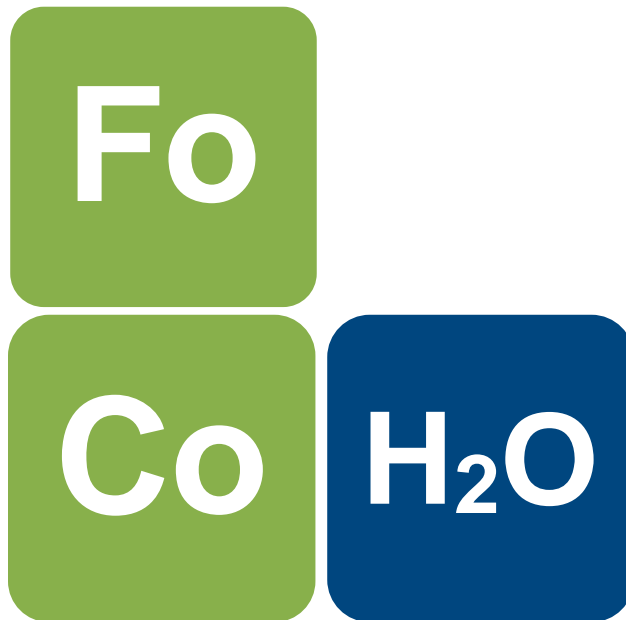




Xeriscape Incentive Program Expansion

Helping customers create beautiful, water-wise landscapes



Fort Collins Utilities
222 Laporte Ave, PO Box 580
Fort Collins, CO 80522

Abbye Neel, Project Manager
222 Laporte Ave, PO Box 580
Fort Collins, CO 80522
aneel@fcgov.com
970-416-4371



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Executive Summary

April 24, 2019
Fort Collins Utilities
Fort Collins, Larimer County, Colorado

Fort Collins Utilities proposes expanding the successful single-family residential Xeriscape Incentive Program (XIP) to commercial-scale landscapes. Funds will be used to provide financial incentives for business and homeowner associations (HOAs) to undertake large landscape transformations that reduce long-term seasonal water demands and increase resilience to current and future climate conditions. This expansion was identified based on our Water Efficiency Plan as well as local factors that are driving unprecedented interest and need for commercial landscape change. Based on XIP projects from 2016-18, we estimate average annual savings of 13 gallons per square foot transformed. If the funds are awarded, about 12 projects could be supported with a minimum savings of 3.1 million gallons per year. The results are expected to be greater as some customers will implement larger projects than the minimum of 20,000 sq. ft.

Fort Collins Utilities requests \$75,000 from the U.S. Bureau of Reclamation to expand the existing program. Utilities currently has a pending grant with the Colorado Water Conservation Board (CWCB) for \$70,000. Utilities will match up to \$81,646 dollars of cash and in-kind



services for a total program cost of \$226,646. If all funding is granted \$165,000 will be used to rebate landscape projects. The remaining \$61,646 will cover materials and in-kind salaries and wages.

Fort Collins Utilities anticipates starting initial program preparation in July 2019, with implementation of landscape projects starting in spring of 2020. All projects should be fully installed by October 2021.

The project is not located on a Federal facility.

Background Data

Fort Collins Utilities (Utilities) is a municipally owned utility primarily supplied by two surface water sources: the Cache la Poudre River (Poudre River) and the Colorado-Big Thompson (C-BT) Project. Combined, Utilities delivers an average of 26,000 acre-feet of treated water for municipal uses. Specifically, the primary components of the Utilities' water rights portfolio are:

- Poudre River Senior Direct Flow Decrees: Utilities has five senior direct flow rights that allow Utilities to divert an average of 12,600 per acre-feet. These rights are usually available unless there is a severe dry period.
- Poudre River Junior Direct Flow Decrees: The Utilities' junior rights (1955 appropriation date) are only in priority during peak runoff periods. Annual yield can range from zero to 5,400 acre-feet depending on the year.
- C-BT Water: Utilities owns about 18,855 units of C-BT water. Deliveries depend on the annual quota set by Norther Water each year. Quotas can range from annual yields of 9,400 acre-feet to 18,800 acre-feet.

An average year yields 75,245 acre-feet of water, if all rights were fully usable; however, due to legal and capacity constraints, present yield available for municipal use is much less. Utilities is actively trying to address these issues; however, the lack of storage capacity is the greatest water supply vulnerability.

Utilities serves approximately 35,500 water accounts and 133,000 people. Eighty-two percent of accounts are single family residential customers, 11 percent are duplex or multifamily accounts, and 7 percent are commercial (including irrigation accounts). The Utilities' current planning level is 150 gallons per capita per day (gpcd), however Utilities also has an efficiency goal of 130 gpcd by 2030. The population within the service area is expected to increase by 35,000 residents in the next 30 years (Figure 1).

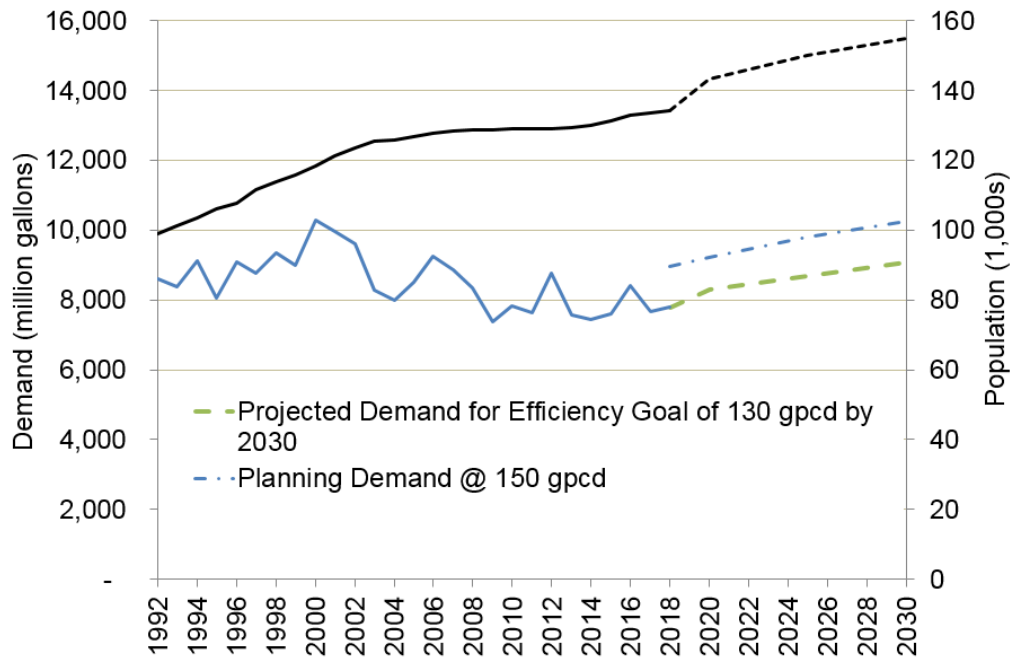


Figure 1. Projected Treated Water Demand and Population

Throughout the Utilities' distribution area there are 544 miles of water mainlines. There are four finished water storage reservoirs: two can store 14 million gallons (MG), one can store 3.8 MG, and one can store 1.5 MG. The distribution system is gravity fed, however there are two finished water pumping stations at the treatment plant to serve a single pressure zone. One station can pump about 4,500 gallons per minute (gpm) and the other can pump about 8,300 gpm. Pumping rates vary significantly throughout the day and year.

There are no current relationships with the Bureau of Reclamation.

Project Location

The City of Fort Collins (City) is located 65 miles north of Denver in Larimer County. The Fort Collins Utilities service area boundaries for water do not perfectly match the City limits. Figure 2 shows the Fort Collins Utilities service area relative to other water district service areas and City limits. Fort Collins Utilities currently serves about 75% of Fort Collins' residents and businesses. The Xeriscape Incentive Program Expansion is located in Fort Collins Utilities service area in Fort Collins, Colorado USA. The project latitude is 40°35'N and the longitude is 105°5'W. The weather and climate conditions in this semi-arid region mean that nearly all landscapes require irrigation to survive.

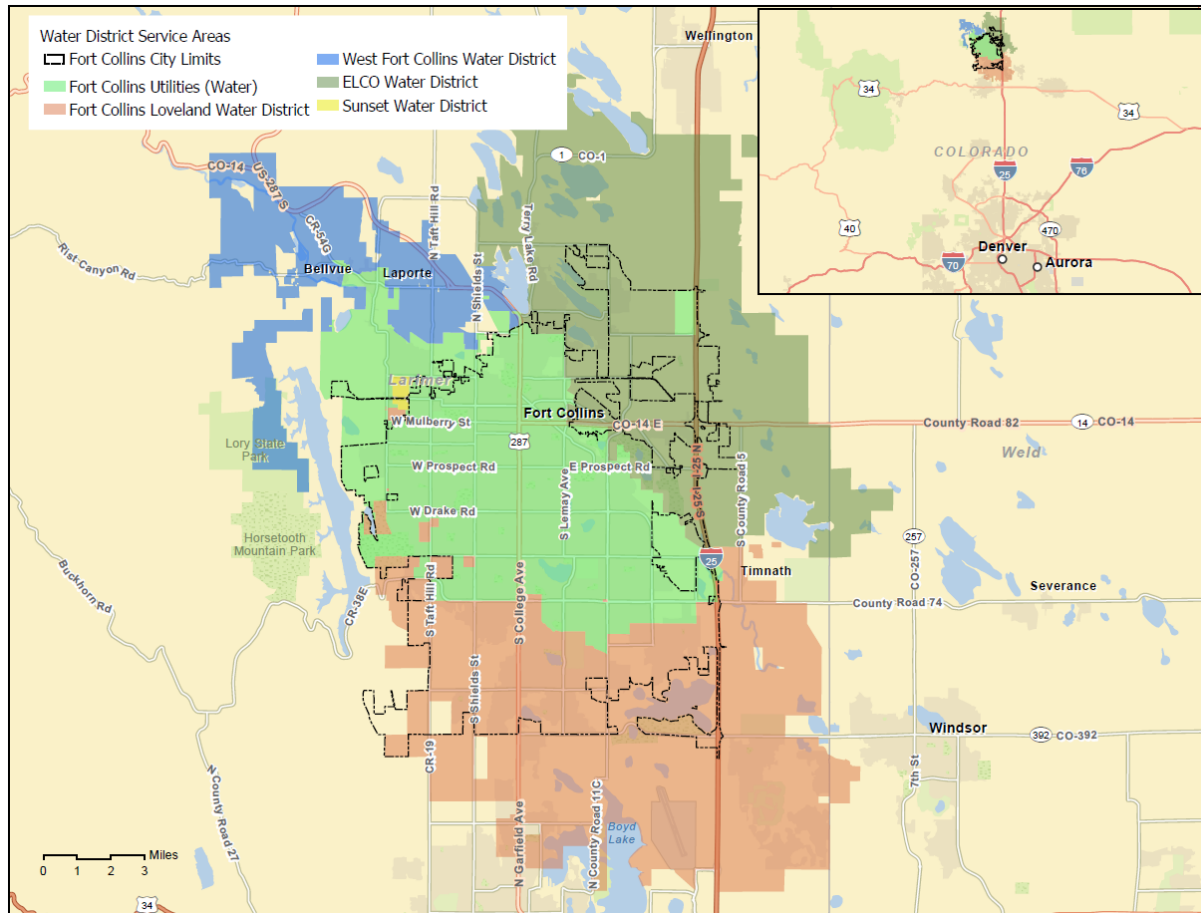


Figure 2. Water Service Area and surrounding Water District Boundaries.

Technical project description and milestones

Technical Project Description – Utilities requests funds to expand our current single-family-residential Xeriscape Incentive Program (XIP) to include commercial-scale landscapes on Homeowners Association (HOA) and commercial properties. XIP started in 2016 and has successfully grown almost 3-fold from 16 projects to 47 projects in 2018. Nearly 120,000 square feet have been converted through this education-focused incentive program. We estimate 1.7 million gallons of annual savings from previously completed XIP projects.

XIP provides a rebate for transforming high-water use landscape to low- or no-water-use landscaping or hardscaping. Participants are required to provide “before” photos, a landscape plan, irrigation plan, and a narrative describing the proposed project. Participants can attend optional 1:1 consultation and have a required end-of-project final inspection and evaluation. Learn more at fcgov.com/xip.



Utilities does not currently have sufficient funds to expand XIP to commercial customers. In lieu of funds, Utilities created “no-cost” services like the Landscape Water Budget (LWB) program for commercial-scale landscapes; LWB combines a customer’s water use with information about their landscape area and type in order to show a simple comparison of actual water use to efficient water use. These reports are sent on a monthly basis and are used as a tool among Utilities staff, the customer, and their landscape contractor to identify opportunities to more efficiently manage their landscape, water use and ultimately their water bills. We estimate this service helped 15 customers save 22 million gallons in 2018. Learn more at fcgov.com/commercial-irrigation.

Purpose: The purpose of this funding request is to expand the successful structure of XIP to commercial customers, in conjunction with the LWB program, to achieve significant peak-season water savings by lowering landscape irrigation need. A complementary long-term goal is to increase the resiliency and drought tolerance of our community’s landscapes. Fort Collins is already a semi-arid climate; rises in temperature and changes in precipitation patterns are expected to have a significant impact on our future water supplies and demands. Transforming landscapes now will help prepare our community for future droughts while protecting our community’s vibrancy and livability.

Challenges: Most HOAs and business parks were built with large areas of unused turfgrass that require a lot of water. Only 7 percent of Utilities’ water accounts are commercial customers, which include irrigation accounts for HOAs, yet they use over 40 percent of treated water each year. Water demand increases for these customers by 60-70 percent in the summer months due to irrigation.

Through surveys, focus-groups, and research, commercial customers have identified two key barriers to successfully implementing projects:

Challenge	Solution
Cost of commercial-scale landscape change	Expand XIP program to provide financial support for commercial-scale landscape change, while leveraging LWB program to provide educational opportunities to create community support and awareness for projects.
Successful establishment and management of new landscapes	Use XIP’s requirements (photos, a landscape plan, irrigation plan, and a narrative describing proposed project) to ensure project success. Adapt to address needs of commercial-scale landscapes including landscape contracts, establishment protocols, and maintenance plans. Leverage LWB and require milestone check-ins with project contact and landscape contractor to maintain progress and course-correct as issues arise.



Residential XIP projects are more often completed by the homeowner. Commercial-scale projects are larger, more expensive, and require professional contractors. As we scale up to provide a commercial program offering, most requirements in the current XIP structure will be adjusted to require a more comprehensive and professional grade design, installation, and maintenance plan. Utilities staff will require more frequent milestone check-ins, especially as some projects may span more than one year. Project awards will be based on the size of the project as well as projected water savings.

The City has a series of other programs that utilize a common application software that is familiar to the community; this will be used to expand XIP to commercial properties. Complete program timeline and requirements are included in the Program Overview and Project Implementation sections.

Expected Results - Utilities will offer between \$5,000 and \$15,000 per project; we anticipate funding about 12 projects utilizing Utilities' existing cash of \$20,000 plus the Reclamation portion of \$75,000. This will transform a minimum of 200,000 square feet, saving about 3.1 million gallons of water (9.6 acre-feet of water) per year.

Utilities applied for a Colorado Water Conservation Board (CWCB) grant requesting \$70,000 for use in 2019 and 2020. If awarded (notifications to be sent in May 2019), Utilities proposes using the CWCB grant funding as the match funding. If not awarded, Utilities will provide match funding from the Water Conservation budgets over 2020 and 2021.

If both grants are awarded, Utilities will have a total of \$165,000 available for project rebates, or estimated funding for up to 21 projects. At this level of funding, we estimate transforming a minimum 420,000 square feet with the potential to save about 5.5 million gallons (16.6 acre-feet) of water per year.

Program Overview - The phases of the program expansion are as follows:

- 1. Participant Coordination and Call for Applications (July – October 2019):**
 - Set-up administration processes through existing City software; finalize any internal administrative processes.
 - Advertise Call for Applications and work with individual participants to field questions and generate a set of high-quality applications.
 - Host educational events, conduct meetings with interested customers, partner with customers to facilitation information events for interested business or HOA.
- 2. Application Review and Project Selection (August 2019 – February 2020):**
 - Review, score, and determine selected applications. Criteria includes:
 - Completeness of application
 - Project feasibility
 - Methodology and Quality of Plans (Landscape, Irrigation, Installation, Establishment and Maintenance)



- Water savings potential
- Community support
- Host Project Launch Meetings with selected Applicants; finalize Project Monitoring Plans.
- Enroll selected Participants in the Landscape Water Budget Program and other services as applicable (e.g. Utilities' free leak monitoring and notification service).
- 3. Implementation and Monitoring (April 2020-October 2021):**
 - Work with participants via the agreed upon Project Monitoring Plans as projects are implemented. Provide additional support or technical resources as needs arise.
 - Conduct scheduled site visits and other meetings with participants as needed.
 - Ensure data, photos and other relevant information is collected throughout implementation.
- 4. Project Review, Analysis and Follow-up (July 2021-April 2022):**
 - Once participant projects are complete, Utilities will conduct exit site visits, collect and review all project documentation, engage in customer and community outreach, provide final funding as applicable. Participants are required to submit copies of receipts, invoices, proof of payment, and a W-9 tax form.
 - Initial analyses will be conducted after the first year of installation and after all project installations are complete; however, Utilities will continue to monitor water use and success of the landscapes beyond the timeline, budget and scope of this grant proposal. Staff will share results, lessons learned, and other findings as applicable through industry and community groups (e.g. webinars, conferences, local events, etc.). This effort will extend through 2022 and beyond, given the nature of landscape establishment and interest in understanding long-term impacts.

Participant requirements:

- Project Participant/Account representative must be a Fort Collins Utilities commercial water customer with a commercial or irrigation water account.
- Participant must enroll in:
 - [WaterSmart](#)--an online water portal that allows customers to monitor water-use, and to set leak and high use alerts.
 - [Landscape Budget Program](#)--a site-specific monthly water budget tool that provides customers with the data needed to make well informed irrigation decisions.
- Areas to be transformed must be in good health and have historic water use.
- Participant must agree to a Project Monitoring Plan, which will include project milestones, scheduled check-ins, and site inspections.
- Project must be approved by Utilities prior to installation. Any changes to project or timeline must be submitted to Utilities for approval; Monitoring Plan will be revised accordingly.



- Participant must provide at least 50 percent match-funding. Match-funding must be cash; no in-kind.
- Minimum impact area is 20,000 square feet (approximately half-acre) of irrigated area.
- Applicant is responsible for filing any relevant minor amendments or permits through the Zoning Department. Must provide copy of documentation and approval to Utilities.
- Applicants are eligible for other City of Fort Collins' rebates, including irrigation rebates.
- Participants agree that Utilities may monitor and report program activities and results to CWCB and/or Reclamation, including water usage and savings, project photos, etc. Utilities may also use this information in publications and online media to further education and goals around water conservation.

Complete application includes:

- Participant Information and Project Overview:
 - Applicant information, including account number(s)
 - Statement of purpose and need (maximum 300 words)
 - Project description (maximum 300 words)
 - Amount of money requested and detailed project budget
 - List of contractors/others involved in project
- A clear map of existing irrigation system and landscape.
- Water savings estimate (aided by Landscape Budget Program).
- Minimum of two (2) wide-view photos of the proposed project area.
- Professional landscape plan.
- Landscape maintenance plan.
- Professional irrigation plan and/or equipment upgrade schedule.
- Irrigation plan, including plant establishment schedule and long-term schedule.
- Community Education Plan (e.g. HOA board presentation meetings, signs).

E.1. Evaluation criteria

E.1.1. Evaluation Criterion A - Project Benefits (35 Points)

Water Savings - Initial analysis of the residential-scale program demonstrates annual savings of about 13 gallons per square foot transformed. Average project size is about 1,175 square feet resulting in over 15 thousand gallons saved per participant per year. A recent study by the Alliance for Water Efficiency evaluated landscape transformation programs across the country and found that participants save between 7 and 39 percent, with savings increasing over time and greater savings from programs with an education component, like our program. By funding approximately 12 commercial-scale projects, we estimate saving at least 3.1 million gallons per year, or 9.6 acre-feet per year, if participants simply transform the minimum project size of half an acre. Savings will be larger if participants transform more area. Reducing demand for treated



water, especially during peak irrigation season, will also reduce energy required for treating and delivering water.

Water supply delivery system: This project will reduce demand on the surface water supply delivery system, which will help avoid or delay costs associated with increasing water supplies. Utilities anticipates needing to acquire approximately \$25.5 million worth of additional water rights, some of which can be avoided through cost-effective conservation projects. By reducing irrigation needs, the project will also reduce peak season and peak day demands. A lower peak demand will delay and/or reduces the size and cost of future expansions to treatment and delivery infrastructure.

Water supply reliability: Landscape changes improve resiliency to drought and climate change. Participants will proactively establish more tolerant landscapes that require less water long-term, allowing communities and Utilities to navigate future shortages and warmer, drier climate conditions with fewer impacts. There is a potential for a Compact Call on the Colorado River, which could impact Utilities' water supplies from the Colorado-Big Thompson project. Reducing long-term demand reduces reliance on this potentially less reliable water supply.

Geographic scope of benefits (local, sub-basin, basin): The program will include landscape transformation projects in the Cache la Poudre sub-basin of the South Platte River basin. By reducing overall water use, the program will reduce demands on water supplies in both the South Platte River basin as well as the Colorado River Basin (Colorado-Big Thompson project).

Increased collaboration: Results and other information will be shared through a variety of venues. Utilities is a member of the Rocky Mountain Section of American Water Works Association (AWWA) Conservation Committee, where conservation professionals regularly meet to discuss topics like water efficiency programs, landscape change, drought planning and more. Utilities partners with other water service providers and managers in the immediate Fort Collins area and meets regularly with City Planners to discuss how to address water needs and develop land wisely given high projected population growth. Utilities is a member of Colorado WaterWise, a regional organization focused on connecting urban water efficiency stakeholders; information can be shared through their newsletter and/or through their webinar series. Utilities regularly attends and presents at regional and national conferences. We anticipate presenting the results of this program at future conferences.

Benefits to local sectors and economies: Due to the scope of commercial projects, all participants are expected to utilize professional design, irrigation, hardscaping, and/or landscaping companies. Participants and their contractors will utilize local and regional vendors and nurseries that specialize in high-efficiency irrigation equipment, and drought tolerant and waterwise plant materials. In the 2018 season of XIP, total rebates paid were \$31,533, while total project costs equaled \$190,882. This suggests that every \$1 of rebate incentive generates just over \$6 worth of economic activity in our local green industry. Furthermore, the future



maintenance and management of the new landscapes will support local landscape management companies, which is not captured in this value.

Additional benefits: These transformation projects will demonstrate attractive low-water-use landscapes, which can boost local support for water efficiency programs and serve as examples for other HOAs or businesses who are contemplating landscape changes. They will help to improve familiarity and comfort with low-water and native landscapes. The program will improve water literacy in the community by educating participants and relevant stakeholders on water use, climate change, water rates, the cost/value of water service, drought planning, water supply planning, and more. These “additional” benefits are significant as many Fort Collins residents are transplants from other parts of the country and are unfamiliar with climate and water resources challenges in this region.

NRCS: This program does not coincide with or require coordination with NRCS.

E.1.2. Evaluation Criterion B - Planning Efforts Supporting the Project (35 Points)

Fort Collins Utilities has a long-standing Water Conservation Program (since 1977) and has been proactively planning since the early 1990s. The first Water Demand Management Plan was created in 1992 and has evolved over the years to what is now two documents: the Water Supply and Demand Management Policy (WSDMP) and our Water Efficiency Plan (WEP). The original 1992 plan stated that “water is a limited and vital resource which must be used efficiently and wisely...the implementation of additional water conservation practices will benefit the City of Fort Collins by helping to assure continued reliable short- and long-term supplies...”. The WSDMP directs staff to develop strategies to ensure certain levels of service, one being to meet demands in a 1-in-50 year drought. As drought is expected to become more frequent and/or severe, Utilities needs to take on new strategies to prepare our community for a changing climate.

The WEP, approved by the Colorado Water Conservation Board and City of Fort Collins City Council in 2016, outlines five critical strategies to achieve the overall goal of reducing our service area’s water use to 130 gallons per capita per day. This requires an 11 percent reduction from 2015 use. This program directly addresses four (shown in bold text) of the five critical strategies and will inform the remaining strategy focused on new development:

- 1. Leverage Advanced Meter Fort Collins data and capabilities**
- 2. Promote and support greater outdoor water efficiency**
3. Encourage greater integration of water efficiency into land use planning and building codes
- 4. Expand commercial and industrial strategies**
- 5. Increase community water literacy**

The proposal to expand XIP to commercial-scale landscapes is a direct result of our work to address outdoor water use (2) and work more with commercial customers (4). The results of



the proposed program will extend beyond the immediate participants by serving as demonstrations and resources to help others adapt Western landscapes to a changing climate, increasing community water literacy (5). As noted in the Project Benefits Evaluation Criteria, commercial-scale landscape transformations have the potential to save 3.1 million gallons, or 9.6 acre-feet of water per year. Savings will be higher if participants take on projects larger than the minimum requirement (20,000 sq. ft.). Savings will also be greater if we are awarded both grants, as described in the Expected Results section. Advanced Metering Data (1) in conjunction with the Landscape Water Budget program will provide water-savings data specific to each account. Learn more and read the entire Water Efficiency Plan here: fcgov.com/water-efficiency-plan.

While we have a portfolio of other water conservation and efficiency programs, customers are currently very interested in pursuing landscape change due to a recent rate increase that is driving customers to address commercial landscape irrigation. The rate increase is associated with the projected cost of acquiring additional water resources in an increasingly water-scarce region of the West. The Colorado Front Range is one of the fastest growing regions and population growth is putting pressure on water supplies. The rate heavily impacts irrigation accounts and other commercial accounts that have an annual water allotment - when the customer uses more than their allotment in a calendar year, they face a hefty surcharge for all water used for the remainder of the year. The allotment is based on the amount of water provided for that account at the time of development; when customers go over, Utilities needs to collect revenue to acquire additional water resources to meet their demand. Reducing customer water demand benefits both the customer and Utilities - the customer reduces their bill while Utilities reduces the need to acquire additional water resources. As a result, we are seeking all opportunities to resource programs and services that will help implement successful commercial-scale landscape transformation projects to address this timely need.

This proposal aligns with other local planning efforts across the City of Fort Collins. Fort Collins has an ambitious Climate Action Plan. While emissions related to water plays a relatively small role in *mitigating* climate change (our system is nearly all gravity fed and requires little pumping), we know that addressing water use will be critical in *adapting* to climate change. Utilities is conducting a vulnerability study to understand how various vulnerabilities, like climate change or an impact to infrastructure, will affect water supplies and demand. The results of this are expected to show that a hotter, drier future requires the community to move toward more drought-resilient and heat-tolerant landscapes.

The City of Fort Collins just overhauled its comprehensive plan known as “City Plan”. A core value is sustainability, meaning “Fort Collins is resilient and forward thinking” and that we manage our water resources for a changing climate. Several policies within City Plan identify the need to address water efficiency and conservation, including the need to promote reductions in outdoor water use.



E.1.3. Evaluation Criterion C – Project Implementation (10 Points)

Complementary information on the implementation plan is included in the Technical Project Description section.

Utilities anticipates the following timeline:

Expected Duration		Phase and Tasks/Milestones
Phase 1: Participant Coordination and Call for Applications		
July 2019	1 month	Set up administration processes; adapt program materials as needed.
August 15, 2019	N/A	Application period opens.
September 15, 2019	N/A	Host general open house style informational event.
August - October 2019	3 months	Conduct additional outreach to advertise Call for Applications. Field participant questions as needed.
August 2019 - January 2020	6 months	Conduct customer-specific informational event(s) (e.g. an HOA meeting), conduct one-on-one meetings with customers and relevant parties (e.g. landscape contractors).
February 15, 2020	N/A	Application period closes.
Phase 2: Application Review and Project Selection		
August 2019 - March 2020	8 months	Review applications on a rolling basis. Convene team to review and score applications based on criteria.
December 2019-April 2020	5 months	Host Project Launch meetings with selected Applicants; finalize Project Monitoring Plans; Enroll Participants in LWB program and other relevant water conservation services as applicable.
December 2019-April 2020	5 months	Work with Participants and City of Fort Collins Zoning department on required permitting process.
Phase 3: Implementation and Monitoring		
January - April 2020	4 months	Design and procure installation signs for project sites.
April 2020 - October 2021	19 months	Work with Participants via the Project Monitoring Plans as they implement approved landscape transformations. Activities will include site visits, technical consultations, creation of landscape water budgets, and other meetings as needed.
November 2020-February 2021	4 months	Conduct initial analyses of water use, meet with Participants as needed to make adjustments based on progress in 2020.
Phase 4: Project Review, Analysis and Follow-up		



July -December 2021	6 months	Conduct final site inspections and exit meetings, collect and review all project documentation and data, provide final project rebate payments.
October 2021 - April 2022	6 months	Conduct additional analyses of all projects. Prepare and conduct report-outs to regional partners, stakeholders and other community and industry groups as appropriate.

Permits, Engineering, Policies, and Environmental Compliance - Utilities does not anticipate any permit requirements as all work will be completed on private property on landscapes and irrigation systems. Utilities does not expect any engineering or design work on its own behalf. Participants may utilize designers for projects. No new policies or modifications to existing policies are required to implement this program, other than the Fort Collins City Council’s approval and execution of the grant agreement with Reclamation. No environmental compliance plans or estimates are needed.

E.1.4. Evaluation Criterion D - Nexus to Reclamation (10 Points)

Approximately half of Fort Collins Utilities’ water supplies are from the Colorado-Big Thompson (C-BT) project. Northern Water and Reclamation jointly operate and maintain the C-BT project. The City owns about 18,855 units of C-BT water. Deliveries depend on the annual quota set by Northern Water each year. Quotas can range from annual yields of 9,400 acre-feet to 18,800 acre-feet. This grant proposal will help to make more efficient use of the water provided through the C-BT project; it aligns with Reclamation’s emphasis on leveraging water conservation to address the competing needs for our limited water resources. Northern Colorado is a fast-growing region experiencing a transition from agricultural/rural to urban/municipal – both in terms of our economy and in how our water is used. We need strategies that help support a growing population and protect our way of life. Reducing demands on our water resources can free up water to be rented for local agriculture and provide additional water for the environment.

The proposed program is aligned with Reclamation’s Drought Response Program, which “supports a proactive approach to drought”, as it is designed to improve long-term resiliency to drought in Fort Collins.

E.1.5. Evaluation Criterion E – Department of Interior Priorities (10 Points)

This proposal supports the DOI priority to *Create a conservation stewardship legacy second only to Teddy Roosevelt*. As stated on page 18 of the 2018-2022 DOI Strategic Plan, “The Western U.S. is one of the fastest growing regions of the county, and urbanization has created significant demands for water use and service. Stretching existing water supplies for multiple uses are among the many significant challenges facing Reclamation...Water conservation programs increase the available water supply and contribute to DOI’s broader objective of achieving a more sustainable, secure water supply.” Our proposal and its projected water savings directly contribute to the DOI goal of achieving 1,392,000 acre-feet of water conservation capacity to address drought by 2022. The results of the proposed program will



extend beyond the immediate participants by serving as demonstrations and resources to help others adapt Western landscapes to a changing climate.

D.2.2.5. Project Budget

Funding Plan

Utilities requests \$75,000 from the Bureau of Reclamation. The total cost of expanding the Xeriscape Incentive Program is \$226,646. If all funding is granted, \$165,000 will be used for landscape project rebates. The remaining \$61,646 will cover materials and in-kind salaries and wages.

- The Utilities commits to providing \$34,700 in cash from budgeted department funds and \$46,946 of in-kind services for a total amount of \$81,646 to pursue this program expansion with funds available immediately.
- Utilities has submitted a grant application to the Colorado Water Conservation Board (CWCB), requesting \$70,000. Award announcements will be made in May 2019 with funds made available in late 2019.
 - If CWCB funding is denied, the scale of this program will be downsized by reducing the amount of rebate dollars available to applicants from \$165,000 to \$95,000 and in-kind services reducing to \$38,066 due to fewer site visits and meetings with participants. A letter of commitment is provided in Attachment 2.

Budget Proposal

Table 1. --Total Project Cost

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$ 75,000.00
Costs to be paid by the applicant	\$ 81,646.00
If awarded, value of third-party contributions (CWCB)	\$ 70,000.00
Total Estimated Project Cost	\$ 226,646.00

Table 2. --Budget Proposal Table

Budget Item Description	Funding source	Computation		Quantity Type	TOTAL COST
		\$/Unit	Quantity		
Salaries and Wages					
Water Conservation Manager	Applicant - in-kind	\$42.00	152	Hours	\$6,384
Project Manager - Water Conservation Specialist	Applicant - in-kind	\$34.00	471	Hours	\$16,014
Water Conservation Landscape Coordinator	Applicant - in-kind	\$28.00	535	Hours	\$14,980



Water Conservation Irrigation Coordinator	Applicant - in-kind	\$28.00	296	Hours	\$8,288
Water Conservation Intern	Applicant - in-kind	\$16.00	80	Hours	\$1,280
Supplies and Materials					
Materials - Project signs, install	Applicant - cash	\$350.00	21	Sign	\$7,350
Other					
Project rebates	Applicant - cash	\$5,000 - 15,000	N/A	Rebate cash range	\$20,000
Project rebates	Reclamation	\$5,000 - 15,000	N/A	Rebate cash range	\$75,000
Project rebates	CWCB	\$5,000 - 15,000	N/A	Rebate cash range	\$70,000
Zoning permit cost on behalf of participant	Applicant - cash	\$350.00	21	Permits	\$7,350
Total Estimated Project Cost					\$226,646

Budget Narrative

Detailed in the Technical Project Description there are four major phases for this program: Participant Coordination and Call for Applications (Phase 1); Application Review and Project Selection (Phase 2); Implementation and Monitoring (Phase 3); Project Review, Analysis and Follow-up (Phase 4).

Salaries and Wages - The hourly rate shown in the budget proposal (Table 2) represents actual labor rates of the identified personnel.

Water Conservation Manager

- In phase 1, the Water Conservation Manager will offer review of the program application materials. Hours: 37
- In phase 2, the Manager will attend review sessions introducing the pool of selected applicants and will attend a few project launch meetings. Hours: 20
- In phase 3, the Manager will participate and present in share-out meetings with regional partners and stakeholders and review Reclamation reporting. Hours: 25
- In phase 4, the Manager will review final data and report out to regional partners and stakeholders on the results of projects. Hours: 70

Water Conservation Manager total project hours: 152

Total Water Conservation Manager cost: \$6,384



Project Manager – Abbye Neel, Water Conservation Specialist

- In phase 1, the Project Manager will finalize application processes, field participant questions as needed, and conduct one-on-one meetings with potential applicants. Hours: 96
- In phase 2, the Project Manager will review and score applications and attend and consult for Project Launch Meetings. The Project Manager is responsible for enrolling and coaching applicants through the Landscape Water Budget program. Other items include working on interim program reporting. Hours: 17
- In phase 3, the Project Manager will perform on-site visits as dictated by Project Monitoring Plans and offer support through Landscape Water Budget and WaterSmart programs. Hours: 90
- In phase 4, the Project Manager will conduct exit visits and work on final reporting for Reclamation and water saved. Hours: 115

Project Manager total project hours: 471

Total Project Manager cost = \$16,014

Water Conservation Landscape Coordinator

- In phase 1, the Landscape Coordinator will assist the Project Manager in finalizing the application process and fielding customer questions as needed. The Landscape Coordinator will also set up the administrative processes necessary for rebate processing and provide educational materials to commercial customers. Hours: 116
- In phase 2, the Landscape Coordinator will assist the Project Manager in reviewing applications. The Coordinator will attend initial Project Launch Meetings and will review landscape plans and communicate with the Project Manager about feasibility and maintenance considerations. The Landscape Coordinator will coordinate with the Zoning department to shepherd applicants through the Zoning permitting process. Hours: 174
- In phase 3, the Landscape Coordinator will attend on-site visits as dictated by Project Monitoring Plans to track progress and offer support and collect necessary data and photos. Hours: 120
- In phase 4, the Landscape Coordinator will assist in exit meetings, reporting, and collection of final paperwork needed to process rebates. Hours: 125

Landscape Coordinator total project hours: 535

Total Landscape Coordinator cost: \$14,980



Water Conservation Irrigation Coordinator

- In phase 1, the Irrigation Coordinator will offer support in reviewing application and related educational materials. Hours: 46
- In phase 2, the Irrigation Coordinator will review irrigation plans and communicate with the Project Manager regarding irrigation feasibility and maintenance considerations. The Coordinator will attend Project Launch Meetings to offer feedback and project support. Hours: 150
- In phase 3, the Irrigation Coordinator will attend on-site visits as necessary. Hours: 50
- In phase 4, the Irrigation Coordinator will assist in exit meetings and reporting. Hours: 50

Irrigation Coordinator total projects hours: 296

Total Irrigation Coordinator cost: \$8,288

Water Conservation Intern

- The Water Conservation Intern will report to the Project Manager, providing the majority of assistance through GIS assignments for the Landscape Budget Program, data entry, customer water-use analysis, and customer communications

Water Conservation Intern total project hours: 80

Total Water Conservation Intern cost: \$1,280

Total Salaries and Wages cost: \$46,946, funded by City of Fort Collins

Supplies and Materials

- Project signs will be purchased and installed at project locations for public education purposes post-installation.

Educational sign cost: \$7,350

Total Supplies and Materials cost: \$7,350, funded by City of Fort Collins

Other - Two types of costs are shown in the Other section of the Budget Proposal: Project rebates and Zoning permit costs on behalf of the participant.

- Funding from Reclamation, CWCB, and Utilities would cover applicant rebates. The rebate amount received by an applicant varies depending on project size and proposed water savings.



Total rebate dollars available (pending grant funding): \$165,000, funded by Reclamation, CWCB, and City of Fort Collins

- Zoning permit cost is the cost of project review per the City of Fort Collins Zoning department. Each commercial landscape project must go through a plan review process at the cost of \$350. The Water Conservation Landscape Coordinator will assist applicants to complete this process.

Total zoning permit cost: \$7,350, funded by City of Fort Collins

Total Other cost: \$172,350

Total estimated project cost: \$226,646

D.2.2.6. Environmental and cultural resources compliance

Project impact to surrounding environment - All work will be completed on private property landscapes and irrigation systems. Some earth-disturbing work will include watered and maintained turf-grasses being replaced with low- or no-water-use landscaping, as well as modifying or replacing irrigation systems to accommodate new low-water use landscapes.

Project Impact to threatened or endangered species - While there is no critical habitat in the project's area, areas along the Poudre River, one of our two primary sources of water, is a critical habitat for the Preble's Meadow Jumping Mouse. Decreasing demand along reaches of the river may have indirect habitat benefits for the mouse.

Project Impact on wetlands and surface waters - Horsetooth Reservoir and the Poudre River both fall under CWA jurisdiction as "Waters of the United States." While the project will occur on private property, there may be indirect benefits of by reducing long-term demand on these surface water sources.

When was the water delivery system constructed? - The first waterworks was built in 1883. A Public Works water department was established in the early 1900s, after obtaining senior water rights on the Poudre River, expanding the system. In 1938 the Department of Utilities was created, and the delivery system has continued to grow to meet the population's demand as needed.

Project Impact on irrigation systems - Depending on the project, modifications to private property irrigation systems will be needed to accommodate the new low- or no-water-use landscaping. There are no planned modifications to the Utilities' water system.

Project Impact on Historic Places - There are multiple buildings and sites registered on the National Register of Historic Places within the Utilities' service area, however projects will not impact these sites.



Project Impact on Known Archeological Sites - There are no known archeological sites in the project area.

Project Impact on Low Income or Minority Populations - The project will be open to any Utilities' customer and will not have any disproportionately high and adverse effect on low income or minority populations

Project Impact on Sacred Site or Tribal Lands - The project will have no impact on Indian sacred sites or tribal lands.

Project Impact on the spread of noxious weeds or non-native invasive species - The project will only allow installation of regionally adapted or native plants. Spread of noxious weeds and non-native invasive species is prohibited by Fort Collins Land-Use Code and will be further enforced through project Monitoring Plans, and project design (e.g. mulching).

D.2.2.7. Required permits or approvals

Utilities does not anticipate any permit requirements as all work will be completed on private property on landscapes and irrigation systems. No new policies or modifications to existing policies are required to implement this program, other than the Fort Collins City Council's approval and execution of the grant agreement with Reclamation.

Letters of project support

Northern Water, the public agency which manages the Colorado-Big Thompson Project, has long been an invaluable regional partner for Fort Collins Utilities. They have experts in horticulture and irrigation technology and have been leaders in researching and demonstrating low-water landscape options. Northern Water has agreed to partner on our complementary efforts to create a larger network of local efficiency projects that can serve as high-value demonstration sites. Frank Kinder has written a letter of support on behalf of Northern Water. See Attachment 3.

Colorado State University Extension has and continues to be a great partner for Fort Collins Utilities Staff and our community. They are willing to provide input and support based on their wide range of real-world and academic expertise. Alison O'Connor provided a written letter of support for this grant on behalf of the University. See Attachment 4.

D.2.2.8. Official resolution

Utilities presented to City's Water Board on April 18. The Board unanimously voted to support an Official Resolution. The Official Resolution will be presented to City Council on May 7th. After the City Council meeting Fort Collins Utilities will email the Official Resolution and supplement board information will be emailed to rgraber@usbr.gov.



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

April 22, 2019

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Matthew Reichert
P.O. Box 25007, MS 84-27814
Denver, CO 80225

Dear Mr. Reichert,

The City of Fort Collins Water Conservation Department has submitted a Water Plan Grant application to the Colorado Water Conservation Board (CWCB) for funding consideration in the amount of \$70,000 to support the City of Fort Collins commercial landscape incentive program. Water Plan Grant applications will be considered by the Colorado Water Conservation Board of Directors at the May 15-16, 2019 CWCB meeting with approved funds made available by the end of June 2019. This letter does not guarantee approval of grant funding but Colorado Water Conservation Board staff is recommending approval of the grant.

Sincerely,

Kevin Reidy
State Water Conservation Specialist
Colorado Water Conservation Board





Northern Water
Northern Colorado Water Conservancy District
220 Water Avenue • Berthoud, Colorado 80513
800-369-7246 • www.northernwater.org

April 1, 2019

Bureau of Reclamation
Financial Assistance Support Section
Attn: Matthew Reichert
P.O. Box 25007, MS 84-27814
Denver, CO 80225

Dear Mr. Reichert:

I am writing to support Fort Collins Utilities (FCU) application for a US Bureau of Reclamation Small Water Efficiency Grant. These funds would support FCU's Commercial and HOA Landscape Conversion Program.

Statewide, water providers have identified an important need and opportunity for improved water efficiency in HOA and commercial landscape design and management. Many older, existing landscapes often contain antiquated landscape designs and components that use excessive water, are difficult to manage, expensive to maintain, and represent consumption demands not in line with evolving expectations.

The proposed FCU grant program expands the existing Xeriscape Incentive Program to the commercial sector, supporting the transition of larger even more impactful landscape to more water efficient formats. Typical impactful changes include irrigation system upgrades, improved water application methods, and landscape revisions. Within Northern Colorado, these localized efficiency projects can offer accessible, appropriate, and available conversion examples, which can serve as tour locations and case studies. More so, landscape conversion grants leverage the limited reserve account capital improvement funds available from these customer groups, allowing for maximum value investments and results. The program offers additional benefits of improved water efficiency literacy and advocacy among grant applicants, participants, and involved agents. These grants also complement existing FCU programs, facilitating meaningful next step actions after audits and recommendations.

As changes to climate, supply variability, and demand continue, the state, region, nation, and especially the arid west benefit from facilitating large scale urban landscape conversions that offer direct opportunities for significant water savings by providing high-value demonstrations of before and after water efficiency projects. Such projects embody the use of conservation best management practices.

Finally, supporting this innovative grant program complements Northern Water's Water Efficiency Program efforts by encouraging impactful landscape conversion projects throughout Northern Colorado.

Sincerely,

Frank Kinder
Water Efficiency Program Manager
Northern Water



LARIMER COUNTY
COLORADO STATE UNIVERSITY
EXTENSION

1525 Blue Spruce Drive
Fort Collins, Colorado 80524-2004
(970) 498-6000
FAX: (970) 498-6025
www.larimer.org/ext

April 4, 2019

Dear Mr. Reichert and the United States Bureau of Reclamation Grant Board Members,

I fully support the City of Fort Collins's application for a United States Bureau of Reclamation small water efficiency grant to support a commercial landscape conversion program. In my current position, working for Colorado State University Extension in Larimer County as the horticulture agent, I work in a collaborative nature with the City of Fort Collins and their water conservation efforts. One of Extension's outreach efforts is a program called "Lawncheck" which offers on-site turf diagnostics. This program targets both homeowners and homeowner associations (HOAs). In my experience, most HOAs and larger multi-family complexes are trying to find ways to reduce water consumption on their properties and common areas, whether it be replacing irrigation heads, adjusting irrigation cycles, or changing current plant material to waterwise options. Colorado was the seventh fastest growing state in 2018 and the increased population means there are increased pressures on available water.

The City's proposal to reduce water use through landscape conversions or irrigation technology upgrades would allow HOAs to apply for funding to assist with these changes. While many HOAs are interested in conversion options, they are often faced with the inability to make these changes due to budget restrictions. Further, the projects funded by this grant would require the communities to demonstrate water savings through follow-up assessments. The goal of these conversions is to increase water literacy in the City, as well as support other program efforts, such as Nature in the City, whose goal is to create and enhance additional natural spaces while providing residents access to nature.

Urban green space is a key part of all communities and the benefits of landscapes are numerous. Most residents are interested in water conservation but become discouraged when they crunch the numbers and factor in costs, labor, and maintenance. Supporting this grant effort would help alleviate some of the budgeting constraints and allow the HOAs to pursue these options. Another similar grant program, funded by the Northern Colorado Water Conservancy District, will increase the distribution of funds and projects throughout the northern Colorado region. As these projects come into fruition, they can become "models" of what other communities can consider doing to do their part to support water conservation.

The City of Fort Collins has always been a leader for water conservation and supporting their grant will continue the positive impacts they have had on the community and reducing water use.

Sincerely,

Alison O'Connor, PhD
Horticulture
Colorado State University Extension in Larimer County