

Environmental Health



**Offer 1.42: Utilities: Water Efficiency Plan Update**

**Offer Type: 1-Time Enhancement**

2023: \$100,000 and 0.00 FTE (excluding hourly staffing)

2024: \$150,000 and 0.00 FTE (excluding hourly staffing)

**Offer Summary**

Funding this offer will meet the state's requirement for Fort Collins Utilities to update the Water Efficiency Plan (WEP) by 2024. The WEP guides Utilities' efforts to reduce water demands on its water supplies by identifying strategies to efficiently manage and use water. An updated WEP will address emerging challenges in the Utilities water service area, like water shortages and affordability. Funding this offer creates more resilience and equity for all customers and reduces Utilities' water resource risks.

The current WEP has been successful at lowering water use, with an average per capita reduction of 22% since 2001. The update to the WEP is an opportunity to improve by:

- Integrating water use with land use planning, a major driver of water use. Addressing this is a new state requirement of WEPs.
- Modeling water savings for water conservation programs, services and policies (strategies) to help prioritize strategies.
- Improving modeling of climate change impacts to water supply and demand.
- Incorporating equity into the WEP by choosing strategies based on input from diverse public engagement.

Implementation of the WEP results in less water use. If funded, the co benefits include:

- Lowering utility bills for customers from previously underrepresented communities.
- Improving water shortage resiliency.
- Supporting the economy, especially businesses dependent on water such as landscaping, car washing, restaurants, etc.
- Reducing risks to all customers, with an emphasis on vulnerable and underrepresented populations.
- Aligning with other plans and initiatives (like Our Climate Future, Municipal Sustainability and Adaptation Plan, and One Water).

The first year would include modeling climate and water savings and engaging with staff to identify One Water strategies. The second year would include working with community partners on inclusive public engagement, analyzing strategies for equity, completing the models and writing the plan.



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

- ✓ ENV 4.4 - Provide a resilient, reliable, and high-quality water supply.
- NLSH 1.4 - Advance equity for all with an emphasis on racial justice to remove systemic barriers so that persons of all identities, including race, ethnicity, religion, gender and gender identity, age, class, sexual identity, mental and physical abilities and ability can fully participate in City services and experience equitable community outcomes.
- HPG 7.6 - Optimize technology, data analysis and process improvements to innovate, guide decisions and enhance service delivery.

### **Additional Information**

- Partnerships will be developed to increase diversity of engagement during the planning process. Interpretation / translation will be used to increase inclusivity. Diverse engagement is critical to evaluating the equity of strategies. If funded, the input received will shape the WEP, resulting in strategies that reduce water use and provide equitable benefits and community outcomes.
- Water Resources started climate change modeling in 2019, but enhancements to the model are needed and require significant engineering expertise. This offer would use existing modeling, refining the supply and demand impacts and create a new model to evaluate future water saving strategies. Staff will work with other departments and districts to incorporate potential benefits from the modeling.
- This offer supports the MSAP which is the roadmap to being a sustainable organization. It will advance strategies in We Are Resilient, and We Are Water Smart goals. It's critical to the WEP's success, that the City address our own operations, facilities, and assets to ensure we're leading by example and making progress towards the defined goals in the updated WEP.
- One Water (OW) is a practice of integrated water resource management and planning. Using stormwater infrastructure to offset outdoor watering is an example of how OW can provide water savings solutions that have previously not been explored in a WEP. This offer supports Utilities' goals, by facilitating internal engagement to identify cross-departmental strategies to use water more efficiently.
- \$250K over 2 years for consulting is needed for the update:
  - Internal engagement to identify and evaluate One Water - \$10K (1st year)
  - Compensate community partners (OCF's successful equity strategy) to assist with diverse engagement and a consultant to provide an equity evaluation of strategies - \$40K (2nd year)
  - Climate and water savings modeling -\$200K (\$90K 1st and \$110K 2nd year)



## Offer 1.42: Utilities: Water Efficiency Plan Update

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### Impact to Ongoing Expenses

Funding this Offer will increase future ongoing expenses by an estimated annual amount of:

\$0

Ongoing Cost Description:

### Scalability and explanation

No funding would result in none of the items below. It would be updated in-house. The following reductions in funding would eliminate the associated consultant tasks:

- 4% - integrated resource evaluation/One Water approach
- 16% - equity focus (engagement and strategy evaluation)
- 80% - climate change impact modeling and demand modeling

A \$250K grant (requiring a 25% match) will be applied for July '22 (awards known Oct. '22) If funded less money will be needed (amount depends on award).

### Links to Further Details:

- [ourcity.fcgov.com/ourclimatefuture](https://ourcity.fcgov.com/ourclimatefuture) - The updated WEP makes significant progress towards Big Move 3: Climate Resilient Community, by supporting 5 Next Moves, including: CRC1 - adopt a holistic approach to integrated water resource planning and management (One Water approach) and CRC5 - integrate climate resilience considerations into city strategic and operations plans.
- [fcgov.com/utilities/water-status](https://fcgov.com/utilities/water-status) - Impacts to water from drought and fire required a water shortage response in 2020 and 2021 due water availability concerns and to manage risks. With climate change, such events will continue to impact Utilities and its customers. This offer would respond to the need for innovation and better planning to minimize impacts of future challenges.
- [fcgov.com/water-efficiency-plan](https://fcgov.com/water-efficiency-plan) - Water Conservation has a proven track record of progressing towards the 2015 WEP's goal of 130 gallons per capita per day (GPCD) by 2030 - currently only 7% away from achieving, at 139 GPCD in 2021. This offer would further success by prioritizing strategies based on estimated water savings and equity outcomes, which would be and tracked against updated metrics.

### Linkage to Strategic Objectives

(the primary objective is marked with a ✓)

- ✓ ENV 4.4 - Provide a resilient, reliable, and high-quality water supply.: The water efficiency strategies in WEPs are the most cost-effective way to manage water and support a sustainable future. Utilities needs to acquire water rights currently costing about \$50 million. Strategies could reduce future purchases at over 26 times less cost. This offer will evaluate strategies for effectiveness and equity to minimize the need to acquire additional water rights



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- NLSH 1.4 - Advance equity for all with an emphasis on racial justice to remove systemic barriers so that persons of all identities, including race, ethnicity, religion, gender and gender identity, age, class, sexual identity, mental and physical abilities and ability can fully participate in City services and experience equitable community outcomes.: An in-depth equity analysis of WEP strategies has never been conducted. The need for diverse engagement during the update is critical to understanding how strategies benefit or burden certain demographics. The offer would evaluate how equitable the identified strategies are, barriers to participation, and solutions to diversify and broaden benefits throughout the community.
- HPG 7.6 - Optimize technology, data analysis and process improvements to innovate, guide decisions and enhance service delivery.: Western water providers are refining their planning to better address emerging issues. Traditional water efficiency strategies are no longer enough to address the impacts communities face. This offer would use models to forecast supply and demand and estimate water savings from equitable and effective strategies to optimize service for all customers.

### **Performance Metrics**

- ENV 101. Water Efficiency Plan annual targets and actual use  
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105089&object=measure&objectId=121091.html>

Performance Measure Reason: A WEP defines water use goals and identifies strategies impacting GPCD. This offer will update the GPCD goal based on modeled impacts to supply and demand. These impacts may require the current GPCD goal to be lowered, translating to water savings. At some point, greater savings become more challenging, so this offer's prioritization and innovation are critical.

- ENV 104. Overall water conservation program effectiveness  
<https://publish.clearpointstrategy.com/594/Measures/scorecardId=105089&object=measure&objectId=121094.html>

Performance Measure Reason: Water Conservation programs saved about 160 million gallons in 2021, a 22% increase over 2020. This offer will create a savings goal and evaluate strategies with a water savings model to determine effectiveness that will better inform implementation and strategy selection to create more certainty around goal attainment. If funded, water savings goals will also be tied to GPCD goals

- A performance measure has not yet been created, see explanation below for the proposed metric, if this Enhancement offer is funded.

<https://publish.clearpointstrategy.com/594/Measures/scorecardId=83532&object=measure&objectId=893586.html>

Performance Measure Reason: New measures to evaluate progress, could include:

- Demographics of program participation to evaluate under and overrepresented populations
- Comparing GPCD with and without climate change impacts
- Water efficiency and land use planning integration metric, like quantification of landscapes' water demands per sq. ft

### **Differences from Prior Budget Cycles**



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- Not applicable

**Explanation of Any Adjustments to Personnel Costs using object 519999**

- Not applicable

**Offer Profile**

Offer Owner: mamiller

Financial Lead: lasmith

Lead Department: Utilities Strategic Planning



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**Enhancement to Programs and Services**

	2023 Projected Budget	2024 Projected Budget	2023 to 2024 Change
<b>Full Time Equivalent (FTE) Staffing</b>	-	-	- %
<b>Expenses</b>			
521000 - Professional & Technical	100,000	150,000	50.0%
<b>520000 - Purchased Prof &amp; Tech Services</b>	<b>100,000</b>	<b>150,000</b>	<b>50.0%</b>
<b>Total Expenses</b>	<b>100,000</b>	<b>150,000</b>	<b>50.0%</b>
<b>Funding Sources</b>			
502-Water Fund: Ongoing Revenue    Ongoing Restricted	100,000	150,000	50.0%
<b>Funding Source Total</b>	<b>100,000</b>	<b>150,000</b>	<b>50.0%</b>