized and then those relative priorities are utilized to prioritize projects.



Offer 9.42: CAPITAL REPLACEMENT - Utilities: Wastewater - Minor Capital

- Minor capital expenses are largely driven by information from Master Plans, which are developed for the majority of water operations.
- A new metric is being developed relative to the link to the strategic objective 3.5. This metric will measure the present of critical infrastructure within 5 years of the end of useful life. This data will be developed in Maximo and will be critical in driving investments in Utilities infrastructure.

Performance Metrics

- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=362326.html>
- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109736.html>
- ENV 27. Water quality complaints per 1000 customers
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6346&object=measure&objectId=91492.html>

Personnel Changes

- NA

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: CWebb

Lead Department: Utilities Strategic Planning



9.42: CAPITAL REPLACEMENT - Utilities: Wastewater - Minor Capital

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
559000 - Other Supplies		10,500	10,500	- %
	550000 - Supplies	10,500	10,500	- %
562000 - Buildings		100,000	100,000	- %
565000 - Vehicles & Equipment		691,000	717,000	3.8%
	560000 - Capital Outlay	791,000	817,000	3.3%
	Total Expenses	801,500	827,500	3.2%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	801,500	827,500	3.2%
	Funding Source Total	801,500	827,500	3.2%



Offer 9.43: CAPITAL REPLACEMENT - Utilities: Wastewater - Collection System Small Projects

2019: \$1,400,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$1,500,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

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

The City faces the challenge of replacing this aging infrastructure in a timely and cost-effective manner that maintains a safe, reliable wastewater service for the community. Systematic replacement of faulty or failing lines minimizes inconveniences to customers and mitigates the need for emergency repairs. The Wastewater Collection Small Projects coordinate closely with other City departments - primarily the Street Maintenance Program - to increase efficiency, provide a better product to customers and reduce risk of cutting new streets.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for regulatory compliance, product quality, capacity, reliability and efficiency. 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 top 10 in priority.

The current estimated plan for 2019-2020 construction is as follows:

2019:

- Fairview Dr.
- City Park Ave.
- Laporte Ave.
- West St.
- Hawkins St.
- Sycamore St.

2020:

- Wayne St. Alley
- Washington Ave. Alley
- Woodford Ave. Alley
- Garfield St.
- Edwards St.
- Prospect Rd.



Offer 9.43: CAPITAL REPLACEMENT - Utilities: Wastewater - Collection System Small Projects

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility

Additional Information

- Changes in condition and other factors may change the priority of individual projects over time. The Utility using in house design and construction for these projects allows for flexibility to meet changes in conditions and priorities.
- 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 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.
- 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=Ny4T7wTxJK0&t=1s> - Video shows small water distribution replacement project similar to wastewater collection projects
- <https://www.fcgov.com/utilities/wastewater-sanitary-sewer-blockages/backups>
- <https://www.fcgov.com/utilities/what-we-do/construction-projects/2017-water-sewer-stormwater-infrastructure-improvements>

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: Replacing the aging wastewater mains helps ensure reliability and reduce sanitary sewer blockages and overflows.



Offer 9.43: CAPITAL REPLACEMENT - Utilities: Wastewater - Collection System Small Projects

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: Wastewater Collection has 448 miles of sanitary sewer mains and over 10,000 manholes. Much of this infrastructure is aging or past its useful life and is in need of replacement to prevent expensive failures and blockages.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: Preventative maintenance on wastewater mains is cheaper than reacting to blockages and maintains the reliability of the system. This replacement program is to proactively address aging and failing wastewater mains.

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 when feasible to reduce down time and impact to customers.

Performance Metrics

- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109736.html>
- ENV 70. Blockages Cleared (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>
- ENV 49. Customer Service Calls (Water)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=109792.html>

Personnel Changes

- NA

Differences from Prior Budget Cycles

- Specific projects are updated for each budget cycle.



Offer 9.43: CAPITAL REPLACEMENT - Utilities: Wastewater - Collection System Small Projects

- 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: TConnor

Lead Department: Utilities Strategic Planning



9.43: CAPITAL REPLACEMENT - Utilities: Wastewater - Collection System Small Projects

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		1,400,000	1,500,000	7.1%
	570000 - Other	1,400,000	1,500,000	7.1%
	Total Expenses	1,400,000	1,500,000	7.1%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	1,400,000	1,500,000	7.1%
	Funding Source Total	1,400,000	1,500,000	7.1%



Offer 9.44: CAPITAL REPLACEMENT - Utilities: Wastewater - Cured in Place Pipe Lining

2019: \$600,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$600,000 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 by installing Cured-In-Place-Pipe (CIPP) lining.

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 ground water into the collection system resulting in higher treatment costs, possible contamination of ground water, and causes damage to streets and private property. Lining a wastewater main can extend its useful life by nearly 50 years at fraction of the cost of full pipe replacement. This method is preferred in areas of poor access or where major construction would cause major impacts to traffic or customers.

CIPP lining is considered a 'trenchless' rehabilitation method as 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.

As part of its Asset Management Program, Utilities determines its capital project priorities through established levels of service for regulatory compliance, product quality, capacity, reliability and efficiency. 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 top 10 in priority.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

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.



Offer 9.44: CAPITAL REPLACEMENT - Utilities: Wastewater - Cured in Place Pipe Lining

- 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.
- With the right conditions, CIPP lining can be installed in as quickly as a few hours and up to a day. This is leveraged in areas where major pipe replacement projects could impact traffic or customers for long periods of time.

Links to Further Details:

- <https://www.youtube.com/watch?v=okstE4bSVmk> - CIPP Lining demonstration
- <https://www.youtube.com/watch?v=VmC3cQI9Bz8> - Manhole lining and rehabilitation demonstration

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: Lining of wastewater mains extends their useful life while reducing the risk of sanitary blockages and overflows.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: CIPP lining is an industry standard asset management strategy to extend the life of the wastewater main in order to focus major construction on other priorities.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: CIPP lining costs much less per linear foot of wastewater main than replacement costs and reduces the frequency of jet washing and TV inspection which lower operations and maintenance costs.

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.
- The annual projects list is performed by a preferred contractor and can typically be fully completed in the summer to limit impact on traffic while school is in session.
- Projects that exist in downtown or commercial areas can be performed at night time to reduce the impact on the customers and business owners.

Performance Metrics

- ENV 70. Blockages Cleared (Wastewater)



Offer 9.44: CAPITAL REPLACEMENT - Utilities: Wastewater - Cured in Place Pipe Lining

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>

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

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109736.html>

- ENV 49. Customer Service Calls (Water)

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=109792.html>

Personnel Changes

- NA

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: TConnor

Lead Department: Utilities Strategic Planning



9.44: CAPITAL REPLACEMENT - Utilities: Wastewater - Cured in Place Pipe Lining

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		600,000	600,000	- %
	570000 - Other	600,000	600,000	- %
	Total Expenses	600,000	600,000	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	600,000	600,000	- %
	Funding Source Total	600,000	600,000	- %



Offer 9.45: CAPITAL REPLACEMENT - Utilities: Wastewater - Water Reclamation and Biosolids

2019: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the capital replacement program for the City's Drake and Mulberry Water Reclamation Facilities and the Meadow Springs Ranch. Capital replacement includes the major maintenance, repair and replacement of aging infrastructure.

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 customers. In 2017, the wastewater treatment facilities treated approximately 15 million gallons of wastewater per day while meeting all state and federal regulatory requirements. Ongoing replacement of critical infrastructure is essential for continuing to meet or exceed all standards.

Replacement projects are systematically identified through master planning and the maintenance management system (Maximo), and are included in the Utilities Capital Improvement Planning and Prioritization process. Capital improvement priorities are determined through established levels of service for quality, reliability, system capacity, regulatory compliance, and efficiency. Performance and targets for established levels of service and assessing the condition of assets drive the priorities of the capital replacement program and the projects outlined in this offer. Capital replacement is ranked as the number-one priority in the Capital Improvement Plan.

Planned projects include, but are not limited to:

- 1) Facility pavement management
- 2) Facility HVAC and Air Handling Unit replacement
- 3) Facility roof management
- 4) Facility High Voltage Transformer replacement
- 5) Secondary process monitoring instrumentation replacement for improved nutrient removal

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information



Offer 9.45: CAPITAL REPLACEMENT - Utilities: Wastewater - Water Reclamation and Biosolids

- The Replacement Program achieves several Strategic Plan objectives by ensuring that the wastewater treatment facilities discharge high quality effluent to protect the watershed and meet all regulatory standards.
- Due to the nature of the wastewater treatment process, the wastewater facilities require a robust maintenance and replacement strategy to maintain required levels of performance and safety. Activities performed at all facilities and work groups pertain directly to the public safety and environmental health of the community. Projects identified are necessary to maintain regulatory compliance.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: 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. If the facility is not adequately maintained and it leads to a violation, then the City could face fines of up to \$10,000 per violation per day.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: This offer directly addresses and funds the facility's maintenance and replacement program. The offer provide reliable, cost effective equipment that will be maintained to prevent less than optimal operation of the wastewater treatment facilities.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: This offer will directly address the infrastructure needs of the wastewater treatment facilities and will provide clean treated water that meets all regulatory requirements and maintains river health.

Improvements & Efficiencies

- Energy Efficiency - through optimization of the wastewater treatment facility we have demonstrated the ability to optimize air control which will drive down energy use and associated costs. This metric is measured by tracking kWh used / million gallon of wastewater treated.
- Infrastructure improvement - addressing issues such as facility paving and building roofs as identified in the master plan condition assessment.
- Replacement of high voltage transformers will provide increased electrical reliability for critical infrastructure. Replacement also allows increased opportunity to maintain equipment - current equipment is not supported.



Offer 9.45: CAPITAL REPLACEMENT - Utilities: Wastewater - Water Reclamation and Biosolids

- Improved nutrient removal and process control - optimizing process instrumentation and controls will improve staff's ability to efficiently remove as much nutrient (N and P) through the N cycle and P cycle as the treatment train can. This metric is measured by wastewater treatment effectiveness and total costs / million gallons wastewater treated.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=362326.html>
- ENV 119. Reliability: Water Reclamation Asset Renewal/Replacement Rate
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=362327.html>

Personnel Changes

- NA

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: CWebb

Lead Department: Utilities Strategic Planning



9.45: CAPITAL REPLACEMENT - Utilities: Wastewater - Water Reclamation and Biosolids

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 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 9.46: CAPITAL REPLACEMENT - Utilities: Wastewater - Pollution Control Lab Instrumentation

2019: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$50,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This is a request for non-lapsing capital replacement dollars to replace critical instrumentation used at the Pollution Control Lab (PCL) 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 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 quality, reliability, system capacity, regulatory compliance and efficiency. Performance and targets for established levels of service and the assessing the condition of assets drive the priorities of the capital replacement program.

The Pollution Control Lab Instrumentation Replacement Program is included in the Utilities Capital Improvement Planning and was identified as high priority need for the Wastewater Fund because the wastewater treatment facilities rely on the PCL to perform process monitoring and required state testing of its processes and regulated 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, such as gas (GC) and ion (IC) chromatographs, low level mercury analyzers, inductively-coupled plasma (ICP) metal analyzers, and ICP-MS metal analyzers.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed
- ENV 4.7 - Continually improve environmental regulatory performance
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility

Additional Information



Offer 9.46: 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.
- 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.

Links to Further Details:

- [Utilities Website for Pollution Control Lab -
https://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab](https://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab)
- [Utilities website for the Lower Poudre Monitoring Alliance, supported by the PCL -
http://www.fcgov.com/utilities/what-we-do/water/water-quality/lower-poudre-monitoring](http://www.fcgov.com/utilities/what-we-do/water/water-quality/lower-poudre-monitoring)
- [Utilities website highlighting the Lower Poudre Monitoring Alliance recognition by EPA -
http://www.fcgov.com/utilities/img/site_specific/uploads/pmp-article-epa.pdf](http://www.fcgov.com/utilities/img/site_specific/uploads/pmp-article-epa.pdf)

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: 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 4.7 - Continually improve environmental regulatory performance: The PCL provides critical analytical services to ensure that the wastewater facilities meet all regulatory requirements. Data generated by the PCL meets strict guidelines for quality and must be reported monthly to the State to meet reporting requirements. In addition, the laboratory provides analytical testing to support wastewater treatment process testing and optimization.
- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: 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



Offer 9.46: CAPITAL REPLACEMENT - Utilities: Wastewater - Pollution Control Lab Instrumentation

- 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.
- 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://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 128. Number of New Recorded Environmental Compliance Violations
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=523858.html>

Personnel Changes

- NA

Differences from Prior Budget Cycles

- This offer provides a continuation of funding to replace aging analytical instruments at the Pollution Control Lab.

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: Utilities Strategic Planning



9.46: CAPITAL REPLACEMENT - Utilities: Wastewater - Pollution Control Lab Instrumentation

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 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				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	50,000	50,000	- %
	Funding Source Total	50,000	50,000	- %



Offer 9.47: CAPITAL REPLACEMENT - Utilities: Maple St. and Pearl St. Wastewater Main

2019: \$587,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will replace wastewater infrastructure in Maple and Pearl streets.

The project will replace aging wastewater infrastructure with new infrastructure that meets current standards. The Wastewater Collection Master Plan identified this project as a high priority based on the pipe condition and serviceability.

The wastewater collection system provides reliable and safe conveyance of wastewater to the City's wastewater plants for treatment prior to release into the environment. Televised inspection of these mains rates the condition of the pipe as "Moderate" or "Severe." In addition, the pipe does not meet the minimum size required for effective system maintenance. The condition and serviceability of the pipe impacts the system's ability to convey wastewater to the treatment plants. If not addressed, increased maintenance costs and potentially backups are a risk in this area.

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

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information

- Not applicable

Links to Further Details:

- <https://www.fcgov.com/utilities/what-we-do/wastewater>
- <https://www.fcgov.com/utilities/what-we-do/wastewater/collection/construction-projects>
- <https://www.fcgov.com/utilities/what-we-do/water/water-quality/water-and-wastewater-master-plan>

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)



Offer 9.47: CAPITAL REPLACEMENT - Utilities: Maple St. and Pearl St. Wastewater Main

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: The wastewater mains in this area do not meet minimum size, are made of clay, and contain damaged pipe. These mains need to be replaced to prevent blockages and backups for improved regulatory performance.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: The wastewater mains in this area do not meet minimum size, are made of clay, and contain damaged pipe. These mains need to be replaced to maintain levels of service such as reliability and capacity.

Improvements & Efficiencies

- The project will be replacing aging infrastructure with new infrastructure that meets current standards. The new infrastructure will greatly improve the pipe capacity and system maintenance.

Performance Metrics

- ENV 70. Blockages Cleared (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>
- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109736.html>

Personnel Changes

- NA

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

CPIO edits

Offer Profile

Offer Owner: TConnor

Lead Department: Utilities Strategic Planning



9.47: CAPITAL REPLACEMENT - Utilities: Maple St. and Pearl St. Wastewater Main

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		587,000	-	- %
	570000 - Other	587,000	-	- %
	Total Expenses	587,000	-	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	587,000	-	- %
	Funding Source Total	587,000	-	- %



Offer 9.48: CAPITAL REPLACEMENT - Utilities: Wastewater - North College Wastewater Improvements

2019: \$206,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$711,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will replace wastewater infrastructure on the east side of North College Avenue.

The project will replace aging wastewater infrastructure with new infrastructure that meets current standards. The Wastewater Collection Master Plan identified this project as a high priority based on the pipe condition and inflow/infiltration. This project will span two years with design in 2019 and construction in 2020.

The wastewater collection system provides reliable and safe conveyance of wastewater to the City's wastewater plants for treatment prior to release into the environment. Televised inspection of these mains rates the condition of the pipe as "Moderate" or "Severe." In addition, flow monitoring data indicates excessive inflow and infiltration to the wastewater system in this area, which can impact conveyance and treatment capacity. The condition of the pipe impacts the system's ability to convey wastewater to the treatment plants. If not addressed, increased maintenance costs and potential backups are a risk in this area.

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

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information

- In addition to the pipe condition and inflow and infiltration concerns, North College is rapidly redeveloping. It is important to replace this system prior to redevelopment.

Links to Further Details:

- <https://www.fcgov.com/utilities/what-we-do/wastewater/collection/construction-projects>
- <https://www.fcgov.com/utilities/what-we-do/wastewater>
- <https://www.fcgov.com/utilities/what-we-do/water/water-quality/water-and-wastewater-master-plan>



Offer 9.48: CAPITAL REPLACEMENT - Utilities: Wastewater - North College Wastewater Improvements

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: The wastewater mains in this area are in "moderate" and "severe" condition and high inflow and infiltration. These mains need to be replaced to prevent blockages and backups for improved regulatory performance.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: The wastewater mains in this area are in "moderate" and "severe" condition and high inflow and infiltration. These mains need to be replaced to maintain levels of service such as reliability and capacity.

Improvements & Efficiencies

- The project will be replacing aging infrastructure with new infrastructure that meets current standards. The new infrastructure will greatly improve the pipe capacity and system maintenance.

Performance Metrics

- ENV 70. Blockages Cleared (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>
- ENV 63. System Improvement (LF of Pipe Improved) (Wastewater)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109736.html>

Personnel Changes

- NA

Differences from Prior Budget Cycles

- Not applicable

Explanation of Any Adjustments to Personnel Costs using object 519999

- N/A

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

CPIO edits

Offer Profile

Offer Owner: TConnor

Lead Department: Utilities Strategic Planning



9.48: CAPITAL REPLACEMENT - Utilities: Wastewater - North College Wastewater Improvements

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		206,000	711,000	245.1%
	570000 - Other	206,000	711,000	245.1%
	Total Expenses	206,000	711,000	245.1%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	206,000	711,000	245.1%
	Funding Source Total	206,000	711,000	245.1%



Offer 9.56: ENHANCEMENT: CAPITAL - Utilities: Wastewater - DWRF Dewatering HVAC Replacement

2019: \$0 and 0.00 FTE, 0.00 Hourly FTE

2020: \$656,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds HVAC (air handling) improvements at the Drake Water Reclamation Facility (DWRF) in the dewatering process building. DWRF is one of two wastewater facilities owned and managed by Fort Collins Utilities. DWRF provides all of the community's wastewater solids treatment including the Mulberry Water Reclamation Facility (MWRF) solids, through anaerobic digestion and dewatering to produce regulatory-compliant biosolids safe for land application at Meadow Springs Ranch.

The dewatering process building is where treated solids are dewatered using centrifuges (2017/2018 BFO Offer 6.52) to achieve an acceptable percentage of solid content to be transported and hauled for land application. During the dewatering process air emissions can create a unsafe working condition for staff if adequate infrastructure is not maintained and replaced at end of life. The air emissions of particular concern are ammonia and hydrogen sulfide. The majority of these air handling systems were installed in the mid-1980s.

As part of the recently completed Water Reclamation Facility Master Plan (2017/2018 BFO Offer 6.54) an infrastructure and equipment condition assessment was completed. The assessment identified the HVAC in the dewatering building in the range from fair to poor with several areas in the building resulting in very poor ventilation and significant odors. In addition, the report states that some of newer equipment may be salvageable but the majority will need to be replaced with an overall rating of Level 5, meaning immediate replacement is recommended.

This offer includes an initial engineering study to identify optimal airflow design, and will include but may not be limited to two air handling units, one makeup air unit, and one condensing unit along with hot water piping modifications, significant duct modifications and curb adapters.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- HPG 7.5 - Foster a culture of safety and wellbeing across the City organization

Additional Information

- Not applicable



Offer 9.56: ENHANCEMENT: CAPITAL - Utilities: Wastewater - DWRF Dewatering HVAC Replacement

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer is not scalable.

The existing quote project costs will utilize and salvage existing newer equipment where possible.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: The dewatering of treated biosolids is a regulatory requirement to meet land applications requirements.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: Improving the infrastructure in wastewater will improve the safety and protection of staff, property, and environment by properly managing air emissions from dewatering process.
- HPG 7.5 - Foster a culture of safety and wellbeing across the City organization: Employee safety is priority #1. Wastewater treatment is serves a critical role to the community and staff must have safe working conditions to provide this core service.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 119. Reliability: Water Reclamation Asset Renewal/Replacement Rate
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=362327.html>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=362326.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- No additional personnel costs

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



***Offer 9.56: ENHANCEMENT: CAPITAL - Utilities: Wastewater - DWRP
Dewatering HVAC Replacement***

CPIO edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.56: ENHANCEMENT: CAPITAL - Utilities: Wastewater - DWRF Dewatering HVAC Replacement

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
<hr/>				
Expenses				
579000 - Other		-	656,000	- %
	570000 - Other	-	656,000	- %
	Total Expenses	-	656,000	- %
<hr/>				
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	-	656,000	- %
	Funding Source Total	-	656,000	- %



Offer 9.62: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Carbon Addition Phase 1

2019: \$1,700,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer is to fund infrastructure needed to safely receive, store and feed an external carbon source for regulatory compliant wastewater treatment.

The Drake Water Reclamation Facility operates under a National Pollutant Discharge Elimination System (NPDES) permit. The objective of NPDES permits are to minimize, if not eliminate, water pollution from point sources such as wastewater facilities. DWRF has two NPDES permits that enable the facility to discharge either to Fossil Creek Ditch or to the Cache la Poudre river. The permits are different based on water quality assessments and potential overall impacts to each of those receiving bodies.

Currently, the driving regulatory priority is removing nitrogen (N) and phosphorus (P) to meet overall water quality concerns in the environment related to competing oxygen demand on receiving streams and natural environments. As such, DWRF has a NPDES required regulatory schedule to treat wastewater to <1.0 for P and <15.0 for N prior to discharging to either the Cache la Poudre River or Fossil Creek Ditch. DWRF is meeting the N limit. The P requirement is effective as of Jan. 1, 2021 and currently DWRF cannot consistently achieve <1.0 mg/L P limit.

A major reason why DWRF cannot meet the P limit is due to a lack of carbon in the wastewater process. Volatile Fatty Acids found in various forms of carbon, when optimized, will facilitate P removal. This project will provide assurances for supplying a consistent carbon source to meet permit regulations. DWRF staff have also partnered with local breweries to address the carbon need but currently there is not a consistent supply that is reliable to meet regulatory requirements.

The project will include two 2,500 gallon tanks for acetic acid, three peristaltic feed pumps, piping for delivery to wastewater process, building HVAC improvements, electrical improvements and a new building roof.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment

Additional Information



Offer 9.62: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Carbon Addition Phase 1

- Not applicable

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

Roofing costs could be delayed which would save ~\$50,000.00

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: This project is necessary to maintain regulatory compliance and to be good stewards of the community watersheds.
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: This offer will assist in improvement of the water quality associated with the lower stretches of the Cache la Poudre River.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: Wastewater infrastructure needs to maintain the public and environmental health of the community.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

CPIO edits

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.62: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Carbon Addition Phase 1

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		1,700,000	500,000	-70.6%
	570000 - Other	1,700,000	500,000	-70.6%
	Total Expenses	1,700,000	500,000	-70.6%
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	1,700,000	500,000	-70.6%
	Funding Source Total	1,700,000	500,000	-70.6%



Offer 9.63: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Headworks Capital Project Design

2019: \$0 and 0.00 FTE, 0.00 Hourly FTE

2020: \$800,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer is to design of the Drake Water Reclamation Facility (DWRf) headworks and operational assets. DWRf is the largest City wastewater facility with a rated capacity of 23 MGD. DWRf also treats all solids from the Mulberry Water Reclamation Facility (MWRf) for regulatory compliance. The DWRf headworks provides the first stages of the treatment process and sets up later processes for success or failure with regulatory compliance. The treatment quality in the beginning processes directly relates to the final permitted effluent quality prior to being discharged to the environment.

The headworks includes a hauled waste receiving station that provides a critical customer service interface with companies such as Gallegos Sanitation and Waste Management. Odor control measures at the headworks are a critical component to help address customer service issues and increased neighbors.

Aging infrastructure and equipment such as HVAC, barscreens, wash presses, high voltage transformers and switch gear will be included. Current equipment being used does not adequately remove pollutants in the first two stages and, as a result, the later stages of treatment are impacted. An example, is trash and getting through to newer UV.

As part of the 2017 Water Reclamation Facility Master Plan, a condition assessment was completed and provided integrity ratings in the areas of mechanical, electrical, structural, HVAC and EI&C. The condition assessment rated the overall headworks a 4, meaning poor with likely failures in short-term and substantial work required to remain safe, and are deemed barely serviceable. Specific equipment needs include but are not limited to the replacement bar screens, washer/compactor/conveyor, grit classifier and screen presses.

This offer is for adequate funding to design a headworks that addresses the issues identified in the Master Plan and condition assessment with the plan to bring a headworks enhancement project as part of the 2021/2022 BFO cycle.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment



Offer 9.63: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Headworks Capital Project Design

Additional Information

- Not applicable

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer is not scaleable at 800K. The design will generate potential projects and phasing options that then may produce scaleable options in future BFO cycles. The total estimated construction cost for the construction is 6 million dollars.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: Headworks and the initial stages of wastewater treatment is driven by regulations with regards to hydraulic and organic loading. Improving this aging infrastructure will also provide optimal process conditions for downstream treatment process to operate efficiently (UV and anaerobic digestion).
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: This offer is for the design of major infrastructure replacement so the utility can adequately predict and manage capital projects with predictable rates.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: A wastewater headworks is the link between the collection system and wastewater treatment facilities. Properly addressing and managing the headworks will protect other wastewater assets (collection system) and stormwater infrastructure. It will also address odor concerns and help alleviate potential residential backup issues.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 117. Reliability: Biosolids Produced per MGD
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=351150.html>
- ENV 118. Reliability: Water Reclamation Planned-Corrective Maintenance Ratio



Offer 9.63: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Headworks Capital Project Design

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=362326.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

Narrative updated to reflect comments from EH team around early treatment processes and their impact to later treatment and overall effluent quality. Total anticipated construction costs were added to the scalability section.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.63: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Facility Headworks Capital Project Design

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		-	800,000	- %
	570000 - Other	-	800,000	- %
	Total Expenses	-	800,000	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	-	800,000	- %
	Funding Source Total	-	800,000	- %



Offer 9.64: ENHANCEMENT: CAPITAL - Utilities: Wastewater/Water - New Pollution Control and Water Quality Lab 30% Design

2019: \$1,000,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the preparation of a 30% engineering design for a consolidated Water Quality (WQL) and Pollution Control (PCL) laboratory facility.

Conceptual construction estimates range from \$16-20 million.

The construction of a new combined water quality laboratory was identified through the 2017-2018 WQL/PCL Capital Project Master Planning process, as having a high cost-benefit for Utilities compared to repairing or replacing the existing facilities. Currently, the two labs provide analytical services for water and wastewater treatment, drinking water analysis, and monitoring local mountain watersheds and surface waters. The scope of services is not affected by facility consolidation.

A new combined water quality laboratory will be designed to meet current and future demand for analytical services from City operations as well as external customers. It will be designed with the goals of enabling the labs to meet industry performance and accreditation standards, enhancing workflows, improving employee health and safety protections, and promoting organizational efficiency.

The purpose of a 30% design for a consolidated laboratory is to further define the budget for final design and construction. Specifically, the 30% design will include the following:

- Definition of project purpose, goals, objectives and strategy
- Project schedule and timeline
- Design criteria development and data collection
- In-depth description of alternatives and cost estimates
- Documentation of project design decisions and deliverables
- Preliminary technical specification review and development
- Acquisition of required permits
- Conceptual drawings of structure/frame with utilities and foundation
- Identification of other City departments and entities that require consultation

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- ✓ ENV 4.7 - Continually improve environmental regulatory performance



Offer 9.64: ENHANCEMENT: CAPITAL - Utilities: Wastewater/Water - New Pollution Control and Water Quality Lab 30% Design

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 regulatory compliance and conducts surface water monitoring on the lower Poudre river and the City's urban creeks.
- The Utilities Watershed Program, also to be housed in a future combined lab facility, provides critical monitoring of the City's raw drinking water supplies (Horsetooth Res., Poudre River), monitoring for water supply projects like Halligan and Rigden Reservoirs, in addition to implementing the City's Source Water Protection plan. This program relies on analytical services of the WQL and PCL.
- 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".
- A new facility will ensure the labs are able to meet current and future industry performance and accreditation standards, including regulatory compliance testing and reporting requirements.
- A well-designed laboratory offers workspaces that are properly designed, appropriately sized, with protection against cross-contamination, loss of utilities, or other infrastructure failure. A new facility also offers significant improvements in workflow, workgroup management and enhanced levels of customer service.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer is not scalable. A 30% engineering design provides the minimum required information needed to plan for future capital investment.

Links to Further Details:

- [Utilities website link to Water Quality Lab - http://www.fcgov.com/utilities/what-we-do/water/water-quality](http://www.fcgov.com/utilities/what-we-do/water/water-quality)
- [Utilities website link to Pollution Control Lab - https://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab](https://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab)
- [Utilities website link to Watershed Program - https://www.fcgov.com/utilities/what-we-do/water/water-quality/source-water-monitoring](https://www.fcgov.com/utilities/what-we-do/water/water-quality/source-water-monitoring)



Offer 9.64: ENHANCEMENT: CAPITAL - Utilities: Wastewater/Water - New Pollution Control and Water Quality Lab 30% Design

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- HPG 7.8 - Maintain assets to reduce lifecycle costs while improving reliability and accessibility: The two existing laboratories are aged and require significant maintenance and replacement to maintain the current levels of service. This offer supports future planned construction of a combined water quality laboratory, as identified in the 2017 WQL / PCL Labs Master Plan.
- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: A safe, modern and well-designed laboratory ensures that the labs are able to maintain necessary accreditations and to provide the high quality analysis and reporting services for the drinking water treatment and wastewater treatment facilities into the future.
- ✓ ENV 4.7 - Continually improve environmental regulatory performance: 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.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

Updated to conceptual construction costs.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.64: ENHANCEMENT: CAPITAL - Utilities: Wastewater/Water - New Pollution Control and Water Quality Lab 30% Design

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		1,000,000	-	- %
	570000 - Other	1,000,000	-	- %
	Total Expenses	1,000,000	-	- %
Funding Sources				
502-Water Fund: Ongoing Revenue	Ongoing Restricted	500,000	-	- %
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	500,000	-	- %
	Funding Source Total	1,000,000	-	- %



**Offer 9.66: ENHANCEMENT: 1.0 FTE Utilities:
Wastewater/Water/Stormwater - Water Field Operations Manager**

2019: \$177,424 and 1.00 FTE, 0.00 Hourly FTE

2020: \$165,401 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will create a much needed management position within Water Engineering and Field Services for a Water Field Operations Manager.

Water Field Operations (WFO) consists of field crews for Water, Wastewater, and Stormwater. The division is responsible for operations and maintenance of critical assets including 550 miles of water mains, 35,000 water meters, 450 miles of wastewater mains, 177 miles of storm sewers and more than 500 open channels and detention ponds. The division is also responsible for asset replacement and repair crews for water, wastewater and stormwater. With more than 60 employees, this division is on the front line of maintaining reliable high quality water, wastewater, and stormwater service 24/7.

In recent years, the four superintendents overseeing these crews have reported to the Service Unit Manager for Water Engineering and Field Services. As the Service Unit Manager transitions to a more strategically focused role as a Deputy Director, there's a strong need for a Water Field Operations Manager with an increased focus on operational efficiency, asset management, a cultural of safety and increased customer service. The four superintendents would report directly to this position, providing a higher level of management support to these critical roles.

The ongoing deployment of Utilities' Computerized Maintenance Management System (CMMS) for Water, Wastewater and Stormwater is a major shift in the approach to operations, maintenance, scheduling and tracking Utilities' assets. This position will lead the change management efforts necessary to successfully implement the CMMS throughout all levels of Water Field Operations. In addition, this position will be responsible for developing and maintaining the maintenance strategies to fully optimize the operational efficiencies made available by this new system.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- ENV 4.7 - Continually improve environmental regulatory performance
- ✓ ENV 4.6 - Provide a reliable, high-quality water supply

Additional Information

- In 2017, wastewater operations crews cleaned 1.7 million feet of wastewater mains and inspected 260,000 feet of wastewater main with close circuit television.



Offer 9.66: ENHANCEMENT: 1.0 FTE Utilities:

Wastewater/Water/Stormwater - Water Field Operations Manager

- In 2017, stormwater operations crews cleaned 44,000 feet of storm sewers and inspected 93,000 feet of storm sewer with closed circuit television.
- In 2017, water field crews repaired 98 main breaks necessary to restore water service to customers.
- Water Field Operations asset replacement program replaced 9,600 feet of water mains, 9,000 feet of wastewater mains, and 894 ? feet of storm sewer in 2017.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$150,000

Scalability and explanation

This Offer can not be scaled because the Water Field Operations Division is a 24 hour 7 days per week operation that requires full time management.

Links to Further Details:

- <https://www.fcgov.com/utilities/what-we-do/wastewater>
- <https://www.fcgov.com/utilities/what-we-do/water>
- <https://www.fcgov.com/utilities/what-we-do/stormwater>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: This position will oversee the replacement programs for water, wastewater, and stormwater to maintain levels of service for reliability, capacity, quality, and efficiency.
- ENV 4.7 - Continually improve environmental regulatory performance: This position will be responsible for process improvements for operations and maintenance to continually improve environmental regulatory performance.
- ✓ ENV 4.6 - Provide a reliable, high-quality water supply: This position will be responsible for replacement, maintenance, and operations of the water distribution system such as response to main break, hydrant flushing, leak detection, and asset management. These activities are critical to maintaining reliable, high quality water supply.

Performance Metrics

- ENV 50. Repairs - Water Main Break Repairs (Water)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=109793.html>



Offer 9.66: ENHANCEMENT: 1.0 FTE Utilities:

Wastewater/Water/Stormwater - Water Field Operations Manager

- ENV 70. Blockages Cleared (Wastewater)

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>

- SAFE 86. CRS (Community Rating System) Rating for floods

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7721&object=measure&objectId=523970.html>

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: TConnor

Lead Department: Utilities Strategic Planning



9.66: ENHANCEMENT: 1.0 FTE Utilities: Wastewater/Water/Stormwater - Water Field Operations Manager

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change	
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %	
Hourly (FTE)	-	-	- %	
Expenses				
511000 - Salaries & Wages	91,936	113,633	23.6%	
512000 - Benefits	38,488	48,768	26.7%	
510000 - Personnel Services	130,424	162,401	24.5%	
559000 - Other Supplies	20,200	3,000	-85.1%	
550000 - Supplies	20,200	3,000	-85.1%	
565000 - Vehicles & Equipment	26,800	-	- %	
560000 - Capital Outlay	26,800	-	- %	
Total Expenses	177,424	165,401	-6.8%	
Funding Sources				
502-Water Fund: Ongoing Revenue	Ongoing Restricted	59,982	56,009	-6.6%
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	58,821	54,696	-7.0%
504-Stormwater Fund: Ongoing Revenue	Ongoing Restricted	58,621	54,696	-6.7%
Funding Source Total		177,424	165,401	-6.8%



Offer 9.69: ENHANCEMENT: Utilities: Wastewater/Stormwater - Regulatory Water Quality Monitoring Study (bacteriological)

2019: \$75,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$75,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds a two-year study to evaluate potential sources of Escherichia coli (E. coli) in urban streams, actively engage in the process for impaired water bodies and identify potential human-related source contributions that could be eliminated to improve water quality.

The Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division, has initiated a process to develop an E. coli Total Maximum Daily Load (TMDL) for the Poudre River and its local tributaries (Spring Creek, Fossil Creek and Boxelder Creek). TMDL is the amount of pollutant that can enter a waterbody and still meet water quality standards. This waste load allocation will be derived after CDPHE sampling is completed. The TMDL may have significant financial and operational impacts to both the Municipal Separate Storm Sewer System (MS4) Permit and the City's two wastewater treatment permits. In some urban areas across the U.S., multi-million or billion-dollar implementation plans have been developed to meet TMDL requirements; thus, substantial benefits may be gained by studies that help the City engage in the TMDL process in an informed way and proactively remove E. coli sources.

By funding this offer a qualified consultant will be hired to work with City staff to:

- Conduct a desktop analysis to evaluate existing data and practices.
- Identify and understand sources of E. coli in the Poudre River and its tributaries in Fort Collins.
- Develop a control strategy progressing from dry-weather to wet-weather screening, focusing on human-related sources of bacteria.
- Inventory current source-control practices that the City is using and identify alternative/supplemental practices the City should consider for reducing E. coli loading.
- Evaluate structural control practices that can reduce dry-weather and wet-weather E. coli loading to streams.
- Evaluate hydrology used to draft the TMDL to ensure it is supported by existing data.
- Review CDPHE's draft TMDL to ensure it contains adaptive management language.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- ENV 4.7 - Continually improve environmental regulatory performance
- ✓ ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed

Additional Information



Offer 9.69: ENHANCEMENT: Utilities: Wastewater/Stormwater - Regulatory Water Quality Monitoring Study (bacteriological)

- As of 2016, approximately 70 stream segments in Colorado are identified as impaired or in need of additional monitoring and evaluation due to elevated E. coli concentrations relative to recreational water quality standards. By engaging in a study in parallel with the CDPHE monitoring program, the City will position itself to proactively address the potential operational impacts from the TMDL
- Both the City of Boulder and the City and County of Denver engaged in costly source tracking studies and water quality improvement plans after being issued total maximum daily load (TMDL) limit for E. coli in local streams.
- This offer will provide funding for \$75,000 in technical consultation in each year.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer could be scaled back, through an evaluation of tasks that could potentially be accomplished by internal City staff. Currently, all staff with the expertise to address this study are at full capacity and any reduction in this offer that required internal staff to take on responsibilities would include an evaluation of "stop-doing" in other critical areas. A reduction below \$50,000/year would not adequately support any effort that will result in a valuable outcome.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: One aspect of this study will be to conduct dry weather screening of City infrastructure to determine existence of wastewater/stormwater cross-connections. Identification and repair of these areas will improve our protection of people, property, and the local environment.
- ENV 4.7 - Continually improve environmental regulatory performance: A TMDL developed by the State will translate to legal obligations in the City's MS4 Permit and water reclamation facility discharge permits. This study will provide proactive strategies for address these requirements.
- ✓ ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: Representative sources of fecal indicator bacteria in urbanized areas in Colorado may include sanitary sewer overflows, wet weather (stormwater) discharges from MS4s , and sewer leaks into and illicit connections to storm sewer systems. This study will provide the City will critical data and information to develop strategies for improving the health of our watershed.



***Offer 9.69: ENHANCEMENT: Utilities: Wastewater/Stormwater -
Regulatory Water Quality Monitoring Study (bacteriological)***

Performance Metrics

- ENV 128. Number of New Recorded Environmental Compliance Violations
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=523858.html>

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: Utilities Strategic Planning



9.69: ENHANCEMENT: Utilities: Wastewater/Stormwater - Regulatory Water Quality Monitoring Study (bacteriological)

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
521000 - Professional & Technical		75,000	75,000	- %
520000 - Purchased Prof & Tech Services		75,000	75,000	- %
Total Expenses		75,000	75,000	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	37,500	37,500	- %
504-Stormwater Fund: Ongoing Revenue	Ongoing Restricted	37,500	37,500	- %
Funding Source Total		75,000	75,000	- %



Offer 9.70: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Pollution Control Lab Repairs

2019: \$225,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds replacement of critical building infrastructure within the Pollution Control Laboratory (PCL).

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

Replacement priorities are determined using established levels of service for sustainability, product quality, product availability, reliability, regulatory compliance, customer satisfaction and safety. Performance targets for established levels of service and assessing the asset conditions drive the priorities of the capital replacement program.

The PCL Capital Replacement Project is included in the Utilities Capital Improvement Planning and Prioritization process and was ranked high priority for the Wastewater Fund. The PCL, originally constructed in 1974, was included in the Asset Management Program for the first time in 2018. Consequently, substantial repair and replacement is needed.

Replacement needs were identified in the PCL Condition Assessment as part of the 2017 Water Quality/Pollution Control Laboratory Master Plan. Identified repairs have been prioritized to occur over the next five years. The following were identified as Phase 1 - the most critical and urgent repairs necessary for maintaining a safe and functioning laboratory until a new combined laboratory facility can be constructed:

- Electrical system repairs, including conduit replacement and surge protection for lab computers, equipment and analytical instruments
- Backflow prevention to protect laboratory from sanitary sewer back-ups
- Building exterior and minor roof repairs to prevent water from leaking into the building and damaging equipment, walls and interior surfaces

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.7 - Continually improve environmental regulatory performance
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates
- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed



Offer 9.70: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Pollution Control Lab Repairs

Additional Information

- The PCL is authorized by the Colorado Department of Health & Environment (CDPHE) to perform and report discharge permit regulatory compliance test results and directly supports the Utilities' two wastewater treatment facilities, the Industrial Pre-treatment and Biosolids Recovery programs.
- The PCL also performs fee-based water quality testing and reporting for other regional wastewater dischargers, which generates revenue for the City. Laboratory replacement funds would help maintain a work environment that helps the PCL maintain its certification, while providing accurate, timely testing and reporting services for customers.
- The safety of laboratory workers and the quality of analytical services depend on the availability of reliable, uninterrupted power supply, continuous refrigeration, adequate ventilation, and plumbing/disposal systems. This offer will help ensure workers have access to safe and functional laboratory workspaces until the time that a new laboratory facility is constructed.
- A maintenance and repair plan that address 5-year priority needs in a phased approach demonstrates financial stewardship by minimizing the chances that unexpected and potentially more expensive repairs will be needed in the near future and helps ensure that the building can be repurposed, when needed. This offer will ensure completion of Phase I repairs – the highest priority repairs.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

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:

- [Utilities website link to the role of the Pollution Control Lab - https://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab](https://www.fcgov.com/utilities/what-we-do/wastewater/treating-wastewater/pollution-control-lab)

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.7 - Continually improve environmental regulatory performance: This offer will ensure the continued testing and reporting support for water reclamation facility regulatory discharge permit compliance.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: This offer directly addresses the management, maintenance, and improvements to the City's wastewater assets.



Offer 9.70: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Pollution Control Lab Repairs

- ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: River monitoring, testing and reporting conducted by the PCL helps maintain water quality on the Poudre River at levels that support State of Colorado's designated uses.

Performance Metrics

- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>
- ENV 128. Number of New Recorded Environmental Compliance Violations
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=523858.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

Ignore

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.70: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Pollution Control Lab Repairs

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		225,000	-	- %
	570000 - Other	225,000	-	- %
	Total Expenses	225,000	-	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	225,000	-	- %
	Funding Source Total	225,000	-	- %



Offer 9.72: ENHANCEMENT; Utilities: Wastewater/Water/Stormwater - Engineering Support to Maintain Levels of Service

2019: \$246,650 and 0.00 FTE, 0.00 Hourly FTE

2020: \$246,650 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will support the engineering functions for Water, Wastewater and Stormwater projects to maintain existing levels of service.

Water Engineering and Field Services provides engineering functions related to capital project management, master planning, development review and floodplain administration. Support for these functions includes two categories: 1) as-needed professional services and 2) Capital Project staff support.

Professional Services - \$145,000

Capital Project Staff Support - \$101,650

As-needed professional services includes: design and analysis for maintenance projects, investigating drainage complaints, land appraisals associated with regional facilities as part of development proposals, surveying, revisions to standard specifications, and facilitation for team-building and process improvements. These services are typically needed to support projects that are not tied to a specific capital project and to respond to unanticipated needs. These services have historically been funded through underspending in other areas or billed to a specific capital project.

Support for capital project staff includes items such as: training, office supplies, computers and safety gear. Historically these items were billed to a specific capital project. This proposed change in practice will provide a more accurate representation of the cost of capital assets.

This enhancement creates a stand-alone budget for these needs while maintaining existing levels of service.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates
- ✓ ENV 4.7 - Continually improve environmental regulatory performance

Additional Information

- Not applicable



Offer 9.72: ENHANCEMENT; Utilities: Wastewater/Water/Stormwater - Engineering Support to Maintain Levels of Service

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$246,650

Scalability and explanation

This Offer could be scaled by reducing levels of services for Professional Services or by billing capital project staff support to a capital project.

Links to Further Details:

- <https://www.fcgov.com/utilities/what-we-do/wastewater>
- <https://www.fcgov.com/utilities/what-we-do/water>
- <https://www.fcgov.com/utilities/what-we-do/stormwater>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- SAFE 5.5 - Address water, wastewater and stormwater infrastructure needs for the protection of people, property and the environment: These engineering functions are needed to provide technical expertise for improving Utility infrastructure to meet customer expectations for reliability, capacity, quality, and efficiency.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: These engineering functions are needed to provide technical expertise for maintaining Utility infrastructure to meet customer expectations for reliability, capacity, quality, and efficiency. Proactive maintenance and responding to customer expectations extends the life of critical assets and maintains predictable rates.
- ✓ ENV 4.7 - Continually improve environmental regulatory performance: These engineering functions are needed to provide technical expertise for improving and maintaining Utility infrastructure to meet customer expectations for reliability, capacity, quality, and efficiency. Proactive maintenance and responding to customer expectations improves environmental regulatory performance.

Performance Metrics

- ENV 22. Turbidity of City drinking water
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6344&object=measure&objectId=91491.html>
- SAFE 86. CRS (Community Rating System) Rating for floods
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7721&object=measure&objectId=523970.html>
- ENV 70. Blockages Cleared (Wastewater)



Offer 9.72: ENHANCEMENT; Utilities: Wastewater/Water/Stormwater - Engineering Support to Maintain Levels of Service

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=109767.html>

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: TConnor

Lead Department: Utilities Strategic Planning



9.72: ENHANCEMENT; Utilities: Wastewater/Water/Stormwater - Engineering Support to Maintain Levels of Service

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	-	-	- %	
Expenses				
521000 - Professional & Technical	115,000	115,000	- %	
529000 - Other Prof & Tech Services	40,000	40,000	- %	
520000 - Purchased Prof & Tech Services	155,000	155,000	- %	
533000 - Repair & Maintenance Services	21,000	21,000	- %	
530000 - Purchased Property Services	21,000	21,000	- %	
542000 - Communication Services	8,700	8,700	- %	
544000 - Employee Travel	21,300	21,300	- %	
549000 - Other Purchased Services	2,400	2,400	- %	
540000 - Other Purchased Services	32,400	32,400	- %	
555000 - Office & Related Supplies	27,600	27,600	- %	
556000 - Health & Safety Supplies	4,800	4,800	- %	
559000 - Other Supplies	5,850	5,850	- %	
550000 - Supplies	38,250	38,250	- %	
Total Expenses	246,650	246,650	- %	
Funding Sources				
502-Water Fund: Ongoing Revenue	Ongoing Restricted	80,550	80,550	- %
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	70,550	70,550	- %
504-Stormwater Fund: Ongoing Revenue	Ongoing Restricted	95,550	95,550	- %
Funding Source Total		246,650	246,650	- %



Offer 9.73: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Bio Gas to Cogeneration (Additional Funding)

2019: \$800,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$0 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer provides additional funding to design and construct a cogeneration and gas conditioning system at the Drake Water Reclamation Facility (DWRf). This system will use biogas generated from the wastewater treatment process to generate energy and waste heat, which will be used to supplement on-site electricity and natural gas needs at DWRf.

The key project benefit is an estimated annual reduction of 2,700 metric tons CO₂e of greenhouse gas. A benefit-cost ratio analysis of the project indicates a break-even period of 25 years. With proper maintenance, it is anticipated that the cogeneration units will operate without major replacement for up to 25 years. The cost per ton of CO₂e is approximately \$89.

In addition, the project leverages a partnership with Woodward Governor, who will provide the engines at a reduced cost and provide engineering and operational support. In exchange, Woodward will use the project as an international showcase for similar engine and control applications. Woodward is also strongly committed and motivated to contribute to the Fort Collins community they call home.

\$3.9 million was previously appropriated for this project, however this dollar amount was based on a conceptual design. As designed progressed, it was determined that an additional \$800,000 is needed to deliver the project, primarily due to unrealized site and electrical work.

In addition, the project scope has been updated to two (vs. four) cogeneration units. The reduced scope is based on new information related to future management of food waste in the community. Food waste is now anticipated to be diverted to composting facilities rather than to the wastewater treatment facilities. Consequently, four cogeneration units are not needed.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals
- ENV 4.7 - Continually improve environmental regulatory performance

Additional Information



Offer 9.73: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Bio Gas to Cogeneration (Additional Funding)

- For comparison purposes, other Climate Action Plan related projects have the following impact and cost/ton CO₂e:

Water Treatment Facility Microhydro Project: 375 tons CO₂ - cost of \$118/ton

LED Street Lights: 1000 tons CO₂ - cost of \$48/ton

Light and Power Solar Power Purchase Program: 3400 tons CO₂ - cost of \$98/ton

This project is on par with other CAP projects related to impact and cost.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer is not scalable as it offers the smallest project scope that can be delivered to achieve key benefits.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals: This project addresses air emissions and waste to energy goals and reduces carbon emissions by an estimated 2700 metric tons annually.
- ENV 4.7 - Continually improve environmental regulatory performance: This project would improve regulatory compliance with air emissions permitting. Currently, DWRF flares ~50% of generated biogas. This project would substantially reduce all flared biogas and repurpose for a beneficial use.

Performance Metrics

- ENV 35. Electricity (kilowatt hours) 2020 CAP Goal vs Actual
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6289&object=measure&objectId=303158.html>
- ENV 42. Natural Gas (Ccf) 2020 CAP Goal vs Actual
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6289&object=measure&objectId=303160.html>
- ENV 1. Wastewater Treatment Effectiveness Rate (%)
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6345&object=measure&objectId=267044.html>



Offer 9.73: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation Bio Gas to Cogeneration (Additional Funding)

Explanation of Any Adjustments to Personnel Costs using object 519999

- NA

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

Updated the narrative to reflect change in project scope.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



**9.73: ENHANCEMENT: CAPITAL - Utilities: Wastewater - Drake Water Reclamation
Bio Gas to Cogeneration (Additional Funding)**

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
579000 - Other		800,000	-	- %
	570000 - Other	800,000	-	- %
	Total Expenses	800,000	-	- %
Funding Sources				
503-Wastewater Fund: Ongoing Revenue	Ongoing Restricted	800,000	-	- %
	Funding Source Total	800,000	-	- %



Offer 9.80: Utilities: Light & Power - Energy Services

2019: \$4,392,758 and 11.00 FTE, 1.00 Hourly FTE

2020: \$4,436,927 and 11.00 FTE, 1.00 Hourly FTE

Offer Summary

This offer will fund community energy services programs, including the staffing and resources to deliver annual efficiency and conservation savings. Together with the Energy Efficiency Enhancement offer (9.90), this offer will achieve the Energy Policy annual portfolio savings targets in 2019 and 2020 (2.0% and 2.5% of community electricity use respectively), with funding at the same level as 2017 and 2018. 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
- Energy Services team staffing, supporting implementation for Energy Policy, Renewable Energy and Demand Response initiatives, while also coordinating Utilities' shared efforts with the Climate Action Plan (CAP) and Green Building
- New data warehouse capability in support of Offer 10.15

Savings result in annual carbon emissions reductions of more than 25,000 metric tons annually. Efficiency program savings are delivered 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 foundational to CAP, comprising more than 50% of the savings to reach the 2020 goal.

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 (*the primary objective is marked with a ✓*):

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates



Offer 9.80: Utilities: Light & Power - Energy Services

Additional Information

- This ongoing offer supports the efficiency, renewable energy, demand response and green building objectives of the Energy Policy and Climate Action Plan. The portfolio programs annually serve over 1,000 businesses and tens of thousands of residential customers.
- Funding breakdown: 25% personnel costs, 25% business programs, 40% residential programs, 10% for administrative and other program areas. Includes one contractual staff position titled: Energy Code Compliance Specialist being converted to classified (see Enhancement offer 9.96). This offer also will support new data warehouse capability in support of Offer 10.15 (\$75k in 2019, \$45k in 2020).
- 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.
- 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.
- The programs underwent a process and impact evaluation in 2017 by a third-party evaluation consultant. The results of the evaluation showed that verified results were 105% of reported savings with a community benefit cost ratio of 1.8.

Links to Further Details:

- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy_2.pdf
- https://www.fcgov.com/utilities/img/site_specific/uploads/17-10736_2016_Energy_Policy_Update_Web_1.pdf
- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_Efficiency_Evaluation_Final_Report_Exec_Summary_Dec_2017.pdf

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: Achieve 2020 Energy Policy goals and work toward long-term net zero energy. This offer is essential to meeting the efficiency targets of the Energy Policy while also supporting renewable energy and distributed energy resource management necessary for long-term net-zero energy.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: Tertiary Level: Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals. This offer is essential to meeting the carbon emissions reduction milestones of the Climate Action Plan while also supporting triple bottom line outcomes for residents and businesses.



Offer 9.80: Utilities: Light & Power - Energy Services

- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Maintain electric utility systems, services, and predictable rates. This offer provides services which are consistently ranked as very important to residents and businesses as demonstrated through Utilities customer satisfaction survey.

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 provides efficiency funding for business programs, of which Fort Collins receives an equity share of nearly 50%. Other leveraged funding includes partnership and collaboration with Xcel Energy, Energy Outreach Colorado, Larimer County, Colorado Energy Office, and other grants and award dollars.
- Fort Collins Utilities recently started a collaboration with Xcel Energy to streamline efficiency program participation, which results in high customer satisfaction and increased participation in programs at a reduced cost to Utilities.

Performance Metrics

- ENV 3. Community Energy Use
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91392.html>
- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91396.html>
- ENV 35. Electricity (kilowatt hours) 2020 CAP Goal vs Actual
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6289&object=measure&objectId=303158.html>

Personnel Changes

- This offer includes one full time hourly position which will sunset at the end of 2020.

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



Offer 9.80: Utilities: Light & Power - Energy Services

CPIO edits

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utilities Strategic Planning



9.80: Utilities: Light & Power - Energy Services

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	11.00	11.00	- %
Hourly (FTE)	1.00	1.00	- %
Expenses			
511000 - Salaries & Wages	1,031,200	1,062,146	3.0%
512000 - Benefits	295,072	309,302	4.8%
519000 - Other Personnel Costs	(25,994)	(27,025)	4.0%
510000 - Personnel Services	1,300,278	1,344,423	3.4%
521000 - Professional & Technical	1,169,000	1,169,000	- %
520000 - Purchased Prof & Tech Services	1,169,000	1,169,000	- %
533000 - Repair & Maintenance Services	680	704	3.5%
530000 - Purchased Property Services	680	704	3.5%
542000 - Communication Services	6,000	6,000	- %
544000 - Employee Travel	20,500	20,500	- %
549000 - Other Purchased Services	82,000	82,000	- %
540000 - Other Purchased Services	108,500	108,500	- %
555000 - Office & Related Supplies	9,000	9,000	- %
559000 - Other Supplies	5,300	5,300	- %
550000 - Supplies	14,300	14,300	- %
573000 - Rebates & Incentives	1,800,000	1,800,000	- %
570000 - Other	1,800,000	1,800,000	- %
Total Expenses	4,392,758	4,436,927	1.0%
Funding Sources			
501-Light & Power Fund: Ongoing	4,392,758	4,436,927	1.0%
Ongoing Restricted Revenue			
Funding Source Total	4,392,758	4,436,927	1.0%



Offer 9.81: Utilities: Light & Power - Residential Solar Rebates

2019: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$500,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer supports solar rebates for residential customers and helps achieve the Fort Collins Energy Policy goal of 2% local distributed renewable generation by 2020, the Climate Action Plan (CAP) 2020 Framework Plan and community targets for the Colorado Renewable Energy Standard (RES). This offer funds:

- Solar rebates for residential customers (\$490,000 annually), with up to \$1,500 available per solar system (2018 limit)
- Marketing and communications expenses (\$10,000 annually)

These funding levels currently support installing up to 333 new solar systems and approximately 2,000 kilowatts of new capacity annually. The rebate amounts may need adjustment to maintain program continuity in response to market conditions or program uptake. The rebate typically accounts for 10% or less of the project cost, leveraging the remaining 90% from customer investment. The rebate and funding levels are expected to be able to provide a year-round rebate program for customers and solar contractors, which provides a predictable and stable incentive for regional solar contractors to develop business in Fort Collins.

Residential solar systems account for approximately 50% of the distributed solar capacity (2017). Meeting the Energy Policy distributed renewable energy target in 2020 will require the addition of approximately 10 megawatts of additional solar from 2018 to 2020. This offer is one of several that support solar programs for residential and commercial customers; the combination of offers is designed to meet the 2020 Energy Policy distributed solar target. Residential rooftop solar customers receive full credit for solar energy used internally by the house and are compensated for electricity exported from the house at the current Council-adopted rates.

Funding for the net production payments for residential and commercial net metered customers is \$486,399 in 2019 and \$589,636 in 2020 and is included in Offer 9.82.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

Additional Information



Offer 9.81: Utilities: Light & Power - Residential Solar Rebates

- This ongoing offer supports the renewable energy objectives of the Energy Policy and Climate Action Plan. This offer also supported demonstrated customer interest in residential solar systems.
- Funding breakdown: 98% solar rebates, 2% communications and marketing
- Implementation of these programs also supports key strategic outcomes and objectives within Environmental Health and Economic Health. Utilities reports on progress related to these outcomes with an annual update to City Council.

Links to Further Details:

- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy_2.pdf
- https://www.fcgov.com/utilities//img/site_specific/uploads/17-10736_2016_Energy_Policy_Update_Web_1.pdf
- <https://www.fcgov.com/utilities/residential/renewables/solar-rebates>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: Achieve 2020 Energy Policy goals and work toward long-term net zero energy. This offer is essential to meeting the renewable energy targets of the Energy Policy while also supporting strategies for long-term net-zero energy.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: Tertiary Level: Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals. This offer is essential to meeting the carbon emissions reduction milestones of the Climate Action Plan while also supporting triple bottom line outcomes for residents and businesses.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Maintain electric utility systems, services and predictable rates. This offer supports the tactic of designing and maintaining an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Improvements & Efficiencies

- Staff is coordinating a project to streamline the solar application and permitting processes with the Building Department.
- Staff is working to develop a streamlined path to support solar array development at multifamily housing facilities to leverage both rooftop and covered parking capacity. This will be essential to reaching long range goals of Net Zero Energy capable residential properties with the projected population growth in Fort Collins.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline



Offer 9.81: Utilities: Light & Power - Residential Solar Rebates

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91345.html>

Personnel Changes

- None

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: Irosintoski

Lead Department: Utilities Strategic Planning



9.81: Utilities: Light & Power - Residential Solar Rebates

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	2,500	2,500	- %
520000 - Purchased Prof & Tech Services	2,500	2,500	- %
549000 - Other Purchased Services	7,500	7,500	- %
540000 - Other Purchased Services	7,500	7,500	- %
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 Ongoing Restricted Revenue	500,000	500,000	- %
Funding Source Total	500,000	500,000	- %



Offer 9.82: Utilities: Light & Power - Core Renewable Energy

2019: \$3,428,300 and 0.00 FTE, 0.00 Hourly FTE

2020: \$3,671,500 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds ongoing renewable energy power purchase requirements 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 includes:

- The purchase of 76,000,000 kilowatt-hours of renewable energy under Platte River Power Authority Wholesale Tariff 7 (\$1,992,000 annually). Tariff 7 is comprised of wind energy from Colorado. The energy goes toward voluntary purchases of renewable energy through Utilities' Green Energy Program with the remainder adding to the electricity resource mix for all customers. Revenue from the Green Energy Program offsets the purchased power cost by approximately \$400,000.
- The purchase of electricity output from solar systems via power purchase agreements (PPA) from the Solar Power Purchase Program (SP3), \$1,111,900. The basis of 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." The budget for this item is estimated from 2017 production and planned SP3 projects for 2018.
- Funding for the virtual net metering solar payments to subscribers of the Riverside Community Solar project, \$70,000.
- Funding for the net production payments for residential and commercial net metered customers: \$486,399 in 2019 and 589,636 in 2020. The budget for this item is estimated based on production in 2017 with a forecast of incremental solar installations in 2018 to 2020.

The funding resources provided by this offer support more than 6% of the community's electricity coming from wind and solar renewable energy resources.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

Additional Information

- Not applicable

Links to Further Details:



Offer 9.82: Utilities: Light & Power - Core Renewable Energy

- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy_2.pdf
- https://www.fcgov.com/utilities//img/site_specific/uploads/17-10736_2016_Energy_Policy_Update_Web_1.pdf
- <https://www.fcgov.com/utilities/residential/renewables/>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: Achieve 2020 Energy Policy goals and work toward long-term net zero energy. This offer is essential to meeting the renewable energy and distributed energy targets of the Energy Policy.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: Tertiary Level: Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals. This offer is essential to meeting the carbon emissions reduction milestones of the Climate Action Plan while also supporting triple bottom line outcomes for residents and businesses.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Maintain electric utility systems, services, and predictable rates. This offer provides services which are consistently ranked as very important to residents and businesses as demonstrated through Utilities customer satisfaction survey.

Improvements & Efficiencies

- Utilities is planning for updates to the Green Energy Program in order to offer solar energy in addition to wind (based on 2018 solar procurement plans with Platte River). This will include a new marketing and promotion effort. The results are expected to offset costs funded in this offer through voluntary subscriptions from customers.

Performance Metrics

- ENV 26. Percent renewable energy towards compliance with State Renewable Energy Standards <https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91399.html>
- ENV 25. Total new installed solar capacity (kilowatts) <https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91398.html>

Personnel Changes

- None

Differences from Prior Budget Cycles

- Not applicable



Offer 9.82: Utilities: Light & Power - Core Renewable 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

Oct 2018 Per Council guidance: reduce 2019 by \$140k

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utilities Strategic Planning



9.82: Utilities: Light & Power - Core Renewable Energy

Ongoing Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
557000 - Purchased Power		3,428,300	3,671,500	7.1%
	550000 - Supplies	3,428,300	3,671,500	7.1%
	Total Expenses	3,428,300	3,671,500	7.1%
Funding Sources				
501-Light & Power Fund: Ongoing Revenue	Ongoing Restricted	3,428,300	3,671,500	7.1%
	Funding Source Total	3,428,300	3,671,500	7.1%



Offer 9.83: Utilities: Light & Power - Demand Response

2019: \$629,460 and 0.00 FTE, 0.00 Hourly FTE

2020: \$638,663 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds ongoing operations of Utilities' Demand Response Management System (DRMS). The current demand response system, known as the Peak Partners Program, has more than 3,500 households enrolled with thermostats and electric water heaters, along with a loan program for home energy monitors with the library. Commercial customers are served via an Open ADR communication system.

This offer includes:

- DRMS software, hosting and maintenance
- Call center customer support
- Field service technicians to support maintenance and installation
- Program management and customer communication services for all the above, provided by a third-party company, Itron
- Incentives for multifamily property management companies
- Public electric vehicle charging station customer support

The DRMS dispatches and controls air conditioners and electric water heaters, plus commercial facilities by reducing 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.

The DRMS is evolving to become a Distributed Energy Resource Management System, an innovative and flexible platform to control, manage and dispatch grid resources with a focus on resources that are 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 via scheduled load-shifting activities. Currently, the program delivers avoided power purchases of approximately \$120,000 per year by reducing wholesale demand charges.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates



Offer 9.83: 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 100,000 sessions during 2017.
- In anticipation of upcoming Time of Day rates, 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/peak-partners>
- <https://peakpartnersfortcollins.com/overview>
- https://www.fcgov.com/utilities//img/site_specific/uploads/17-10736_2016_Energy_Policy_Update_Web_1.pdf

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: Achieve 2020 Energy Policy goals and work toward long-term net zero energy. This offer is essential to meeting the distributed energy resource management targets of the Energy Policy while also supporting strategies for long-term net-zero energy.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: Tertiary Level: Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals. This offer supports the infrastructure necessary to meeting the carbon emissions reduction milestones of the Climate Action Plan while also supporting triple bottom line outcomes for residents and businesses.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Maintain electric utility systems, services and predictable rates. This offer supports the tactic of designing and maintaining an electricity distribution infrastructure to facilitate a diverse, efficient, economical, reliable, clean and secure transition to higher levels of renewable energy sources.

Improvements & Efficiencies

- Customer support expenses -field services and call center- have been reduced to match the current ongoing needs.
- Customer incentives have been reduced as end-user customers will directly benefit from the DRMS load shifting capabilities via upcoming Time-Of-Day rates.



Offer 9.83: Utilities: Light & Power - Demand Response

- Customer support for public electric vehicle charging station was added to the program due to available capacity in the customer support team.

Performance Metrics

- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91396.html>

Personnel Changes

- None

Differences from Prior Budget Cycles

- Customer support for public electric vehicle charging station was added to the program due to available capacity in the customer support team.
- This offer will enable incorporation of new functionality for battery storage integration (Sonnen batteries) into the DRMS.

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: Utilities Strategic Planning



9.83: Utilities: Light & Power - Demand Response

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	364,560	370,153	1.5%
520000 - Purchased Prof & Tech Services	364,560	370,153	1.5%
533000 - Repair & Maintenance Services	234,900	238,510	1.5%
530000 - Purchased Property Services	234,900	238,510	1.5%
573000 - Rebates & Incentives	30,000	30,000	- %
570000 - Other	30,000	30,000	- %
Total Expenses	629,460	638,663	1.5%
Funding Sources			
501-Light & Power Fund: Ongoing Ongoing Restricted Revenue	629,460	638,663	1.5%
Funding Source Total	629,460	638,663	1.5%



Offer 9.90: ENHANCEMENT: Utilities: Light & Power - Energy Efficiency

2019: \$238,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$238,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer provides the necessary funds, in addition to Offer 9.80, to achieve the efficiency targets of the Energy Policy. The Energy Policy annual portfolio savings targets an increase in 2020 to 2.5% of community electricity use (targeting 7.5M kilowatt-hours of new savings). This offer is at the same funding level as that approved for 2017/2018 (does not create new programs or services).

This offer funds:

- Efficiency Works Homes program: The program has shown steady progress 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 (\$300,000).
- Additional incentives to support increased participation in the Efficiency Works Business program (\$500,000). Per the 2017 program evaluation, the Efficiency Works Business program had the highest cost effectiveness of all programs evaluated.
- Additional incentives to support continuation of the Multifamily Efficiency Program partnership with Xcel Energy, which targets an underserved market segment with issues including a split incentive between tenants and owners. (\$150,000).

Savings also result in annual carbon emissions reductions of more than 4,000 metric tons. Efficiency program savings are generated at an average cost of \$0.035 per kilowatt-hour, 40% lower than the cost of wholesale electricity. Approximately 90% of the funding in this offer provides direct rebates or services to customers.

Efficiency and conservation are widely recognized as the most cost-effective path for carbon emissions reductions. These programs directly address the triple bottom line with 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.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

Additional Information



Offer 9.90: ENHANCEMENT: Utilities: Light & Power - Energy Efficiency

- This enhancement offer supports the efficiency objectives of the Energy Policy and Climate Action Plan.
- Funding breakdown: 53% business programs, 32% residential programs, 15% for multifamily programs.
- 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.
- The programs underwent a process and impact evaluation in 2017 by a third-party evaluation consultant. The results of the evaluation showed that verified results were 105% of reported savings with a community benefit cost ratio of 1.8.
- This offer would support additional efficiency projects for approximately 75 businesses, 175 homes and 150 multi-family buildings.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$950,000

Scalability and explanation

Over 90% of the proposed funding in this offer provides direct rebates or services to customers. This component of the offer 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 adopted goals of the Energy Policy.

Links to Further Details:

- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy_2.pdf
- https://www.fcgov.com/utilities/img/site_specific/uploads/17-10736_2016_Energy_Policy_Update_Web_1.pdf
- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_Efficiency_Evaluation_Final_Report_Exec_Summary_Dec_2017.pdf

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: Achieve 2020 Energy Policy goals and work toward long-term net zero energy. This offer is essential to meeting the efficiency targets of the Energy Policy while also supporting renewable energy and distributed energy resource management necessary for long-term net-zero energy.



Offer 9.90: ENHANCEMENT: Utilities: Light & Power - Energy Efficiency

- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals. This offer accelerates existing programs essential to meeting the carbon emissions reduction milestones of the Climate Action Plan while also supporting triple bottom line outcomes for residents and businesses.
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Maintain electric utility systems, services, and predictable rates. This offer provides services which are consistently ranked as very important to residents and businesses as demonstrated through Utilities customer satisfaction survey.

Performance Metrics

- ENV 3. Community Energy Use
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91392.html>
- ENV 23. Annual electricity savings from efficiency and conservation programs
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91396.html>
- ENV 6. Percent decrease in municipal Greenhouse Gas (GHG) Emissions from 2005 baseline
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91343.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

minor edits to clarify that this offer provides additional funding for existing programs in order to reach more customers

Oct 2018 Per Council guidance: Reduce offer down to \$238k in each year

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utilities Strategic Planning



9.90: ENHANCEMENT: Utilities: Light & Power - Energy Efficiency

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
573000 - Rebates & Incentives		238,000	238,000	- %
	570000 - Other	238,000	238,000	- %
	Total Expenses	238,000	238,000	- %
Funding Sources				
501-Light & Power Fund: Ongoing Revenue	Ongoing Restricted	238,000	238,000	- %
	Funding Source Total	238,000	238,000	- %



Offer 9.92: ENHANCEMENT: Utilities: Light & Power - Non-Residential Solar Rebates

2019: \$125,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$125,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the support of solar rebates for non-residential customer projects, including commercial, institutional and non-profit. Projects of this type are generally located on commercial rooftops, providing a valuable opportunity in our land-constrained service territory. These systems are “net metered” to benefit the owner through reducing on-site utility bills. This offer supports achieving the Fort Collins Energy Policy goal of 2 percent local distributed renewable generation by 2020, the Climate Action Plan (CAP) 2020 Framework Plan and community targets for the Colorado Renewable Energy Standard (RES).

This offer funds:

- Solar rebates for non-residential customers (\$490,000 annually), with up to \$100,000 available per solar system (50 cents per watt up to 200 kilowatts).
- Marketing and communications expenses (\$10,000 annually)

These funding levels support installing five to ten solar systems and approximately 1,000 kilowatts of new capacity annually. The rebate and funding levels are expected to provide a year-round rebate program for customers and solar contractors, which provides a predictable and stable incentive for regional solar contractors to develop business in Fort Collins.

Non-residential net metered solar systems account for approximately 13 percent of the distributed solar capacity (2017). Meeting the Energy Policy distributed renewable energy target in 2020 will require the addition of approximately 10 megawatts of additional solar from 2018 to 2020. This offer is one of several that support solar programs for residential and commercial customers; the combination of offers is designed to meet the 2020 Energy Policy distributed solar target.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ✓ ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates

Additional Information

- This ongoing offer supports the renewable energy objectives of the Energy Policy and Climate Action Plan.



Offer 9.92: ENHANCEMENT: Utilities: Light & Power - Non-Residential Solar Rebates

- Proposed funding is at the same level as that approved for the 2017/2018 budget cycle. Funding breakdown: 98% solar rebates, 2% communications and marketing
- Implementation of these programs also supports key strategic outcomes and objectives within Environmental Health and Economic Health. Utilities reports on progress related to these outcomes with an annual update to City Council.
- Offer supports demonstrated commercial customer interest to pursue larger (>100kW) solar projects and facilitate adoption of solar plus battery hybrid systems.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer of non-residential solar rebates is best considered in tandem with offer 9.93 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 3.5 megawatts of solar capacity over 2019/2020 using distinctly different customer incentives – stable contract over time versus a one time upfront rebate.

Links to Further Details:

- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy_2.pdf
- https://www.fcgov.com/utilities/img/site_specific/uploads/17-10736_2016_Energy_Policy_Update_Web_1.pdf
- <https://www.fcgov.com/utilities/business/go-renewable>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: Achieve 2020 Energy Policy goals and work toward long-term net zero energy. This offer is essential to meeting the renewable energy targets of the Energy Policy while also supporting strategies for long-term net-zero energy.
- ✓ ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals. This offer is essential to meeting the carbon emissions reduction milestones of the Climate Action Plan while also supporting triple bottom line outcomes for residents and businesses.



Offer 9.92: ENHANCEMENT: Utilities: Light & Power - Non-Residential Solar Rebates

- ECON 3.5 - Maintain utility systems, services, infrastructure and predictable rates: Maintain electric utility systems, services and predictable rates. This offer supports the tactic of designing and maintaining 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://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91398.html>

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

Oct 2018 Per Council guidance: Fund offer at reduced amount \$125k in both years

Offer Profile

Offer Owner: Irosintoski

Lead Department: Utilities Strategic Planning



9.92: ENHANCEMENT: Utilities: Light & Power - Non-Residential Solar Rebates

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
573000 - Rebates & Incentives		125,000	125,000	- %
	570000 - Other	125,000	125,000	- %
	Total Expenses	125,000	125,000	- %
Funding Sources				
501-Light & Power Fund: Ongoing Revenue	Ongoing Restricted	125,000	125,000	- %
	Funding Source Total	125,000	125,000	- %



Offer 9.100: Utilities: Stormwater - Household Hazardous Waste & Spill Response Services

2019: \$157,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$157,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer provides resources for three key best practice services:

- Semi-Annual Household Hazardous Waste (HHW) collection events
- 24-hour/7-day response to chemical & hazardous materials spills to the stormwater system
- Incentivize greater year-round collection of non-toxic chemicals at Timberline Recycling Center (TRC)

Each of these programs provide residents with services that enhance environmental stewardship, regulatory compliance, and a safe and resilient community.

Two HHW collection events will be provided for residents. Since 2010, these events have become popular with the community, providing residents with the opportunity to dispose of a variety of hard-to-recycle household hazardous waste, free of cost. Staff provides project management, event support & regulatory compliance services for both events. The offer includes funding for recycling & disposal services, event support & supplies, and extra staffing for the event.

An Illicit Discharge Detection & Elimination (IDDE) team will respond to hazardous spills to stormwater systems, conduct remediation of small-scale spills to protect the quality of our urban watersheds & reduce pollution from stormwater runoff. An IDDE program during business hours is a legal requirement of the City's Municipal Separate Storm Sewer System (MS4) permit. Utilities staff provides on-call support, responding to 60-80 illicit discharges of pollutants to the stormwater system annually, often coordinating response with Poudre Fire Authority and Larimer County Health Department.

This offer funds new disposal costs resulting from greater use of TRC that may be anticipated through waiver of the \$5 regular entry fee for visitors who only bring in antifreeze, batteries, oil and/or paint (ABOP). The intent is to motivate citizens away from the "saving up" of ABOP and towards more regular use of the TRC.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed
- SAFE 5.3 - Partner with Poudre Fire Authority to provide high-quality fire prevention, community risk reduction and emergency response services
- ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community



Offer 9.100: Utilities: Stormwater - Household Hazardous Waste & Spill Response Services

Additional Information

- The HHW Collection events continue to remain a popular community-focused event with over 1,700 citizens participating in 2017. The most recent event held in May of 2018, set a record with 1,345 participants and over 88,000 lbs of materials collected. The event not only diverts these wastes from the landfill, but plays a role in reducing the abandoning of hard-to-recycle wastes.
- The City of Fort Collins is one of the few Front Range communities to implement a 24/7/365 On-call IDDE program. Over the last 10 years, ERA staff have forged a strong partnership with PFA and Larimer County to ensure a unified response to incidents, considering Life Safety, Property Preservation, Site Stabilization, Public Health, and protection of local waterways

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.9 - Sustain and improve the health of the Cache la Poudre River and its watershed: Both programs act to sustain and improve the health of our watershed. By providing an opportunity for citizens to removing/recycle chemicals and products from their homes, we reduce the potential for these items to be abandoned and/or improperly disposed of or spilled. The IDDE program supports trained staff to respond to and remediate spills, thereby minimizing the impact to our watershed.
- SAFE 5.3 - Partner with Poudre Fire Authority to provide high-quality fire prevention, community risk reduction and emergency response services: For more than a decade, the IDDE program has been partnering with PFA to train, exercise, and plan for emergency spill situations. This proactive partnerships recognizes the overlapping missions of the two agencies and reduces risks to the public health and environment through more robust emergency response services.
- ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: These programs act to sustain and improve the health of local natural resources by reducing the potential for items to be abandoned and/or improperly disposed of or spilled. The IDDE program supports trained staff to respond to and remediate spills, thereby minimizing the impact to soils, surface water and groundwater.

Improvements & Efficiencies

- Over time, the HHW events have evolved in their complexity, recently identifying local partners to accept mattresses and box springs. For more information, please visit:
<https://www.fcgov.com/utilities/residential/hazwaste/>



Offer 9.100: Utilities: Stormwater - Household Hazardous Waste & Spill Response Services

- The City's IDDE program continues to grow and evolve and now routinely conducts training exercises with PFA to hone skills and clarify roles. ERA staff, coupled with on-call Water and Light and Power field crews engage in routine tabletop and scenario-based exercises to refine the Utilities response in emergency situations

Performance Metrics

- ENV 75. Average direct cost per HHW participant
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=113498.html>
- ENV 76. Number of participating households in HHW events
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=113501.html>
- SAFE 62. Stormwater Quality: number of reported Illicit Discharges to the stormwater system
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=109728.html>

Personnel Changes

- Not Applicable

Differences from Prior Budget Cycles

- * This offer includes an increase in disposal and personnel costs. Occasionally, the City encounters an illicit discharge where no responsible party can be found and where the City must bear the burden of remediation. In past budgets, this line item was set at \$350, far too inadequate to deal with a major spill. Additional budget increases reflect a need for adequate resources for HHW events.
- This offer has been updated for Round 2, increasing personnel costs from \$2000 to \$10,000. The increase reflects adding 5 City staff for a total of 15 at an average of \$40/hour overtime @ 10 hours/event/person.

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 9.100: Utilities: Stormwater - Household Hazardous Waste & Spill Response Services

This offer has been updated for Round 2. The change reflects a need to adequately staff the increasingly popular events. Paid City staff are utilized to unload the vehicles. This work is physically demanding and presents safety concerns. Current budgets limitations have created a scenario where only a limited number of personnel could be paid. During most the recent event, 1,345 vehicles came through the drop-off line and City personnel had a maximum of 1, 15-minute break during the entire event. This leads to fatigue and dehydration, as well as potential for heat exhaustion during warmer weather. By increasing the budget in Round 2 from \$2000 to \$10,000 we recognize that current staffing levels put the organization at risk, both from a safety perspective as well as efficiency in “keeping the line moving”. The increase reflects adding 5 City staff for a total of 15 at an average of \$40/hour overtime @ 10 hours/event/person.

Offer Profile

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.100: Utilities: Stormwater - Household Hazardous Waste & Spill Response Services

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	-	-	- %	
Expenses				
511000 - Salaries & Wages	41,200	41,200	- %	
510000 - Personnel Services	41,200	41,200	- %	
521000 - Professional & Technical	105,000	105,000	- %	
529000 - Other Prof & Tech Services	1,000	1,000	- %	
520000 - Purchased Prof & Tech Services	106,000	106,000	- %	
532000 - Cleaning Services	1,000	1,000	- %	
533000 - Repair & Maintenance Services	2,500	2,500	- %	
530000 - Purchased Property Services	3,500	3,500	- %	
549000 - Other Purchased Services	4,250	4,250	- %	
540000 - Other Purchased Services	4,250	4,250	- %	
559000 - Other Supplies	2,050	2,050	- %	
550000 - Supplies	2,050	2,050	- %	
Total Expenses	157,000	157,000	- %	
Funding Sources				
504-Stormwater Fund: Ongoing	Ongoing Restricted	157,000	157,000	- %
Revenue				
Funding Source Total		157,000	157,000	- %



Offer 9.102: REDUCTION: Utilities: Community Spill Response

2019: \$-32,400 and 0.00 FTE, 0.00 Hourly FTE

2020: \$-32,400 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This reduction offer eliminates redundant activities related to the City's 24/7 Community Spill Response program.

Currently, an after-hours on-call Illicit Discharge Detection and Elimination (IDDE) Community Spill Response team is funded to respond to potentially hazardous spills in the community and to conduct limited remediation, if needed. This program protects the quality of urban watersheds, enhances environmental stewardship and regulatory compliance, and contributes to a safe and resilient community. In the past, the program has been implemented by the Environmental Regulatory Affairs (ERA) division; however, since Water Field Operations on-call staff are also trained to respond to spills and are already assigned on-call responsibilities, the spill response program can continue to be implemented.

Since 2008, ERA staff has responded to an average of 50 spill/release reports annually, with a majority of those calls occurring during normal business hours when on-call staff are not needed. An annual average of only six after-hours reports were responded to during that same time frame, at a cost of \$39,500 to support stand-by pay salaries. This is an inordinate use of ratepayer funds at minimum benefit.

During business hours, the IDDE program is a legal requirement of the City's Municipal Separate Storm Sewer System (MS4) permit. Since implementation in 2010, the 24/7 aspect of this program, which is not a legal obligation, has been funded as a request of City Council. ERA and Water Field Operations staff currently provide redundant on-call support for this program. By using trained Water Field Operations staff to respond to after-hours incidents and then coordinate with technical experts in the ERA division, the City can ensure that regulatory obligations are maintained, while also being good stewards of ratepayer funds.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ Strategic Objective not needed for Reduction Offers

Additional Information

- Strong partnerships will remain intact as ERA, Water Field Operations, and PFA will continue to work together to train, respond to, and mitigate the impacts of spills and releases. This reduction will not impact the critical service, but rather eliminate redundant staffing and associated on-call/stand-by salaries.



Offer 9.102: REDUCTION: Utilities: Community Spill Response

- Technical environmental experts from the ERA division will continue to support Community Spill Response program activities including: During Business Hours response, training and exercising plans, and guidance and support for notification, remediation, and reporting.

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

This reduction offer is not scalable.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ Strategic Objective not needed for Reduction Offers: N/A

Improvements & Efficiencies

- Not applicable

Performance Metrics

- SAFE 62. Stormwater Quality: number of reported Illicit Discharges to the stormwater system
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6339&object=measure&objectId=109728.html>

Personnel Changes

- No personnel changes associated with this offer

Differences from Prior Budget Cycles

- The reduction offer eliminates \$39,500 is stand-by salary.

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 9.102: REDUCTION: Utilities: Community Spill Response

Offer Owner: CWebb

Lead Department: Utilities Strategic Planning



9.102: REDUCTION: Utilities: Community Spill Response

Enhancement to Programs and Services

		2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing		-	-	- %
Hourly (FTE)		-	-	- %
Expenses				
511000 - Salaries & Wages		(31,200)	(31,200)	- %
	510000 - Personnel Services	(31,200)	(31,200)	- %
559000 - Other Supplies		(1,200)	(1,200)	- %
	550000 - Supplies	(1,200)	(1,200)	- %
	Total Expenses	(32,400)	(32,400)	- %
Funding Sources				
504-Stormwater Fund: Ongoing	Ongoing Restricted	(32,400)	(32,400)	- %
Revenue				
	Funding Source Total	(32,400)	(32,400)	- %



Offer 9.104: REDUCTION: Utilities: Water/Wastewater - Standby Time for the Water Quality Lab and Pollution Control Lab

2019: \$-32,500 and 0.00 FTE, 0.00 Hourly FTE

2020: \$-32,500 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

After-hours water quality complaint calls are initially directed through the main Utilities after-hours call number, evaluated and then routed to the Water Quality After-Hours On-Call team. The Water Quality (WQ) on-call team consists of five employees who are on a week-long on-call rotation throughout the year and are compensated according to the Utilities on-call policy. Annually, this service costs approximately \$32,000. The majority of customer complaint calls directed to the WQ On-Call team are resolved over the phone with an explanation of common issues and remedies. For more complex issues, it has been the practice to visit the customer's home to collect water samples for analysis.

A recent safety evaluation of this practice has revealed that even where the practice of residential site visits is limited to daytime hours, it is still possible to provide the same benefit to the customer while increasing employee safety, primarily through improved communication. The practice of after-hours residential site visits has, therefore, been eliminated. Staff have also determined that the remaining customer call screening and response can be managed effectively by the Utilities after-hours call process with improved scripting and customer service protocols. Those protocols will address emergency situations where imminent public health concerns are identified. In such cases, an emergency team will be mobilized. For all other calls, the Water Quality Lab staff will respond to customer complaints and conduct required sampling during business hours.

For these reasons, there is no longer a need to maintain an On-call Water Quality Response Team.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ Strategic Objective not needed for Reduction Offers

Additional Information

- Not applicable

Impact to Ongoing Expenses

- No ongoing expense associated with this Offer.

Scalability and explanation

The reduction offer is not scalable.

Links to Further Details:



Offer 9.104: REDUCTION: Utilities: Water/Wastewater - Standby Time for the Water Quality Lab and Pollution Control Lab

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

✓ Strategic Objective not needed for Reduction Offers: N/A

Improvements & Efficiencies

- Not applicable

Performance Metrics

- ENV 27. Water quality complaints per 1000 customers

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6346&object=measure&objectId=91492.html>

Personnel Changes

- The five employees currently serving on the WQ After-Hours On-Call team will no longer serve in this over-time capacity.

Differences from Prior Budget Cycles

- Need

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: Utilities Strategic Planning



9.104: REDUCTION: Utilities: Water/Wastewater - Standby Time for the Water Quality Lab and Pollution Control Lab

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	(32,500)	(32,500)	- %
510000 - Personnel Services	(32,500)	(32,500)	- %
Total Expenses	(32,500)	(32,500)	- %
Funding Sources			
502-Water Fund: Ongoing Revenue	(16,300)	(16,300)	- %
503-Wastewater Fund: Ongoing Revenue	(16,200)	(16,200)	- %
Funding Source Total	(32,500)	(32,500)	- %



Offer 43.1: Environmental Services

2019: \$1,624,914 and 13.00 FTE, 2.09 Hourly FTE

2020: \$1,673,895 and 13.00 FTE, 2.09 Hourly FTE

Offer Summary

Funding this offer will support the Environmental Services Dept. (ESD) in providing programs & services to the community & municipal organization to efficiently pursue Council policies on sustainability, air, climate, waste reduction, citizen engagement, & performance measurement. These programs support adopted Council goals including climate & zero waste by reducing carbon emissions, indoor and outdoor air pollution, & increasing waste diversion & recycling.

This offer supports staff & programs to:

- lead implementation of Climate Action Plan (80% of residents support the City engaging in climate action (2017)
- reduce ozone emissions & other outdoor air pollution such as wood smoke, blowing dust
- improve indoor air quality through Healthy Homes and radon programs
- provide technical leadership for Regional Wasteshed planning to evaluate materials management alternatives
- increase residential & business waste diversion/recycling
- increase resilience through climate preparedness planning
- advance green building
- help the City government lead by example through campaigns, innovative programs, & technical assistance
- provide expertise on local oil & gas issues, and
- conduct robust data management & reporting.

Fort Collins is facing several significant environmental issues including:

- impending closure of our landfill by 2025,
- on-going non-compliance with the federal health standards for ground level ozone pollution while 25% of homes have a member with respiratory problems, &
- continuing need to increase resilience & reduce local carbon emissions in partnership with the community and its innovators.

ESD plays an important role in planning, assessing policy options, & engaging citizens and businesses in policy decisions and actions to protect the environment and improve quality of life. The community values a healthy environment and 96% believe the City should invest the same or more to ensure good environmental quality (2017).



Offer 43.1: Environmental Services

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.2 - Improve indoor and outdoor air quality
- ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals

Additional Information

- CAP: The community & municipal organization are over halfway to 2020 carbon goal. Provides coordination to continue progress on CAP. Leads public & private sector engagement, supports CAP Executive Team, 85 staff & 18 residents on CAP teams, leads CAP Community Advisory Committee (20 residents), & collaborates with regional, state & federal organizations to advance climate resilience & action.
- Air Quality: In 2017, 187 Lawn & Garden rebates reduced ozone-forming emissions; Healthy Homes program used 1,000 volunteer hours to conduct 125 assessments with an 80% recommendation uptake rate. Addressed all 41 dust complaints through training & voluntary compliance. Funds “Local Government Designee” to coordinate oil & gas issues.
- Materials Management: Educates residents & businesses to avoid recycling contamination & promotes organics waste diversion (40% of waste stream). Oversees Timberline Recycling Center. The WRAP program supports multifamily & business recycling through assessments & education, reaching 5,500 individuals in 2016. 88% of residents recycle with 55% community waste diversion in 2017.
- Sustainability Engagement: The City leads by example with carbon emissions 17% below 2005 levels (2017) & continued ClimateWise PLATINUM status. Staff led the City process to update triple bottom line assessment process for key decisions, leads programs to mobilize employees & citizens to reduce environmental impact; and leads internal sustainability team and municipal preparedness planning.
- This offer contains \$175K/year in on-going KFCG funds for the CAP messaging, municipal innovation programs, Road to Zero Waste, Healthy Homes staff support, and Lawn and Garden equipment rebates. It contains one contractual employee, the Green Building Program Coordinator (approved in 2015/16 cycle).

Links to Further Details:

- <https://www.fcgov.com/climateaction/>
- <https://www.fcgov.com/recycling/>
- <https://www.fcgov.com/airquality/>

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)



Offer 43.1: Environmental Services

- ✓ ENV 4.2 - Improve indoor and outdoor air quality: ESD reduces ozone pollution through campaigns such as lawn mower rebates, coordinates blowing dust response, improves indoor air quality through Healthy Homes and radon programs, addresses local oil and gas issues, works to resolve neighborhood air pollution concerns, works at State level to advance regulations that protect air quality.
- ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals: ESD provides waste diversion assistance to business and apartments through the WRAP program, provides assistance with cardboard and construction debris recycling, administers ordinances to ensure recycling is available, provides education to the public, & administers the City's Waste Innovation Fund.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: This offer supports climate action by providing the overarching coordination and systematic implementation, and is critical in the 2020 and 2030 timeframes.

Improvements & Efficiencies

- ESD engaged ~ 2500 residents and businesses, almost 400 employees and made nearly 60,000 social media impressions through 76 events in 2017. The Fort Collins CAP story was shared at conferences reaching almost 1300 audience members. In 2017, Fort Collins received the top U.S. City award for our climate action plan by the C40 Bloomberg Philanthropies.
- City Council requested that staff add plastic film collection to the Timberline Recycling Center. Public uptake was significant and in 2017 staff installed a plastic film baler to compress recyclables into easy-to-transport bales. This reduces transport costs to processing plants because fewer trips are needed. The investment in on-site baling will save the City money within five years.
- The Innovate Fort Collins Challenge fund was created to provide seed money to local, externally managed, projects that reduce greenhouse gas emissions and are scalable. After the first round of project awards in 2017, process improvements for 2018 include updated, simpler application materials, & using public input through an Innovation Summit to develop the challenge statements.
- In 2017, an on-line tool was created for residents to complete a Healthy Homes assessment to evaluate the indoor health of their home. Recommendations are automatically generated & staff can then follow up. This leverages staff time and addresses barriers to assessment such as scheduling, reluctance to have a person come to their home, etc. Materials were also translated into Spanish.
- A Recycling Ambassadors program was developed at the TRC to assist visitors. To date ESD has trained fifteen RAs who have interacted with approximately 1,800 TRC visitors. Volunteers answer questions, distribute flyers, and help visitors place items in the correct bins, maintaining a cleaner stream of recyclables. Volunteer presence at the site discourages "dumping" of unacceptable items.



Offer 43.1: Environmental Services

- The Green Building Program Coordinator led development of the HomeWise program that offers participating business employees home assessments & access to low interest loans. In 2017 HomeWise was piloted at 3 businesses, reached 106 employees, & led to 26 Healthy Homes assessments & 11 energy upgrades. Staff also improved the Green Building Web site to reflect needs of the building industry.
- In 2017, the intake process for radon test kit sales was converted from paper to on-line. Staff are developing software to analyze data and generate reports from the test kit sales and lab results. This will increase accuracy in our data collection and increase efficiency of radon test follow up processes.
- ESD received a \$15,000 grant from the Regional Air Quality Council for electric lawn and garden equipment. Parks successfully piloted a commercial scale riding electric mower that reduces emissions by 57% and eliminates ozone causing emissions, while matching the same total cost of ownership as traditional equipment.
- Utility costs can be one of the largest expenses of a business. Energy scoring & benchmarking can help building owners and managers address these expenses. The City Energy Project, a grant-funded partnership between Utilities and ESD, convened a stakeholder team to evaluate options for building energy scoring. They are using the City's innovative "Our City" platform to engage the public as well.

Performance Metrics

- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91345.html>
- ENV 10. Community solid waste diversion rate
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91346.html>
- ENV 4. Outdoor Air Quality Index (AQI) - Ozone
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91341.html>



Offer 43.1: Environmental Services

Personnel Changes

- This offer incorporates 0.5 FTE classified position that was approved in 2017/18 to complete a previously existing 0.5 FTE. The 1.0 FTE position leads Regional Wasteshed planning and sustainable materials management.

The offer includes a 1.0 FTE classified position that represents a conversion from a full time hourly position that has existed since 2014 to support the City's Indoor Air Quality work and Healthy Homes Program. This position supports S.O. 4.2 "to improve indoor and outdoor air quality" and is necessary to continue on-going Healthy Homes logistics and radon policy research and program coordination.

Differences from Prior Budget Cycles

- \$40k for CAP messaging (2017-2018 Offer 23.6) has been moved from CPIO to Environmental Services Ongoing Offers. Analysis will show an increase to ESD Ongoing and a reduction of the same from CPIO.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

\$10.7K for One Planet (2017-2018 Offer) will now be funded by the General Fund and located in Environmental Services Ongoing Offers. Analysis will show an increase to ESD Ongoing and a reduction by \$7K to the Utilities Customer Connections ongoing offer.

Multiple changes: Change to funding source (from General Fund to KFCG), multiple cuts to cover the change in funding source and changed CAP Program Coordinator position back to part-time Hourly position.

Reductions to various BU's: NRAB Board reduced \$3.5k, AQAB Board reduced \$3.5k, ESD Conf & Travel reduced \$7.2k, CAP Consulting reduced \$6,150 and One planet reduced \$10,700 (Total reductions \$40.5k)

Oct 2018 Per Council guidance: Add the Regional Air Quality Council back to offer at \$10k per year (705400.574910) & reduce hourly consulting by \$36k in each year

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



43.1: Environmental Services

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	13.00	13.00	- %
Hourly (FTE)	2.09	2.09	- %
Expenses			
511000 - Salaries & Wages	1,044,300	1,078,181	3.2%
512000 - Benefits	310,049	326,178	5.2%
519000 - Other Personnel Costs	(28,117)	(29,146)	3.7%
510000 - Personnel Services	1,326,232	1,375,213	3.7%
521000 - Professional & Technical	47,177	47,177	- %
529000 - Other Prof & Tech Services	68,016	68,016	- %
520000 - Purchased Prof & Tech Services	115,193	115,193	- %
532000 - Cleaning Services	15,000	15,000	- %
533000 - Repair & Maintenance Services	2,693	2,693	- %
530000 - Purchased Property Services	17,693	17,693	- %
542000 - Communication Services	19,690	19,690	- %
543000 - Internal Admin Services	980	980	- %
544000 - Employee Travel	18,325	18,325	- %
549000 - Other Purchased Services	40,383	40,383	- %
540000 - Other Purchased Services	79,378	79,378	- %
555000 - Office & Related Supplies	9,300	9,300	- %
559000 - Other Supplies	21,418	21,418	- %
550000 - Supplies	30,718	30,718	- %
569000 - Other Capital Outlay	27,850	27,850	- %
560000 - Capital Outlay	27,850	27,850	- %
573000 - Rebates & Incentives	7,500	7,500	- %
574000 - Grants	20,350	20,350	- %
570000 - Other	27,850	27,850	- %
Total Expenses	1,624,914	1,673,895	3.0%



Funding Sources

100-General Fund: Ongoing	Ongoing	1,441,799	1,486,829	3.1%
254-KFCG Fund: Other Community Priorities	Ongoing Restricted	183,115	187,066	2.2%
	Funding Source Total	1,624,914	1,673,895	3.0%



Offer 43.2: Timberline Recycling Center

2019: \$291,916 and 0.00 FTE, 0.73 Hourly FTE

2020: \$293,016 and 0.00 FTE, 0.73 Hourly FTE

Offer Summary

Funding this offer enables the Environmental Services Department to provide a public recycling center, the Timberline Recycling Center (TRC), in support of Council policies for sustainability, waste reduction, public engagement and performance measurement. TRC complements curbside recycling, creates special opportunities for materials not easily recycled helps businesses comply with ordinances (e.g., cardboard and construction/demolition materials) aimed at increasing waste diversion and recycling.

This offer supports TRC's operations and management to:

- increase waste diversion/recycling and help meet community recycling needs; in 2017, 3,362,586 pounds of materials were accepted at TRC
- respond to Council's interest in diverting specialized materials as opportunities arise
- conduct on-site collection days twice a year for unique, hard-to-recycle materials (mattresses, books, durable plastic items, shredded paper)
- implement accurate data management and reporting
- partner with the community, local business and innovators.

By funding this offer, TRC can help address a variety of issues:

- impending closure of Larimer County landfill by 2025
- market uncertainties and economic challenges for the recycling industry as domestic markets recover from international tariffs and sanctions
- state planning system that sets waste diversion goals and calls for management plans

TRC is integral to Fort Collins' community-wide materials collection and management system. It serves as a reliable choice for residents' everyday recyclables and as a stage to pilot new programs. Since 2002, the City's drop-off site has helped residents take an active role in protecting the environment and improving quality of life. With 2017 diversion levels of 55% in Fort Collins, this unique center is helping the community make progress toward its adopted Zero Waste goals.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals

Additional Information



Offer 43.2: Timberline Recycling Center

- Sustainability Engagement: Outreach, special collection events, and reliable levels of service at the TRC have been key to getting residents involved in the community’s environmental programs and planning. Participation in recycling can be an “early adoption” accomplishment that encourages further commitments and actions to be made by residents.
- Materials Management: With a focus on clear, articulate signage and outreach materials at the TRC, the facility helps educate residents & businesses about the overall recycling system, with guidelines for participating that help prevent contamination from devaluing the contents of recycling bins.
- CAP: By providing a public drop-off site, the City contributes to a local culture of recycling and waste diversion that keeps materials out of landfills (overall reductions by the community in waste generation in 2016 helped accomplish communitywide total carbon emissions 12% below 2005 levels).
- In a statistically valid survey conducted by the City in 2017, 74% of respondents indicated they had heard about and/or participated in TRC. Staff are also surveying users of the TRC to assess their need and experiences that can inform future outreach. Initial results show high user satisfaction with the TRC, with 87% rating the TRC as having “Excellent” (40%) or “Good” (47%) customer service.
- A solar PV installation will be constructed at the TRC in 2018 which will allow the facility to be net-zero energy.

Links to Further Details:

- <https://www.fcgov.com/recycling/dropoff.php>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals: ESD provides waste diversion assistance to residents and businesses by supporting the operations and maintenance of the TRC. The site is well designed to accept both conventional and “hard-to-recycle” materials such as bulky cardboard and construction debris recycling.

Improvements & Efficiencies

- In 2017, a plastic bags/packaging collection program was added at TRC, which successfully diverted 10 tons of film within the first 12 months. The system has been further enhanced with the installation of a baler that compacts materials into easily transported cubes. The baling equipment is also being used for loose cardboard, which improves the market value of this material.
- A Recycling Ambassadors program was developed at the TRC; trained RAs have interacted with over 1,800 TRC visitors. They answer questions, distribute flyers, and help visitors place items in correct bins, maintaining a cleaner stream of recyclables. Volunteer presence at the site discourages dumping of unacceptable items.



Offer 43.2: Timberline Recycling Center

- New signage was created to replace the large placards on each of the 40-yard collection bins. The new signs feature simple, photo-based images to help visitors understand how to follow recycling guidelines.
- The financial projection model was improved using data from the first year of operation and anticipated operating cost have been refined accordingly.

Performance Metrics

- ENV 12. Tons of community recycled or composted materials, including cardboard
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91348.html>

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: WBricher

Lead Department: Environmental Services



43.2: Timberline Recycling Center

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change	
Full Time Equivalent (FTE) Staffing	-	-	- %	
Hourly (FTE)	0.73	0.73	- %	
Expenses				
511000 - Salaries & Wages	31,244	31,244	- %	
512000 - Benefits	3,054	3,054	- %	
510000 - Personnel Services	34,298	34,298	- %	
521000 - Professional & Technical	4,368	4,368	- %	
529000 - Other Prof & Tech Services	148,250	149,350	0.7%	
520000 - Purchased Prof & Tech Services	152,618	153,718	0.7%	
531000 - Utility Services	5,600	5,600	- %	
532000 - Cleaning Services	71,900	71,900	- %	
533000 - Repair & Maintenance Services	18,000	18,000	- %	
530000 - Purchased Property Services	95,500	95,500	- %	
549000 - Other Purchased Services	7,500	7,500	- %	
540000 - Other Purchased Services	7,500	7,500	- %	
559000 - Other Supplies	2,000	2,000	- %	
550000 - Supplies	2,000	2,000	- %	
Total Expenses	291,916	293,016	0.4%	
Funding Sources				
254-KFCG Fund: Other Community Priorities	Ongoing Restricted	291,916	293,016	0.4%
Funding Source Total		291,916	293,016	0.4%



Offer 43.6: ENHANCEMENT: Accelerated Municipal Electric Lawn and Garden Equipment Fund

2019: \$20,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$20,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will enable the City to continue acceleration of progress toward exchanging municipal gasoline-powered commercial lawn and garden equipment for quieter, lower emission electric equipment.

Reducing use of gas powered lawn and garden equipment is important as emissions contribute to both ozone formation and greenhouse gases (GHG). Currently, the City is part of the Denver Metro/North Front Range Ozone non-attainment area, which means our highest measured ozone levels sometimes exceed Environmental Protection Agency (EPA) health-based standards. Additionally, the City has adopted ambitious carbon reduction goals, and it is important to lead by example in reducing fossil fuel use for municipal operations.

Between 2016 and 2018, the City invested in piloting the use of newer technologies towards accelerating the replacement of commercial lawn and garden equipment. This included the purchase of two large riding mowers equipped with solar canopies that both provide shade and charge batteries. Additionally, approximately 40% of the small equipment (e.g., chainsaws and weed whips) used by the Parks department have been replaced through 2017, with additional purchases planned in 2018. Operator feedback has been that the new equipment has met operational needs, reduces noise and reduces the odor of evaporative emissions from gasoline (which is also important for operator health). City efforts to date were showcased for other communities at an October 2017 regional event hosted by the Regional Air Quality Council (RAQC).

For the next phase of equipment purchases, staff will work with the RAQC to explore piloting an accreditation for an American Green Zone Alliance (AGZA) Green Zone, which is a single maintenance area (such as a park or golf course) that commits to performing all routine maintenance with quiet, zero-emission tools. An interdepartment collaborative team will work to identify a small, high profile area for a first certification.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.2 - Improve indoor and outdoor air quality
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals

Additional Information



Offer 43.6: ENHANCEMENT: Accelerated Municipal Electric Lawn and Garden Equipment Fund

- 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.
- While new equipment purchases are a higher initial investment up front, electric tools are cheaper to run and maintain than gas. AGZA literature shows a return on investment (ROI) for a large mower at only 4-years, followed by continued maintenance and fuel savings over time.
- An AGZA Green Zone in Fort Collins would be the first of it's kind in Colorado. The City of South Pasadena in California was the first municipality in the Nation to fully certify all City parks and other City maintained property as AGZA Green Zones. Certification of an AGZA Green Zone will help to target messaging, demonstrate feasibility, and promote similar activities for the private sector.
- Existing Operation and Maintenance budgets only cover replacement of equipment at the end of its useful life. This offer is needed to accelerate clean equipment purchase.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer could be scaled up or down to support new equipment purchases, and will be first used to buy needed equipment to pilot certification of at least one AGZA Green Zone. Scaling to additional AGZA Green Zones would vary in costs, as different maintenance areas have different needs.

Links to Further Details:

- http://raqc.org/our_programs/mow-down-pollution-commercial/RAQC
- [Press release regarding first AGZA Green Zone in the Nation: bit.ly/AGZA_GZ_City](http://bit.ly/AGZA_GZ_City)

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.2 - Improve indoor and outdoor air quality: This offer would support improvements in outdoor air quality, as emissions from lawn and garden equipment contribute to local ozone formation.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: While fuel use for lawn and garden maintenance comprises <1% of the municipal carbon inventory, it is an important municipal strategy to lead by example in reductions of fossil fuel use.

Performance Metrics

- ENV 4. Outdoor Air Quality Index (AQI) - Ozone



Offer 43.6: ENHANCEMENT: Accelerated Municipal Electric Lawn and Garden Equipment Fund

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91341.html>

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

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91343.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

Clarified why O&M dollars could not accomplish this offer's objectives.

Offer scaled down to \$19K in 2020 to match available funding

Oct 2018 Per Council guidance: Fund offer at \$20k in each year

Offer Profile

Offer Owner: WBricher

Lead Department: Environmental Services



43.6: ENHANCEMENT: Accelerated Municipal Electric Lawn and Garden Equipment Fund

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 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			
100-General Fund: One-time Revenue	One-Time Restricted 20,000	20,000	- %
Funding Source Total	20,000	20,000	- %



Offer 43.10: KFCG ENHANCEMENT: Road to Zero Waste Plan Update

2019: \$15,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$15,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

Funding this offer will allow the Waste Reduction & Recycling program to update the Road to Zero Waste (RTZW) plan in 2019-20, along with updates to the Climate Action Plan/Energy Policy (Offer 43.12). RTZW, adopted by City Council in 2013, lays out strategies for reducing waste & diverting materials from landfills. An update is needed to reflect rapid changes that have occurred in recent years for recycling, & align with infrastructure development now underway (Regional Wasteshed Planning).

Since the RTZW plan was written, progress in Fort Collins includes:

- o Timberline Recycling Center opened
- o Expanded recycling requirements for residents and businesses adopted
- o Climate Action Plan (CAP) a major driver for environmental policy; carbon reductions from solid waste included as important targets
- o City Code recycling requirements now enforced at construction sites & businesses

Regional, national & global changes affecting markets & priorities include:

- o Regional Wasteshed Planning for new facilities & policies may be adopted & implemented as early as 2019, for Larimer County Landfill post-closure, such as composting infrastructure, expanded recycling center, construction debris recycling plant, ban on disposal of yard waste in landfills
- o Disrupted global markets represent opportunities to reposition US manufacturing to use more recyclable commodities
- o Sustainable Materials Management & Circular Economy have emerged as important frameworks for reducing waste.

An updated road map, including a review of existing goals, is needed to adapt priorities & strategies to changes that have occurred in the world of recycling & waste reduction.

Updating RTZW will be an important part of the CAP update; a Request for Proposals will be used to select a CAP consulting firm with capability to address waste reduction & recycling. The chosen firm will conduct research, interviews, etc. in close conjunction with staff & the public to develop comprehensive guiding documents.



Offer 43.10: KFCG ENHANCEMENT: Road to Zero Waste Plan Update

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ECON 3.2 - Maintain and grow diverse employment opportunities

Additional Information

- Timberline Recycling Center (TRC) Opportunities
 - An updated RtZW plan could offer suggestions, based on review of comparable communities, for how to best utilize and expand the TRC as a service to residents and businesses as well as an economic tool for increased resource recovery and business development.
- Climate Action Plan Integration
 - Solid waste currently accounts for 4% of the City's carbon inventory; waste reduction, recycling & composting are projected to play significant roles in reducing overall community emissions. Council's most recent goals for greenhouse gas reductions were set after RTZW plan was adopted; clearer alignment with the CAP framework is needed.
- Regional Collaboration
 - Since 2015, a major focus of planning for future resource recovery has been in partnership with Larimer County, Loveland, & Estes Park. Progress made by this coalition points to significant new infrastructure being constructed in the next 2-5 years, supported by clear City goals & policy that emerge from a RTZW update.
- Community Recycling Ordinance
 - Council unanimously adopted changes to City Code in 2016 to increase diversion of organic material (food scraps & yard trimmings); Fort Collins requires all businesses and multi-family residences to have recycling service by 2020. An updated RTZW plan will incorporate this amendment & help guide staff's implementation planning.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

This offer will be combined with an RFP for Offer 43.12 2030 Climate Action and Energy Policy Update to leverage resources and reduce overall costs. The offer has been scaled to \$15K/yr (from an initial proposal of \$55K in 2020) based on requests from the Budget Lead Team and could not be further reduced and still achieve the objectives.

Links to Further Details:



Offer 43.10: KFCG ENHANCEMENT: Road to Zero Waste Plan Update

- <http://www.fcgov.com/recycling>
- <https://www.fcgov.com/zerowaste>
- <https://www.fcgov.com/wasteshed>

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.4 - Achieve the 2020 Road to Zero Waste goals and work toward 2030 zero waste goals: The fundamental and primary purpose of this offer is to focus explicitly on SO #4.4 and it will reinvigorate waste reduction and recycling strategies throughout the organization and the community.
- ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: This enabling offer will engage hundreds of residents and businesses in the community during the co-creation and development of the RtZW plan update, and it will impact tens of thousands throughout the city and beyond as its elements are implemented. This offer may influence 2020 CAP goals and is critical to 2030 goals.
- ECON 3.2 - Maintain and grow diverse employment opportunities: Having a clear, relevant, and up-to-date strategic plan for waste material management signals to the market about where to invest for future growth in Fort Collins. Because the development of viable strategies for increased resource diversion and recovery is labor intensive, those investments support local employment opportunities across the educational spectrum.

Performance Metrics

- ENV 12. Tons of community recycled or composted materials, including cardboard
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91348.html>
- ENV 7. Community per capita per day of solid waste generation
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91344.html>
- ENV 10. Community solid waste diversion rate
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91346.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

Removed Performance Measure ENV 11, replaced it with ENV 10 per Seller

Offer Profile



Offer 43.10: KFCG ENHANCEMENT: Road to Zero Waste Plan Update

Offer Owner: WBricher

Lead Department: Environmental Services



43.10: KFCG ENHANCEMENT: Road to Zero Waste Plan Update

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	15,000	15,000	- %
520000 - Purchased Prof & Tech Services	15,000	15,000	- %
Total Expenses	15,000	15,000	- %
Funding Sources			
254-KFCG Fund: Other Community Reserve Priorities Reserves	15,000	15,000	- %
Funding Source Total	15,000	15,000	- %



Offer 43.12: ENHANCEMENT: 2030 Climate Action and Energy Policy Update – Optimizing Policy, Targets and Strategies

2019: \$40,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$80,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer supports a joint strategic planning and policy update of the CAP Framework and Energy Policy, which are typically updated every five years. This offer's funding will be split evenly (50/50) between Utilities and the General Fund.

In 2015, Council unanimously adopted updated climate action goals (20% below 2005 levels by 2020, 80% below by 2030, and to be carbon neutral by 2050). In the same year, Council adopted an updated Energy Policy with comprehensive utility goals and specific goals for renewable energy, energy efficiency and reliability. This offer focuses the City's and Utilities' attention toward the 2030 goal, and will leverage existing modeling tools and a rigorous data-driven decision-making structure to address the following questions:

- What are the most cost-effective, pragmatic and equitable initiatives in this timeframe?
- What is the right sequencing of initiatives to achieve the 2030 goal?
- What infrastructure and/or capital needs are necessary to reach the goal?
- How will emissions reductions in the natural gas sector be achieved?
- How should the City build in adaptation and resilience initiatives?
- How will the community (residents and businesses) need to be engaged over the ten-year period?
- What are the key areas of tension or tradeoffs that will need to be considered?

This offer should be funded this cycle because achieving the community's goals requires doubling annual progress (emissions reductions) every year between now and 2030 to meet the goal. The timing also aligns with the following efforts:

- Platte River's update to their Integrated Resource Plan, which will occur in 2019-2020 (electricity is 50% of community emissions)
- City Plan and Transportation Master Plan updates, which will conclude in the spring of 2019 (25% of community emissions)
- The Regional Wasteshed Planning (2017-2019) and the proposed Road to Zero Waste Plan update, which will occur in 2020 (4% of community emissions)

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals
- ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy
- ENV 4.5 - Develop strategies to improve the community's climate resiliency



Offer 43.12: ENHANCEMENT: 2030 Climate Action and Energy Policy Update – Optimizing Policy, Targets and Strategies

Additional Information

- 80% of the community supports additional action on climate (see links below). In addition, Climate Action, Energy Policy implementation, and the City’s partnership with Platte River are all Council priorities.
- Initially labeled aspirational, Fort Collins has demonstrated climate action makes financial sense and advances quality of life. Examples include the significant local and utility-scale renewable energy investments that have the potential to be cost neutral to rate payers and impact the community’s inventory by at least 10%.
- The City’s efforts have been recognized world-wide, e.g., through the #Cities4Action award in 2017, & \$100,000 from Bloomberg Philanthropies & \$1M commitment from the state to advance climate economy efforts. Overall, Fort Collins investments have been leveraged on an almost 2:1 basis by the community & have a projected cumulative savings of \$467M to the community over their lifetime through 2050.
- This funding supports one-time consultant fees for the joint planning effort. While past Energy Policy updates were completed with existing resources, the nature of the transformations required to meet 2030 goals, and the alignment with the CAP update will be best served through a coordinated and expert consultant approach.
- If funded, staff would initiate this effort in the fall of 2019 and the plans would be complete in 2020. Staff anticipates that this framework and policy would be updated again in the 2025-2026 BFO cycle.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

Staff researched peer communities across the country to determine the proposed offer amount. The offer could be increased, and that increase would go directly toward additional community engagement and enhanced planning for resilience. Scaling down the offer would decrease community engagement and the ability to align this offer with other concurrent planning efforts.

Links to Further Details:

- [Overall climate action site: www.fcgov.com/climateaction](http://www.fcgov.com/climateaction)
- https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_2015_Energy_Policy_2.pdf
- [https://www.fcgov.com/climateaction/pdf/PRR - Fort Collins Climate Action Community Survey Report - 07.](https://www.fcgov.com/climateaction/pdf/PRR_-_Fort_Collins_Climate_Action_Community_Survey_Report_-_07)



Offer 43.12: ENHANCEMENT: 2030 Climate Action and Energy Policy Update – Optimizing Policy, Targets and Strategies

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.1 - Achieve Climate Action Plan (CAP) 2020 goals and continue progress toward the 2030 goals: This offer is critical in the 2030 timeframe, as progress toward the community’s 2030 goals needs to scale up by at least twice on an annual basis. This planning effort will outline the sequencing and infrastructure necessary to transform Fort Collins to a low-carbon community. It is anticipated that at least 1,000 residents will be engaged in this planning process.
- ENV 4.3 - Achieve 2020 Energy Policy goals and work toward long-term net zero energy: This offer is critical to develop the research, analysis and modeling necessary to inform the technical requirements necessary to update the Energy Policy, which will address a timeframe in which dramatic changes will occur for both supply and demand aspects of energy use.
- ENV 4.5 - Develop strategies to improve the community's climate resiliency: This offer directly addresses the Strategic Objective by bringing together a planning process for both mitigation (reducing emissions) and climate resilience (adaptation) for the first time. Planning and integrating adaptation with mitigation strategies are a best practice, and the Strategic Plan identifies the need for additional modeling and strategy identification to improve climate resiliency.

Performance Metrics

- ENV 3. Community Energy Use
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105090&object=measure&objectId=91392.html>
- ENV 9. Percent decrease in community Greenhouse Gas (GHG) emissions from 2005 baseline
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6282&object=measure&objectId=91345.html>
- HPG 70. % of residents responding very good/good to the City's performance in - Encouraging sustainability in the community
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109928.html>

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



**43.12: ENHANCEMENT: 2030 Climate Action and Energy Policy Update –
Optimizing Policy, Targets and Strategies**

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %

Expenses

521000 - Professional & Technical	40,000	80,000	100.0%
520000 - Purchased Prof & Tech Services	40,000	80,000	100.0%
Total Expenses	40,000	80,000	100.0%

Funding Sources

100-General Fund: One-time Revenue	One-Time Restricted	20,000	40,000	100.0%
501-Light & Power Fund: Ongoing Revenue	Ongoing Restricted	20,000	40,000	100.0%
	Funding Source Total	40,000	80,000	100.0%



Offer 86.1: Natural Areas - Visitor Services

2019: \$1,587,100 and 14.00 FTE, 1.05 Hourly FTE

2020: \$1,594,528 and 14.00 FTE, 1.05 Hourly FTE

Offer Summary

This offer supports Natural Area ranger services and education and volunteer management functions. These services are supported by dedicated City and County sales taxes.

Educational activities include: the involvement of more than 1,800 volunteers; development of materials such as maps, brochures and interpretive signs; interactive technology; school programs; and field trips for members of the general public. In 2017, volunteers donated 15,793 hours, more than the time of eight employees.

Rangers make daily contact with the public who use City trails and natural areas. The City manages 50 natural areas encompassing 37,000 acres with more than 120 miles of trails. Rangers are front-line ambassadors. Daily interactions, including friendly and educational contacts, municipal code enforcement, phone inquiries, agency assists and more are recorded by rangers for measurement and PDCA (Plan, Do, Check, Act) purposes. In 2017, rangers logged 7,369 positive visitor contacts, 12% of which were phone inquiries made to the on-duty ranger line. Rangers issued 356 summonses and civil citations, 251 warnings and 123 parking citations. Natural areas are increasingly popular with populations growth as indicated by 126 occasions when 12 popular trailhead parking lots were at capacity. Likewise, Gateway Natural Area staff served 50,325 customers in 2017; a 5% increase over 2016. Daily and annual pass sales increased by 9% and total revenue was up by 7%. Gateway staff closed parking 12 times during the peak season when at capacity.

It is estimated that the City's natural areas system receives approximately 3 million visitors annually. Volunteers and rangers are crucial to engaging the the community in caring for natural resources and trails. Ranger staff co-manage the Volunteer Ranger Assistant (VRA) Program with Larimer County. Volunteer Ranger Assistants greet visitors, promote outdoor safety and assist rangers.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- SAFE 5.1 - Improve community involvement, education and regional partnerships to increase the level of public trust and keep our community safe
- NLSH 1.3 - Improve accessibility to City and community programs and services to low and moderate income populations

Additional Information

- Free educational activities reach over 12,000 people a year and focus on under-served audiences.



Offer 86.1: Natural Areas - Visitor Services

- Rangers provide patrol 364 days a year as well as on-site ranger services at Bobcat Ridge NA and Gateway NA. They collaborate with Police Services, Code Enforcement, City Parks Rangers, Stormwater and other departments upon request. Rangers collaborate with Larimer County Emergency Services Emergency Services, and Larimer County's Parks and Open Lands ranger staff.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: Fort Collins' natural areas and trails are mentioned in most of the community's awards. This offer supports protection of natural resources within city owned Natural Areas. Rangers are on the front line of natural resources protection, leveraged by Volunteer Ranger Assistants who made 4,136 positive public contacts 2017.
- SAFE 5.1 - Improve community involvement, education and regional partnerships to increase the level of public trust and keep our community safe: Natural Areas' robust calendar of educational activities and community involvement (346 activities in 2017) reinforces the message that natural areas are safe and builds public trust. Over 15 partnerships leverage Natural Areas' outreach efforts.
- NLSH 1.3 - Improve accessibility to City and community programs and services to low and moderate income populations: Educational activities, community involvement and volunteer activities are all offered free of charge. Reaching diverse audiences is a priority and more effort will be placed here in 2019/20.

Improvements & Efficiencies

- Management of requests for programming and volunteer projects has been streamlined with additional features provided in Engage, the citywide volunteer management and registration system.
- Each year, the programming schedule is evaluated to favor in-depth high-quality programming over brief superficial contacts, and to maximize community interest and efficiency.
- Volunteers leverage staff time. With six education staff members and volunteers donating the time of 7.5 staff members, volunteers double the capacity for education, outreach and stewardship.
- A camera at Bobcat Ridge was installed that allows potential visitors to check the parking lot to see how full it is prior to leaving their home.
- An Ipad application was developed to map and track encampments on Natural Areas. The application creates seamless communication between rangers, public improvements crews, and ServePro, the City's cleanup contractor.



Offer 86.1: Natural Areas - Visitor Services

Performance Metrics

- CR 6. Natural Areas Programs - Cumulative Participation per Capita
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=91374.html>
- SAFE 38. % of residents responding always safe/usually safe - Trails
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109961.html>
- ENV 98. % of residents responding very good/good quality of - Natural areas and open space
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109883.html>

Personnel Changes

- A new ranger position was approved by the City Manager in 2017. As part of the 2018 department reorganization, a full FTE was assigned as supervisor of the Ranger division. This represents a 80% increase over past years.

Differences from Prior Budget Cycles

- A new ranger position was approved by the City Manager in 2017. As part of the 2018 department reorganization, a full FTE was assigned as supervisor of the Ranger division. This represents a 80% increase over past years.

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 assumed vacancy factor

Offer Profile

Offer Owner: RBachand

Lead Department: Natural Areas



86.1: Natural Areas - Visitor Services

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	14.00	14.00	- %
Hourly (FTE)	1.05	1.05	- %
Expenses			
511000 - Salaries & Wages	975,168	1,003,816	2.9%
512000 - Benefits	337,255	353,255	4.7%
519000 - Other Personnel Costs	(22,423)	(23,228)	3.6%
510000 - Personnel Services	1,290,000	1,333,843	3.4%
521000 - Professional & Technical	7,700	7,700	- %
529000 - Other Prof & Tech Services	10,200	10,200	- %
520000 - Purchased Prof & Tech Services	17,900	17,900	- %
533000 - Repair & Maintenance Services	27,727	28,698	3.5%
534000 - Rental Services	2,500	2,500	- %
530000 - Purchased Property Services	30,227	31,198	3.2%
542000 - Communication Services	17,720	17,720	- %
544000 - Employee Travel	24,600	24,600	- %
549000 - Other Purchased Services	30,100	30,100	- %
540000 - Other Purchased Services	72,420	72,420	- %
551000 - Vehicle & Equipment Supplies	11,308	12,922	14.3%
555000 - Office & Related Supplies	1,020	1,020	- %
556000 - Health & Safety Supplies	15,720	10,720	-31.8%
559000 - Other Supplies	80,045	80,045	- %
550000 - Supplies	108,093	104,707	-3.1%
565000 - Vehicles & Equipment	49,460	19,460	-60.7%
569000 - Other Capital Outlay	19,000	15,000	-21.1%
560000 - Capital Outlay	68,460	34,460	-49.7%
Total Expenses	1,587,100	1,594,528	0.5%



Funding Sources

272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	1,587,100	1,594,528	0.5%
	Funding Source Total	<u>1,587,100</u>	<u>1,594,528</u>	<u>0.5%</u>



Offer 86.2: Natural Areas - Department Management

2019: \$1,118,975 and 4.05 FTE, 0.00 Hourly FTE

2020: \$1,146,311 and 4.05 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds the Department Management work group of the Natural Areas Department with designated City and County sales tax revenues. The offer includes all costs associated with department management: staff (4.05 FTEs), office supplies for the entire program, and the Administrative and IT charges to the program. Management activities include personnel management, budgeting, long-range planning, and the development and administration of general management guidelines and policies.

Natural Areas, now in its twenty-sixth year, has evolved from focusing primarily on land conservation to become a multi-faceted department. Natural Areas recently underwent an organizational assessment, which resulted in a reorganization of the Natural Areas work groups. Areas of responsibility include department management; education, outreach and volunteer coordination; visitor services/enforcement; resource management; public improvements; planning and special projects; land conservation; and facility operations.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community

Additional Information

- This offer provides management support of the Natural Areas Department, which has grown from 3 FTE's in 1993 to 52.6 FTE's in 2018 (33.95 Permanent and 18.65 Seasonal Employees) and that stewards 37,000 acres of fee-owned property and nearly 7,000 acres of conservation easements.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: Natural Areas management leads and oversees the activities of the entire department which include multiple services designed to protect and enhance natural resources on City-owned properties.

Improvements & Efficiencies



Offer 86.2: Natural Areas - Department Management

- A recent organizational assessment noted that the Fort Collins Natural Areas Department is staffed at a low to moderate level compared to its peers. This management offer represents a small portion of the department's overall budget and illustrates the department's commitment to lean and efficient operations.

Performance Metrics

- ENV 98. % of residents responding very good/good quality of - Natural areas and open space
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109883.html>

Personnel Changes

- Natural Areas Manager – change in percent time charged to land conservation and department management
Other redistributions of time to or from department management and land conservation

Differences from Prior Budget Cycles

- Natural Areas Manager – change in percent time charged to land conservation and department management
Other redistributions of time to or from department management and land conservation

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

Correction of FTE's in offer summary and additional information. Overall FTE's have not changed. Updated assumed vacancy factor.

Offer Profile

Offer Owner: MSears

Lead Department: Natural Areas



86.2: Natural Areas - Department Management

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	4.05	4.05	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	317,036	326,549	3.0%
512000 - Benefits	104,196	109,512	5.1%
519000 - Other Personnel Costs	(6,588)	(6,832)	3.7%
510000 - Personnel Services	414,644	429,229	3.5%
521000 - Professional & Technical	18,989	19,089	0.5%
520000 - Purchased Prof & Tech Services	18,989	19,089	0.5%
533000 - Repair & Maintenance Services	25,300	26,186	3.5%
530000 - Purchased Property Services	25,300	26,186	3.5%
541000 - Insurance	14,100	14,671	4.0%
542000 - Communication Services	9,059	9,059	- %
543000 - Internal Admin Services	288,376	295,568	2.5%
544000 - Employee Travel	12,150	12,150	- %
549000 - Other Purchased Services	4,750	4,750	- %
540000 - Other Purchased Services	328,435	336,198	2.4%
551000 - Vehicle & Equipment Supplies	2,191	2,502	14.2%
555000 - Office & Related Supplies	23,000	23,000	- %
559000 - Other Supplies	29,200	29,200	- %
550000 - Supplies	54,391	54,702	0.6%
579000 - Other	100,000	100,000	- %
570000 - Other	100,000	100,000	- %
591000 - Transfers to Funds	177,216	180,907	2.1%
590000 - Transfers Out	177,216	180,907	2.1%
Total Expenses	1,118,975	1,146,311	2.4%



Funding Sources

100-General Fund: Ongoing	Ongoing	53,375	54,591	2.3%
272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	1,065,600	1,091,720	2.5%
	Funding Source Total	1,118,975	1,146,311	2.4%



Offer 86.3: Natural Areas - Land Conservation

2019: \$4,246,392 and 1.70 FTE, 0.00 Hourly FTE

2020: \$5,056,506 and 1.70 FTE, 0.00 Hourly FTE

Offer Summary

This offer funds Natural Areas land and water conservation and the associated work group with dedicated City and County sales tax revenues. Land conservation is a core purpose of the department and tax revenues from citizen-initiated ballot measures require the City to continue buying and restoring land. Thus, this offer includes funds to buy and conserve land (as well as water) and to support associated staff.

The offer includes all costs associated with land conservation: staff (3.2 FTEs), legal advice, real estate services support, consulting costs, appraisals and surveys. Land conservation primary 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. This work group also administers right-of-way and utility easement requests; negotiates, administers and monitors leases; and administers and monitors conservation easements. Each year Natural Areas negotiates and closes on 12 or more complex land conservation and right-of-way (ROW) transactions valued at \$4M on an average annual basis. In addition, as part of a City Manager-approved reorganization, this work group recently has been assigned additional responsibilities to monitor more than 30 conservation easements on more than 6,000 acres of land, as well as to play the primary role in ROW transactions and to be the lead on administering and monitoring more than 20 leases.

While some conservation services are contracted, most of the services are provided internally by Real Estate Services and the City Attorney's Office who are compensated by Natural Areas.

In 2019/2020, Land Conservation staff will be focused on the Poudre River, in the foothills, within community separators, and within the Growth Management Area. Staff will also be attentive to important regional opportunities should they arise.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.10 - Expand the Natural Areas land portfolio while simultaneously maintaining existing lands and access to nature

Additional Information

- This offer supports the core real estate functions of Natural Areas. To date, 44,415 acres of land have been conserved.

Links to Further Details:



Offer 86.3: Natural Areas - Land Conservation

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.10 - Expand the Natural Areas land portfolio while simultaneously maintaining existing lands and access to nature: This offer provides the core funding for acquiring natural areas and the purchase of conservation easements.

Improvements & Efficiencies

- The City collaborates with City departments, other public entities 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 collaborated with Larimer County and GOCO to conserve 2,500 acres in the Horsetooth Foothills, south and west of Horsetooth Reservoir at the cost of \$12M.
- Natural Areas has undergone a recent reorganization; the work group sponsored by this offer will be responsible for all real estate related matters rather than having those duties spread throughout the department. This is expected to improve productivity, reliability, and efficiency.

Performance Metrics

- ENV 130. Natural Areas - Land Conservation - Acres per Capita
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=524232.html>
- ENV 108. Natural Area Land Conservation Average Revenues Spent over 3 Years
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=225632.html>

Personnel Changes

- The land conservation work group has grown by 1 FTE – the City Manager approved the new Land Conservation Manager position in the fall of 2017 as a part of a reorganization of the Natural Areas Department. The position will be filled in 2018.

Differences from Prior Budget Cycles

- This offer was combined in the past with the offer for Department Management. The two offers were separated to provide better clarity for each offer.ffer was combined in the past with the offer for Department Management. The two offers were separated to provide better clarity for each offer.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 86.3: Natural Areas - Land Conservation

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

Updated assumed vacancy factor.

Offer Profile

Offer Owner: JStokes

Lead Department: Natural Areas



86.3: Natural Areas - Land Conservation

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	1.70	1.70	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	163,542	168,449	3.0%
512000 - Benefits	45,174	47,277	4.7%
519000 - Other Personnel Costs	(3,564)	(3,692)	3.6%
510000 - Personnel Services	205,152	212,034	3.4%
521000 - Professional & Technical	340,000	340,000	- %
529000 - Other Prof & Tech Services	20,000	20,000	- %
520000 - Purchased Prof & Tech Services	360,000	360,000	- %
531000 - Utility Services	1,000	1,000	- %
534000 - Rental Services	80,785	84,017	4.0%
539000 - Other Property Services	15,000	15,000	- %
530000 - Purchased Property Services	96,785	100,017	3.3%
544000 - Employee Travel	500	500	- %
549000 - Other Purchased Services	6,000	6,000	- %
540000 - Other Purchased Services	6,500	6,500	- %
559000 - Other Supplies	500	500	- %
550000 - Supplies	500	500	- %
561000 - Land	3,577,455	4,377,455	22.4%
560000 - Capital Outlay	3,577,455	4,377,455	22.4%
Total Expenses	4,246,392	5,056,506	19.1%

Funding Sources

272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	3,996,392	5,056,506	26.5%
272-Natural Areas Fund: Reserves	Reserve	250,000	-	- %
Funding Source Total		4,246,392	5,056,506	19.1%



Offer 86.4: Natural Areas - Field Services

2019: \$3,187,449 and 16.00 FTE, 9.25 Hourly FTE

2020: \$3,283,007 and 16.00 FTE, 9.25 Hourly FTE

Offer Summary

This offer supports public improvements (infrastructure), facility operations and resource management field services functions of the Natural Areas Department. These efforts are supported entirely by dedicated City and County sales taxes. The offer supports the operation, maintenance and improvement of recreational amenities, natural resources (vegetation and wildlife management) and operational facilities.

The City manages 50 natural areas encompassing nearly 37,000 acres and more than 120 miles of trails. Public improvements (trails, parking lots, fences, restrooms, signage, etc.) enrich recreational opportunities on the 42 natural areas currently open to the public. Resource management (vegetation restoration, weed control, wildlife management, etc.) maintains and improves habitat conditions. Facility operations maintain essential equipment, field supplies and buildings (e.g., offices, shops, regional ranger residences, Primrose Studio rental facility).

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community

Additional Information

- Public improvements are built recreational amenities designed to enhance visitor use, enjoyment, and safety, while helping to protect natural resource values. Maintaining and improving these community features are vital to ensuring continued wellness opportunities, high quality of life, and natural settings for public recreation.
- Resource management restores and enhances wildlife habit by improving the vegetation through restorative processes, weed control and wildlife management.
- 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.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)



Offer 86.4: Natural Areas - Field Services

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: Fort Collins is special because of our natural areas, trails, and trail connections to neighborhoods, in fact the outdoors is mentioned in most of the community's awards. By funding Natural Areas Field Services, this offer protects and enhances the natural resources and maintains the trails on City owned Natural Areas.

Improvements & Efficiencies

- Field Services staff spent over 2,700 hours maintaining or improving more than 50 miles of trails in 2017, resulting in more than 90% of trails rated in good condition and only 1% in bad condition by the end of the year.
- In 2016/17 Field Services in partnership with Parks Planning, Larimer County and Loveland developed the plans for a 4.5-mile paved trail along the east side of Shields Street to connect the Fort Collins trail system to the Loveland Trail system. Construction across two natural areas will occur in 2018.
- Field Services staff developed a 30 plus year Nix Farm – Natural Areas Facilities Master Plan and developed construction plans for the expansion of the main shop and equipment yard. The project includes the installation of solar panels that will help the natural area Nix Farm campus approach net-zero energy use.
- Field Services staff treated a record breaking 2,120 acres of non-native plants in 2017 while using less herbicide per acre than the historical average. Treatments included 1,400 acres of cheat grass highlighted by a 1,175 acres application via helicopter and mowing 1,000 acres to control annual weeds.
- 2,535 acres are in active restoration status.

Performance Metrics

- ENV 58. Cumulative Acres in Ecological Restoration
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=597633.html>
- CR 67. % of residents responding very good/good quality of - Recreational trails
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109884.html>

Personnel Changes

- The Natural Areas underwent a reorganization as well as the addition of conversions in this offer.

Differences from Prior Budget Cycles

- Not applicable



Offer 86.4: Natural Areas - Field 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

Updated labor distribution between 705105 and 705115 and updated assumed vacancy factor.

Offer Profile

Offer Owner: MSears

Lead Department: Natural Areas



86.4: Natural Areas - Field Services

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	16.00	16.00	- %
Hourly (FTE)	9.25	9.25	- %
Expenses			
511000 - Salaries & Wages	1,197,102	1,252,346	4.6%
512000 - Benefits	471,096	497,979	5.7%
519000 - Other Personnel Costs	(28,504)	(29,966)	5.1%
510000 - Personnel Services	1,639,694	1,720,359	4.9%
521000 - Professional & Technical	360,074	360,074	- %
529000 - Other Prof & Tech Services	112,857	112,857	- %
520000 - Purchased Prof & Tech Services	472,931	472,931	- %
531000 - Utility Services	32,200	32,200	- %
532000 - Cleaning Services	30,036	30,586	1.8%
533000 - Repair & Maintenance Services	421,286	425,136	0.9%
534000 - Rental Services	12,590	12,590	- %
539000 - Other Property Services	10,000	10,000	- %
530000 - Purchased Property Services	506,112	510,512	0.9%
542000 - Communication Services	35,392	35,392	- %
544000 - Employee Travel	24,750	24,750	- %
549000 - Other Purchased Services	500	500	- %
540000 - Other Purchased Services	60,642	60,642	- %
551000 - Vehicle & Equipment Supplies	31,263	41,756	33.6%
552000 - Land & Building Maint Supplies	197,965	197,965	- %
555000 - Office & Related Supplies	1,000	1,000	- %
556000 - Health & Safety Supplies	14,500	14,500	- %
558000 - Chemical Supplies	30,000	30,000	- %
559000 - Other Supplies	55,200	55,200	- %
550000 - Supplies	329,928	340,421	3.2%
565000 - Vehicles & Equipment	148,658	148,658	- %
569000 - Other Capital Outlay	29,484	29,484	- %
560000 - Capital Outlay	178,142	178,142	- %
Total Expenses	3,187,449	3,283,007	3.0%



Funding Sources

272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	3,187,449	3,283,007	3.0%
	Funding Source Total	<u>3,187,449</u>	<u>3,283,007</u>	<u>3.0%</u>



Offer 86.5: Natural Areas - Planning and Special Projects

2019: \$1,721,256 and 7.75 FTE, 0.74 Hourly FTE

2020: \$1,830,418 and 7.75 FTE, 0.74 Hourly FTE

Offer Summary

This offer funds the Planning and Special Projects work group of the Natural Areas Department using dedicated City and County sales tax revenue. This newly created work group combines all aspects of project planning and implementation within the Natural Area organizational structure. The offer includes funding for one Environmental Program Manager, two Sr. Environmental Planners, four Environmental Planners, one Watershed Planner and one GIS Specialist along with all costs associated with project planning and management (consulting fees, funding for capital projects, Nature in the City administration).

Recent changes to the Natural Areas Department organizational design are intended to enhance efficiency, coordination and collaboration on project planning and implementation. This centralized approach is anticipated to improve the delivery of planning services to the public and other City departments. Project planning and implementation will include: ecological restoration, recreation planning, capital project development, wildlife and vegetation management, recreation and natural resource monitoring programs, natural area site plans, Nature in the City, water rights administration, river health initiatives, and research and regional collaboration. Additional responsibilities include tracking and enhancing performance metrics, representing the Department on City-wide planning efforts and exploring ways to influence conservation planning and outreach to all segments of the community through the synergistic efforts of Natural Areas and Nature in the City.

Ecological, recreational and cultural inventory and monitoring will also be the responsibility of this group. Combining this responsibility with planning leads to the development of performance metrics, helps inform management decisions, measures project outcomes and provides a basis to adjust management actions to achieve desired outcomes.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- CR 2.2 - Plan, design, implement and maintain the City's parks and trails systems

Additional Information

- This work group serves as the core planning team for Natural Areas. Building this center of excellence enhances the ability of Natural Areas to collaborate across professional disciplines.
- This team will lead efforts to collaborate on important ecological and recreation based studies and collect data that are needed to guide management decisions and metric development.



Offer 86.5: Natural Areas - Planning and Special Projects

- Planning outreach will focus on maintaining relationships with traditional audiences and expand our relationship with those under represented within our community.
- Efforts will focus on short term and long-term planning. Several conservation challenges are tied to an increase in the City's population. This team will lead efforts locally and collaborate regionally / nationally to develop management strategies to meet the Natural Areas mission in light of these new challenges.
- River health initiatives will strive to sustain the health and resilience of the Poudre River ecosystem by pursuing projects on Natural Areas properties, by collaborating across City departments and by selectively engaging and supporting in regional initiatives to the extent they influence the City's goals for the river.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: This work group will lead natural resource based planning efforts for Natural Areas and participate on City-wide and external teams to assist with natural and recreation resource planning.
- CR 2.2 - Plan, design, implement and maintain the City's parks and trails systems: Trail systems are a critical recreation amenity. This offer will support efforts to quantify recreation use and needs, the impacts to visitors and natural resources of visitor use, and to identify options for new, relocated, or abandoned trails on City-owned properties. Trail systems are a critical recreation amenity. This offer will support efforts to quantify recreation use and needs, the impac

Improvements & Efficiencies

- This offer supports a combined planning work group that includes Nature in the City; this integrated approach will strengthen natural resource and access-to-nature outcomes.

Performance Metrics

- ENV 98. % of residents responding very good/good quality of - Natural areas and open space
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109883.html>
- ENV 44. Poudre River riparian restoration measured by cumulative area brought into the 5 year floodplain
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=343437.html>
- ENV 58. Cumulative Acres in Ecological Restoration



Offer 86.5: Natural Areas - Planning and Special Projects

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=6287&object=measure&objectId=597633.html>

Personnel Changes

- Natural Areas has reorganized. This is a new division and therefore the personnel changes have been moved as necessary

Differences from Prior Budget Cycles

- All new division/business unit for Natural Areas.

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable

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

Grammar correction in offer summary. Updated labor distribution between 705107 and 705117 and updated assumed vacancy factor.

Offer Profile

Offer Owner: DFiggs

Lead Department: Natural Areas



86.5: Natural Areas - Planning and Special Projects

Ongoing Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	7.75	7.75	- %
Hourly (FTE)	0.74	0.74	- %
Expenses			
511000 - Salaries & Wages	632,010	655,101	3.7%
512000 - Benefits	189,889	200,009	5.3%
519000 - Other Personnel Costs	(12,731)	(13,280)	4.3%
510000 - Personnel Services	809,168	841,830	4.0%
521000 - Professional & Technical	150,000	150,000	- %
529000 - Other Prof & Tech Services	47,000	47,000	- %
520000 - Purchased Prof & Tech Services	197,000	197,000	- %
531000 - Utility Services	32,614	32,614	- %
533000 - Repair & Maintenance Services	20,000	20,000	- %
535000 - Construction Services	615,000	691,500	12.4%
530000 - Purchased Property Services	667,614	744,114	11.5%
542000 - Communication Services	9,324	9,324	- %
544000 - Employee Travel	12,650	12,650	- %
549000 - Other Purchased Services	8,500	8,500	- %
540000 - Other Purchased Services	30,474	30,474	- %
559000 - Other Supplies	2,000	2,000	- %
550000 - Supplies	2,000	2,000	- %
574000 - Grants	15,000	15,000	- %
570000 - Other	15,000	15,000	- %
Total Expenses	1,721,256	1,830,418	6.3%



Funding Sources

100-General Fund: Ongoing	Ongoing	30,585	31,643	3.5%
254-KFCG Fund: Other Community Priorities	Ongoing Restricted	98,770	101,531	2.8%
255-Community Capital Improvement Program (CCIP) Fund: Ongoing Revenue	Ongoing Restricted	13,903	14,392	3.5%
272-Natural Areas Fund: Ongoing Revenue	Ongoing Restricted	1,577,998	1,682,852	6.6%
Funding Source Total		1,721,256	1,830,418	6.3%



Offer 86.9: ENHANCEMENT: 1.0 FTE Conversion from Hourly to Classified GIS Analyst

2019: \$45,325 and 1.00 FTE, 0.00 Hourly FTE

2020: \$47,033 and 1.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer converts an hourly GIS Mapping Specialist to a permanent classified position of GIS Analyst 1. The hourly position was created to design, manage and maintain data in geographic information systems (GIS) primarily to support ecological management plans and projects. The position has been an unqualified success and given the tremendous growth in Natural Areas assets, as well as increased focus on success metrics, there is a pressing business need for full-time in-house GIS services.

The business need for additional GIS expertise within the Natural Areas Department (NAD) has expanded beyond supporting management plans to supporting data-driven management decisions across all work teams within NAD. Embedding expanded GIS skills within NAD will ensure development of occupation specific GIS best practices and standards. Products and improvements will include the development, analysis and management of operational geospatial data (trails, boundaries, natural and cultural resources, property assets); creation of high quality GIS-generated cartographic mapping for visitor education, meetings, outreach material and presentations; support and training for NAD staff on field collection and data management; development of collaborative partnerships with other entities to obtain data for project use; and providing training to NAD staff on best internal GIS operational processes.

In addition to fulfilling operational needs within NAD, the focus on information gathering and analysis will allow for the refinement of metrics and the development of new metrics to report NAD outcomes. For example, NAD is contemplating a metric that describes recreation use days per capita in relation to ecological change and visitor management maintenance costs (such as enforcement, maintenance, new infrastructure). A second example is a spatial analysis of ecological and cultural attributes to aid in the planning and enhancement of recreation opportunities.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- HPG 7.6 - Leverage data, technology, metrics and benchmarks to guide decisions, improve results, and enhance service delivery

Additional Information



Offer 86.9: ENHANCEMENT: 1.0 FTE Conversion from Hourly to Classified GIS Analyst

- This GIS position has greatly expanded NAD's efficiency in gathering field data through the use of collector applications and tablets. Several of the ecological monitoring workflows have already been improved by making the collection of field data more user friendly and the data management more organized and accurate.
- Data analysis will provide increased rigor in metrics used to report Natural Area accomplishments to the citizens of Fort Collins. Additionally, availability of accurate and timely GIS data will allow tracking of current projects by many groups in the organization through reports and dashboards.
- The GIS position in the NAD will provide training sessions and onsite support for GIS data collection and best management practices specifically tailored to natural resource users. This will help staff be more efficient.
- Expanding the role of the GIS Analyst will enhance data gathering, analysis and management for all work groups within NAD. Data cleanup has already been started and is needed to create a strong foundation. Creating a centralized data library and optimized workflows will promote better information sharing and analysis across the department.
- The GIS Analyst will define data collection and storage protocols, maintain data integrity and ensure regular updates.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$48,939

Scalability and explanation

If this offer were not accepted, it is assumed that the current long-term hourly position would be retained, although long-term hourlies are discouraged by the organization. If the hourly position were not able to be retained, it would have a serious deleterious impact on the current operations of natural areas.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: This position provides for enhanced use of spatially accurate data to inform natural area management and resource protection.



Offer 86.9: ENHANCEMENT: 1.0 FTE Conversion from Hourly to Classified GIS Analyst

- HPG 7.6 - Leverage data, technology, metrics and benchmarks to guide decisions, improve results, and enhance service delivery: This position provides for enhanced use of spatially accurate data to inform natural area management and resource protection.

Performance Metrics

- ENV 98. % of residents responding very good/good quality of - Natural areas and open space
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109883.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- This position is currently hourly at 29 hours per week. This offer will increase this to a full time equivalent.

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

CPIO edits

Offer Profile

Offer Owner: DFiggs

Lead Department: Natural Areas



86.9: ENHANCEMENT: 1.0 FTE Conversion from Hourly to Classified GIS Analyst

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	1.00	1.00	- %
Hourly (FTE)	-	-	- %

Expenses

511000 - Salaries & Wages	68,980	71,050	3.0%
512000 - Benefits	22,126	23,262	5.1%
519000 - Other Personnel Costs	(45,781)	(47,279)	3.3%
510000 - Personnel Services	45,325	47,033	3.8%
Total Expenses	45,325	47,033	3.8%

Funding Sources

272-Natural Areas Fund: Ongoing	Ongoing Restricted	45,325	47,033	3.8%
Revenue				
Funding Source Total		45,325	47,033	3.8%



Offer 86.10: ENHANCEMENT: Encampment Cleaning Services

2019: \$206,000 and 0.00 FTE, 0.00 Hourly FTE

2020: \$216,000 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will provide safe removal of illegal encampments. The homeless/transient environment has changed rapidly in the last 10 years. Encampments contain a wide variety of hazardous materials, which need to be removed for public safety. These materials include needles, soiled clothing, human waste and drugs that must be handled and disposed of in the proper manner.

Disruptive behaviors of people who are transient or homeless have become a focal point for this community. Every day citizens report concerns about unwanted behaviors, and police spend a growing amount of time addressing these complaints. One of the common complaints involves the presence of transient campsites near neighborhoods and businesses. In part because of the increased enforcement by personnel from Natural Areas, Parks, Police and Code Enforcement in the north part of town, campsites are increasingly located in other areas around town. The Mason Corridor, Midtown and the area around the South Transit Center are currently hot-spots for campsites. One of the challenges in these areas is a combination of property ownership and control of the affected properties. Funding this offer would allow City employees to coordinate cleanups in situations with multiple property owners involved. It would also significantly speed up the cleanup process and improve safety and neighborhood livability.

In 2017, Council approved a 2018 mid-cycle revision offer to enable Natural Areas and Parks to implement a successful clean-up system, which identifies areas of concern, notifies the potential owners and provides for a safe and thorough clean-up. Given the success of this approach, the intent of this budget enhancement (or addition) is to replicate the program in other parts of the City. Due to the hazards found in these sites, a private company has been contracted to conduct this clean-up portion of the work. This protects the public and City employees from the dangers associated with these sites.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- CR 2.2 - Plan, design, implement and maintain the City's parks and trails systems
- SAFE 5.7 - Reduce incidents of, and impacts from, disruptive behavior of the transient population

Additional Information

- Parks and Natural Areas would maintain the existing level of service provided by the 2018 Revision Offer. All properties managed by Community Services would be administered through Natural Areas.



Offer 86.10: ENHANCEMENT: Encampment Cleaning Services

- The current proposal is that Code Enforcement would manage the cleanup of campsites in areas outside of designated Natural Areas and Parks. Police Services will assist with the enforcement of the applicable ordinances and collaborate with Code Enforcement to mark and evaluate the campsites for cleanup. This funding will greatly improve the City's response to this growing issue.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$126,000

Scalability and explanation

This offer is scalable by reducing funds for any of the Service Areas. With the reduction there would be an increase of time that it would take to clean up an encampment.

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: Cleaning up camps in natural areas, parks and along trails protects and enhances natural resource of the community.
- CR 2.2 - Plan, design, implement and maintain the City's parks and trails systems: Cleaning up camps in the parks and on the trails contributes better maintenance of all these sites.
- SAFE 5.7 - Reduce incidents of, and impacts from, disruptive behavior of the transient population: Working with private business owners, residents and other City departments to clean up encampments more quickly will support public trust and community safety.

Performance Metrics

- SAFE 35. % of residents responding always safe/usually safe - Parks
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109958.html>
- SAFE 38. % of residents responding always safe/usually safe - Trails
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109961.html>
- NLSH 64. % of residents responding very good/good - Your neighborhood as a place to live
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=7718&object=measure&objectId=109864.html>

Explanation of Any Adjustments to Personnel Costs using object 519999

- Not applicable



Offer 86.10: ENHANCEMENT: Encampment Cleaning Services

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

Made changes to funding sources

Oct 2018 Per Council guidance: Remove Natural Areas Fund, replace with General Fund

Offer Profile

Offer Owner: MSears

Lead Department: Natural Areas



86.10: ENHANCEMENT: Encampment Cleaning Services

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
521000 - Professional & Technical	180,000	190,000	5.6%
529000 - Other Prof & Tech Services	26,000	26,000	- %
520000 - Purchased Prof & Tech Services	206,000	216,000	4.9%
Total Expenses	206,000	216,000	4.9%

Funding Sources

100-General Fund: Reserves	Reserve	100,000	101,000	1.0%
254-KFCG Fund: Other Community Priorities Reserves	Reserve	26,000	35,000	34.6%
504-Stormwater Fund: Ongoing Revenue	Ongoing Restricted	80,000	80,000	- %
Funding Source Total		206,000	216,000	4.9%



Offer 86.11: ENHANCEMENT: CCIP - Nature in the City

2019: \$186,097 and 0.00 FTE, 0.00 Hourly FTE

2020: \$185,608 and 0.00 FTE, 0.00 Hourly FTE

Offer Summary

This offer will use \$200,000 in voter-approved capital project funds to assist in implementing Nature in the City projects such as installing nature play facilities on private and City lands, acquiring access easements and constructing trail connections, funding assistance for outdoor classrooms and nature hubs at Poudre School District schools, restoring sites for wildlife habitat, installing pollinator gardens, and partnerships in small and large-scale tree planting projects.

The Nature in the City (NIC) strategic plan was unanimously adopted by City Council in March 2015. NIC is part of the voter-approved Community Capital Improvement Program (CCIP) tax initiative and will receive \$3M in capital projects funding through 2026.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community
- ENV 4.10 - Expand the Natural Areas land portfolio while simultaneously maintaining existing lands and access to nature
- NLSH 1.3 - Improve accessibility to City and community programs and services to low and moderate income populations

Additional Information

- 2019 - 2020 will be years four and five, respectively, for the NIC CCIP funding.
- By the end of 2018, NIC will have successfully implemented 24 capital projects in the community since 2016.
- NIC typically matches CCIP funding on capital projects dollar for dollar with external funding sources, effectively doubling the impact NIC can have within the community

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of:
\$0

Scalability and explanation

N/A

Links to Further Details:



Offer 86.11: ENHANCEMENT: CCIP - Nature in the City

- Not applicable

Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: NIC's community capital projects focus on installing small, creative spaces that provide habitat for wildlife and better connections to nature for residents. Most of these capital projects are located on private property with public access.
- ENV 4.10 - Expand the Natural Areas land portfolio while simultaneously maintaining existing lands and access to nature: NIC manages the "10 min walk to nature" map which shows where residents are able to easily connect to nature and where barriers are present. Increasing access to nature, especially for those populations that have not been classically engaged within the community, is a high priority.
- NLSH 1.3 - Improve accessibility to City and community programs and services to low and moderate income populations: NIC focuses on providing physical connections to nature beyond City owned properties (e.g. Parks, Natural Areas). Special focus on equitable access to nature to all residents, but especially low and moderate income populations is an NIC priority.

Performance Metrics

- A performance measure has not yet been identified/created; 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

CPIO edits

Offer Profile

Offer Owner: jscharton

Lead Department: Natural Areas



86.11: ENHANCEMENT: CCIP - Nature in the City

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	-	-	- %
Hourly (FTE)	-	-	- %
Expenses			
529000 - Other Prof & Tech Services	186,097	185,608	-0.3%
520000 - Purchased Prof & Tech Services	186,097	185,608	-0.3%
Total Expenses	186,097	185,608	-0.3%
Funding Sources			
255-Community Capital Improvement Program (CCIP) Fund: Ongoing Revenue	186,097	185,608	-0.3%
Funding Source Total	186,097	185,608	-0.3%



Offer 86.12: ENHANCEMENT: 0.50 FTE Increase - Administrative Assistant in Natural Areas

2019: \$31,743 and 0.50 FTE, 0.00 Hourly FTE

2020: \$33,102 and 0.50 FTE, 0.00 Hourly FTE

Offer Summary

This offer increases a 0.50 FTE administrative assistant to a full-time position. Currently the Natural Areas Department has 1.50 FTE providing administrative services. These services include facility reservations; review and approval of permits including research, group use, special use, and other types of permits; providing support for all public meetings conducted by the department including citizen advisory board meetings; providing day-to-day front desk service to citizens to respond to questions, concerns, suggestions; providing calendar management services to the director; providing graphic arts services to all staff for presentations and publications; and providing miscellaneous administrative services to approximately 34 full-time staff. With expected conversions and staff additions there will be approximately 45 FTE and up to 20 seasonal staff in 2019 and 2020. Since 2008, Natural Areas has greatly increased the number of sites it manages as well as acreage without adding any new FTE. Administrative tasks have dramatically increased and this new .50 FTE represents a critical business need.

This Offer supports the following Strategic Objectives (*the primary objective is marked with a ✓*):

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community

Additional Information

- This offer provides administrative support of the Natural Areas Department, which has grown from 3 FTE's in 1993 to 34 FTE and 19 seasonal full-time equivalents and that cares for 37,000 acres of fee-owned property and nearly 7,000 acres of conservation easements.

Impact to Ongoing Expenses

- Funding this Offer will increase future ongoing expenses by an estimated annual amount of: \$33,000

Scalability and explanation

This offer is not scalable

Links to Further Details:

- Not applicable

Linkage to Strategic Objectives

(*the primary objective is marked with a ✓*)



Offer 86.12: ENHANCEMENT: 0.50 FTE Increase - Administrative Assistant in Natural Areas

- ✓ ENV 4.8 - Protect and enhance natural resources on City-owned properties and throughout the community: the administrative staff proposed in this enhancement offer provide critical support services to office and field staff who provide services designed to protect and enhance natural resources on City-owned properties.

Performance Metrics

- A performance measure has not yet been identified/created; 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

Adding this enhancement offer to increase the Administrative Assistance position to a full time position

Offer Profile

Offer Owner: JStokes

Lead Department: Natural Areas



86.12: ENHANCEMENT: 0.50 FTE Increase - Administrative Assistant in Natural Areas

Enhancement to Programs and Services

	2019 Projected Budget	2020 Projected Budget	2019 to 2020 Change
Full Time Equivalent (FTE) Staffing	0.50	0.50	- %
Hourly (FTE)	-	-	- %
Expenses			
511000 - Salaries & Wages	19,215	19,792	3.0%
512000 - Benefits	12,528	13,310	6.2%
510000 - Personnel Services	31,743	33,102	4.3%
Total Expenses	31,743	33,102	4.3%
Funding Sources			
272-Natural Areas Fund: Ongoing Ongoing Restricted Revenue	31,743	33,102	4.3%
Funding Source Total	31,743	33,102	4.3%